SR-18 Culvert Rehabilitation

San Bernardino County, California
District 08
08-SBd-18 (PM 34.0-44.3)
EA 08-1J310/PN 0818000018

Initial Study with Proposed Mitigated Negative Declaration

Prepared by the
State of California Department of Transportation

April 2022

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General Information About This Document

What's in this document:

The California Department of Transportation (Caltrans) has prepared this Initial Study, which examines the potential environmental impacts of alternatives being considered for the proposed project in San Bernardino County, California. The project proposes to the rehabilitate 26 culverts on State Route 18 (SR-18), in San Bernardino County, from Arrow bear Drive to 1.3 miles west of Big Bear Lake Dam. The scope of work for this project consists of providing restoration to deteriorating culverts by replacing or repairing them. The project also includes the installation of a new wireless Changeable Message Sign (CMS) at PM 37.3 in the northbound direction. The project will require additional right-of-way (ROW) with 3 permanent easements for future maintenance and access to the culverts. Additionally, two permanent drainage easements and one temporary construction easement will be required. The document describes the project, the existing environment that could be affected by the project, potential impacts from the project, and proposed measures.

What you should do:

- Please read this document.
- We welcome your comments. If you have any comments about the proposed project, please send your written comments to Caltrans by the deadline below.
- Submit comments via U.S. mail to Caltrans at the following address:

  Gabrielle Duff, Senior Environmental
  Planner California Department of
  Transportation, District 8 464 West 4th
  Street
  San Bernardino, CA 92401-1400

- Submit comments via email to: **D08.1J310@dot.ca.gov**
- Submit comments by the deadline: TBD

What happens next:

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

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: Gabrielle Duff, Senior Environmental Planner, 464 West Fourth Street, San Bernardino, 92401, or use the California Relay Service 1(800) 735-2929 (TTY to Voice), 1(800) 735-2922 (Voice to TTY), 1(800) 855-3000 (Spanish TTY to Voice and Voice to TTY), 1(800) 854-7784 (Spanish and English Speech-to-Speech) or 711.

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SCH#XXXXX
08-SBD-18
PM 34.0/44.3
EA 08-1J310
PN 0818000018

Culvert Rehabilitation State Route 18 from PM 34.0/44.3 in San Bernardino County, California

INITIAL STUDY
with Proposed Mitigated Negative Declaration

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

THE STATE OF CALIFORNIA
Department of Transportation

April 12, 2022
Date of Approval

Kurt Heidelberg

CW Kurt Heidelberg
Deputy District Director
California Department of Transportation
CEQA Lead Agency

The following persons may be contacted for more information about this

Gabrielle Duff, Senior Environmental Planner
California Department of Transportation,
District 8 464 West 4th Street
San Bernardino, CA
92410-1400 Phone:
(909) 501-5142

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PROJECT DESCRIPTION AND BACKGROUND

Project Title: SR-18 Culvert Rehabilitation

Lead agency name: Caltrans **Address:** 464 West 4th Street
San Bernardino, CA 92401

Contact person: Gabrielle Duff **Phone number:** (909) 501-5142

Project sponsor's name: Caltrans District 8 **Address:** 464 West 4th Street
San Bernardino, 92401

Project Location: SR-18 San Bernardino County PM 34.0/44.3

General plan description: N/A

Zoning: N/A

Description of project:

The California Department of Transportation (Caltrans) proposes to the rehabilitation of 26 culverts on State Route 18 (SR-18), in San Bernardino County, from Arrowbear Drive to 1.3 miles west of Big Bear Lake Dam. The scope of work for this project consists of providing restoration to deteriorating culverts by replacing or repairing them. The project also includes the installation of a new wireless Changeable Message Sign (CMS) at PM 37.3 in the northbound direction.

Surrounding land uses and setting:

The project is located on SR-18 in San Bernardino County. The area is mostly resource conservation surrounded by United States Forest Service Land, rural living and single residential development. The project goes through the unincorporated hilltop mountain community of Arrowbear Lake and ends at the Bear Valley Dam on the west end of the Big Bear Lake.

Other public agencies whose approval is required (e.g. permits, financial approval, or participation agreements)**:**

California Department of Fish and Wildlife, Regional Water Quality Control Board, U.S. Fish and Wildlife, U.S Army Corps. of Engineers

NATIVE AMERICAN CONSULTATION

Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code (PRC) section 21080.3.1? Yes ☒ No ☐

If yes, ensure that consultation and heritage resource confidentiality follow PRC sections 21080.3.1 and 21080.3.2 and California Government Code 65352.4

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project. Please see the checklist beginning on page 4 for additional information.

- ☐ Aesthetics
- ☐ Agriculture and Forestry
- ☐ Air Quality
- ☒ Biological Resources
- ☐ Cultural Resources
- ☐ Energy
- ☐ Geology/Soils
- ☐ Greenhouse Gas Emissions
- ☐ Hazards and Hazardous Materials
- ☐ Hydrology/Water Quality
- ☐ Land Use/Planning
- ☐ Mineral Resources
- ☐ Noise
- ☐ Population/Housing
- ☐ Public Services
- ☐ Recreation
- ☐ Transportation
- ☐ Tribal Cultural Resources
- ☐ Utilities/Service Systems
- ☐ Wildfire
- ☐ Mandatory Findings of Significance

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PROPOSED MITIGATED NEGATIVE DECLARATION

Pursuant to: Division 13, Public Resources Code

State Clearinghouse Number: Enter State Clearinghouse Number

DIST-CO-RTE-PM: 08-SBd-18 (PM 34.0/44.3)

EA: 1J310

Project Description

The California Department of Transportation (Caltrans) proposes the rehabilitation of 26 culverts on State Route 18 (SR-18), in San Bernardino County, from Arrowbear Drive to 1.3 miles west of Big Bear Lake Dam. The scope of work for this project consists of providing restoration to deteriorating culverts by replacing or repairing them. The project also includes the installation of a new wireless Changeable Message Sign (CMS) at PM 37.3 in the northbound direction.

The proposed project extends approximately a 10.3-mile distance between SR-18 (PM 34.0/44.3) and is located in several U.S. Geological Survey (USGS) 7.5-minute quadrangles (Table 1). The project crosses through several ranges and townships, as indicated below.

Table 1. Project Township, Range, and Section Data

USGS 7.5-minute Quadrangle	Township	Range	Section(s)
Keller Peak	T02N	R01W	19, 20, 30
Big Bear	T02N	R01W	21, 22
Keller Peak	T02N	R02W	25, 26, 34, 35, 36

Determination

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

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

- The proposed project would have no effect on Aesthetics, Agriculture and Forest Resources, Cultural Resources, Geology and Soils, Energy, Hazards and Hazardous Materials, Land Use and Planning, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Tribal Cultural Resources, Utilities and Service Systems, and Wildfire.

- In addition, the proposed project would have less-than-significant effects on Air Quality, Greenhouse Gas Emissions, Hydrology and Water Quality, and Transportation and Traffic.

- With the following measures incorporated, the proposed project would have less-than-significant effects on Biological Resources:

BIO-1 (BIO-General-1) Equipment Staging, Storing & Borrow Sites: All staging, storing, and borrow sites require the approval of the Contractor Supplied Biologist.

BIO-2 (Bio-General-2) Temporary Artificial Lighting: To address impacts to special status bat species, artificial lighting must be directed at the job site to minimize light spillover onto the PIA if project activities occur at night.

BIO-3 (Bio-General-4) Preconstruction Surveys: Preconstruction bat surveys must be conducted by a Caltrans approved biologist 3 days prior to project activities within the BSA and any culverts with a large enough diameter to accommodate bats. Preconstruction southern rubber boa surveys must be conducted by a Caltrans approved biologist 3 days prior to project activities. Southern rubber boa surveys must be completed along the entirety of SR-18 within 500 feet of the PIA. If a special-status reptile species is located, the Resident Engineer and Caltrans Biologist must be contacted and additional measures and/or agency coordination may be required.

BIO-4 (Bio-General-7) Worker Environmental Awareness Program (WEAP): A Contractor supplied biologist must present a biological resource information program/WEAP for special status birds, reptiles, ash-gray paintbrush (Castilleja cinerea), southern rubber boa (Charina umbratica), and special-status bat species and plants 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-5 (Bio-General-8) Biological Monitor: The Caltrans approved biologist must monitor project activities throughout the entirety of the project to ensure that measures are being implemented and documented.

BIO- 6 (Bio-General-9) Environmentally Sensitive Area (ESA): To address impacts to ash-gray paintbrush, delineate this area as an ESA as shown on the plans and/or described in the specifications.

BIO-7 (Bio-General-10) Environmentally Sensitive Area (ESA) Fence Monitoring: Integrity inspections of ash-gray paintbrush fencing and enclosures (onsite cleared areas) must occur throughout the duration of the project 3 days prior to commencing project activities are completed. If during construction the fence fails, work must stop until it is repaired, and the Caltrans approved biologist inspects (and clears) the job site.

BIO-8 (Bio-General-11) Environmentally Sensitive Area (ESA) Fence Removal: All fencing must be removed as a last order of work. During removal, a Caltrans approved biologist must be present.

BIO-9 (Bio-General-13) Animal Sheltering: To prevent inadvertent harm of large-botched salamanders 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 Caltrans approved biologist.

BIO-10 (Bio-General-14) Predator Prevention: Project personnel are prohibited from feeding wildlife or bringing pets onto the job site.

BIO-11 (Bio-General-16) Invasive Weed Control: A Contractor Supplied biologist must identify CAL-IPC noxious weed species Limited species: soft brome (Bromus hordeaceus), English plantain (Plantago lanceolata), black locust (Robinia pseudoacacia), bouncing bet (Saponaria officinalis), woolly mullein (Verbascum thapsus). CAL-IPC Moderate rated species: ripgut brome (Bromus diandrus), musk thistle (Carduus nutans), bull thistle (Cirsium vulgare), Fuller's teasel (Dipsacus fullonum, D. sativus), barley (Hordeum murinum), dalmatian toad flax (Linaria genistifolia ssp. dalmatica), tall fescue (Schedonorus phoenix), and periwinkle (Vinca major). CAL-IPC High rated species: spotted knapweed (Centaurea stoebe ssp. micranthos), Himalayan blackberry (Rubus discolor), and Spanish broom (Spartium junceum). Non CAL-IPC rated species: Joined goatgrass (Aegilops cylindrica), tall wheatgrass (Elytrigia elongata), intermediate wheatgrass (Elytrigia intermedia), sweet

pea (Lathyrus latifolius), clasping pepperweed (Lepidium perfoliatum), dollar plant (Lunaria annua), spearmint (Mentha spicata var. spicata), bulbous bluegrass (Poa bulbosa), tumble mustard (Sisymbrium altissimum), and goat's beard (Tragopogon dubius) within the PIA during CMS sign installation and trenching activities to address impacts to ash-gray paintbrush and its designated critical habitat. Treatment and disposal methods must be approved by the Caltrans biologist prior to vegetation removal.

BIO-12 (Bio-General-PSM-17) Vehicle Washing: Per the 2018 Standards Specifications Guidance, the contractor shall wash equipment prior to entering the SBNF. Prior to construction work, the Contractor Supplied Biologist shall coordinate with the resident engineer and contractor to inspect vehicles and equipment and verify vehicles have been washed.

BIO-13 (Bio-Plant-1) Rare Plant Surveys, Flagging, and Fencing: Within 3 days prior to construction, a preconstruction survey must be conducted by a Caltrans approved biologist for gray leaved violet, Parish's yampah, San Bernardino ragwort, lemon lily, little purple monkey flower, San Bernardino Mountains monkeyflower, vanishing wild buckwheat, male fern, San Bernardino Mountains owl's-clover, pygmy pussypaws, and rocky sandwort within the PIA. Special-status plant 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 within Environmentally Sensitive (ESA) temporary fencing.

BIO-14 (Bio-Anthropod-1) Rare Insect Host Plant Preconstruction Clearance Survey, Flagging, and Fencing: No more than 30 days prior to project activities, a Contractor Supplied biologist must perform a preconstruction survey for rare insect host plants within 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 Contractor Supplied biologist for visual identification to construction personnel for work avoidance. Should multiple plants in a single location be found, the groupings must be fenced with Environmentally Sensitive Area (ESA) temporary fencing.

BIO-15 (Bio-Reptile-1) Equipment Flagging: Project personnel must attach surveyor flagging tape to a conspicuous place on each piece of equipment to remind the operator to check under the equipment for special-status reptile species – large-blotched salamander, and rubber boa - before operating equipment at any time.

BIO-16 (Bio-Amphibian-PSM-2) Trash/Predation: Caltrans must implement measures to reduce the attractiveness of job sites to predators of the large-blotched salamander, and other subsidized predators by controlling trash and educating workers.

BIO-17 (Bio-Avian-1) Pre-Construction Nesting Bird Survey: Vegetation clearing should be done outside of the nesting bird season. If project activities cannot avoid the nesting season, generally regarded as February 1 – September 30, then preconstruction nesting bird surveys must be conducted up to the limit of the 500-foot

BSA no later than 3 days prior to construction by a qualified Caltrans supplied biologist to locate and avoid nesting birds. If an active avian nest is located, a no-construction buffer (100 feet for non-passerine, 300 feet for passerine, and 500 feet for raptors) may be established and monitored by the Contractor Supplied biologist.

BIO-18 (Bio-Bat-1) Management & Mitigation Plan (BMMP): A Bat Management Plan will be developed and implemented in accordance with CDFW guidelines.

Signature

Kurt Heidelberg
Deputy District Director
Caltrans District 8

Date

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Contents

Appendices

Tables and Figures

Table

Figures

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Chapter 1 Introduction

Project Description and Background

Project Title:	SR-18 Culvert Rehabilitation
Lead Agency Name and Address:	California Department of Transportation, District 8 464 West 4th Street San Bernardino, CA 92401-1400
Contact Person and Telephone Number:	Gabrielle Duff, Senior Environmental Planner Email address: gabrielle.duff@dot.ca.gov (909) 501-5142
Project Location:	SR-18 San Bernardino County from PM 34.0/44.3
Project Sponsor's Name and Address:	California Department of Transportation, District 8 464 West 4th Street San Bernardino, CA 92401-1400
General Plan Description:	N/A
Zoning:	N/A
Description of Project:	The project proposes the rehabilitation of 26 culverts on State Route 18 (SR-18), in San Bernardino County, from Arrowbear Drive to 1.3 miles west of Big Bear Lake Dam. The scope of work for this project consists of providing restoration to deteriorating culverts by replacing or repairing them. The project also includes the installation of a new wireless Changeable Message Sign (CMS) at PM 37.3 in the northbound direction.
Surrounding Land Uses and Setting:	The project is located on SR-18 in San Bernardino County. The area is mostly resource conservation, rural living, and single residential development. The project goes through the unincorporated hilltop mountain community of Arrowbear Lake and ends in the unincorporated community of Fawnskin which lies west of Big Bear Lake.

	Purpose: The purpose of this project is to restore the drainage facilities to a state of good repair so that they are in a condition that requires minimal maintenance, extends the service of the facility, and protects the roadway from failure. Improve traffic operations and safety of the traveling public with the implementation of Changeable Message Sign (CMS). **Need:** The project is needed to address the deteriorating condition of the existing Culverts, lack of traveler information to warn motorists of accidents, lane closures, slides, and adverse weather conditions at major decision points.
Other Public Agencies Whose Approval is:	California Department of Fish & Wildlife (CDFW), Regional Water Quality Control Board (RWQCB), U.S. Fish and Wildlife (USFWS), U.S Army Corps. of Engineers (USACE).

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Chapter 2 CEQA Environmental Checklist

DIST-CO-RTE:08-SBd-18 PM/PM: 34.0/44.3 EA/Project No.: 1J310/0818000018

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 indicate no impacts. A NO IMPACT answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included either following the applicable section of the checklist or is within the body of the environmental document itself. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

I. AESTHETICS

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

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

Response to Item a) No Impact. The proposed project is located near the Lakeview Point Scenic Overlook at PM 39.0. According to the Visual Impact Assessment (VIA) prepared for the project, the project would not have an impact on a scenic vista because there would not be a noticeable change to the existing environment. Therefore, visual impacts on scenic vistas are not anticipated.

Response to Item b) No Impact. SR-18 is listed as eligible as a state scenic highway according to Caltrans' State Scenic Highway Program. The project site does not contain any structures and would not damage any scenic resources or historic buildings.

Response to Item 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.

Response to Item d) No Impact. The project would not implement or create any new sources of light or glare that would adversely affect day or nighttime views in the area.

Avoidance, Minimization, and/or Mitigation Measures

No measures are required for Aesthetics.

II. AGRICULTURE AND FOREST RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site

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

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

Response to Item a) No Impact. According to the California Department of Conservation Farmland Mapping and Monitoring Program, there are no farmlands, or vacant lands that are mapped as Prime Farmlands, Unique Farmlands, Farmlands of Statewide Importance, or Farmlands of Local Importance within the vicinity of the proposed project.

Response to Item b) No Impact. There are no areas within the study area under Williamson Act contract.

Response to Item c) No Impact. The proposed project will not impact forest lands. The proposed project would not conflict within existing zoning for, or cause rezoning of forest land, timberland, or timberland zoned Timberland Production.

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

Response to Item e) No Impact. The proposed project does not anticipate other changes in the environment that could result in the conversion of Farmland or nonagricultural use or conversion of forest land to non-forest use.

Avoidance, Minimization, and/or Mitigation Measures

No measures are required for Agriculture and Forest Resources.

III. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:

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

Response to Item a) No Impact.

The proposed project is located in the South Coast Air Basin. The South Coast Air Quality Management District (SCAQMD) has responsibility for managing the air resources for the portion of the Basin in which the project is located and is responsible for bringing the Basin into attainment for federal and state air quality standards. To achieve this goal, South Coast AQMD prepares plans for the attainment of air quality standards, as well as maintenance of those standards once achieved.

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

The proposed project is included in the 2021 Federal Transportation Improvement Program (FTIP) from the 2021 Grouped Project Detailed Backup Listings California Associated of Governments (SCAG) website. As such, the proposed project would not conflict with the implementation of the applicable air quality plan.

Response to Item b) Less Than Significant

Construction

During construction, short-term degradation of air quality may occur due to the release of particulate emissions (airborne dust) generated by grading, and other construction-related activities. Emissions from construction equipment also are expected and would include carbon monoxide (CO), nitrogen oxides (NOX), volatile organic compounds (VOCs), directly emitted particulate matter (PM10 and PM2.5), and toxic air contaminants such as diesel exhaust particulate matter. Ozone is a regional pollutant that is derived from NOX and VOCs in the presence of sunlight and heat.
Site preparation and roadway construction typically involve clearing, cut/fill, trenching, and grading. Construction-related effects on air quality from most highway projects would be greatest during the site preparation phase because most engine emissions are associated with the excavation, handling, and transport of soils to and from the site. These activities could temporarily generate enough PM10, PM2.5, and small amounts of CO, sulfur dioxide (SO2), NOX, and VOCs to be of concern.

Sources of fugitive dust would include disturbed soils at the construction site and trucks grading and paving the roadway. Unless properly controlled, vehicles leaving the site could deposit mud on local streets, which could be an added source of airborne dust after it dries. PM10 emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM10 emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

In addition to dust-related PM10 emissions, heavy-duty trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO2, NOX, VOCs, and some soot particulate (PM10 and PM2.5) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles are delayed. These emissions would be temporary and limited to the immediate area surrounding the construction site.

SO2 is generated by oxidation during combustion of organic sulfur compounds contained in diesel fuel. Under California law and California Air Resources Board (ARB) regulations, off road diesel fuel used in California must meet the same sulfur and other standards as on-road diesel fuel (not more than 15 parts per million of sulfur), so SO2-related issues due to diesel exhaust would be minimal. Most of the construction impacts on air quality are short-term in duration and, therefore, would not result in long-term adverse conditions. Implementation of the standardized measures, such as compliance

with MDAQMD Rule 403 to reduce onsite fugitive dust, construction activities to a less-than- significant level.

Operation

Because the project would not increase the number of travel lanes on SR-18, it would not likely lead to a substantial or measurable increase in vehicle travel, and therefore does not require a travel analysis. Therefore, the proposed project would not increase roadway capacity on SR-18 would not increase emissions of criteria pollutants and their precursors following the construction period. No operational impacts related to violation of air quality standards would occur.

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 through compliance with MDAQMD Rule 403. No net increase in operational emissions would occur, as traffic volumes would be the same under the Build Alternative and No-Build Alternative. Implementation of the proposed project would not increase roadway capacity on SR-18 and would not increase emissions of criteria pollutants and their precursors following the construction period. Because project construction would result in short-term generation of emissions, but no increases would occur for project operation, impacts related to a cumulatively considerable net increase of any criteria pollutants would be less than significant.

Response to Item c) Less Than Significant Impact

California Air Resources Board (CARB) characterizes sensitive land uses as simply as possible by using the example of residences, playgrounds, and medical facilities.

There are land uses that are sensitive to air pollutant emissions located within the vicinity of the proposed project improvements. These emissions would be short term and transitory, and fugitive dust would be limited through compliance with South Coast AQMD Rule 403. Implementation of the proposed project would not increase criteria pollutants and their precursors following the construction period. Since the construction of this project would result in short-term generation of emissions, but 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.

Response to Item d) No Impact. According to 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 project alignment, no impacts would occur.

Avoidance, Minimization, and/or Mitigation Measures

The following Air Quality measures would be implemented to minimize potential impacts, as stated in Section 14-9, "Air Quality," of Caltrans' 2018 Standard Specifications and Special Provisions:

AQ-1: Fugitive Dust: Contractor must abide by Caltrans' provisions in Section 14-9, Air Quality of the 2018 Standard Specifications and Special Provisions.

AQ-2: Implement and follow Erosion Control and Air Quality Best Management Practices (BMPs).

AQ-3: Comply with AQMD rule 403 for Fugitive Dust and Caltrans Standard Specification Section 14-9.

IV. BIOLOGICAL RESOURCES

Would the project:

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

Question	CEQA Determination
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	No Impact

Response to Items a), b) Less Than Significant with Mitigation Incorporated. The information from this section is based on the Natural Environment Study (NES) (Caltrans 2021). The Biological Study Area (BSA) consists of the Project Impact Area (PIA) plus a 500-foot construction buffer for amphibians, reptiles, raptor and listed avian species, and mammals; a 100-foot construction buffer for rare plants; and a 100-foot construction for jurisdictional waters. The BSA takes into consideration both direct and indirect potential impacts, which may result from project activities, including noise and vibration. The rare plant-specific buffer consists of the PIA and an additional 100-foot buffer, since plants are sessile and are only disturbed by direct impacts. A 100-foot jurisdictional waters BSA was chosen to incorporate waterway extents, confluences, and riparian vegetation directly associated with the potentially jurisdictional waterway. The BSA is extensively dominated by open forest habitat and potentially jurisdictional drainages that intersect the Project. The PIA contains paved roadway; barren, paved, or disturbed turnouts and shoulders, and 26 culvert inlets or outlets.

Special Status Plant Species

The following plant species were identified as having suitable habitat within the BSA: Rock sandwort; pygmy pussypaws; ash-gray paintbrush, San Bernardino Mountains owl's-clover, male fern, vanishing wild buckwheat, San Bernardino Mountains monkeyflower, little purple monkeyflower, lemon lily, San Bernardino ragwort, Parish's yampah, and grey-leaved violet. These plant species have suitable habitat within the 100-foot rare plant BSA.

Ash-gray paintbrush (*Castilleja cinerea*) is federally-listed as a *threatened* species. This species is endemic to the San Bernardino Mountains in clay openings, often in meadow edges. This species inhabits meadow & seep; Mojavean desert scrub; pavement plain; pebble plain; pinon & juniper woodlands; and upper montane coniferous forest habitats. Final designated critical habitat for ash-gray paintbrush is located from PM 37.0 to PM 37.5. Ash-gray paintbrush is assumed present in the PIA, and incidental take of individuals or host plants (ex. *Eriogonum wrightii*) is anticipated. Measures: **BIO- 6 (Bio-General-9), BIO-7 (Bio-General-10), and BIO-8 (Bio-General-11)** will be implemented to minimize impacts on these rare plant species.

Caltrans anticipates no impacts or “take” of State-listed under the California Endangered Species Act (CESA) species Santa Ana River woollystar, bird-foot checkerbloom (CNDDB)/pedate checker-mallow (IPaC), and slender-petaled thelypodium. These species are considered absent in the BSA. Impacts to other rare plants, with the exception of ash-gray paintbrush, will be avoided. Caltrans standard BMPs, the BMPs in the anticipated SWPPP, and 2018 Standard Specifications (or latest version) must be implemented to minimize effects during construction.

Special-Status Invertebrate Species

The obscure bumble bee, Monarch butterfly, and Andrew's marble butterfly have suitable habitat in the 500-foot animal BSA. No special-status insect species were observed during the October 29, 2021 habitat assessment.
Caltrans anticipates no impacts to special-status invertebrate species obscure bumble bee, Monarch butterfly, and Andrew's marble butterfly with the implementation of appropriate avoidance and minimization measures, which include pre-construction surveys for special-status invertebrate species host plants. The likelihood of an individual entering the PIA during Project activities is low. The Avoidance and Minimization Measure **BIO-14** (**Bio-Anthropod-1)** will be implemented to minimize impacts to special-status invertebrates and their host plants

Special-Status Amphibian Species

Only large-blotched salamander has suitable habitat in the 500-foot animal BSA via coniferous woodlands, leaf litter, overturned logs, and shrub cover. Caltrans does not anticipate impacts to this species through implementation of appropriate avoidance and minimization measures such as **BIO-9 (Bio-General-13), BIO-15 (Bio-Reptile-1), and BIO-16 (Bio-Amphibian-PSM-2)** will be implemented.

Special-Status Reptile Species

The southern rubber boa has presumed habitat in the BSA. The construction of temporary access roads will cause temporary impacts to special-status reptile habitat. The addition of RSP around four culverts will cause permanent impacts to potential habitat. A 2081(b) Incidental Take Permit or consistency determination for CESA compliance will take place for southern rubber boa, a State-listed as threatened species that is assumed present. The following measures will be implemented to minimize impacts: **BIO-1 (BIO-General-1), BIO-3 (Bio-General-4), BIO-4 (Bio-General-7), BIO-5 (Bio-General-8), and BIO-15 (Bio-Reptile-1).**

Special-Status Avian Species

The cooper's hawk, golden eagle, and southwestern willow flycatcher have suitable habitat within the 500-foot animal BSA. The nearest southwestern willow flycatcher designated critical habitat boundary is located approximately 700 feet south of the Project PIA, PM 43.90. The likelihood of Cooper's hawk or golden eagle presence within the PIA during Project activities or staging efforts is low. Impacts to breeding individuals will be avoided through the implementation of avoidance and minimization measures, which include working outside of nesting bird season. The Project is not anticipated to affect southwestern willow flycatcher or its designated critical habitat because work stops approximately 700 feet before the designated critical habitat boundary.

Special-Status Mammal Species

The Townsend's big eared bat is assumed present in the 500-foot BSA. Five culverts were considered to be potentially suitable for bats based on a size of 36 inches or larger PM 34.63 (Culvert #5), PM 37.79 (Culvert #11), PM 37.79 (Culvert #12), PM 38.13 (Culvert #13), and PM 38.27 (Culvert #14). All of these culverts will be cured-in-place. USFS modeled habitat from 2021 shows the BSA and vicinity is within suitable habitat for San Bernardino flying squirrel. Areas with flying squirrel components and pellets are Little Green Valley (PM 35.6 to PM 35.7), Snow Valley (PM 34.6 to PM 35.4), and Bear Creek (PM 43.5 to PM 43.8).

Impacts to these species would include temporary indirect disturbances (such as noise, dust, night lighting, and human encroachment) from construction as well as direct disturbances from project activities including vegetation removal and ground disturbance. Project-related activities could deter individuals from typical flight paths or movements. Furthermore, other permanent indirect issues associated with human encroachment, such as the introduction of nonnative species and trash, would permanently contribute to the degradation of habitat in the vicinity. Permanent impacts to the habitat include the addition of RSP around culverts. Avoidance and minimization measure **BIO-18 (Bio-Bat-1)** will be implemented to avoid impacts to special-status bat species or other mammalian species with potential to occur in the 500-foot BSA. For the purposes of evaluating impacts, there are permanent impacts assessed for the Project where culverts are to be modified or riprap is to be placed. Caltrans Standard Best Management Practices (BMPs) and the 2018 Standard Specifications (or latest version) must be implemented to minimize effects during construction.

Riparian Habitats

Surface hydrology in the Project area is characterized by erosional features from recent precipitation events, roadside drainage ditches, upland swales, natural springs, isolated waters, deep creeks, and potentially jurisdictional waters and wetlands.

A preliminary analysis concluded that there will be approximately 0.0423 acre of permanent impacts and approximately 0.0833 acre of temporary impacts to areas within the Ordinary High Water Mark (OHWM) under both U.S. Army Corps of Engineers (USACE) and Regional Water Quality Control Board (RWQCB) jurisdiction. There are approximately 0.0680 acres of permanent impacts and 0.1378 acres of temporary impacts to areas within the OHWM of the California Department of Fish and Wildlife (CDFW) jurisdiction. These numbers are subject to change pending further field investigations. Waters of the State jurisdictional acreages will be finalized at a later date.

For work within the proposed project area, the following permits are required, 2081(b) Incidental Take permit, Section 1602 Lake and Streambed Alteration Agreement, Section 401 of the Clean Water Act permit, and a Section 404 of the Clean Water Act permit.

Caltrans Standard Best Management Practices (BMPs), the BMPs in the anticipated Water Pollution Control Plan (WPCP), and the 2018 Standard Specifications (or latest version) will be implemented to minimize effects during construction. Proposed project impacts to jurisdictional areas will be mitigated and coordinated with USACE, RWQCB, and CDFW during the permitting process. These results are subject to modification following agency verification

Response to Items c) No Impact

The proposed project is within the Santa Ana River Watershed and Siberia Creek-Bear Creek sub-watershed and the Mojave Watershed and Upper Deep Creek sub-watershed. There are no state or federally protected wetlands within the project area. Therefore, wetlands or other waters will not be impacted.

Response to Items d) No Impact

Habitat Connectivity

Transportation facilities, particularly freeways and roadways, pose an inherent barrier to wildlife and habitat connectivity. Threats to habitat connectivity and wildlife movement include habitat loss, fragmentation from development, and barriers created by linear infrastructure, such as roads, highways, dams, canals, and railroads. Such barriers impede wildlife movement, population demographics, gene flow, resilience, and California wildlife populations.

The Project occurs on the existing SR-18 paved roadway and select drainages with possible construction staging on road pavement, paved turnouts, and compacted, gravelly or sandy unpaved shoulders. The 500-foot BSA contains open forest habitat, a Parks Service cabin, Snow Valley Mountain Resort, and paved, barren, or disturbed shoulders and turnouts. Wildlife habitat connectivity is generally high due to a large amount of open forest habitat in the BSA. Due to the small areas of impact near culvert inlets and outlets and staging on existing roads, turnouts, or shoulders, the Project poses no risk of reducing or worsening existing levels of habitat connectivity and, therefore, does not warrant subsequent design changes or any additional species permits than what is proposed as part of the Project scope.

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

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

Avoidance, Minimization, and/or Mitigation Measures

The following measures will be included with implementation of the proposed project:

BIO-1 (BIO-General-1) Equipment Staging, Storing & Borrow Sites: All staging, storing, and borrow sites require the approval of the Contractor Supplied Biologist.

BIO-2 (Bio-General-2) Temporary Artificial Lighting: To address impacts to special status bat species, artificial lighting must be directed at the job site to minimize light spillover onto the PIA if project activities occur at night.

BIO-3 (Bio-General-4) Preconstruction Surveys: Preconstruction bat surveys must be conducted by a Caltrans approved biologist 3 days prior to project activities within the BSA and any culverts with a large enough diameter to accommodate bats. Preconstruction southern rubber boa surveys must be conducted by a Caltrans approved biologist 3 days prior to project activities. Southern rubber boa surveys must be completed along the entirety of SR-18 within 500 feet of the PIA. If a special-status reptile species is located, the Resident Engineer and Caltrans Biologist must be contacted and additional measures and/or agency coordination may be required.

BIO-4 (Bio-General-7) Worker Environmental Awareness Program (WEAP): A Contractor supplied biologist must present a biological resource information program/WEAP for special status birds, reptiles, ash-gray paintbrush (*Castilleja cinerea*), southern rubber boa (*Charina umbratica*), and special-status bat species and plants 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-5 (Bio-General-8) Biological Monitor: The Caltrans approved biologist must monitor project activities throughout the entirety of the project to ensure that measures are being implemented and documented.

BIO- 6 (Bio-General-9) Environmentally Sensitive Area (ESA): To address impacts to ash-gray paintbrush, delineate this area as an ESA as shown on the plans and/or described in the specifications.

BIO-7 (Bio-General-10) Environmentally Sensitive Area (ESA) Fence Monitoring: Integrity inspections of ash-gray paintbrush fencing and enclosures (onsite cleared areas) must occur throughout the duration of the project 3 days prior to commencing project activities are completed. If during construction the fence fails, work must stop until it is repaired, and the Caltrans approved biologist inspects (and clears) the job site.

BIO-8 (Bio-General-11) Environmentally Sensitive Area (ESA) Fence Removal: All fencing must be removed as a last order of work. During removal, a Caltrans approved biologist must be present.

BIO-9 (Bio-General-13) Animal Sheltering: To prevent inadvertent harm of large-botched salamanders 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 Caltrans approved biologist.

BIO-10 (Bio-General-14) Predator Prevention: Project personnel are prohibited from feeding wildlife or bringing pets onto the job site.

BIO-11 (Bio-General-16) Invasive Weed Control: A Contractor Supplied biologist must identify CAL-IPC noxious weed species Limited species: soft brome (*Bromus hordeaceus*), English plantain (*Plantago lanceolata*), black locust (Robinia pseudoacacia), bouncing bet (*Saponaria officinalis*), woolly mullein (*Verbascum thapsus*). CAL-IPC Moderate rated species: ripgut brome (*Bromus diandrus*), musk thistle (*Carduus nutans*), bull thistle (*Cirsium vulgare*), Fuller's teasel (*Dipsacus fullonum, D. sativus*), barley (*Hordeum murinum*), dalmatian toad flax *(Linaria genistifolia* ssp. *dalmatica*), tall fescue (*Schedonorus phoenix*), and periwinkle (*Vinca major*). CAL-IPC High rated species: spotted knapweed (*Centaurea stoebe* ssp. *micranthos*), Himalayan blackberry (*Rubus discolor*), and Spanish broom (*Spartium junceum*). Non CAL-IPC rated species: Joined goatgrass (*Aegilops cylindrica*), tall wheatgrass (*Elytrigia elongata*), intermediate wheatgrass *(Elytrigia intermedia*), sweet pea (*Lathyrus latifolius*), clasping pepperweed *(Lepidium perfoliatum*), dollar plant *(Lunaria annua*), spearmint *(Mentha spicata* var. *spicata*), bulbous bluegrass (*Poa bulbosa*), tumble mustard (*Sisymbrium altissimum*), and goat's beard (*Tragopogon dubius*) within the PIA during CMS sign installation and trenching activities to address impacts to ash-gray paintbrush and its designated critical habitat. Treatment and disposal methods must be approved by the Caltrans biologist prior to vegetation removal.

BIO-12 (Bio-General-PSM-17) Vehicle Washing: Per the 2018 Standards Specifications Guidance, the contractor shall wash equipment prior to entering the SBNF. Prior to construction work, the Contractor Supplied Biologist shall coordinate with the resident engineer and contractor to inspect vehicles and equipment and verify vehicles have been washed.

BIO-13 (Bio-Plant-1) Rare Plant Surveys, Flagging, and Fencing: Within 3 days prior to construction, a preconstruction survey must be conducted by a Caltrans approved biologist for gray leaved violet, Parish's yampah, San Bernardino ragwort, lemon lily, little purple monkey flower, San Bernardino Mountains monkeyflower, vanishing wild buckwheat, male fern, San Bernardino Mountains owl's-clover, pygmy pussypaws, and rocky sandwort within the PIA. Special-status plant 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 within Environmentally Sensitive (ESA) temporary fencing.

BIO-14 (Bio-Anthropod-1) Rare Insect Host Plant Preconstruction Clearance Survey, Flagging, and Fencing: No more than 30 days prior to project activities, a Contractor Supplied biologist must perform a preconstruction survey for rare insect host plants within 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 Contractor Supplied biologist for visual identification to construction personnel for work avoidance. Should multiple plants in a single location be found, the groupings must be fenced with Environmentally Sensitive Area (ESA) temporary fencing.

BIO-15 (Bio-Reptile-1) Equipment Flagging: Project personnel must attach surveyor flagging tape to a conspicuous place on each piece of equipment to remind the operator to check under the equipment for special-status reptile species – large-blotched salamander, and rubber boa - before operating equipment at any time.

BIO-16 (Bio-Amphibian-PSM-2) Trash/Predation: Caltrans must implement measures to reduce the attractiveness of job sites to predators of the large-blotched salamander, and other subsidized predators by controlling trash and educating workers.

BIO-17 (Bio-Avian-1) Pre-Construction Nesting Bird Survey: Vegetation clearing should be done outside of the nesting bird season. If project activities cannot avoid the nesting season, generally regarded as February 1 – September 30, then preconstruction nesting bird surveys must be conducted up to the limit of the 500-foot BSA no later than 3 days prior to construction by a qualified Caltrans supplied biologist to locate and avoid nesting birds. If an active avian nest is located, a no-construction buffer (100 feet for non-passerine, 300 feet for passerine, and 500 feet for raptors) may be established and monitored by the Contractor Supplied biologist.

BIO-18 (Bio-Bat-1) Management & Mitigation Plan (BMMP): A Bat Management Plan will be developed and implemented in accordance with CDFW guidelines.

V. CULTURAL RESOURCES

Would the project:

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

Response to Item a), b): No Impact. Information from this section was taken from the Historic Property Survey Report (HPSR) (Caltrans 2022) and the Supplemental Historic Property Survey Report (Caltrans 2022). Caltrans uses a single process to fulfill both its CEQA and National Historic Preservation Act (NHPA) Section 106 responsibilities. The Area of Potential Effects (APE) includes all areas that may be potentially directly and indirectly affected by the project. The APE is discontiguous and was established as including the work limits area around each of the 26 work locations. A cultural resources review was performed in October and November 2021, which included a review of location maps, project plans, aerial photography, the Native American Heritage Commission (NAHC) Sacred Lands File, a review of the Caltrans Cultural Resource Database (CCRD), and Caltrans Historic Bridge Inventory.

A Sacred Lands File request was sent out to the NAHC December 3, 2020. A response with a negative Sacred Lands File finding was received December 18, 2020.

On January 26, 2021, the following Native American Tribes were contacted: Morongo Band of Mission Indians, San Manuel Band of Mission Indians, and Twenty-Nine Palms Band of Mission Indians. The San Manuel Band of Mission Indians responded on January 28, 2021 indicating the Tribe wished to consult. On December 21, 2021, a draft copy of the Archaeological Survey Report (ASR) was sent to the Tribe. The Tribe responded on January 5, 2022 and requested information be added to a section of the ASR. The information was included in the ASR and ECR. A follow-up letter was sent to Morongo Band of Mission Indians and Twenty-Nine Palms Band of Mission Indians on May 20, 2021. No reply was received by either Tribe. A third letter was sent to Morongo Band of Mission Indians and Twenty-Nine Palms Band of Mission Indians. No responses have been received to date.

A total of two resources were identified in the APE. The Brookings Railroad Grade (36-004887) was identified in the records search; however, this resource is no longer extant with the APE. Additionally, the project is along State Route 18 (SR-18), a historic-period alignment, but the project Is located within a segment that is exempt from evaluation under the Section 106 Programmatic Agreement (PA), Attachment 4.

Caltrans, pursuant to Section 106 PA Stipulation IX.A and as applicable PRC 5024 MOU Stipulation IX.A.2, has determined a Finding of No Historic Properties Affected is appropriate for this undertaking. As a result, no historical resources will be impacted by the proposed project activities as outlined in State CEQA Guidelines 15064.5(a).

Response to Item c): No Impact. No human remains were discovered during field surveys conducted for the proposed project, and no formal cemeteries are located within the project site. If buried cultural materials, including human remains, are encountered during construction, it is Caltrans' policy that work stop in that area until a qualified archaeologist can evaluate the nature and significance of the find. If human remains are discovered, California Health and

Safety code (H&SC) Section 7050.5 will be followed, which, in summary, states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the County Coroner contacted. If the remains are thought to be Native American, the Native American Heritage Commission will be contacted, who pursuant to PRC Section 5097.98 will then notify the Most Likely Descendent (MLD), as further detailed in measure CR-2.

Avoidance, Minimization, and/or Mitigation Measures

The following measures will be included with implementation of the proposed project;

CR-1: Treatment of Previously Unidentified Cultural Resources. If buried cultural resources are encountered during project activities, it is Caltrans policy that work stop within 60 feet of the area until a qualified archaeologist can evaluate the nature and significance of the find.

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

VI. ENERGY

Would the project:

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

Response to a) and b) 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 is providing restoration to deteriorating culverts by repairing or replacing them using various methods such as curing in place and slip lining. The project also includes the installation of a new wireless Changeable Message Sign (CMS) and implementing rockslide mitigation.

Caltrans promotes energy-efficient development by incorporating statewide goals from California's Energy Efficiency Strategic Plan, setting policies, codes, and actions. Implementing these actions would assist in energy conservation and would minimize the impact on climate change.

Avoidance, Minimization, and/or Mitigation Measures

No measures are required for Energy.

VII. GEOLOGY AND SOILS

Would the project:

Question	CEQA Determination
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	No Impact
ii) Strong seismic ground shaking?	No Impact
iii) Seismic-related ground failure, including liquefaction?	No Impact
iv) Landslides?	No Impact
b) Result in substantial soil erosion or the loss of topsoil?	No Impact
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	No Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	No Impact

Response to Item a.i), a.ii): No Impact. None of the project segments are near an Alquist-Priolo Special Studies Zone; therefore, no impacts are anticipated. The project area, like most of Southern California, is located in a seismically active area. According to the California Department of Conservation, the Yucaipa Fault

Zone lies to the south of the project location. There are many more faults located in the general area but are not located in the immediate vicinity of the project area.

Compliance with the most current Caltrans procedures regarding seismic design, which is standard practice on all Caltrans projects, is anticipated to avoid or minimize any significant impacts related to seismic ground shaking. Seismic design would also meet county requirements under the Uniform Building Code. Therefore, through the incorporation of standard seismic design practices, the proposed project would result in no impact because project construction and operation would have no opportunity to rupture a known earthquake fault or cause seismic shaking as the project would primarily consist of culvert rehabilitation.

Response to Item a.iii), a.iv): No Impact. According to the California Division of Mines and Geology (CDMG) liquefaction zone map, the project is not located in a liquefaction zone. Compliance with the most current Caltrans procedures regarding seismic design, which is standard practice on all Caltrans projects, is anticipated to avoid or minimize any significant impacts related to liquefaction and seismic risk. Seismic design would also meet city and county requirements under the Uniform Building Code. Therefore, through the incorporation of standard seismic design practices, the proposed project would result in no impact because construction or operation would not cause any seismic-related ground failure, including liquefaction.

Response to Item b): No Impact. Project activities during the construction phase of the project would displace soils and temporarily increase the potential for soils to be subject to wind and water erosion. The disturbed soil area is defined by Caltrans as consisting of areas of exposed, erodible soil that are within the construction limits and that result from construction-related activity. Construction site Best Management Practices (BMPs), which are standard practices for erosion and water quality control, would be used on the project site and would include the use of street sweeping, temporary cover for materials storage, and equipment parking at staging areas and side slopes. Construction methods related to water conservation practices, vehicle and equipment cleaning, fueling, and maintenance would be followed.

State jurisdictions require that an approved Stormwater Pollution Prevention Plan (SWPPP) be prepared for projects that involve greater than one acre of disturbance. A SWPPP specifies BMPs that would minimize erosion and keep all products of erosion from moving off site into receiving waters. Earthwork in the project area would be performed in accordance with the most current edition of the Caltrans Standard Specifications, the project SWPPP, and the requirements of applicable government agencies; therefore, the proposed project would result in no impacts.

Response to Item c) and d): No Impact. According to CDMG liquefaction zone map, the project is not located in a liquefaction zone. The proposed project would not create substantial direct or indirect risks to life or property. Any earthwork in the

project area would be performed in accordance with the most current edition of the Caltrans Standard Specifications; therefore, the proposed project would result in no impact.

Response to Item e): No Impact. The proposed project would not affect existing or proposed septic tanks or alternate wastewater disposal systems, nor would the use of septic tanks be involved during construction. Therefore, no impacts would occur.

Response to Item f): No Impact. The project as proposed would not destroy a unique paleontological resource or site or unique geologic feature. Therefore, no impacts would occur.

Avoidance, Minimization, and/or Mitigation Measures

No measures are required for Geology and Soils.

VIII. GREENHOUSE GAS EMISSIONS

Would the project:

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

Response to Item a) Less Than Significant. While the project would result in GHG emissions during construction, it is anticipated that the project would not result in any increase in operational GHG emissions. With implementation of construction GHG-reduction measures, the impact would be less than significant. See extensive climate change section below.

Response to Item b) No Impact. The project does not conflict with an applicable plan, policy, or regulation. See extensive climate change section below.

Avoidance, Minimization, and/or Mitigation Measures

AQ-1: Fugitive Dust: Contractor must abide by Caltrans' provisions in Section 14-9, Air Quality of the 2018 Standard Specifications and Special Provisions.

TRF-1: Prior to construction, a Traffic Management Plan will be developed by Caltrans to minimize potential impacts on emergency services and commuters during construction.

IX. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

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

Response to Items a), b): No Impact. Implementation of the proposed project is not expected to result in the creation of any new health hazards or expose people to potential new health hazards because the project involves providing restoration to deteriorating culverts by repairing or replacing them using various methods such as, curing in place and slip lining, and installation of a CMS sign. No storage of toxic materials or chemicals would occur, and the project is not anticipated to increase the potential hazardous materials in the project area. The Initial Site Assessment (ISA) Checklist completed for this project determined that the project will require a detailed site investigation for Aerially Deposited Lead (ADL) to be conducted.

Response to Item c): No Impact. The proposed project will not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

Response to Item d): No Impact. The proposed project is not located on a site which is included on a list of hazardous materials sites.

Response to Item e): No Impact. The proposed project is not located within an airport land use plan or within two miles of a public airport or public use airport.

Response to Item f): No Impact. The project is not anticipated to interfere with any adopted local emergency response plans or emergency evacuation plans. Applicable traffic controls (e.g., flag person, signage), as identified in the Transportation Management Plan (TMP), would be implemented to minimize any potential interference with any adopted emergency response plan or evacuation plan (measure **TRF-1**).

Response to Item g): No Impact. The proposed project will not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

Avoidance, Minimization, and/or Mitigation Measures

The following measures will be included with implementation of the proposed project:

HW-1: SSP 6-1.03: Imported Borrow

HW-2: SSP 14-11.14 for the removal and disposal of Treated Wood Waste (TWW) from guardrail posts.

X. HYDROLOGY AND WATER QUALITY

Would the project:

Question	CEQA Determination
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	Less Than Significant Impact
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin?	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation on- or off-site;	Less Than Significant Impact

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

Response to Item a): Less Than Significant.
The potential temporary effects of the proposed project on the quality of the water in the area would come from runoff during construction, including erosion. The National Pollution Discharge Elimination System (NPDES) permits issued by the RWQCB set limits on discharges, schedules for compliance, special conditions, and monitoring programs. These permits also limit discharges, set water quality standards, and establish a monitoring program of the waste discharge. Permitting of underground storage tanks and cleanup of waste discharge is also enforced by RWQCB. Grading during the construction of the project would require the limited removal of vegetation and moving of soils. This would temporarily increase the exposure of soils to wind and water erosion and could increase the amount of sediments entering downstream drainages and waterways. Sediments can adversely affect water quality and negatively affect fish, aquatic plants, and other organisms.

A Storm Water Pollution Prevention Plan (SWPPP) will be prepared for the project to control pollutants and their sources, including sources of sediment associated with construction, construction site erosion, and all other activities associated with construction. Temporary construction site BMPs would be implemented to reduce or eliminate pollutants in storm water discharges. Temporary construction site BMPs may include, but are not limited to, temporary soil binders, temporary check dams, temporary fiber rolls, temporary hydraulic mulch, temporary drainage inlet protection, temporary construction entrances, street sweeping, rain event action plans, and storm water sampling and analysis. A site-specific Construction Site Monitoring Program will be developed as part of the SWPPP prior to the start of construction and revised as necessary to reflect project revisions.

The project would use stormwater controls, as required, to minimize the amount of roadway pollution from the project area during construction. Compliance with the NPDES requirements would further reduce such polluting impacts. Projects within Caltrans' right-of-way are obligated to comply with the latest Caltrans and RWQCB

water quality standards relative to the treatment of post-construction stormwater runoff. Determination and implementation of construction BMPs within the right of way are defined based on the evaluation of existing site constraints, constituents of concern at the receiving waters, soil conditions, and hydraulic conditions. At this time, the proposed project will have temporary construction BMPs; thus, less-than significant impacts are anticipated.

Response to Item b): No Impact. The project consists of repairing or replacing deteriorated culverts. There are no municipal or domestic water supply reservoirs or groundwater percolation facilities within the project limits. The proposed project is not expected to affect the amount water consumed regionally through increased withdrawals from groundwater sources.

Response to Items c (i), c(ii), c(iii), c(iv): Less Than Significant. The project consists of repairing or replacing deteriorated culverts. These project elements would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of stream or river or through the addition of impervious surfaces in a manner, which would result in substantial erosion or siltation on or off-site.

Erosion control measures also would be used to address site soil stabilization and reduce deposition of sediments into adjacent surface waters. Typical measures would include the application of soil stabilizers, such as soil binders, cover for materials storage, and equipment parking at staging areas. Temporary water pollution control and permanent erosion control plans will be provided during the PS&E design phase of the project.

The project area is within a Municipal Stormwater Program (MS4) area. The proposed project is within the MS4 102_2020 area in Santa Ana water shed, San Bernardino, CA S618036; however, an MS-4 permit will not be required. Construction site BMPs used on the project site would include the use of street sweeping, temporary soil binder, temporary cover for materials storage, and equipment parking at staging areas. Fiber rolls and gravel bag berms would be used for materials storage during the rainy season during construction. During high wind events, temporary covers would also be used. Construction methods related to water conservation practices, vehicle, and equipment cleaning, fueling, and maintenance would be followed.
Permits that may be required include a Section 401 Water Quality Certification, a CDFW 1602 Streambed Alteration Agreement, and a 404 Nationwide Permit.

Response to Items d: No Impact. According to the Flood Insurance Rate Map (FIRM), Federal Emergency Management Agency (FEMA), the proposed project area is in the San Bernardino County Unincorporated Areas Zone D. FEMA classifies Zone D as an area where there are possible but undetermined flood hazards, as no analysis of flood hazards has been conducted. The proposed construction within Zone D is incidental, minor in nature, and will not result in the release of pollutants due to project inundation.

Response to Items e: No Impact. The project consists of repairing or replacing deteriorated culverts. The project will not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Avoidance, Minimization, and/or Mitigation Measures

The following standard measures will be included for Hydrology and Water Quality:

WQ-1: Prior to the start of construction, a SWPPP for reducing impacts on water quality shall be developed by the contractor and approved by the Department.

WQ-2: The SWPPP control measures shall address the following categories: soil stabilization practices; sediment control practices; sediment tracking control practices; wind erosion control practices; and non-stormwater management and waste management and disposal control practices.

WQ-3: The contractor shall be required to comply with water pollution control provisions and SWPPP and conform to the requirements of the Department's Standard Specification Section 7-1.01G "Water Pollution," of the Standard Specifications.

WQ-4: If necessary, soil disturbed areas of the project site will be fully protected using soil stabilization and sediment control BMPs at the end of each day, unless fair weather is predicted.

XI. LAND USE AND PLANNING

Would the project:

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

Response to Items a), b): No Impact. According to the San Bernardino County Land Use Plan – Public San Bernardino County Map Viewer, the project segment area is mapped as Rural Living, Resource Conservation and Single Residential. The proposed project on SR-18 in San Bernardino County partially goes through the unincorporated mountain hilltop community of Arrowbear Lake and ends in the unincorporated community of Fawnskin which lies west of Big Bear Lake. The proposed project would not physically divide an established community in the project area. The proposed project involves consists of providing restoration to deteriorating culverts by repairing or replacing them using various methods such as curing in place and slip lining, the proposed project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Avoidance, Minimization, and/or Mitigation Measures

No measures are required for Land Use and Planning.

XII. MINERAL RESOURCES

Would the project:

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

Response to Items a), b): No Impact. According to the Mineral Land Classification map by the California Department of Conservation, Division of Mines and Geology, the proposed project area is located in Mineral Resource Zone (MRZ) category MRZ-4 defined as areas of no known mineral occurrences where geologic information does not rule out either the presence or absence of significant mineral resources. The proposed project consists of providing restoration to deteriorating culverts by repairing or replacing them using various methods such as curing in place and slip lining, impacts to mineral resources are not anticipated to occur.

Avoidance, Minimization, and/or Mitigation Measures

No measures are required Mineral Resources.

XIII. NOISE

Would the project result in:

Question	CEQA Determination
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	No Impact
b) Generation of excessive groundborne vibration or groundborne noise levels?	No Impact
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	No Impact

Response to Item a): No Impact. There are structures sparsely located near the alignment; therefore, there are noise-sensitive receptors located within or near the project. Temporary Construction noise impacts would occur because of the noise receptors are adjacent to the project area. Additionally, construction noise would be short term and intermittent during the 120-day (working days) construction period and construction would be conducted in accordance with Caltrans Standard Specifications Section 14.8-02 (measure **NOI-1 and NOI-2** 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.

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

Response to Item 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

The following Noise measures would be implemented to minimize potential impacts located in Caltrans' provisions in Section 14-8, "Noise Control," of the 2018 Standard Specifications and Special Provisions:

NOI-1: The contractor shall comply with all local sound control and noise level rules, regulations, and ordinances that apply to any work performed pursuant to the contract.

NOI-2: Each internal combustion engine, used for any purpose on the job or related to the job, shall be equipped with a muffler or a type recommended by the manufacturer. No internal combustion engine shall be operated on the project without the muffler.

XIV. POPULATION AND HOUSING

Would the project:

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

Response to Item a): No Impact. The proposed project would not result in any construction of new homes, businesses, nor would the project result in the need for roads or other infrastructure that would facilitate an increase in population. No direct or indirect impacts are anticipated.

Response to Item b): No Impact. The proposed project consists of providing restoration to deteriorating culverts by repairing or replacing them using various methods such as curing in place and slip lining. All culvert work will be within State Right of Way (ROW), however some culverts at various locations PM 34.64 and 34.74 will require future maintenance work and therefore require permanent drainage easements. Two Permanent Easements will be required for a culvert located at PM 34.03. However, the proposed project would not necessitate the relocation of any existing developments and/or people.

Avoidance, Minimization, and/or Mitigation Measures

No measures are required for Population and Housing.

XV. PUBLIC SERVICES

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant

environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:

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

Response to a) Fire Protection: No Impact. San Bernardino County, City of Arrowbear Lake and the City of Running Springs provide fire protection in the project vicinity. There are several fire stations within the project vicinity, which include Running Springs Fire Station 50, Deer Lick Fire Station, Arrow bear Fire Department and the Green Valley Lake Fire Department. The proposed project involves the rehabilitation and restoration of deteriorating culverts which would not result in an increase to population and therefore, no increase to the demand for community services. 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. No fire stations would be acquired or displaced.

Response to b) Police Protection: No Impact. The San Bernardino County Sheriff's Department and the California Highway Patrol (CHP), provide police protection in the project vicinity. The proposed project would not induce population growth in the area beyond that 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. Implementation of a construction-period TMP (TRF-1), which is prepared for all Caltrans highway projects, would ensure that access is maintained to and from the project area and that the police service providers are notified prior to the start of construction activities; therefore, there are no anticipated impacts.

Response to c) Schools: No Impact. Mt. Calvary Lutheran Preschool, Charles Hoffman Elementary School, Emerald Cove Outdoor Science Institute are within the project vicinity. The proposed project would not result in accessibility problems to the existing schools in the vicinity of the project and is not expected to result in any other impacts on school services.

Response to d) Parks: No Impact. As the proposed project is located near Big Bear Lake within the San Bernardino National Forest, several parks and recreational facilities are located near the project including Arrowbear Park and Tucker Field, Snowdrift Snow Tubing Park, Camp Creek National Recreational Trail 1W09 and Big Bear Lake. The proposed project would not result in adverse physical impacts to park facilities and would not result in the need for additional park facilities. No impacts are anticipated.

Response to e) Other Public Facilities: No Impact. There are no other public facilities in the immediate project area and, as such, there would be no impacts on public facilities as a result of construction or operation of the project.

Avoidance, Minimization, and/or Mitigation Measures

No measures are required for Public Services.

XVI. RECREATION

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

Response to Items a) and b): No Impact. The proposed project is located within the vicinity of the Snow Valley Mountain Resort Project recreational facility. Project implementation will not generate a substantial increase to any existing neighborhood, regional parks, or other recreational facilities such that substantial physical deterioration would occur, nor would it require the construction or expansion of existing recreational facilities.

Avoidance, Minimization, and/or Mitigation MeasureS

No measures are required for Recreation.

XVII. TRANSPORTATION

Would the project:

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

Question	CEQA Determination
d) Result in inadequate emergency access?	Less Than Significant Impact

Response to Items a) and b): No Impact. The proposed project would not conflict with any adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities. Accordingly, no impacts in this regard are expected. The project would not increase traffic because no new land uses are proposed. The project would accommodate existing traffic demand, but it would not create new demand, directly or indirectly. The project would also not reduce congestion and/or improve the level of service of traffic. The proposed project would not conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways. No impacts are anticipated.
Response to Item c): No Impact. The proposed project consists of repairing or replacing deteriorated culverts. The project will not alter or introduce new roadway geometric design features. As such, the project would not increase hazards due to a design feature or introduce any incompatible uses to the project area.

Response to Item d): Less-Than-Significant Impact. Construction activities have the potential to result in temporary, localized, site-specific disruptions during the 120-day (working days) construction period. This could lead to an increase in delay times for emergency response vehicles during construction; however, the proposed project would include the preparation and implementation of a Transportation Management Plan (TMP) (measure **TRF-1**), which would avoid or minimize any potential impacts. Applicable traffic controls (e.g., flag person, signage), as identified in the TMP, would be implemented to minimize any potential interference with any adopted emergency response plan or evacuation plan. Impacts would be less-than-significant during the construction period.

Avoidance, Minimization, and/or Mitigation Measures

The following measure would be implemented to minimize potential traffic impacts.

TRF-1: Prior to construction, a Traffic Management Plan will be developed by Caltrans to minimize potential impacts on emergency services and commuters during construction.

XVIII. TRIBAL CULTURAL RESOURCES

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and

scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

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

Response to Item a): No Impact. A Sacred Lands File request was sent out to the NAHC December 3, 2020. A response with a negative Sacred Lands File finding was received December 18, 2020. On January 26, 2021 the following Native American Tribes were contacted under Assembly Bill (AB) 52: Morongo Band of Mission Indians San Manuel Band of Mission Indians, and Twenty-Nine Palms Band of Mission Indians. The San Manuel Band of Mission Indians responded on January 28, 2021 indicating the Tribe wished to consult. On December 21, 2021, a draft copy of the Archaeological Survey Report (ASR) was sent to the Tribe. The Tribe responded on January 5, 2022 and requested information be added to a section of the ASR. The information was included in the ASR and ECR. A follow-up letter was sent to Morongo Band of Mission Indians and Twenty-Nine Palms Band of Mission Indians on May 20, 2021. No reply was received by either Tribe. A third letter was sent to Morongo Band of Mission Indians and Twenty-Nine Palms Band of Mission Indians. No responses have been received to date.

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

Avoidance, Minimization, and/or Mitigation Measures

The following measures will be included with implementation of the proposed project:

CR-1: Treatment of Previously Unidentified Cultural Resources. If buried cultural resources are encountered during project activities, it is Caltrans policy that work stop within 60 feet of the area until a qualified archaeologist can evaluate the nature and significance of the find.

CR-2: Treatment of Human Remains. In the event that human remains are found, the county coroner shall immediately be notified and ALL construction activities within 60 feet of the discovery shall stop. Pursuant to Public Resources

Code Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), who will then notify the Most Likely Descendent. The person who discovered the remains will contact the District 8 Division of Environmental Planning; Andrew Walters, DEBC: (909) 260-5178 and Gary Jones, DNAC: (909) 261-8157. Further provisions of Public Resources Code 5097.98 are to be followed as applicable.

XIX. UTILITIES AND SERVICE SYSTEMS

Would the project:

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

Response to Item a): No Impact. Construction of the project would not generate the need for additional wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities. No impacts would occur.

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

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

Response to Item d, 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 measures are required for Utility and Service Systems.

XX. WILDFIRE

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

Question	CEQA Determination
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	No Impact
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	No Impact
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	No Impact
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	No Impact

Response to Item a): No Impact. The proposed project is located in a very high fire severity zone. Construction activities have the potential to result in temporary, localized, site-specific disruptions during the construction period. This could lead to an increase in delay times for emergency response vehicles during construction. However, the proposed project would include the preparation and implementation of a TMP (measure **TRF-1**), which would avoid or minimize any potential impacts.

Response to Item b): No Impact. Based on Cal Fire, Fire Hazard Severity Zones Map of the County of San Bernardino, the proposed project contains segments that have been designated as Very High Severity Zone. The proposed project will provide restoration to deteriorating culverts by repairing or replacing them, therefore, the project will not exacerbate wildfire risks or expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a fire.

Response to Item c), and d): No Impact. The proposed project is located in a very high fire severity zone. The proposed project involves culvert rehabilitation and the implementation of CMS on SR-18, thus the project will not install infrastructure that may result in increased fire risk. The project does not propose significantly alter drainage patterns that would cause downslope or downstream flooding or landslides should a fire occur.

Avoidance, Minimization, and/or Mitigation Measures

No measures are required for Wildfire.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

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

Response to Item a): 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. Caltrans has determined the Proposed Project *May Affect, [and is] Likely to Adversely Affect ash-gray paintbrush* (*Castilleja cinerea*), a federally-listed species under the Federal Endangered Species Act (FESA), but not its designated critical habitat under the U.S. Fish and Wildlife Service (USFWS). A 2081(b) Incidental Take Permit or consistency determination for CESA compliance will take place for southern rubber boa, a State-listed as threatened species that is assumed present. The following measures **BIO-6 (Bio-General-9), BIO-7 (Bio-General-10), BIO-8 (Bio-General-11), BIO-9 (Bio-General-13), BIO-10 (Bio-General-14), BIO-1 (Bio-General-1), BIO-3 (Bio-General-4), BIO-4 (Bio-General-7), BIO-5 (Bio-General-8), BIO-14 (Bio-Anthropod-1), BIO-15 (Bio-Reptile-1), BIO-16 (Bio-Amphibian-PSM-2), BIO-17 (Bio-Avian-1), and BIO-18 (Bio-Bat-1),** would be implemented to ensure the proposed project would result in a less-than-significant impact with mitigation incorporated.

Response to Item b): No Impact. The project's impacts are either temporary and/or avoidable. In the case of temporary impacts, Caltrans standard measures will be implemented to avoid and/or minimize potential impacts. Therefore, cumulative impacts are not anticipated.

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

Avoidance, Minimization, and/or Mitigation Measures

No measures that have not already been identified for other topics are required for Mandatory Findings of Significance.

Climate Change

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to greenhouse gas (GHG) emissions, particularly those generated from the production and use of fossil fuels.
While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change (IPCC) by the United Nations and World Meteorological Organization in 1988 led to increased efforts devoted to GHG emissions reduction and climate change research and policy. These efforts are primarily concerned with the emissions of GHGs generated by human activity, including carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF_6), and various hydrofluorocarbons (HFCs). CO_2 is the most abundant GHG; while it is a naturally occurring component of Earth's atmosphere, fossil-fuel combustion is the main source of additional, human-generated CO_2.

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

REGULATORY SETTING

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

Federal

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

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

The Federal Highway Administration (FHWA) recognizes the threats that extreme weather, sea-level change, and other changes in environmental conditions pose to valuable transportation infrastructure and those who depend on it. FHWA therefore supports a sustainability approach that assesses vulnerability to climate risks and incorporates resilience into planning, asset management, project development and design, and operations and maintenance practices (FHWA 2019). This approach encourages planning for sustainable highways by addressing climate risks while

balancing environmental, economic, and social values— “the triple bottom line of sustainability” (FHWA n.d.). Program and project elements that foster sustainability and resilience also support economic vitality and global efficiency, increase safety and mobility, enhance the environment, promote energy conservation, and improve the quality of life.

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

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

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

State

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

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

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

Section 38551(b)). The law requires ARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions.

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

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

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

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

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

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

SB 1386, Chapter 545, 2016, declared "it to be the policy of the state that the protection and management of natural and working lands … is an important strategy in meeting

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

the state's greenhouse gas reduction goals, and would require all state agencies, departments, boards, and commissions to consider this policy when revising, adopting, or establishing policies, regulations, expenditures, or grant criteria relating to the protection and management of natural and working lands."

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

SB 743**,** Chapter 386 (September 2013): This bill changes the metric of consideration for transportation impacts pursuant to CEQA from a focus on automobile delay to alternative methods focused on vehicle miles travelled, to promote the state's goals of reducing greenhouse gas emissions and traffic related air pollution and promoting multimodal transportation while balancing the needs of congestion management and safety.

SB 150**,** Chapter 150, 2017, Regional Transportation Plans: This bill requires ARB to prepare a report that assesses progress made by each metropolitan planning organization in meeting their established regional greenhouse gas emission reduction targets.

EO B-55-18 (September 2018) sets a new statewide goal to achieve and maintain carbon neutrality no later than 2045. This goal is in addition to existing statewide targets of reducing GHG emissions.

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

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

ENVIRONMENTAL SETTING

The proposed project area is mountainous, with large open space and resource conservation areas, as well as commercial, residential, recreational, and public facility land uses within the cities of Running Spring, Big Bear and the unincorporated area of Arrowbear Lake and Green Valley Lake. The project runs along SR-18 in San Bernardino County from PM 34.0 to PM 44.3. SR-18 is a part of the San Bernardino

County Transportation Authority (SBCTA) regional planning jurisdiction. SR-18 provides a major regional connection between the mountain area of Running Springs, Arrowbear Lake, Green Valley Lake, City of Big Bear and the City of San Bernardino and has been identified as a conventional highway with varying enhancement needs.

A GHG emissions inventory estimates the amount of GHGs discharged into the atmosphere by specific sources over a period of time, such as a calendar year. Tracking annual GHG emissions allows countries, states, and smaller jurisdictions to understand how emissions are changing and what actions may be needed to attain emission reduction goals. U.S. EPA is responsible for documenting GHG emissions nationwide, and the ARB does so for the state, as required by H&SC Section 39607.4.

National GHG Inventory

The U.S. EPA prepares a national GHG inventory every year and submits it to the United Nations in accordance with the Framework Convention on Climate Change. The inventory provides a comprehensive accounting of all human-produced sources of GHGs in the United States, reporting emissions of CO_2, CH_4, N_2O, HFCs, perfluorocarbons, SF_6, and nitrogen trifluoride. It also accounts for emissions of CO_2 that are removed from the atmosphere by “sinks” such as forests, vegetation, and soils that uptake and store CO_2 (carbon sequestration). The 1990 2019 inventory found that overall GHG emissions were 6,558 million metric tons (MMT) in 2019, down 1.7 percent from 2018 but up 1.8% from 1990 levels. Of these, 80 percent were CO2, 10 percent were CH4, and 7 percent were N2O; the balance consisted of fluorinated gases. CO2 emissions in 2019 were 2.2 percent less than in 2018, but 2.8 percent more than in 1990. As shown on Figure 3-1, the transportation sector accounted for 29 percent of U.S. GHG emissions in 2019 (U.S. EPA 2021a, 2021b).

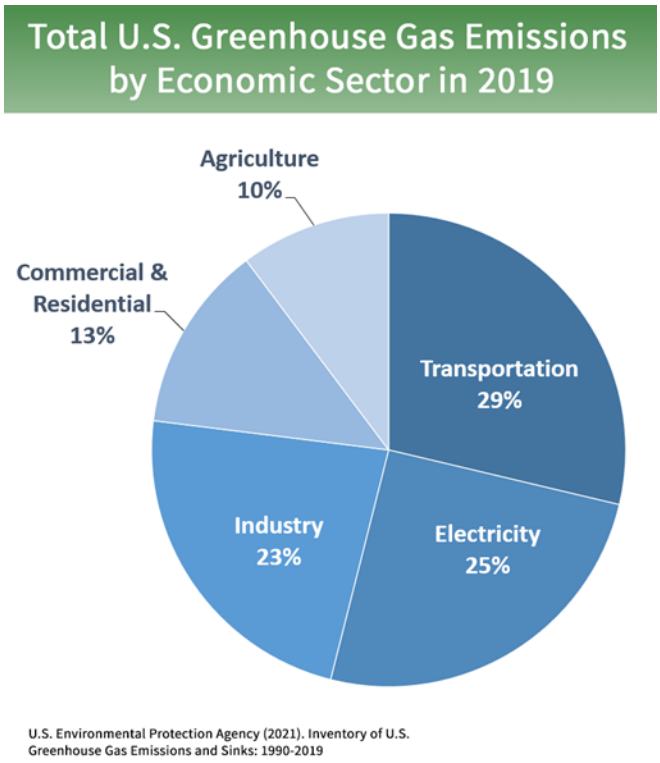

Figure 3-1. U.S. 2019 Greenhouse Gas Emissions (Source: U.S. EPA 2021c)

State GHG Inventory

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

The 2020 edition of the GHG emissions inventory reported emissions trends from 2000 to 2018. It found total California emissions were 425.3 $MMTCO_2e$ in 2018, 0.8 $MMTCO_2e$ higher than 2017 but 6 $MMTCO_2e$ lower than the statewide 2020 limit of 431 MMT CO_2e. The transportation sector was responsible for 41 percent of total GHGs. Transportation emissions decreased in 2018 compared to the previous year, which is the first year over year decrease since 2013. Overall statewide GHG emissions declined from 2000 to 2018 despite growth in population and state economic output (ARB 2020a).

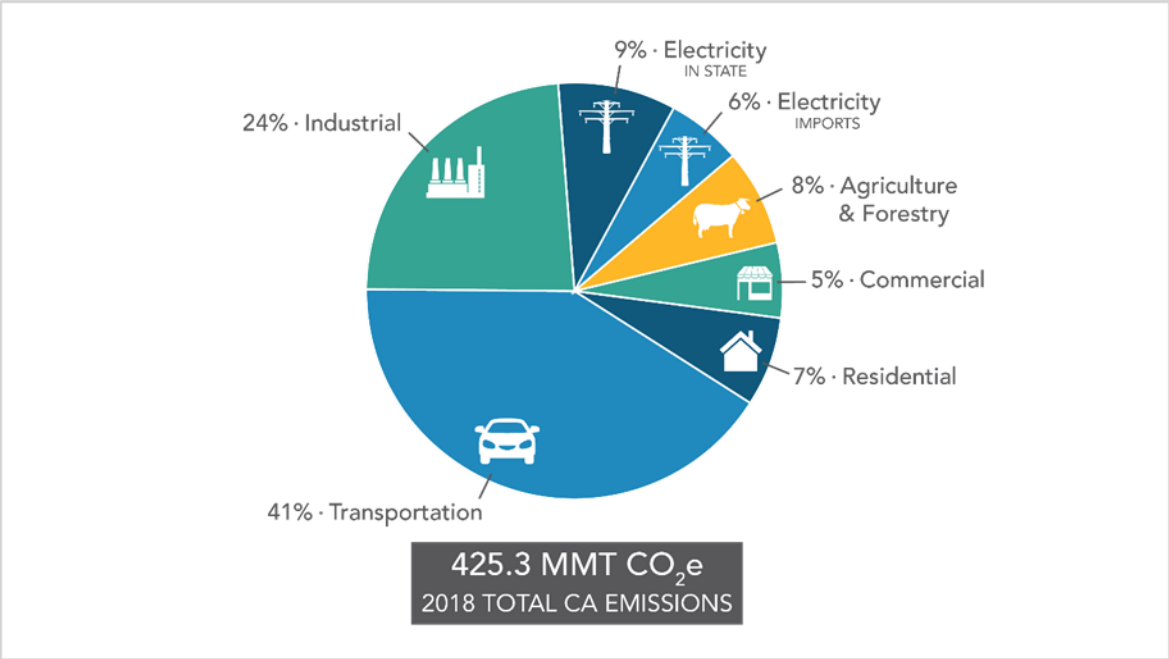

Figure 3-2. California 2018 Greenhouse Gas Emissions by Economic Sector (Source: ARB 202b)

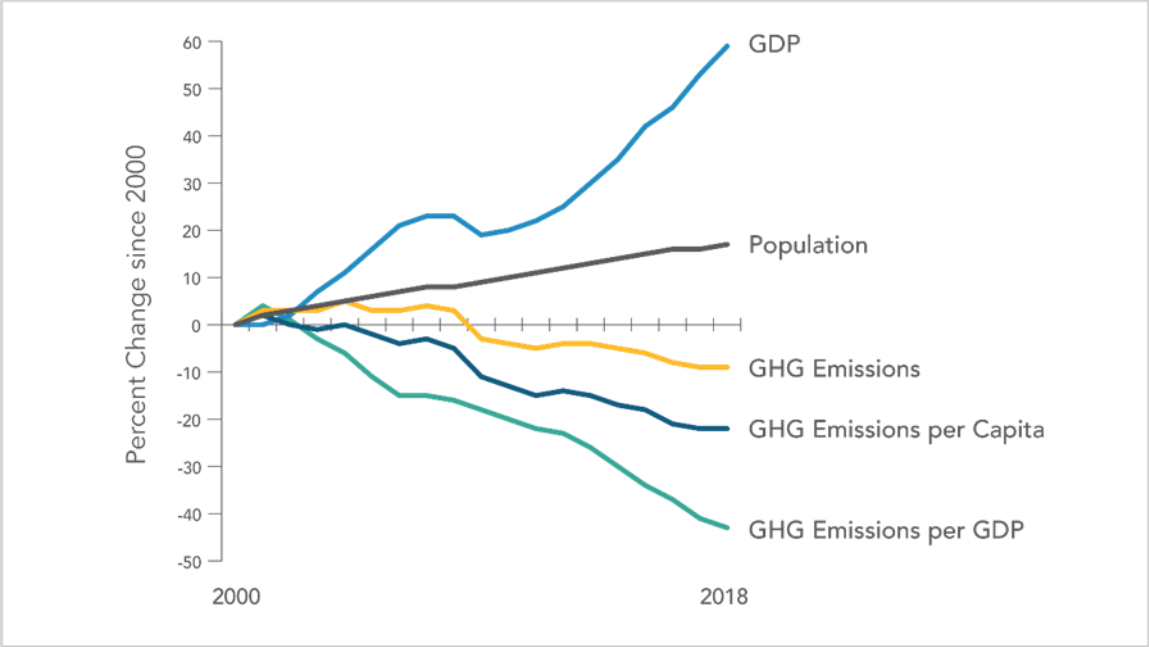

Figure 3-3. Change in California GDP, Population, and GHG Emissions since 2000 (Source: ARB 2020b)

AB 32 required ARB to develop a Scoping Plan that describes the approach California will take to achieve the goal of reducing GHG emissions to 1990 levels by 2020, and to update it every 5 years. ARB adopted the first scoping plan in 2008. The second updated plan, *California's 2017 Climate Change Scoping Plan*, adopted on December

14, 2017, reflects the 2030 target established in EO B-30-15 and SB 32. The AB 32 Scoping Plan and the subsequent updates contain the main strategies California will use to reduce GHG emissions.

Regional Plans

CARB sets regional targets for California's 18 MPOs to use in their Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) to plan future projects that will cumulatively achieve GHG reduction goals. Targets are set at a percent reduction of passenger vehicle GHG emissions per person from 2005 levels. The proposed project is included in the RTP/SCS for Southern California Association of Governments (SCAG) The regional reduction target for SCAG is 8 percent for 2020 and 19 percent for 2035 (ARB 2019).

Table 2. Regional and Local Greenhouse Gas Reduction Plans

Title	GHG Reduction Strategies and Goals
Southern California Association of Governments *2020–2045 Regional Transportation Plan/Sustainable Communities Strategy* (adopted September 2020)	• Improve mobility, accessibility, reliability, and travel safety for people and goods. • Improve mobility, accessibility, reliability, and travel safety for people and goods. • Enhance the preservation, security, and resilience of the regional transportation system. • Adapt to a changing climate and support an integrated regional development pattern and transportation network
San Bernardino County Regional Greenhouse *Gas Reduction Plan* (adopted March 2021)	• Roadway improvements, including signal synchronization and transportation demand management. • Encourage use of Mass Transit, Carpooling, Ridesharing, and Telecommuting • Expand Bike Routes Including Pedestrian and Bicycle Friendly Streets. • Expand renewable fuel/low-emission vehicle use. • Idling Ordinances • Community Fleet Electrification

	• Electric Powered Construction Equipment • Electric Landscaping Equipment

PROJECT ANALYSIS

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

The CEQA Guidelines generally address greenhouse gas emissions as a cumulative impact due to the global nature of climate change (Pub. Resources Code, § 21083(b)(2)). As the California Supreme Court explained, “because of the global scale of climate change, any one project's contribution is unlikely to be significant by itself.” (Cleveland National Forest Foundation *v.* San Diego Assn. of Governments (2017) 3 Cal.5th 497, 512.) In assessing cumulative impacts, it must be determined if a project’s incremental effect is “cumulatively considerable” (CEQA Guidelines Sections 15064(h)(1) and 15130).

To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. Although climate change is ultimately a cumulative impact, not every individual project that emits greenhouse gases must necessarily be found to contribute to a significant cumulative impact on the environment.

Operational Emissions

The purpose of the proposed project is to repair or replace deteriorated culverts 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, near Arrow-bear Lake, no increase in vehicle miles traveled (VMT) would occur as result of project implementation. While some GHG emissions during the construction period would be unavoidable, no increase in operational GHG emissions is expected.

Construction Emissions

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

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

Construction-period GHG emissions were modeled using the Caltrans Construction Emissions Tool (CAL-CET) Model. Short-term construction activities would result in GHG emissions from fuel combustion associated with off- and on-road construction equipment and vehicles, which would result in estimated emissions of 205 tons of CO2-equivalent (CO2e) over the approximate 120-day construction period.

All construction contracts include Caltrans Standard Specifications Section 7-1.02A and 7-1.02C, Emissions Reduction, which require contractors to comply with all laws applicable to the project and to certify they are aware of and will comply with all ARB emission reduction regulations; and AQ-1 Air Pollution Control, which 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

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

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

GREENHOUSE GAS REDUCTION STRATEGIES

Statewide Efforts

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

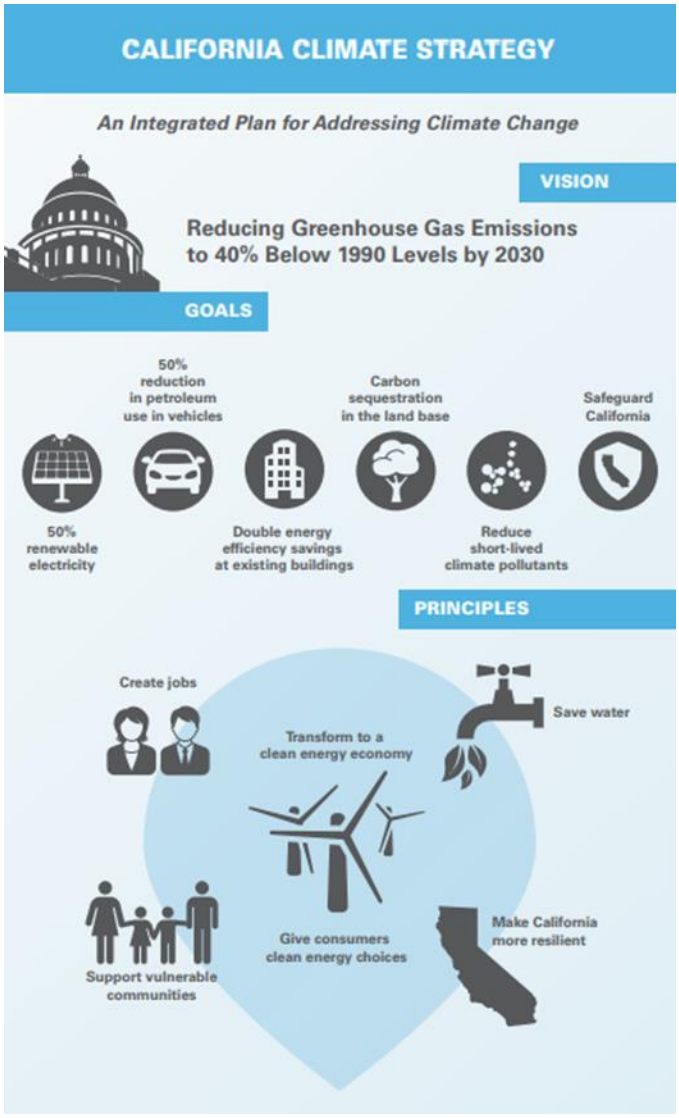

Figure 4. California Climate Strategy

The transportation sector is integral to the people and economy of California. To achieve GHG emission reduction goals, it is vital that the state build on past successes in reducing criteria and toxic air pollutants from transportation and goods movement. GHG emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and reduction of vehicle miles traveled (VMT). A key state goal for reducing GHG emissions is to reduce today's petroleum use in cars and trucks by up to 40 percent by 2030 (California Environmental Protection Agency 2015).

In addition, SB 1386 (Wolk 2016) established as state policy the protection and management of natural and working lands and requires state agencies to consider that policy in their own decision making. Trees and vegetation on forests, rangelands, farms, and wetlands remove carbon dioxide from the atmosphere through biological processes and sequester the carbon in above- and below-ground matter. Subsequently, Governor Gavin Newsom issued Executive Order N-82-20 to combat the crises in climate change

and biodiversity. It instructs state agencies to use existing authorities and resources to identify and implement near- and long-term actions to accelerate natural removal of carbon and build climate resilience in our forests, wetlands, urban greenspaces, agricultural soils, and land conservation activities in ways that serve all communities and in particular low-income, disadvantaged and vulnerable communities. Each agency is to develop a Natural and Working Lands Climate Smart Strategy that serves as a framework to advance the State's carbon neutrality goal and build climate resilience.

Caltrans Activities

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

California Transportation Plan

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

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

Caltrans Strategic Plan

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

engaging with the most vulnerable communities in developing and implementing Caltrans climate action activities (Caltrans 2021b).

FUNDING AND TECHNICAL ASSISTANCE PROGRAMS

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

CALTRANS POLICY DIRECTIVES AND OTHER INITIATIVES

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

Project-Level GHG Reduction Strategies

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

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

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

Caltrans Standard Specifications Section 14-9, Air Quality, a part of all construction contracts, requires contractors to comply with all federal, state, regional, and local rules, regulations, and ordinances related to air quality.
Requirements of the South Coast Air Quality Management District (SCAQMD) will apply to this project. Requirements that reduce vehicle emissions, such as limits on idling time, may help reduce GHG emissions.

ADAPTATION

Reducing GHG emissions is only one part of an approach to addressing climate change. Caltrans must plan for the effects of climate change on the state's transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and their intensity, and in the frequency and intensity of wildfires. Flooding and erosion can damage or wash out roads; longer periods of intense heat can buckle pavement and railroad tracks; storm surges combined with a rising sea level can inundate highways. Wildfire can directly burn facilities and indirectly cause damage when rain falls on denuded slopes that landslide after a fire. Effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. Accordingly, Caltrans must consider these types of climate stressors in how highways are planned, designed, built, operated, and maintained.

Federal Efforts

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

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

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

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

State Efforts

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system. *California's Fourth Climate Change Assessment* (2018) is the state's effort to "translate the state of climate science into useful information for action" in a variety of sectors at both statewide and local scales. It adopts the following key terms used widely in climate change analysis and policy documents:

- *Adaptation* to climate change refers to adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.
- *Adaptive capacity* is the "combination of the strengths, attributes, and resources available to an individual, community, society, or organization that can be used to prepare for and undertake actions to reduce adverse impacts, moderate harm, or exploit beneficial opportunities."
- *Exposure* is the presence of people, infrastructure, natural systems, and economic, cultural, and social resources in areas that are subject to harm.
- *Resilience* is the "capacity of any entity – an individual, a community, an organization, or a natural system – to prepare for disruptions, to recover from shocks and stresses, and to adapt and grow from a disruptive experience". Adaptation actions contribute to increasing resilience, which is a desired outcome or state of being.
- *Sensitivity* is the level to which a species, natural system, or community, government, etc., would be affected by changing climate conditions.
- *Vulnerability* is the "susceptibility to harm from exposure to stresses associated with environmental and social change and from the absence of capacity to adapt." Vulnerability can increase because of physical (built and environmental), social, political, and/or economic factor(s). These factors include, but are not limited to: ethnicity, class, sexual orientation and identification, national origin, and income inequality. Vulnerability is often defined as the combination of sensitivity and adaptive capacity as affected by the level of exposure to changing climate.

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

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

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

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

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

Caltrans Adaptation Efforts

Caltrans Vulnerability Assessments

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

- *Exposure* – Identify Caltrans assets exposed to damage or reduced service life from expected future conditions.
- *Consequence* – Determine what might occur to system assets in terms of loss of use or costs of repair.
- *Prioritization* – Develop a method for making capital programming decisions to address identified risks, including considerations of system use and/or timing of expected exposure.

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

Project Adaptation Analysis

Caltrans District 8 completed a Climate Change Vulnerability Assessment in June of 2019. This assessment estimated the effects of climate change on Caltrans infrastructure and projects in San Bernardino and Riverside Counties with regards to temperature, precipitation, wildfire, extreme weather impacts, and decision-making going forward.

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.

Floodplains and Precipitation

According to the Federal Emergency Management Agency (FEMA), the project site is situated within Zone D, which includes areas in which flood hazards are undetermined but possible. Per Caltrans Climate Change Vulnerability Assessment Map, 2025 100-year precipitation depth in the project area is estimated to increase an average of 9.1 to 9.4 percent over the length of the project. 2055 and 2085 increases are estimated at 12.0 to 12.8 percent and 10.2 to 11.5 percent respectively (Caltrans 2019b). The project will maintain or improve the capacity, and therefore the resilience, of the drainage systems. The project is not anticipated to exacerbate the impacts of flooding intensified by climate change.

Wildfire

According to the map by CalFire's Fire and Resource Assessment Program (CALFIRE 2007), some segments of the proposed project location are in "Very High" fire hazard zones. The proposed project segments Responsibility Area of the SR-18 included in the project limits is in a Federal Responsibility Area (FRA). According to the District 8 Draft Climate Vulnerability Assessment (Caltrans 2019) Wildfire risk is the greatest in the district's more-densely forested areas. The greatest wildfire risk areas border Los Angeles, Orange, and San Diego Counties, where Angeles National Forest meets the San Bernardino Mountains and National Forest. District 8 can mitigate wildfire risk in these areas by using fire-resistant materials, maintaining defensible space, and using

fire-safe landscaping. The district can also limit wildfire concern by actively reducing fuel through dead or diseased tree removal and thinning practices. The project would not introduce new structures or uses that exacerbate fire risk or would be vulnerable to fire damage. Caltrans 2018 revised Standard Specification 7-1.02M(2) mandates fire prevention procedures during construction, including a fire prevention plan. Accordingly, the project is not anticipated to exacerbate the impacts of wildfires intensified by climate change.

Public Involvement and Draft IS Circulation

Early and continuing coordination with the general public and appropriate public agencies is an essential part of the environmental process. It helps planners determine the 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 and Project Development Team (PDT) meetings. This section summarizes the results of Caltrans' efforts to fully identify, address, and resolve project-related issues through early and continuing coordination.

U.S. Fish and Wildlife Service

A list of threatened and endangered species was obtained from the USFWS on September 28, 2021.

Native American Tribes

On January 26, 2021 the following Native American Tribes were contacted: Morongo Band of Mission Indians San Manuel Band of Mission Indians, and Twenty-Nine Palms Band of Mission Indians. The San Manuel Band of Mission Indians responded on January 28, 2021 indicating the Tribe wished to consult. On December 21, 2021, a draft copy of the Archaeological Survey Report (ASR) was sent to the Tribe. The Tribe responded on January 5, 2022 and requested information be added to a section of the ASR. The information was included in the ASR and ECR. A follow-up letter was sent to Morongo Band of Mission Indians and Twenty-Nine Palms Band of Mission Indians on May 20, 2021. No reply was received by either Tribe. A third letter was sent to Morongo Band of Mission Indians and Twenty-Nine Palms Band of Mission Indians. No responses have been received to date.

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Appendix A Maps

- Figure 5. Project Vicinity Map
- Figure 6. Aerial Project Location Map
- Figure 7. Project Location Map

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Figure 5. Vicinity Map

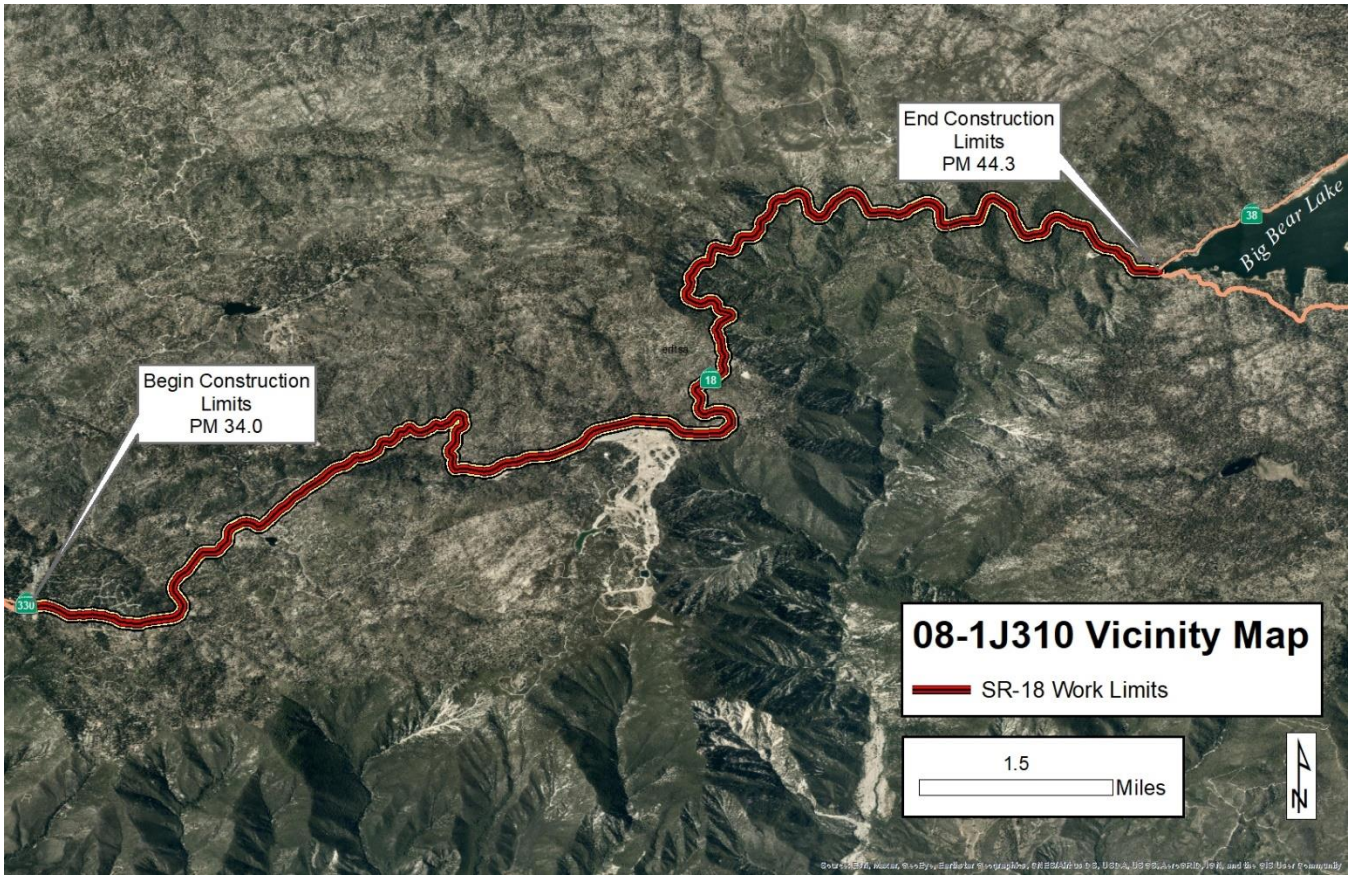

Figure 6. Aerial Project Location Map

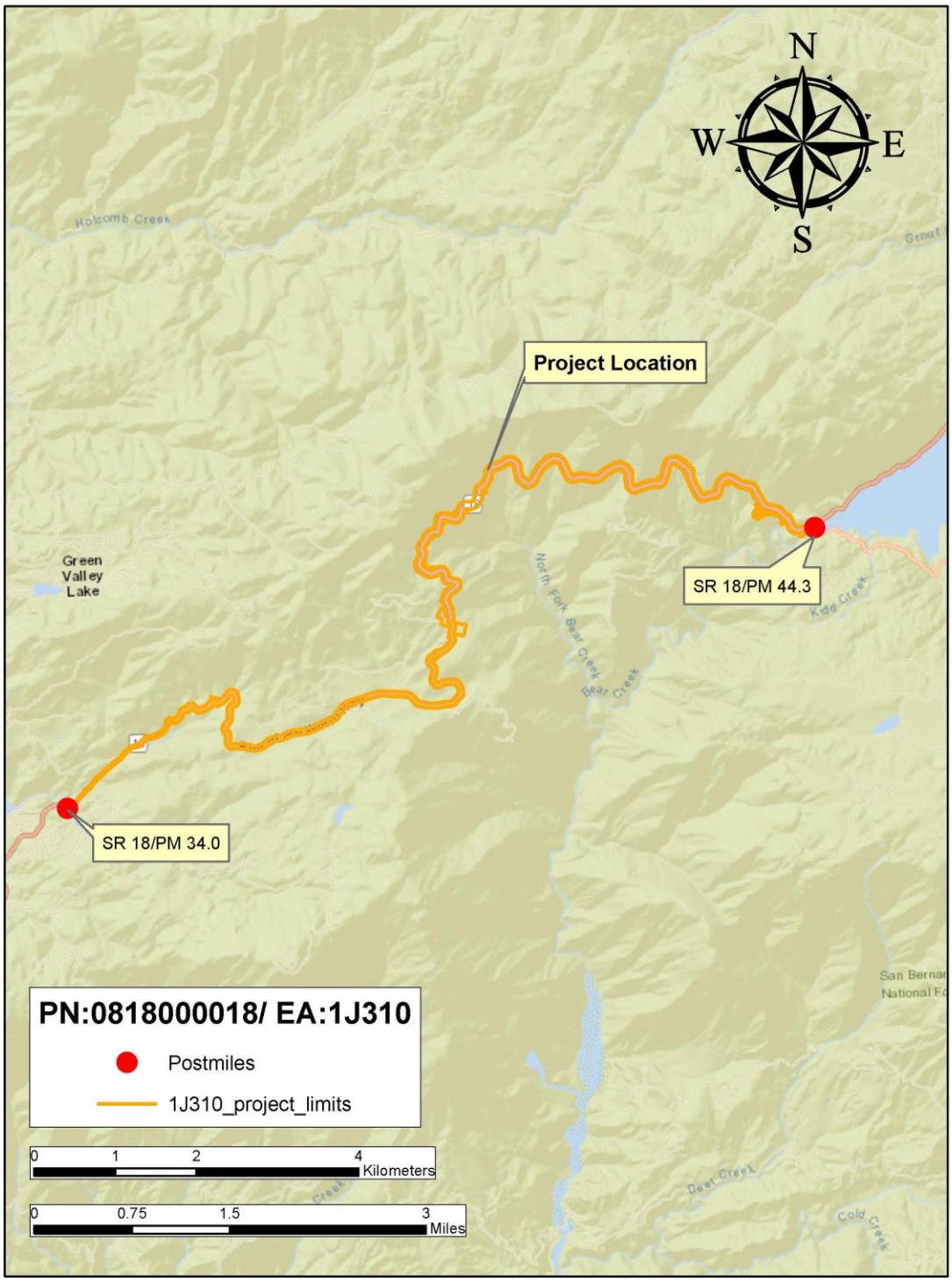

Figure 7. Project Location Map

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Appendix B Distribution List

A public notice of this IS and/or a Notice of Intent to Adopt a Mitigated Negative Declaration was distributed to federal, state, regional and local agencies, elected officials and utilities and service providers. In addition, Notice of Intent was published in the local newspaper with instructions to access the Draft Environmental Document for public comment.

Mountain Community Alliance P.O Box 8303 Green Valley Lake, CA 92341	US Dept of Agriculture Forest Service Mountaintop Ranger District San Bernardino National Forest PO Box 290 Fawnskin, CA 92333	US Dept of Agriculture Forest Service San Bernardino National Forest Forest Headquarters 602 S. Tippecanoe Ave. San Bernardino, CA 92408
Jim Ozias, Fire Chief Station 271 Arrowbear Lake Fire Department 33045 Hilltop Blvd. Running Springs, California 92382	Tony Grabow, Interim Fire Chief Station 51 (Fire Department HQ) 31250 Hilltop Blvd. Running Springs, CA 92382 Mailing Address: P. O. Box 2206 Running Springs, CA 92382	California Highway Patrol (CHP) 31230 CA-18 Running Springs, CA 92382
San Bernardino County Sheriff's Department 655 East Third Street San Bernardino, CA 92415	California Department of Fish and Wildlife Region 6 3602 Inland Empire Blvd., Suite C-220 Ontario, CA 91764	Snow Valley Mountain Resort 35100 STATE HWY 18 P.O. Box 2337 Running Springs, CA. 92382
Blondie's Grille and Bar 33227 Hilltop Blvd., Highway 18 Running Springs, CA 92382	San Bernardino County Planning Dept. 385 N. Arrowhead Ave., First Floor San Bernardino, CA 92415	Arrowbear Park County Water District P.O. Box 4045, Arrowbear Lake, CA 92382-4045
State Assembly Member Thurston Smith 33rd Assembly District 9700 7th Avenue, Suite 227 Hesperia, CA 92345	State Senate Member Rosilicie Ochoa Bogh 23rd Senate District 1758 Orange Tree Lane, Suite B Redlands, CA 92374	Jay Obernolte Hesperia District Office 9700 Seventh Ave., Suite 201 Hesperia, CA 92345

Running Springs Chamber of Commerce P.O. Box 96 Running Springs, CA 92382	Rim of the World Recreation and Park District P.O. Box 8 26577 State Highway 18, Rimforest, CA 92378	Brian K. Seccombe P.O Box 4004 Running Springs, CA 92382
Silvia Hernandez 15283 Gaviota Ct. Victorville, CA 92394-9572	William G. Wyatt & Crystal L. Wyatt P.O Box 2008 Running Springs, CA 92382-2008	Kevin Johnston 2288 Buena Vista Ave. Livermore, CA 94550
Santa Ana Regional Water Quality Control Board 3737 Main Street, Suite 500 Riverside, CA 92501-3348	Janice Rutherford Supervisor, District 2 San Bernardino County Board of Supervisors 385 N. Arrowhead Ave., Fifth Floor San Bernardino, CA 92415-0110	Dawn Rowe Supervisor, District 3 San Bernardino County Board of Supervisors 385 N. Arrowhead Ave., Fifth Floor San Bernardino, CA 92415-0110
U.S. Army Corps of Engineers Los Angeles District 915 Wilshire Blvd. Los Angeles, CA 90017		

Appendix C List of Preparers

The following personnel contributed to the preparation of this IS:

California Department of Transportation

- Adam Compton, Senior Environmental Planner, Regulatory Permits
- Gabrielle Duff, Senior Environmental Planner, Environmental Studies "B"
- Nancy Frost, Senior Environmental Planner, Biological Studies
- Phong Hoang, Civil Engineer/Environmental Engineering, Environmental Engineering "A"
- Edison Jaffery, Civil Engineer/Environmental Engineering, Environmental Engineering "A"
- Andrew Kuria, Environmental Planner (Generalist), Environmental Studies "B"
- Gabriella Machal, Associate Environmental Planner, Biological Studies
- Alison Mitchell, Associate Environmental Planner, Regulatory Permits
- Rodrigo Panganiban, Civil Engineer/Environmental Engineering, Environmental Engineering "A"
- Paul Phan, Civil Engineer/Environmental Engineering, Branch Chief: Environmental Engineering "A"
- Victoria Stosel, Associate Environmental Planner, Cultural Studies
- Andrew Walters, Senior Environmental Planner, Cultural Studies

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Appendix D Title VI Policy Statement

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

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

Making Conservation a California Way of Life.

November 2019

NON-DISCRIMINATION POLICY STATEMENT

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

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

For information or guidance on how to file a complaint, or obtain more information regarding Title VI, please contact the Title VI Branch Manager at (916) 324-8379 or visit the following web page: https://dot.ca.gov/programs/business-and-economic-opportunity/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 Business and Economic Opportunity, at 1823 14th Street, MS-79, Sacramento, CA 95811; (916) 324-8379 (TTY 711); or at Title.VI@dot.ca.gov.

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Director

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Appendix E List of Technical Studies

Historic Property Survey Report, SR-18 Culvert Rehabilitation, 08-SBD-18-PM 34.0/44.3, EA 1J310/0818000018. Prepared by Victoria Stosel, Caltrans, February 2022.

Supplemental Historic Property Survey Report, SR-18 Culvert Rehabilitation, 08-SBD-18-PM 34.0/44.3, EA 1J310/0818000018. Prepared by Victoria Stosel, Caltrans, March 2022.

Visual Impact Assessment for SR-18 Culver Rehabilitation, 08-SBD-18- PM 34.0/44.3, EA 1J310/0818000018. Prepared by Almabeth Anderson, Caltrans, January 2022.

Initial Site Assessment (ISA) Checklist for SR-18 Culvert Rehabilitation, 08-SBD-18- PM 34.0/44.3, EA 1J310/0818000018. Prepared by Christian Duran, Caltrans, December 2021.

Natural Environment Study, 26 Culverts Rehabilitation, 08-SBD-18- PM 34.0/44.3, EA 1J310/0818000018. Prepared by Gabriella Machal, Caltrans, March 2022.

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Appendix F Environmental Commitments Record

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.

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Permit Type	Agency	**Date Received**	**Expiration**	**Notes**
1600	California Department of Fish & Wildlife	N/A	N/A	N/A
2081	Incidental Take Permit from California Department of Fish & Wildlife	N/A	N/A	N/A
404	Nationwide Verification from U.S. Army Corps of Engineers	N/A	N/A	N/A
401	Report of Waste Discharge (WDR) from the State Water Resources Quality Control Board	N/A	N/A	N/A

Date of ECR: Feb, 2022
Date:

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

ENVIRONMENTAL COMMITMENTS RECORD
(SR-18 Culvert Rehabilitation)

PM 34.0-44.3
EA 08-1J310
PN: **0818000018**
Generalist: **Andrew Kuria**
ECL: **TBD**

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: Feb, 2022
Date:

Project Phase:
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ENVIRONMENTAL COMMITMENTS RECORD
(SR-18 Culvert Rehabilitation)

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							Date / Initials	**Date / Initials**	**YES**	**NO**
CUL-1: If cultural materials are discovered during construction, all earthmoving activity within 60 feet of the discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.		Historic Property Survey Report February 2, 2022	District Cultural Studies/ District Design/ Resident Engineer/ Contractor	Design/ Construction	SP: 14-2.03A					
CUL-2: In the event that human remains are found the county coroner shall be notified and ALL construction activities within 60 feet of the discovery shall stop. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American		Historic Property Survey Report February 2, 2022	District Cultural Studies/ District Design/ Resident Engineer/ Contractor	Final Design, Construction	SP: 14-2.03A					

Date of ECR: Feb, 2022
Date:

Project Phase:
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							Date / Initials	Date / Initials	YES	NO
Heritage Commission (NAHC) who will then notify the Most Likely Descendent (MLD). The person who discovered the remains will contact the District 8 Division of Environmental Planning; Andrew Walters, DEBC: (909) 260-5178and Gary Jones, DNAC: (909) 261-8157. Further provisions of Public Resources Code 5097.98 are to be followed as applicable.										
BIOLOGICAL RESOURCES										
BIO-1 (BIO-General-1) Equipment Staging, Storing & Borrow Sites: All staging, storing, and borrow sites		Natural Environment Study	Resident Engineer/ Authorized Biologist/ Contractor	Pre-Construction, During						

Date of ECR: Feb, 2022
Date:

Project Phase:
☒ PA/ED (*DED/FED*)
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ENVIRONMENTAL COMMITMENTS RECORD
(SR-18 Culvert Rehabilitation)

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EA 08-1J310
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							Date / Initials	Date / Initials	YES	NO
require the approval of the Contractor Supplied Biologist.		February 1, 2022		Construction						
BIO-2 (BIO-General-8): Temporary Artificial Lighting: To address impacts to special status bat species, artificial lighting must be directed at the job site to minimize light spillover onto the PIA if project activities occur at night.		Natural Environment Study February 1, 2022	Resident Engineer/ Authorized Biologist/ Contractor	Pre-Construction, During Construction						
BIO-3 (Bio-General-4) Preconstruction Surveys: Preconstruction bat surveys		Natural Environment Study	Resident Engineer/ Authorized	Pre-Construction,						

Date of ECR: Feb, 2022
Date:

Project Phase:
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ENVIRONMENTAL COMMITMENTS RECORD
(SR-18 Culvert Rehabilitation)

PM 34.0-44.3
EA 08-1J310
PN: **0818000018**
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							Date / Initials	Date / Initials	YES	NO
must be conducted by a Caltrans approved biologist 3 days prior to project activities within the BSA and any culverts with a large enough diameter to accommodate bats. Preconstruction southern rubber boa surveys must be conducted by a Caltrans approved biologist 3 days prior to project activities. Southern rubber boa surveys must be completed along the entirety of SR-18 within 500 feet of the PIA. If a special-status reptile species is located, the Resident Engineer and Caltrans		February 1, 2022	Biologist/ Contractor	Construction						

Date of ECR: Feb, 2022
Date:

Project Phase:
☒ PA/ED (*DED/FED*)
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ENVIRONMENTAL COMMITMENTS RECORD
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PM 34.0-44.3
EA 08-1J310
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							Date / Initials	**Date / Initials**	**YES**	**NO**
Biologist must be contacted and additional measures and/or agency coordination may be required.										
BIO-4 (Bio-General-7) Worker Environmental Awareness Program (WEAP): A Contractor supplied biologist must present a biological resource information program/WEAP for special status birds, reptiles, ash-gray paintbrush (Castilleja cinerea), southern		Natural Environment Study February 1, 2022	Resident Engineer/ Authorized Biologist/ Contractor	Pre-Construction, Construction						

Date of ECR: Feb, 2022
Date:

Project Phase:
☒ PA/ED (*DED/FED*)
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PM 34.0-44.3
EA 08-1J310
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							Date / Initials	Date / Initials	YES	NO
rubber boa (Charina umbratica), and special-status bat species and plants 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-5 (Bio-General-8) Biological Monitor: The Caltrans approved biologist must monitor project activities throughout the entirety of the project to ensure that		Natural Environment Study February 1, 2022	Resident Engineer/ Authorized Biologist/ Contractor	Pre-Construction, Construction						

Date of ECR: Feb, 2022
Date:

Project Phase:
☒ PA/ED (*DED/FED*)
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PM 34.0-44.3
EA 08-1J310
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							Date / Initials	**Date / Initials**	**YES**	**NO**
measures are being implemented and documented.										
BIO- 6 (Bio-General-9) Environmentally Sensitive Area (ESA): To address impacts to ash-gray paintbrush, delineate this area as an ESA as shown on the plans and/or described in the specifications.		Natural Environment Study February 1, 2022	Resident Engineer/ Authorized Biologist/ Contractor	Pre-Construction, Construction						

Date of ECR: Feb, 2022
Date:

Project Phase:
☒ PA/ED (*DED/FED*)
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☐ Construction

ENVIRONMENTAL COMMITMENTS RECORD
(SR-18 Culvert Rehabilitation)

PM 34.0-44.3
EA 08-1J310
PN: **0818000018**
Generalist: **Andrew Kuria**
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							Date / Initials	Date / Initials	YES	NO
BIO- 7 (Bio-General-10) Environmentally Sensitive Area (ESA) Fence Monitoring: Integrity inspections of ash-gray paintbrush fencing and enclosures (onsite cleared areas) must occur throughout the duration of the project 3 days prior to commencing project activities are completed. If during construction the fence fails, work must stop until it is repaired, and the Caltrans approved biologist inspects (and clears) the job site.		Natural Environment Study February 1, 2022	Resident Engineer/ Authorized Biologist/ Contractor	Pre-Construction, Construction	14-6.03A					

Date of ECR: Feb, 2022
Date:

Project Phase:
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PM 34.0-44.3
EA 08-1J310
PN: **0818000018**
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							Date / Initials	Date / Initials	YES	NO
BIO-8 (Bio-General-11) Environmentally Sensitive Area (ESA) Fence Removal: All fencing must be removed as a last order of work. During removal, a Caltrans approved biologist must be present.		Natural Environment Study February 1, 2022	Resident Engineer/ Authorized Biologist/ Contractor	Pre-Construction, Construction						
BIO-9 (Bio-General-13) Animal Sheltering: To prevent inadvertent harm of large-botched salamanders 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		Natural Environment Study February 1, 2022	Resident Engineer/ Authorized Biologist/ Contractor	Pre-Construction, Construction						

Date of ECR: Feb, 2022
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Project Phase:
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PM 34.0-44.3
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							Date / Initials	**Date / Initials**	**YES**	**NO**
use or movement of those materials. Sheltering animals must be released by the Caltrans approved biologist.										
BIO-10 (Bio-General-14) Predator Prevention: Project personnel are prohibited from feeding wildlife or bringing pets onto the job site.		Natural Environment Study February 1, 2022	Resident Engineer/ Authorized Biologist/ Contractor	Pre-Construction, Construction						
BIO-11 (Bio-General-16) Invasive Weed Control: A Contractor Supplied biologist must identify CAL-IPC noxious weed species Limited species: soft brome (Bromus hordeaceus), English plantain		Natural Environment Study February 1, 2022	Resident Engineer/ Authorized Biologist/ Contractor	Pre-Construction, Construction						

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							Date / Initials	Date / Initials	YES	NO
(Plantago lanceolata), black locust (Robinia pseudoacacia), bouncing bet (Saponaria officinalis), woolly mullein (Verbascum thapsus). CAL-IPC Moderate rated species: ripgut brome (Bromus diandrus), musk thistle (Carduus nutans), bull thistle (Cirsium vulgare), Fuller's teasel (Dipsacus fullonum, D. sativus), barley (Hordeum murinum), dalmatian toad flax (Linaria genistifolia ssp. dalmatica), tall fescue (Schedonorus phoenix), and periwinkle (Vinca major). CAL-IPC High									

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							Date / Initials	Date / Initials	YES	NO
rated species: spotted knapweed (Centaurea stoebe ssp. micranthos), Himalayan blackberry (Rubus discolor), and Spanish broom (Spartium junceum). Non CAL-IPC rated species: Joined goatgrass (Aegilops cylindrica), tall wheatgrass (Elytrigia elongata), intermediate wheatgrass (Elytrigia intermedia), sweet pea (Lathyrus latifolius), clasping pepperweed (Lepidium perfoliatum), dollar plant (Lunaria annua), spearmint (Mentha spicata var. spicata), bulbous bluegrass (Poa										

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							Date / Initials	**Date / Initials**	**YES**	**NO**
bulbosa), tumble mustard (Sisymbrium altissimum), and goat's beard (Tragopogon dubius) within the PIA during CMS sign installation and trenching activities to address impacts to ash-gray paintbrush and its designated critical habitat. Treatment and disposal methods must be approved by the Caltrans biologist prior to vegetation removal.										
BIO-12 (Bio-General-PSM-17) Vehicle Washing: Per the 2018 Standards		Natural Environment Study	Resident Engineer/ Authorized	Pre-Construction,						

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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**
Specifications Guidance, the contractor shall wash equipment prior to entering the SBNF. Prior to construction work, the Contractor Supplied Biologist shall coordinate with the resident engineer and contractor to inspect vehicles and equipment and verify vehicles have been washed		February 1, 2022	Biologist/ Contractor	Construction						
BIO-13 (Bio-Plant-1) Rare Plant Surveys, Flagging, and Fencing: Within 3 days prior to construction, a preconstruction survey must be conducted by a Caltrans approved biologist for gray leaved violet, Parish's yampah, San Bernardino		Natural Environment Study February 1, 2022	Resident Engineer/ Authorized Biologist/ Contractor	Pre-Construction, Construction						

Date of ECR: Feb, 2022
Date:

Project Phase:
☒ PA/ED (*DED/FED*)
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☐ Construction

ENVIRONMENTAL COMMITMENTS RECORD
(SR-18 Culvert Rehabilitation)

PM 34.0-44.3
EA 08-1J310
PN: **0818000018**
Generalist: **Andrew Kuria**
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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	
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ragwort, lemon lily, little purple monkey flower, San Bernardino Mountains monkeyflower, vanishing wild buckwheat, male fern, San Bernardino Mountains owl's-clover, pygmy pussypaws, and rocky sandwort within the PIA. Special-status plant 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 within Environmentally Sensitive (ESA) temporary fencing.										

Date of ECR: Feb, 2022
Date:

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

ENVIRONMENTAL COMMITMENTS RECORD
(SR-18 Culvert Rehabilitation)

PM 34.0-44.3
EA 08-1J310
PN: **0818000018**
Generalist: **Andrew Kuria**
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BIO-14 (Bio-Anthropod-1) Rare Insect Host Plant Preconstruction Clearance Survey, Flagging, and Fencing: No more than 30 days prior to project activities, a Contractor Supplied biologist must perform a preconstruction survey for rare insect host plants within 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 Contractor Supplied biologist for visual identification to construction personnel for work		Natural Environment Study February 1, 2022	Resident Engineer/ Authorized Biologist/ Contractor	Pre-Construction, Construction						

Date of ECR: Feb, 2022
Date:

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

ENVIRONMENTAL COMMITMENTS RECORD
(SR-18 Culvert Rehabilitation)

PM 34.0-44.3
EA 08-1J310
PN: **0818000018**
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avoidance. Should multiple plants in a single location be found, the groupings must be fenced with Environmentally Sensitive Area (ESA) temporary fencing.										
BIO-15 (Bio-Reptile-1) Equipment Flagging: Project personnel must attach surveyor flagging tape to a conspicuous place on each piece of equipment to remind the operator to check under the equipment for special-status reptile species – large-blotched		Natural Environment Study February 1, 2022	Resident Engineer/ Authorized Biologist/ Contractor	Pre-Construction, Construction						

Date of ECR: Feb, 2022
Date:

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

ENVIRONMENTAL COMMITMENTS RECORD
(SR-18 Culvert Rehabilitation)

PM 34.0-44.3
EA 08-1J310
PN: **0818000018**
Generalist: **Andrew Kuria**
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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**	
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salamander, and rubber boa - before operating equipment at any time.										
BIO-16 (Bio-Amphibian-PSM-2) Trash/Predation: Caltrans must implement measures to reduce the attractiveness of job sites to predators of the large-blotched salamander, and other subsidized predators by controlling trash and educating workers.		Natural Environment Study February 1, 2022	Resident Engineer/ Authorized Biologist/ Contractor	Pre-Construction, Construction						

Date of ECR: Feb, 2022
Date:

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

ENVIRONMENTAL COMMITMENTS RECORD
(SR-18 Culvert Rehabilitation)

PM 34.0-44.3
EA 08-1J310
PN: **0818000018**
Generalist: **Andrew Kuria**
ECL: **TBD**

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	
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BIO-17 (Bio-Avian-1) Pre-Construction Nesting Bird Survey: Vegetation clearing should be done outside of the nesting bird season. If project activities cannot avoid the nesting season, generally regarded as February 1 – September 30, then preconstruction nesting bird surveys must be conducted up to the limit of the 500-foot BSA no later than 3 days prior to construction by a qualified Caltrans supplied biologist to locate and avoid nesting birds. If an active avian nest is located, a no-construction buffer (100 feet for non-		Natural Environment Study February 1, 2022	Resident Engineer/ Authorized Biologist/ Contractor	Pre-Construction, Construction						

Date of ECR: Feb, 2022
Date:

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

ENVIRONMENTAL COMMITMENTS RECORD
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PM 34.0-44.3
EA 08-1J310
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ECL: **TBD**

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passerine, 300 feet for passerine, and 500 feet for raptors) may be established and monitored by the Contractor Supplied biologist.										
BIO-18 (Bio-Bat-1) Management & Mitigation Plan (BMMP): A Bat Management Plan will be developed and implemented in accordance with CDFW guidelines.	VI-VII	Natural Environment Study February 1, 2022	Resident Engineer/ Authorized Biologist/ Contractor	Pre-Construction, Construction						
TRAFFIC AND TRANSPORTATION/BICYCLE AND PEDESTRIAN FACILITIES										

Date of ECR: Feb, 2022
Date:

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

ENVIRONMENTAL COMMITMENTS RECORD
(SR-18 Culvert Rehabilitation)

PM 34.0-44.3
EA 08-1J310
PN: **0818000018**
Generalist: **Andrew Kuria**
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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	
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TR-1: Prior to construction, a Traffic Management Plan will be developed by Caltrans to minimize potential impacts on emergency services and commuters during construction.		ISMND	District Design / District Traffic Management / District Environmental Planning / Resident Engineer / Contractor	Pre-Construction						
WATER QUALITY AND STORM RUNOFF										
WQ-1: Prior to the start of construction, a SWPP for reducing impacts on water quality shall be developed by		ISMND	Resident Engineer	Pre-Construction						

Date of ECR: Feb, 2022
Date:

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

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(SR-18 Culvert Rehabilitation)

PM 34.0-44.3
EA 08-1J310
PN: **0818000018**
Generalist: **Andrew Kuria**
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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	
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the contractor, and approved by the Department.										
WQ-2: The SWPPP control measures shall address the following categories: soil stabilization practices; sediment control practices; sediment tracking control practices; wind erosion control practices; and non-stormwater management and waste management and disposal control practices.		ISMND	District Design / District Storm Water / Resident Engineer / Contractor	Pre-Construction						
WQ-3: The contractor shall be required to comply with water pollution control provisions and SWPPP and		ISMND	District Design / District Storm Water / Resident	Construction						

Date of ECR: Feb, 2022
Date:

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

ENVIRONMENTAL COMMITMENTS RECORD
(SR-18 Culvert Rehabilitation)

PM 34.0-44.3
EA 08-1J310
PN: **0818000018**
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conform to the requirements of the Department's Standard Specification Section 7-1.01G "Water Pollution," of the Standard Specifications.			Engineer / Contractor							
WQ-4: If necessary, soil disturbed areas of the project site will be fully protected using soil stabilization and sediment control BMPs at the end of each day, unless fair weather is predicted.		ISMND	District Design / District Storm Water / Resident Engineer / Contractor	Construction						
NOISE AND VIBRATION										
NOI-1: The contractor shall comply with all local sound		ISMND	District Design /		SSP:					

Date of ECR: Feb, 2022
Date:

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

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control and noise level rules, regulations, and ordinances that apply to any work performed pursuant to the contract.			District Environmental Engineering / Resident Engineer / Contractor		14-8.02					
NOI-2: Each internal combustion engine, used for any purpose on the job or related to the job, shall be equipped with a muffler or a type recommended by the manufacturer. No internal combustion engine shall be		ISMND	District Design / District Environmental Engineering / Resident Engineer / Contractor		SSP: 14-8.02					

Date of ECR: Feb, 2022
Date:

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operated on the project without the muffler.										
HAZARDOUS WASTE / MATERIALS										
HAZ-1: Include SSP 6-1.03 for conditions for use of local materials.	1	ISA Checklist	District Design / District Environmental Engineering / Resident Engineer / Contractor	Final Design, Construction	SSP: 6-1.03B					
HAZ-2: Include SSP 14-11.14 for removal and disposal of	1	ISA Checklist	District Design / District Environmental	Final Design,	SSP:					

Date of ECR: Feb, 2022
Date:

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☐ Construction

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Treated Wood Waste (TWW) from guardrail posts.			Engineering / Resident Engineer / Contractor	Construction	14-11.14					
AIR QUALITY										
AQ-1: Fugitive Dust: Contractor must abide by Caltrans' provisions in Section 14-9, Air Quality of the 2018 Standard Specifications and Special Provisions.		ISMND	District Design / District Environmental Engineering / Resident Engineer / Contractor	Final Design, Construction	SSP: 14-9					
AQ-2: Implement and follow Erosion Control and Air Quality Best Management Practices (BMPs).		ISMND	District Design / District Environmental Engineering / Resident							

Date of ECR: Feb, 2022
Date:

Project Phase:
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☐ PS&E Submittal_____ %
☐ Construction

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(SR-18 Culvert Rehabilitation)

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							Date / Initials	**Date / Initials**	**YES**	**NO**
			Engineer / Contractor							
AQ-3: Comply with AQMD rule 403 for Fugitive Dust and Caltrans Standard Specification Section 14-9.		ISMND	District Design / District Environmental Engineering / Resident Engineer / Contractor		SSP: 14-9					