

# **Minor Pavement Rehabilitation (CAPM) On I-40 Between Interstate 15/Interstate 40 Separation and 0.4 Miles East of Lava Wash Bridge**

San Bernardino County, California  
District 08  
08-SBd-40 (PM S0.0/S0.8 & 0.0/R15.0)  
EA 08-1J720/PN 0818000099

## **Initial Study with Proposed Mitigated Negative Declaration**



Prepared by the  
State of California Department of Transportation



**January 2022**

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## **General Information About This Document**

### **What's in this document:**

The California Department of Transportation (Caltrans) District 8 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 milling and overlaying the existing pavement, digging out localized pavement failures, rehabilitating sign panels and lighting, and replacing rock slope protection in four washes (Bloom Wash, Blossom Wash, Airport Wash, and Lava Wash) in San Bernardino County on Interstate 40 (I-40) from Post Miles S0.0 to S0.8, and from Post Miles 0.0 to R15.0. Work includes upgrading Americans with Disabilities Act (ADA) curb ramps and upgrading highway appurtenances to improve roadside safety, such as replace existing Guardrail with Midwest Guardrail System, including Alternate Inline System, replace and install Shoulders and Centerline Rumble Strips. Except for 20 Temporary Construction Easements needed for curb ramps upgrades, all work will occur within Caltrans right-of-way (ROW). The Project Impact Area (PIA) consists of work area within the paved travel way, previously disturbed and maintained Caltrans ROW, and off-pavement staging areas. 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 4<sup>th</sup> Street, MS 829  
San Bernardino, CA 92401-1400

- Submit comments via email to: [gabrielle.duff@dot.ca.gov](mailto:gabrielle.duff@dot.ca.gov)
- Submit comments by the deadline March 24th, 2022.

### **What happens next:**

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

### **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#XXXXXXX  
08-SBD-40-PM  
S0.0/S0.8 & 0.0/R15.0  
EA08-1J720 PN  
0818000099

Minor Pavement Rehabilitation (CAPM) on Interstate 40 Between Interstate 15 and  
Interstate 40 Separation and 0.4 mile east of Lava Wash Bridge Road from I-40 PM  
S0.0/S0.8 to R15.0 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

1/26/2022

\_\_\_\_\_  
Date of Approval

*KRW Craig WENTWORTH*  
\_\_\_\_\_  
Craig Wentworth  
Acting Deputy District Director,  
Environmental Planning California  
Department of Transportation, District 8  
CEQA Lead Agency

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

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

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# CEQA Environmental Checklist

## PROJECT DESCRIPTION AND BACKGROUND

**Project Title:** Minor Pavement Rehabilitation (CAPM) On I-40 Between Interstate 15/Interstate 40 Separation and 0.4 Miles East of Lava Wash Bridge

**Lead agency name:** Caltrans District 8

**Address:** 464 West 4<sup>th</sup> Street

San Bernardino, CA 92401

**Contact person:** Gabrielle Duff

**Phone number:** (909) 501-5142

**Project sponsor's name:** Caltrans District 8

**Address:** 464 West 4<sup>th</sup> Street

San Bernardino, CA 92401

**Project Location:** Interstate 40 (I-40) in San Bernardino County from I-40 PM S0.0/S0.8; 0.0/R15.0

**General plan description:** N/A

**Zoning:** N/A

### **Description of project:**

The project consists of milling and overlaying the existing pavement, digging out localized pavement failures, rehabilitating sign panels and lighting, and replacing rock slope protection. Additional work includes upgrading Americans with Disabilities Act (ADA) curb ramps and upgrading highway appurtenances to improve roadside safety, such as replace existing Guardrail with Midwest Guardrail System, including Alternate Inline System, replace and install Shoulders and Centerline Rumble Strips.

### **Purpose and Need:**

The purpose of this project is to extend pavement life and improve ride quality by implementing preservation treatment to existing Asphalt Concrete (AC) pavement as appropriate.

The need is based on a 2016 Pavement Condition Report (Pave M) indicating pavement within the project limits exhibits minor distress with poor ride quality.

### **Surrounding land uses and setting:**

The project is in the western Mojave Desert with the western limits of the project within the City of Barstow in San Bernardino County. The surrounding area consists of developed and undeveloped desert land. The Mitchel Range and Calico Mountains are located to the north of the project. The Mojave River, an ephemeral drainage, parallels the I-40 to the north of the interstate for a distance of approximately four miles until the river changes direction to the northeast around the community of Daggett.

**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.

**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.

- |   |  |
|---|--|
| <input type="checkbox"/> Aesthetics                         | <input type="checkbox"/> Agriculture and Forestry        |
| <input type="checkbox"/> Air Quality                        | <input checked="" type="checkbox"/> Biological Resources |
| <input type="checkbox"/> Cultural Resources                 | <input type="checkbox"/> Energy                          |
| <input type="checkbox"/> Geology/Soils                      | <input type="checkbox"/> Greenhouse Gas Emissions        |
| <input type="checkbox"/> Hazards and Hazardous Materials    | <input type="checkbox"/> Hydrology/Water Quality         |
| <input type="checkbox"/> Land Use/Planning                  | <input type="checkbox"/> Mineral Resources               |
| <input type="checkbox"/> Noise                              | <input type="checkbox"/> Population/Housing              |
| <input type="checkbox"/> Public Services                    | <input type="checkbox"/> Recreation                      |
| <input type="checkbox"/> Transportation                     | <input type="checkbox"/> Tribal Cultural Resources       |
| <input type="checkbox"/> Utilities/Service Systems          | <input type="checkbox"/> Wildfire                        |
| <input type="checkbox"/> Mandatory Findings of Significance |  |



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## PROPOSED MITIGATED NEGATIVE DECLARATION

Pursuant to: Division 13, Public Resources Code

### State Clearinghouse Number:

**DIST-CO-RTE-PM:** 08-SBd-40 (PM S0.0/S0.8 & 0.0/R15.0)

**EA:** 1J720

### Project Description

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The California Department of Transportation (Caltrans) proposes milling and overlaying the existing pavement, digging out localized pavement failures, rehabilitating sign panels and lighting, and replacing rock slope protection in four washes (Bloom Wash, Blossom Wash, Airport Wash, and Lava Wash) in San Bernardino County on Interstate 40 (I-40) from Post Miles S0.0 to S0.8, and from Post Miles 0.0 to R15.0. Work includes upgrading Americans with Disabilities Act (ADA) curb ramps and upgrading highway appurtenances to improve roadside safety, such as replace existing Guardrail with Midwest Guardrail System, including Alternate Inline System, replace and install Shoulders and Centerline Rumble Strips. Except for 20 Temporary Construction Easements needed for curb ramp upgrades, all work will occur within Caltrans right-of-way (ROW). The Project Impact Area (PIA) consists of work area within the paved travel way, previously disturbed and maintained Caltrans right-of-way (ROW), and off-pavement staging areas.

The proposed project extends for an approximately 15-mile distance along I-40 (PM S0.0/S0.8, PM 0.0/R15.0) and is located in Barstow, Nebo, Daggett, and Minneola, California 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 Quadrangle, Township, Range, and Section Data**

<b>USGS 7.5-minute Quadrangle</b>	<b>Township</b>	<b>Range</b>	<b>Section(s)</b>
Barstow, Calif.	9N	1W	5, 8
Nebo, Calif	9N	1W	5, 8, 9, 10, 13, 14, 15
Daggett, Calif.	9N	1W	13, 14, 15
Daggett, Calif.	9N	1E	18, 19, 20, 21
Minneola, Calif.	9N	1E	21, 22, 25, 26, 27
Minneola, Calif.	9N	2E	27, 28, 29, 30, 34

## **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, 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, Hazards and Hazardous Materials, Hydrology and Water Quality, and Transportation.
- 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:**

Equipment, vehicles, and materials staged and stored in Caltrans right-of-way will be sited in previously paved or previously disturbed areas.

### **BIO-2-(Bio-Plant-1) Rare Plant Surveys, Flagging and Fencing:**

Within 14-days prior to construction, a preconstruction survey must be conducted by a qualified biologist during the typical rare plant blooming season (March-June) for all off pavement work areas, as well as any construction staging areas prior to use. Special-status plants must be flagged for visual identification to construction personnel for work avoidance. Special-status plants detected featuring multiple plants in a single location must be fenced with Environmentally Sensitive Area (ESA) temporary fencing.

### **BIO-3-(Bio-Reptile-1) Desert Tortoise Under Vehicles and/or Equipment:**

The qualified biologist and project personnel must carefully check under parked vehicles and equipment for desert tortoises before any of the vehicles or equipment can be moved.

### **BIO-4-(Bio-Avian-1) Preconstruction Nesting Bird Survey:**

If project activities cannot avoid the nesting season, generally regarded as Feb. 1 – Sept 30, then preconstruction nesting bird surveys must be conducted 3-days prior to construction by a qualified biologist to locate and avoid nesting birds. If an active avian nest is located, a no construction buffer may be established and monitored by the qualified biologist and/or monitored until the young have fledged or the nest is no

longer active.

**BIO-5-(Bio-General-2) Temporary Artificial Lighting Restrictions:**

Artificial lighting must be directed at the work site to minimize light spillover outside of the construction footprint if project activities occur at night.

**BIO-6-(Bio-Reptile-2) Injured or Dead Desert Tortoise:**

The qualified biologist must inform USFWS and CDFW of any injured or dead desert tortoises (and other special status species) found on site (verbal notification within 24 hours and written notification within 5 days).

**BIO-7-(Bio-General-4) Preconstruction Surveys:**

Preconstruction desert tortoise surveys must be conducted by a qualified biologist within 7-days and immediately prior to project activities. If a desert tortoise is located, the Resident Engineer and Caltrans biologist must be contacted and additional measures and/or agency coordination may be required.

**BIO-8-(Bio-Reptile-4) Speed Limits in Desert Tortoise Habitat:**

Except on maintained public roads designated for higher speeds or within desert tortoise proof fenced areas, driving speeds must not exceed 20 miles per hour through potential desert tortoise habitat on unpaved roads.

**BIO-9-(Bio-Reptile-5) Desert Tortoise Predation Prevention:**

To preclude attracting predators, such as the common raven (*Corvus corax*) and coyotes (*Canis latrans*), food-related trash items must be placed in covered refuse cans and removed daily from the work sites and disposed of at an appropriate refuse disposal site. Workers are prohibited from feeding all wildlife.

**BIO-10-(Bio-General-7) Worker Environmental Awareness Program (WEAP):**

A qualified biologist must present a biological resource information program/WEAP for desert tortoise and other special-status species/habitat found within the BSA prior to project activities to all personnel who remain within the project limits for longer than 30 minutes at any given time.

**BIO-11-(Bio-General-8) Biological Monitor:**

The qualified biologist must monitor project activities weekly to ensure that measures are being implemented and documented at the following locations: Bloom Wash (SBD-40-PM R11.45), Blossom Wash (SBD-40-PM R12.0), Airport Wash (SBD-40-PM R13.5), and Lava Wash (SBD-40-PM R14.6).

**BIO-12-(Bio-General-9) Environmentally Sensitive Area (ESA):**

To address impacts to desert tortoise, desert tortoise designated critical habitat, and other special-status species delineate the project impact area as an ESA as shown on the plans and/or described in the specifications at the following locations: Bloom Wash (SBD-40-PM R11.45), Blossom Wash (SBD-40-PM R12.0), Airport Wash (SBD-40-PM R13.5), Lava Wash (SBD-40-PM R14.6), and all staging areas adjacent to special-status species habitat.

**BIO-13-(Bio-General-11) Environmentally Sensitive Area (ESA) Fence Removal:**

All temporary fencing must be removed as a last order of work. During removal, a qualified biologist must be present.

**BIO-14-(Bio-General-12) Animal Entrapment:**

To prevent inadvertent entrapment of desert tortoise during project activities, all excavated steep-walled holes or trenches more than 6 inches deep must be covered at the close of each working day by plywood (or similar material) or provided with one or more escape ramps constructed of earth fill or wooden planks. At the beginning of each working day, all such holes or trenches must be inspected to ensure no animals have been trapped during the previous night. Before such holes or trenches are filled, they must be thoroughly inspected for trapped animals. Trapped animals must be released by the qualified biologist.

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DRAFT

**Signature**

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Craig Wentworth  
Acting Deputy District Director  
Caltrans District 8

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Date

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# Chapter 1 Introduction

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## Project Description and Background

Project Title:	Minor Pavement Rehabilitation (CAPM) On I-40 Between Interstate 15/Interstate 40 Separation and 0.4 Miles East of Lava Wash Bridge
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:	Interstate 40 (I-40) in San Bernardino County from PM S0.0/S0.8 and 0.0/R15
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 consists of milling and overlaying the existing pavement, digging out localized pavement failures, rehabilitating sign panels and lighting, and replacing rock slope protection. Additional work includes upgrading Americans with Disabilities Act (ADA) curb ramps and upgrading highway appurtenances to improve roadside safety, such as replace existing Guardrail with Midwest Guardrail System, including Alternate Inline System, replace and install Shoulders and Centerline Rumble Strips.
Purpose and Need	The purpose of this project is to extend pavement life and improve ride quality by implementing preservation treatment to existing Asphalt Concrete (AC) pavement as appropriate. The need is based on a 2016 Pavement Condition Report (Pave M) indicating pavement within the project limits exhibits minor distress with poor ride quality.

Surrounding Land  
Uses and Setting:

The project is in the western Mojave Desert with the western limits of the project within the City of Barstow in San Bernardino County. The surrounding area consists of developed and undeveloped desert land.

Other Public  
Agencies Whose  
Approval is  
Needed

California Department of Fish & Wildlife (CDFW), U.S Fish & Wildlife Service (USFWS), Regional Water Quality Control Board

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# Chapter 2 CEQA Environmental Checklist

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**DIST-CO-RTE:08-SBd-40**

**PM/PM: S0.0/S0.8 &  
0.0/R15**

**EA/Project No.: 1J720/0818000099**

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.

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## 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.** A Visual Impact Assessment Checklist was completed on June 14<sup>th</sup>, 2021 by Caltrans staff landscape architect to determine the probable visual impact to the proposed project. No noticeable visual changes to the environment were documented and no further analysis was required. Visual impacts on scenic vistas are not anticipated as the project would involve pavement rehabilitation.

**Response to Item b) No Impact.** I-40 is not designated as a state scenic highway according to Caltrans' State Scenic Highway Program. The project site does not contain 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 proposed project. Mapped farmlands in the general project vicinity are located north of I-40 within the city limits of Barstow and north of I-40 in Minneola.

**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 because the project is located within Caltrans right-of-way. 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.** There are no forest lands, timberlands, or agricultural lands within the project site. National Park land and Bureau of Land Management land is outside of the project area and will not be impacted. The proposed project would not involve changes that would result in the conversion of farmland to non-agricultural use or 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?	No 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.** California is divided geographically into 15 air basins for the purpose of managing the air resources of the state on a regional basis. Each air basin generally has similar meteorological and geographic conditions throughout. Local districts are responsible for preparing the portion of the State Implementation Plan (SIP) applicable within their boundaries.

The proposed project is located in the Mojave Desert Air Basin (Basin). The Mojave Desert Air Management District (MDAQMD) 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, MDAQMD prepares plans for the attainment of air quality standards, as well as maintenance of those standards once achieved.

The proposed project is listed, as currently proposed, in the region’s conforming Southern California Association of Governments (SCAG) 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and 2019 Federal Transportation Improvement Program (FTIP) regional transportation planning

documents. As such, project emissions are consistent with applicable air quality plans.

## **Response to Item b) Less-than-Significant Impact**

### 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 (SO<sub>2</sub>), 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, SO<sub>2</sub>, 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.

SO<sub>2</sub> 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 SO<sub>2</sub>-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,

would reduce any air quality impacts resulting from construction activities to a less-than-significant level.

### Operation

Because the project would not increase the number of travel lanes on I-40, it would not likely lead to a substantial or measurable increase in vehicle travel, and therefore does not require a travel analysis. The proposed project would not increase roadway capacity on I-40 and 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 I-40 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) No Impact.** ARB characterizes sensitive land uses as simply as possible by using the example of residences, schools, day care centers, playgrounds, and medical facilities. However, a variety of facilities are encompassed. For example, residences can include houses, apartments, and senior living complexes. Medical facilities can include hospitals, convalescent homes, and health clinics. Playgrounds could be play areas associated with parks or community centers.

No land uses that are sensitive to air pollutant emissions are located within 500 feet of proposed project improvements. As such, no impacts related to exposure of sensitive receptors to substantial pollutant concentration would occur.

**Response to Item d) No Impact.** According to ARB, 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
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 (Minimal Impacts) (NESMI) (Caltrans 2021). The Biological Study Area (BSA) included the area within 500 feet of the State right-of-way (ROW). The proposed project limits are located along a 15-mile stretch from PM S0.0 to S0.8, and from PM 0.0 to R15.0 on I-40, with the western project limits within the City of Barstow, and the eastern project limits approximately 3.48 miles west of the unincorporated community of Newberry Springs, in San Bernardino County, California.

## Natural Communities

The proposed project is located within the Mohave Desert region of the California Desert Province. The BSA crosses through undeveloped open space and developed lands. The natural vegetation of the region is characterized primarily of creosote bush scrub alliances, consisting of scattered shrubs with large inter-shrub spaces.

## Plant Species

The following special-status plant species have suitable habitat in the BSA consisting of Mojavean desert scrub, sandy and gravelly soils, and ephemeral desert washes capable of supporting these species including small-flowered androstephium (*Androstephium breviflorum*), Borrego milk-vetch (*Astragalus lentiginosus* var. *borreanus*), white pigmy-poppy (*Canbya candida*), Emory's crucifixion-thorn (*Castela emoryi*), Mojave spineflower (*Chorizanthe spinosa*), Clokey's cryptantha (*Crypthantha clokeyi*), purple-nerve cymopterus (*Cymopterus multinervatus*), Colorado Desert larkspur (*Delphinium parishii* ssp. *subglobosum*), Mojave monkey flower (*Diplacus mohavensis*), Barstow woolly sunflower (*Eriophyllum mohavense*), Death Valley sandmat (*Euphorbia vallis-mortae*), depressed standing-cypress (*Loeseliastrum depressum*), Torrey's box-thorn (*Lycium torreyi*), Mojave menodora (*Menodora spinescens* var. *mohavensis*), Darlington's blazing star (*Mentzelia puberula*), spiny-hair blazing star (*Mentzelia tricuspi*), creamy blazing star (*Mentzelia tridentata*), appressed muhly (*Muhlenbergia appressa*), crowned muilla (*Muilla coronate*), beaver dam breadroot (*Pediomelum castoreum*), white-margined beardtongue (*Penstemon albomarginatus*), Parish's phacelia (*Phacelia parishii*), Mojave indigo-bush (*Psorothamnus asborescens* var. *arborescens*), Mojave fish-hook cactus (*Sclerocactus polyancistrus*), jackass-clover (*Wislizenia refracta* ssp. *refracta*)

Several special-status plants have been observed historically within the BSA including creamy blazing star, spiny-hair blazing star, Mohave monkeyflower, and Emory's crucifixion-thorn. However, no special-status plants were observed in the BSA during general habitat assessment surveys.

To avoid the potential for adverse impacts to special-status plants, Caltrans proposes the following avoidance and minimization measures, no compensatory mitigation would be required: **BIO-1** (BIO-General-1) Equipment Staging, Storing & Borrow Sites; **BIO-2** (BIO-Plant-1) Rare Plant Surveys, Flagging and Fencing; and **BIO-10** (BIO-General-7) Worker Environmental Awareness Program (WEAP).

## Special-Status Reptiles: desert tortoise

The desert tortoise (*Gopherus agassizii*) is both federally-listed and State-listed as a *threatened* species. It occurs in almost every desert habitat. It inhabits Joshua tree woodland, Mojavean desert scrub, and Sonoran Desert scrub habitats, and washes and requires friable soil for burrow and nest construction. Creosote bush habitat with large annual wildflower blooms is preferred.

Overall, the BSA has been affected by previous highway maintenance activities and is routinely used by the public. Due to the presence of the I-40 eastbound and westbound lanes within the BSA, continuous highway activity and maintenance, there are several areas within the BSA exhibiting high disturbance levels, and do not feature ideal habitat conditions for desert tortoise. Areas with high levels of disturbance include barren/ruderal sections of the roadway shoulders, center median, and the I-40 paved roadway. However, areas of native Mojavean desert scrub with minimal disturbance and natural plant communities found within the BSA are suitable habitat for desert tortoise, including the wash areas requiring Rock Slope Protection (RSP) replacement.

Desert tortoise Critical Habitat overlaps the BSA which includes the portions occupied by eastbound lanes of I-40 and center median from approximately PM R8.3 to PM R15.0. The total temporary impact area for desert tortoise Critical Habitat (DTCH) within the PIA, excluding the lanes of I-40 (paved areas), center median, shoulders, and RSP, is 0.47 acres, and a total 1.23 acres of temporary impacts to suitable desert tortoise habitat (DTSH) respectively. Within the PIA, the primary constituent elements which comprise DTCH are present beyond paved and maintained shoulder and center median areas. Due to the Project's location within desert tortoise historic range, USFWS DTCH within the BSA, and suitable habitat, Caltrans presumes desert tortoises are present in the Project vicinity.

To avoid the potential for adverse impacts to desert tortoise, Caltrans proposes the following avoidance and minimization measures, no compensatory mitigation would be required: **BIO-1** (Bio-General-1) Equipment Staging, Storing & Borrow Sites; **BIO-3** (Bio-Reptile-1) Desert Tortoise Under Vehicles and/or Equipment; **BIO-2** (Bio-Reptile-2) Injured or Dead Desert Tortoise; **BIO-7** (Bio-General-4) Preconstruction Surveys; **BIO-8** (Bio-Reptile-4) Speed Limits in Desert Tortoise Habitat; **BIO-9** (Bio-Reptile-5) Desert Tortoise Predation Prevention; **BIO-10** (Bio-General-7) Worker Environmental Awareness Program (WEAP); **BIO-11** (Bio-General-8) Biological Monitor; **BIO-12** (Bio-General-9) Environmentally Sensitive Area (ESA); **BIO-13** (Bio-General-11) Environmentally Sensitive Area (ESA) Fence Removal; and **BIO-14** (Bio-General-12) Animal Entrapment.

### Avian Species

Suitable habitat (Mohavean desert scrub) for the following special-status birds was identified within the BSA including golden eagle (*Aquila chrysaetos*), burrowing owl (*Athene cunicularia*), prairie falcon (*Falco mexicanus*), and Le Conte's thrasher (*Toxostoma lecontei*). Of these only the burrowing owl has been historically documented within the BSA. No special-status birds were observed during the general habitat assessment survey. To avoid potential adverse impacts to special-status birds, migratory birds and other regulated birds, Caltrans proposes the following avoidance and minimization measures: **BIO-4** (Bio-Avian-1): Preconstruction Nesting Bird Survey, **BIO-5** (Bio-General-2): Temporary Artificial Lighting Restrictions, and **BIO-10** (Bio-General-7): Worker Environmental Awareness Program (WEAP).

### Special -Status Mammals

The following mammal species have suitable habitat in the BSA: Townsend's big-eared bat

(*Corynorhinus townsendii*) is a State-designated Species of Special Concern and is BLM Sensitive and Mohave ground squirrel (*Xerospermophilus mohavensis*) is a State-listed as *threatened* species and is BLM Sensitive.

These special-status mammals have suitable habitat in the project area consisting of Mohavean desert scrub and desert washes which can serve as potential movement corridors. No special-status mammals or their sign were observed during the general and bat roosting habitat suitability assessments. Most habitat suitability models and range maps for Mohave ground squirrel indicate the species current range lies primarily to the west of Barstow. There are no CNDDB documented occurrences for Mohave ground squirrel in the BSA and the species is not expected to occur.

### Riparian Habitats

The proposed project is located in an arid region within the Mohave River watershed bisected by ephemeral drainages. The project proposes to remove and rebuild the existing rock slope protection to reinforce bridge crossings at four jurisdictional drainage features pursuant to the Porter Cologne Water Quality Control Act and Section 1602 of the California Fish and Game Code. The four jurisdictional drainages are located on I-40 at Bloom Wash, Blossom Wash, Airport Wash, and Lava Wash. Caltrans anticipates the project would result in approximately 0.111 acres of permanent impacts and 0.541 acres of temporary impacts to Waters of the State and approximately 0.587 acres of permanent impacts and 1.256 acres of temporary impacts to CDFW jurisdictional areas. The project is not anticipated to have a substantial adverse effect on state or federally protected wetlands.

For work within Bloom Wash, Blossom Wash, Airport Wash, and Lava Wash, the following permits are anticipated:

- Waste Discharge Requirements from the RWQCB, and
- Section 1602 Streambed Alternation Agreement from CDFW.

The Bloom Wash, Blossom Wash, Airport Wash, and Lava Wash bridges do not contain potential suitable roosting habitat for Townsend's or other bats. No bats were seen, and neither suitable roosting habitat nor sign of bat occupation was observed (staining, guano, suitable roosting crevices etc.). Vegetation in the BSA, however, was determined to provide low potential for roosting for Townsend's big-eared bat and other bats. The BSA is located within the Mohave Desert California Essential Habitat Connectivity Area (San Bernardino Mountains - Calico Mountains). It contains large blocks of land with adequate connectivity for species dispersal. The Bloom Wash, Blossom Wash, Airport Wash, and Laval Wash and their respective I-40 bridges can serve as potential movement corridors for these special-status mammals.

To avoid the potential for adverse impacts to special-status mammals, Caltrans proposes the following avoidance and minimization measures, no compensatory mitigation would be required: **BIO-1** (Bio-General-1): Equipment Staging, Storing & Borrow Sites; **BIO-5** (Bio-General-2): Temporary Artificial Lighting Restrictions; **BIO-10** (Bio-General-7): Worker Environmental Awareness Program (WEAP); and **BIO-11** (Bio-General-8): Biological Monitor.

### **Response to Items c) No Impact**

The proposed project is located in an arid region within the Mohave River watershed bisected by ephemeral drainages. There are no state or federally protected wetlands within or adjacent to the project area. Therefore, wetlands or other waters will not be impacted.

### **Response to Items d) No Impact.**

#### Habitat Connectivity/Wildlife Corridors

The proposed project is located within the Mohave Desert California Essential Habitat Connectivity Area (San Bernardino Mountains - Calico Mountains). It contains large blocks of land with adequate connectivity for species dispersal. The Bloom Wash, Blossom Wash, Airport Wash, and Lava Wash and their respective I-40 bridges can serve as potential movement corridors for these special-status mammals. The proposed project will not impact or contribute to a barrier for habitat connectivity.

### **Response to Item e): No Impact.**

Chapter 88.01 of the San Bernardino County Development Code (SBCDC) provides regulations and guidelines for the management of plant resources in the unincorporated areas of the County on property or combinations of property under private or public ownership. The intent of the regulations are to promote and sustain the health, vigor, and productivity of plant life and aesthetic values within the County through appropriate management techniques. Section 88.01.060 provides regulations for the removal or harvesting of specified desert native plants in order to preserve and protect the plants and to provide for the conservation and wise use of desert resources. Desert native plants or any part of them, except the fruit, shall not be removed except under a Tree or Plant Removal Permit in compliance with Section 88.01.050 (Tree or Plant Removal Permits). However, removal of regulated trees or plants shall not apply to lands owned by the United States or State of California and is exempt under Section 88.01.030. Therefore, Caltrans is exempt under Section 88.01.030.

**Response to Item f): No Impact.** The proposed project is located within the California Desert Conservation Area (CDCA). The CDCA consists of 25 million acres within Imperial, San Diego, Los Angeles, Riverside, San Bernardino, Kern, Inyo, and Mono Counties, of which 10 million acres are lands managed by the Bureau of Land Management (BLM). The proposed project would occur within the I-40 corridor outside the administered lands and Impacts to CDCA lands are not anticipated to occur as a result of construction activities.

### **Avoidance, Minimization, and/or Mitigation Measures**

#### **BIO-1-(Bio-General-1) Equipment Staging, Storing & Borrow Sites:**

Equipment, vehicles, and materials staged and stored in Caltrans right-of-way will be sited in



previously paved or previously disturbed areas.

**BIO-2-(Bio-Plant-1) Rare Plant Surveys, Flagging and Fencing:**

Within 14-days prior to construction, a preconstruction survey must be conducted by a qualified biologist during the typical rare plant blooming season (March-June) for all off pavement work areas, as well as any construction staging areas prior to use. Special-status plants must be flagged for visual identification to construction personnel for work avoidance. Special-status plants detected featuring multiple plants in a single location must be fenced with Environmentally Sensitive Area (ESA) temporary fencing.

**BIO-3-(Bio-Reptile-1) Desert Tortoise Under Vehicles and/or Equipment:**

The qualified biologist and project personnel must carefully check under parked vehicles and equipment for desert tortoises before any of the vehicles or equipment can be moved.

**BIO-4-(Bio-Avian-1) Preconstruction Nesting Bird Survey:**

If project activities cannot avoid the nesting season, generally regarded as Feb. 1 – Sept 30, then preconstruction nesting bird surveys must be conducted 3-days prior to construction by a qualified biologist to locate and avoid nesting birds. If an active avian nest is located, a no construction buffer may be established and monitored by the qualified biologist and/or monitored until the young have fledged or the nest is no longer active.

**BIO-5-(Bio-General-2) Temporary Artificial Lighting Restrictions:**

Artificial lighting must be directed at the work site to minimize light spillover outside of the construction footprint if project activities occur at night.

**BIO-6-(Bio-Reptile-2) Injured or Dead Desert Tortoise:**

The qualified biologist must inform USFWS and CDFW of any injured or dead desert tortoises (and other special status species) found on site (verbal notification within 24 hours and written notification within 5 days).

**BIO-7-(Bio-General-4) Preconstruction Surveys:**

Preconstruction desert tortoise surveys must be conducted by a qualified biologist within 7-days and immediately prior to project activities. If a desert tortoise is located, the Resident Engineer and Caltrans biologist must be contacted and additional measures and/or agency coordination may be required.

**BIO-8-(Bio-Reptile-4) Speed Limits in Desert Tortoise Habitat:**

Except on maintained public roads designated for higher speeds or within desert tortoise proof fenced areas, driving speeds must not exceed 20 miles per hour through potential desert tortoise habitat on unpaved roads.

**BIO-9-(Bio-Reptile-5) Desert Tortoise Predation Prevention:**

To preclude attracting predators, such as the common raven (*Corvus corax*) and coyotes (*Canis latrans*), food-related trash items must be placed in covered refuse cans and removed daily from the work sites and disposed of at an appropriate refuse disposal site. Workers are prohibited from feeding all wildlife.

**BIO-10-(Bio-General-7) Worker Environmental Awareness Program (WEAP):**

A qualified biologist must present a biological resource information program/WEAP for desert tortoise and other special-status species/habitat found within the BSA prior to project activities to all personnel who remain within the project limits for longer than 30 minutes at any given time.

**BIO-11-(Bio-General-8) Biological Monitor:**

The qualified biologist must monitor project activities weekly to ensure that measures are being implemented and documented at the following locations: Bloom Wash (SBD-40-PM R11.45), Blossom Wash (SBD-40-PM R12.0), Airport Wash (SBD-40-PM R13.5), and Lava Wash (SBD-40-PM R14.6).

**BIO-12-(Bio-General-9) Environmentally Sensitive Area (ESA):**

To address impacts to desert tortoise, desert tortoise designated critical habitat, and other special-status species delineate the project impact area as an ESA as shown on the plans and/or described in the specifications at the following locations: Bloom Wash (SBD-40-PM R11.45), Blossom Wash (SBD-40-PM R12.0), Airport Wash (SBD-40-PM R13.5), Lava Wash (SBD-40-PM R14.6), and all staging areas adjacent to special-status species habitat.

**BIO-13-(Bio-General-11) Environmentally Sensitive Area (ESA) Fence Removal:**

All temporary fencing must be removed as a last order of work. During removal, a qualified biologist must be present.

**BIO-14-(Bio-General-12) Animal Entrapment:**

To prevent inadvertent entrapment of desert tortoise during project activities, all excavated steep-walled holes or trenches more than 6 inches deep must be covered at the close of each working day by plywood (or similar material) or provided with one or more escape ramps constructed of earth fill or wooden planks. At the beginning of each working day, all such holes or trenches must be inspected to ensure no animals have been trapped during the previous night. Before such holes or trenches are filled, they must be thoroughly inspected for trapped animals. Trapped animals must be released by the qualified biologist.

**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 Items a), b): No Impact.** Information from this section was taken from the Historic Property Survey Report (HPSR) prepared November 11<sup>th</sup>, 2021 (Caltrans 2021). 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 was established as including the existing right-of-way, project construction footprint, temporary construction easements, staging and storage areas, and additional areas as needed to account for potential indirect effects. A cultural resources review was performed in February 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 November 3, 2020. A response with a positive Sacred Lands File finding was received November 6, 2021.

Two Native American Tribes were contacted under Assembly Bill (AB) 52. Letters were sent on November 3, 2020 to the 29 Palms Band of Mission Indians and San Manuel Band of Mission Indians. A follow-up letter was sent to both Tribes on January 12, 2021, followed by an email on June 12, 2021. One response was received as a result of this correspondence. San Manuel Band of Mission Indians responded June 12, 2021, requesting cultural documents but had no other immediate concerns. Caltrans replied to the San Manuel Band of Mission Indians and provided the Draft Archaeological Survey Report on November 9, 2021. No reply was received. The 29 Palms Band of Mission Indians did not respond.

A total of five resources were identified in the APE. Of these, one is a small portion of National Old Trails Road/U.S. Route 66 (CA-SBR-2910H/P36-002910). The proposed project has no potential to affect the National Register eligibility of the historic highway. A larger segment of U.S. Route 66 passes below the vertical APE and runs adjacent to horizontal APE. The project has no potential to affect the remainder of this resource. One other resource identified in the APE is Mormon Trail/Old Spanish Trail (CA-SBR-4411H/P36-004411), however no trace of this resource was found in the APE. Three resources, two historic power lines and one historic railroad corridor are outside of the vertical APE.

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 involves milling and overlaying the existing pavement, digging out localized pavement failures, rehabilitating sign panels and lighting, and replacing rock slope protection, upgrading Americans with Disabilities Act (ADA) curb ramps, upgrading highway appurtenances to improve roadside safety, such as replacement of the existing guardrail with Midwest Guardrail System, installation of an alternate inline system, replace and install shoulders and centerline rumble strips, and replace and install dikes. The proposed project would not conflict with or obstruct state or local plans for renewable energy or energy efficiency.

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.** The proposed project does not have an Alquist-Priolo Special Studies Zone within the project boundary. The nearest Alquist-Priolo Special Studies Zone is the Calico-Hidalgo Fault Zone which crosses the I-40 approximately four miles east of the eastern extend of the proposed project; therefore, no impacts are anticipated. The project area, like most of Southern California, is located in a seismically active area. According to the California Division of Mines and Geology (CDMG) Preliminary Fault Activity Map, nearby active fault zones include the Lenwood Fault, the Camp Rock Fault, and the Mt. General Fault.

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 consist of pavement rehabilitation.

**Response to Item a.iii), a.iv): No Impact.** According to the San Bernardino County's liquefaction zone map, the project is not located in a zone susceptible to liquefaction. 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.** Road rehabilitation 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 and 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 Best Management Practices (BMPs) that would minimize erosion and keep all products of erosion from moving off site into receiving waters. Earthwork in the project area would be performed in accordance with the most current edition of the Caltrans Standard Specifications, the project SWPPP, and the requirements of applicable government agencies; therefore, the proposed project would result in no impacts.

**Response to Item c and d): No Impact.** According to San Bernardino County Geological Hazard Overlay map, the project is not located in a zone known to be susceptible to liquefaction. 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.** Based on the California Department of Conservation Geological Map, the geology of the project area consists of very young Late Pleistocene to Holocene quaternary alluvium, which has a low potential to yield paleontological resources. Because the project will have minimal surface disturbance and the project soils are non-fossiliferous, the project is expected have no effect on paleontological resources.

**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
Question	CEQA Determination
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 Impact.** While the project would result in GHG emissions during construction, it is anticipated that the project would not result in any increase in operational GHG emissions. With implementation of construction GHG-reduction measures, the impact would be less than significant. See extensive climate change discussion below.

**Response to Item a): No Impact.** The proposed project does not conflict with an applicable plan, policy, or regulation. See extensive climate change discussion below.

**Avoidance, Minimization, and/or Mitigation Measures**

No measures are required for Greenhouse Gas Emissions.

**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?	Less Than Significant 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): Less Than Significant 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 rehabilitation of the existing pavement, installation of ADA compliant curb ramps, and upgrading of rock slope protection, signs, lighting, and guardrails. 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 potential for hazardous waste involvement was low.

I-40 has been used as a roadway since 1970, there is potential for aerially deposited lead (ADL) to be present in soil within the project footprint from historic leaded gasoline emissions. However, previous investigations have determined that ADL is non-hazardous with the proposed project footprint. In addition, existing guardrails and signs are assumed to contain treated wood. Treated wood is treated with hazardous preserving chemicals that protect the wood from decay.

As included below, implementation of measure **HAZ-1** would be required to minimize impacts related to hazardous waste.

**Response to Item c): No Impact.** The Excelsior Charter School is located within a quarter mile of the project within the City of Barstow. No hazardous emissions, materials, or waste are anticipated within the Barstow City limits resulting from project activities since the project consists of pavement rehabilitation, sign and lighting



upgrades, and upgrading curb ramps and traffic stops to be in compliance with the American with Disabilities Act. The project will have no impact on schools.

**Response to Item d): No Impact.** The California Department of Toxic Substances Control identifies and tracks sites with known or potential contamination through its EnviroStor database, and SWRCB tracks and identifies sites that may affect groundwater through its Geotracker database.

A search of the EnviroStor and the GeoTracker database identified several open Military Cleanup Sites associated with the historic and modern use of the United States Marine Corp Logistics Base in the project vicinity including:

- Barstow MCLB, Nebo & Yermo -T197 (T0607100808): Soil and Groundwater contamination. Previous use: Underground storage tank for metal fabrication shop. Cleanup Status: Open.
- Barstow MCLB, Nebo & Yermo–NPZ-14 (T10000007027): Soil and Groundwater contamination. Cleanup Status: Open.
- Barstow MCLB, Nebo & Yermo–OU-2-CAOC 38-C-Nebo South Groundwater (AS/SVE–beneath original trash landfill-CAOC6) (DOD100027100). Soil, ground water, surface water contamination. Previous use: Vehicle storage/refueling site, landfill, underground storage tanks. Cleanup Status: Open Federal Superfund Site.

The hazardous waste emitted at these Military Cleanup Site consists of released soil vapor and groundwater plumes. Because temporary construction easements are not within these cleanup sites, and project activities will occur with minimal ground disturbance within the state right-of-way, impacts to the public from hazardous waste are not expected to occur from project activities.

**Response to Items e): No Impact.** The Barstow-Daggett Airport is a County of San Bernardino public airport located on the north side of I-40 adjacent to the proposed project approximately five miles west of Daggett. Because the project involves rehabilitation of the existing pavement, installation of ADA compliant curb ramps and upgrading of rock slope protection, signs, lighting, and guardrails within the state right-of-way, the proposed project would not result in a safety hazard or excessive noise for people residing or working in the area. Additionally, the project would not contain any skyward features that would interfere with any air traffic flight paths or other airport activities. No impacts would occur.

**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. No impacts would

occur.

**Response to Item g): No Impact.** The project area is surrounded by rural desert flora with limited fuel sources and within the City of Barstow, the surrounding area is built up with concrete and asphalt. The surrounding landscape does not support high density fuels to carry wildland fires.

**Avoidance, Minimization, and/or Mitigation Measures**

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

**HW-1:** SSP 14-11.14 for the removal of Treated Wood Waste

**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
(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?	Less Than Significant 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 Impact.** 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.

As the project would be constructed within existing Caltrans right of way, the California Statewide NPDES Permit No. CAS000003 as amended in Order No. 2014-0077-DWQ would apply to this project. Coverage under the Construction General Permit (CGP) for stormwater discharges associated with construction activities and land disturbance activities NPDES Permit No. CAS000002 would also be required during the construction phase of the project. This project would require notification to the State Water Resources Control Board via the Stormwater Multi-Application Tracking System (SMARTS).

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 Best Management Practices (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 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. Prior to approval of the final design of the project, applicable post-construction BMPs would be identified to ensure that applicable Caltrans selection and siting criteria have been achieved. Deployment of BMPs would reduce long-term water quality impacts due to implementation of the proposed project. Therefore, less-than significant water quality impacts are anticipated.

**Response to Item b): No Impact.** The project proposes to rehabilitate existing pavement, upgrade safety apertures, replace existing rock slope protection, and install ADA compliant curb ramps. Except for rock slope protection upgrades in four washes, all project associated activities would not extend beyond the existing disturbed shoulder of I-40. The proposed project is not expected to substantially deplete groundwater supplies or interfere substantially with groundwater recharge. The project is not expected to affect the amount water consumed regionally through increased withdrawals from groundwater sources.

**Response to Items c (i), (ii), (iii), iv): Less-Than-Significant Impact.** The natural topography of the project area is relatively level, gently sloping downward toward the north. The project contains multiple ephemeral washes that drain from the hills south of the project area and cross under the I-40 directing sediment and the flow of water downstream toward the Mojave River. In addition to rehabilitating the existing pavement, the project includes removing and reconstructing existing rock slope protection at bridges spanning four ephemeral washes (Airport Wash, Bloom Wash, Blossom Wash, and Lava Wash). Based on hydraulic analysis conducted for the summary floodplain encroachment report, the proposed removal and reconstruction of rock slope protection will result in no significant modification to the channel. Permanent treatment controls would be implemented to address the stormwater impacts caused by the project. 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 not within a Municipal Stormwater Program (MS4) area and a MS4 permit is not 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, and a CDFW 1602 Streambed Alteration Agreement.

The project is not expected to have any significant impacts on water quality with implementation of measures **WQ-1** through **WQ-4**. A less-than-significant impact would occur as a result of increased runoff, altered drainage patterns, or water quality degradation.

**Response to Item d): No Impact.** Based on the Federal Emergency Management Agency Flood Insurance Rate Map (FIRM), a portion of the proposed project within the city limits of Barstow on Main Street is within Zone X, which has a 0.2 percentage

chance of annual flooding (500-year) with average depths less than one foot or with drainage areas of less than one square mile and represents a moderate flood risk. Most of the proposed project is in an unmapped area designated as Zone D, defined as undetermined flood hazards, as no analysis of flood hazards has been conducted. These are common in rural areas where no mapping has been prepared. Based on the nature of the project, which involves rehabilitation of the existing pavement, installation of ADA compliant curb ramps and upgrading of rock slope protection, signs, lighting, and guardrails within the state right-of-way, the proposed project would not result in the release of pollutants due to project inundation.

**Response to Item e): No Impact.** As the project proposes to rehabilitate the existing pavement, replace rock slope protection, upgrade safety apertures, and install ADA compliant curb ramps, the project would 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 Caltrans.

**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 Caltrans’ 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.** The proposed project involves rehabilitating an existing roadway within the City of Barstow and will not physically divide an established community. Most of the proposed project is surrounded by rural land within an existing interstate and the proposed project will not divide an established community, nor conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. The project improvements would occur within Caltrans right of way and no additional right of way or detours would be required for the project.

**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.** Based on the Department of Conservation, Division of Mines and Geology, 1993 Mineral Land Classification Report of Southwestern San Bernardino, Barstow-Victorville Area, California, the project is within an area classified as Concrete Aggregate. Numerous sand and gravel mines are located within the project vicinity near the Marine Corps Logistics Base Barstow; however, the nature of the proposed project as rehabilitation of an existing roadway will not result in the loss of availability of a known mineral resource of value to the region and residents of the state, nor would the proposed project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other use plan.

**Avoidance, Minimization, and/or Mitigation Measures**

No measures are required Mineral Resources.

**XIII NOISE**

Would the project result in:

Question	CEQA Determination
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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 Items a): No Impact.** From PM S0.0 to S0.7, the project proposes to rehabilitate the existing pavement of E. Main St., as well as install ADA compliant curb ramps, and upgrade signs and lighting. There are multiple commercial businesses and public services in the vicinity of the project, which include restaurants (Carl’s Jr., McDonald’s, Starbucks Coffee, Just Grill It Teriyaki House, Tom’s Burgers, and Frosty’s Donuts); shopping facilities (Terrible’s convenience store and the Barstow Mall); gas stations (76 and Chevron); motels (Travelodge and Best Western); and public services (Barstow Family Dental Center and the County of San Bernardino Human Services building, which provides transitional assistance to the community). Because a portion of the project is located adjacent to businesses, construction noise will be conducted in accordance to Caltrans Standard Specification Section 14-8.02 and Standard Special Provision 14-8.02 (**NOI-1** and **NOI-2**) to minimize construction generated noise. 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 240 working day construction period and would be short in duration. Because the proposed project would comply with Caltrans’ Standard Specifications as outlined in **NOI-1** and **NOI-2**, no impacts would occur.

**Response to Item c): No Impact.** The nearest public airport is the Barstow-Daggett Airport located on the north side of I-40 within two miles of the proposed project approximately five miles west of Daggett. The project would not expose people residing or working in the project area to excessive noise levels, and no receptor location would experience a substantial increase over the corresponding existing noise levels; therefore, no impacts are anticipated to 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:** (SSP 14-8.02) Control and monitor noise resulting from work activities. Do not exceed 86 dBA Lmax at 50 feet from the job site from 9:00 p.m. to 6:00 a.m. Do not operate construction equipment or run equipment engines from 7:00 p.m. to 7:00 a.m. or on Sundays at the job site except to: 1) Service traffic control facilities or 2) Service construction equipment.

**NOI-2:** (SSP 14-8.02) Control and monitor noise resulting from work activities. 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 project proposes to rehabilitate an existing roadway and would not induce population growth in an area, either directly or indirectly. The 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 impacts are anticipated in this regard.

**Response to Item b): No Impact.** The project anticipates temporary construction easements to install ADA compliant curb ramps on E. Main St. in Barstow, but will not require any additional right of way because the project will occur within the State right-of-way. Furthermore, no residents or businesses would need to be relocated as a result of implementing the project. The proposed project would not necessitate the relocation of any existing developments and/or people. No impacts are anticipated in this regard.

#### 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:

<b>Question</b>	<b>CEQA Determination</b>
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.** The County of San Bernardino provides fire protection in the project vicinity. The nearest fire stations are in San Bernardino County at Barstow Fire District, Station 363, at 2600 West Main Street in the city of Barstow and at Daggett Fire Department, Station 372, at 33702 2<sup>nd</sup> St in the unincorporated community of Daggett. The proposed project involves pavement rehabilitation to I-40 and would not result in an increase in population and therefore not increase 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 Barstow Police Department, San Bernardino County Sheriff's Department, and California Highway Patrol (CHP), as appropriate, provide police protection in the project vicinity. The nearest police station is at Barstow Police Department located at 222 E. Mountain View St. #B in the city of Barstow. The nearest sheriff's station is the San Bernardino County Sheriff's Barstow Station located at 225 E. Mountain View St. in the city of Barstow. 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 Travel Management Plan (TMP), 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.** The Excelsior Charter School in Barstow is located in the project vicinity. The proposed project would not result in accessibility problems to 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.** Sorensen Field in the City of Barstow is located approximately 1000 feet north of the project area, and Daggett Community Park is located approximately 0.70 miles north of the project area and are in the general vicinity of the proposed project area, but would not be affected by either construction or operation of the project. The majority of the land surrounding the project area is private developed land, Federal BLM, and USMC land. Temporary construction easements are anticipated for this project along E. Main Street in the City of Barstow however there will be no impacts on parks.

**Response to e) Other Public Facilities: No Impact.** County of San Bernardino Human Services building which provides transitional assistance to the community is located in the City of Barstow on E. Main St adjacent to PM S0.5. The project proposes to rehabilitate an existing roadway and would not result in adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities. A TMP will be implemented during the construction period which will ensure that access is maintained.

**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.** Project implementation does not have the capacity to 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
d) Result in inadequate emergency access?	Less Than Significant Impact

**Response to Items a) and b): No Impact.** The 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.** Due to the nature and scope of the project, no change in road alignment including curves or intersections are anticipated for the proposed project.

**Response to Item d): Less-Than-Significant Impact.** Construction activities have the potential to result in temporary, localized, site-specific disruptions during the 240 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 avoidance and/or minimization 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:

<b>Question</b>	<b>CEQA Determination</b>
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>Question</b>	<b>CEQA Determination</b>
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 November 3, 2020. A response with a positive Sacred Lands File finding was received November 6, 2021. Two Native American Tribes were contacted under Assembly Bill (AB) 52. Letters were sent on November 3, 2020 to the 29 Palms Band of Mission Indians and San Manuel Band of Mission Indians. A follow-up letter was sent to both Tribes on January 12, 2021, followed by an email on June 12, 2021. One response was received as a result of this correspondence. San Manuel Band of Mission Indians responded June 12, 2021, requesting cultural documents but had no other immediate concerns. Caltrans replied to the San Manuel Band of Mission Indians and provided the Draft Archaeological Survey Report on November 9, 2021. No reply was received. The 29 Palms Band of Mission Indians did not respond.

**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**

No measures are required for Tribal Cultural Resources.

**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 within Federal Responsibility Area (FRA) and Local Responsibility Area (LRA) land and not located in a very high fire severity zone. Construction activities have the potential to result in temporary, localized, site-specific disruptions during construction. 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 Traffic Management Plan which would avoid or minimize any potential impacts.

**Response to Item b): No Impact.** The project area is predominantly surrounded by rural, desert land administered by the Bureau of Land Management, and the Marine Corps Logistics Base Barstow. The western end of the project is located on Main Street, in the City of Barstow, and is developed. Based on Cal Fire’s Fire Hazard Severity Zones Map of the County of San Bernardino, the project is located in an area designated as Federal Responsibility Area (FRA) and Local Responsibility Area (LRA). The proposed project is not located in or near any areas designated as Very High Fire Hazard Severity Zones. Therefore, the project is not anticipated to exacerbate wildfire risks.

**Response to Item c), and d): No Impact.** The proposed project is not located in a very high fire severity zone. The project proposes to rehabilitate the existing pavement on a 15-mile stretch of I-40, upgrade safety features such as guardrail, rumble strips, lighting, and signs, improve drainage by replacing rock slope protection at four washes, and to upgrade curb ramps on Main Street in Barstow to be ADA compliant. The project will not install infrastructure that may result in increased fire risk. The project will not 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.

**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): Less-than-Significant Impact with Mitigation Incorporated.**

The project area contains suitable habitat for desert tortoise, a species listed as threatened by USFWS and CDFW. The proposed project area contains suitable habitat in the form of Mohavean desert scrub for the desert tortoise. However, the roadway, median, and graded shoulders do not support the primary constituent elements or the physical and biological features that support suitable habitat for the desert tortoise. Protocol desert tortoise surveys were not conducted because Caltrans is assuming presence of desert tortoise. Temporary impacts to Desert Tortoise Critical Habitat total .47 acres and temporary impacts to Desert Tortoise Suitable Habitat total 1.23 acres, resulting in an anticipated less-than-significant impact with the implementation of measures **BIO-1** (Bio-General-1), **BIO-3** (Bio-Reptile-1), **BIO-6** (Bio-General-4), **BIO-8** (Bio-Reptile-4), **BIO-9** (Bio-Reptile-5), **BIO-10** (Bio-General-7), **BIO-11** (Bio-General-8), **BIO-12** (Bio-General-9), **BIO-13** (Bio-General-11), and **BIO-14** (Bio-General-12). Caltrans is seeking a *may affect* determination for desert tortoise. Direct impacts to roosting bats are not anticipated as no culvert or bridge work is proposed. Due to proximity of existing watercourses and bridges/culverts, potential indirect project related impacts to bats will be avoided with implementation of **BIO-5** (Bio-General-2). Direct and indirect impacts to nesting birds protected under the Migratory Bird Treaty Act will be prevented with the implementation of **BIO-4** (Bio-Avian-1).

Although the proposed project has channel work, the level of connectivity for wildlife movement will remain the same as the existing conditions.

**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. In the case of biological resources, specific measures will be implemented to minimize potential impacts or avoid impacts altogether. Therefore, there will be no cumulatively considerable impacts.

**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<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF<sub>6</sub>), and various hydrofluorocarbons (HFCs). CO<sub>2</sub> 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<sub>2</sub>.

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 (MMT $\text{CO}_2\text{e}$ ).<sup>1</sup> 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.

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<sup>1</sup> GHGs differ in how much heat each trap in the atmosphere (global warming potential, or GWP).  $\text{CO}_2$  is the most important GHG, so amounts of other gases are expressed relative to  $\text{CO}_2$ , using a metric called "carbon dioxide equivalent" ( $\text{CO}_2\text{e}$ ). The global warming potential of  $\text{CO}_2$  is assigned a value of 1, and the GWP of other gases is assessed as multiples of  $\text{CO}_2$ .

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

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

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

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

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

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

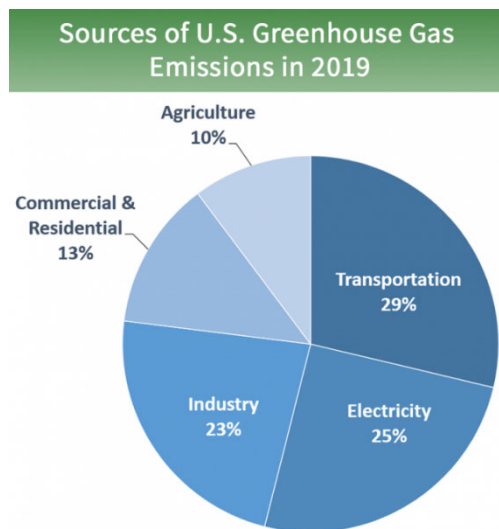
## **ENVIRONMENTAL SETTING**

The proposed project is located partially within the City of Barstow and in rural, desert, undeveloped land within San Bernardino County. The project proposes to upgrade the existing pavement on E. Main Street in Barstow and along a 15-mile stretch of the I-40. The I-40 is a major east-west transportation route with its western end at I-15 in Barstow. The route is important for both passenger and commercial vehicles and links to the neighboring state of Arizona where high volumes of goods are transported. Due to the undeveloped area surrounding the project vicinity, the project rarely experiences congestion.

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<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, perfluorocarbons, SF<sub>6</sub>, and nitrogen trifluoride. It also accounts for emissions of CO<sub>2</sub> that are removed from the atmosphere by “sinks” such as forests, vegetation, and soils that uptake and store CO<sub>2</sub> (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 CO<sub>2</sub>, 10 percent were CH<sub>4</sub>, and 7 percent were N<sub>2</sub>O; the balance consisted of fluorinated gases. CO<sub>2</sub> emissions in 2019 were 2.2 percent less than in 2018, but 2.8 percent more than in 1990. The transportation sector accounted for 29 percent of U.S. GHG emissions in 2019 (U.S. EPA 2021a).

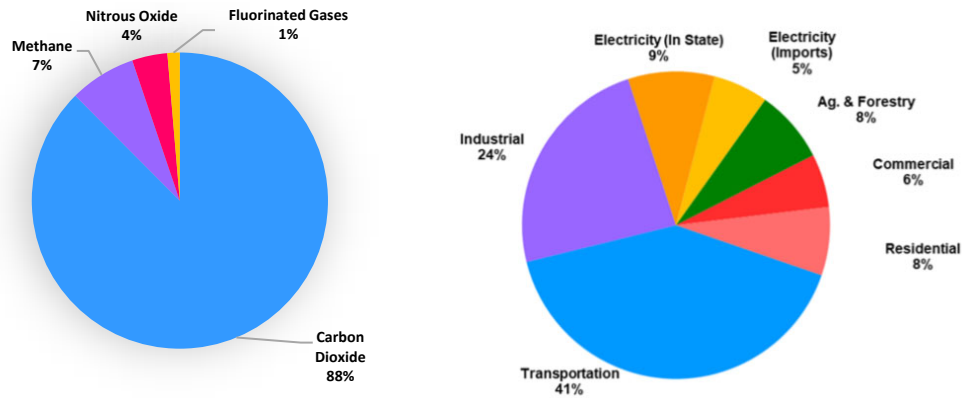


**Figure 1. U.S. 2019 Greenhouse Gas Emissions (Source: U.S. EPA 2021)**

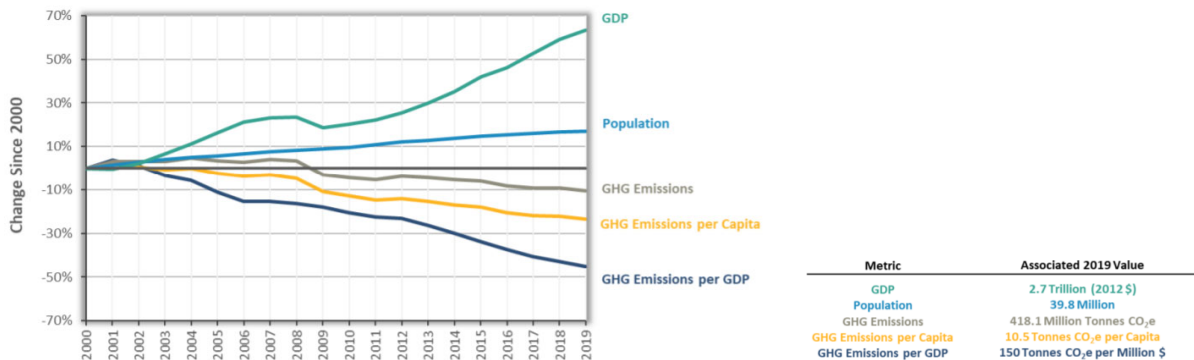
### State GHG Inventory

ARB collects GHG emissions data for transportation, electricity, commercial/residential, industrial, agricultural, and waste management sectors each year. It then summarizes and highlights major annual changes and trends to demonstrate the state’s progress in

meeting its GHG reduction goals. The 2021 edition of the GHG emissions inventory found total California emissions of 418.2 MMTCO<sub>2</sub>e for 2019, with the transportation sector responsible for 41% of total GHGs. It also found that overall statewide GHG emissions declined from 2000 to 2019 despite growth in population and state economic output (ARB 2021a).



**Figure 2. California 2019 Greenhouse Gas Emissions**



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

AB 32 required ARB to develop a Scoping Plan that describes the approach California will take to achieve the goal of reducing GHG emissions to 1990 levels by 2020, and to update it every 5 years. ARB adopted the first scoping plan in 2008. The second updated plan, *California’s 2017 Climate Change Scoping Plan*, adopted on December 14, 2017, reflects the 2030 target established in EO B-30-15 and SB 32. The AB 32 Scoping Plan and the subsequent updates contain the main strategies California will use to reduce GHG emissions.

### Regional Plans

ARB 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 within the jurisdiction of the Southern California Association of Governments (SCAG). The proposed project is included in the RTP/SCS for SCAG. The 2021 RTP identifies regional reduction targets for SCAG as 8 percent and 19 percent for the years 2020 and 2035, respectively (ARB 2019). San Bernardino County’s Emissions Reduction Plan sets a target to reduce countywide GHG emissions from all sources by 15% below 2007 levels by 2020. SCAG, and San Bernardino County policies directed at reducing GHG emissions include the following, among other measures.

**Table 2. Regional and Local Greenhouse Gas Reduction Plans**

Title	GHG Reduction Policies or Strategies
<p>Southern California Association of Governments  <i>2020- 2045 Regional Transportation Plan/Sustainable Communities Strategy</i> (adopted September 2020)</p>	<ul style="list-style-type: none"> <li>● Invest in long-term emission-reduction investments for trucks and rail.</li> <li>● Implement technology and mobility innovations.</li> <li>● Invest in adding capacity and improving critical road conditions.</li> <li>● Implement technology and mobility innovations.</li> </ul>
<p><i>San Bernardino County Regional Greenhouse Gas Reduction Plan</i> (adopted March 2021)</p>	<ul style="list-style-type: none"> <li>● Roadway improvements, including signal synchronization and transportation flow management.</li> <li>● Expand renewable fuel/low-emission vehicle use.</li> <li>● Anti-idling enforcement.</li> <li>● Electric-powered construction equipment.</li> </ul>

## **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<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, and HFCs. CO<sub>2</sub> emissions are a product of the combustion of petroleum-based products, like gasoline, in internal combustion engines. Relatively small amounts of CH<sub>4</sub> and N<sub>2</sub>O 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 rehabilitate the pavement of I-40 and will not increase the vehicle capacity of the roadway. This type of project generally causes minimal or no increase in operational GHG emissions. Because the project would not increase the number of travel lanes on I-40, 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.



The proposed project is a rehabilitation project; thus, no new construction of the roadway is proposed. Construction is expected to require 240 working days during a 2-year construction window and result in approximately 1,130 metric tons of CO<sub>2</sub>-equivalent (CO<sub>2</sub>e)<sup>2</sup>.

The project would comply with all MDAQMD emissions control requirements during construction. 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 Section 14-9.02, 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. In addition, a TMP would be implemented minimize traffic delays during construction.

### **CEQA Conclusion**

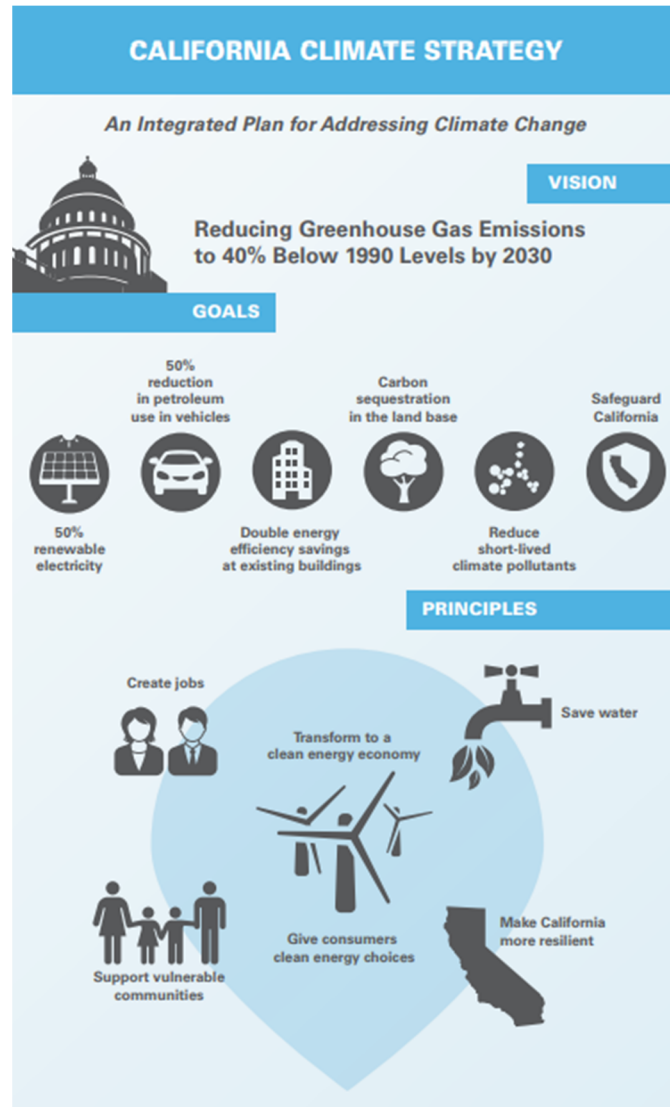
While the proposed project will result in GHG emissions during construction, it is anticipated that the project will not result in any increase in operational GHG emissions. The proposed project does not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the 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 50 percent by 2030 (State of California 2019).

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

## **Caltrans Activities**

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

### ***CALIFORNIA TRANSPORTATION PLAN (CTP 2040)***

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce GHG emissions. In 2016, Caltrans completed the *California Transportation Plan 2040*, which establishes a new model for developing ground transportation systems, consistent with CO<sub>2</sub> reduction goals. It serves as an umbrella document for all the other statewide transportation planning documents. Over the next 25 years, California will be working to improve transit and reduce long-run repair and maintenance costs of roadways and developing a comprehensive assessment of climate-related transportation demand management and new technologies rather than continuing to expand capacity on existing roadways.

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

### ***CALTRANS STRATEGIC MANAGEMENT PLAN***

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

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

### ***FUNDING AND TECHNICAL ASSISTANCE PROGRAMS***

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

California).

### **CALTRANS POLICY DIRECTIVES AND OTHER INITIATIVES**

Caltrans Director's Policy 30 (DP-30) Climate Change (June 22, 2012) is intended to establish a 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.

- Implementation of a TMP includes strategies to minimize traffic delays (TRF-1) through the construction zone. The reduction of traffic delays would also reduce short-term increases in GHG emissions from disruptions in traffic flow.
- In the event that portable changeable message signs are required as part of the TMP, these signs would be solar-powered and would not involve GHG emissions during use.
- 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 MDAQMD would 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 is conducting climate change vulnerability assessments to identify segments of the State Highway System vulnerable to climate change effects including precipitation, temperature, wildfire, storm surge, and sea-level rise. The approach to the vulnerability assessments was tailored to the practices of a transportation agency, and involves the following concepts and actions:

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

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

## **Project Adaptation Analysis**

### ***SEA-LEVEL RISE***

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***

The majority of the proposed project is within FEMA Flood Zone D, with a portion within the City of Barstow within moderate risk Flood Zone X (500-yr). The Caltrans Climate Change Vulnerability Assessment for District 8 maps projected changes in 100-year storm precipitation depths under climate change scenario. In the project area, storm depth is projected to change by less than 2% through 2085. The project would include replacement of rock slope protection at four washes, which improves drainage. Permanent treatment controls, soil stabilization, and erosion control measures would avoid or reduce sediment transport onto the roadway during rainfall. Effects of climate change on precipitation are not likely to adversely affect the project.

### ***WILDFIRE***

The area surrounding the proposed project is undeveloped desert with sparse vegetation. Based on the Cal Fire, Fire Hazard Severity Zones Map for the County of San Bernardino, the project is in designated Federal Responsibility Area (FRA) and Local Responsibility Area (LRA). The proposed project is not in or near any areas designated as LRA Very High, or LRA High fire hazard severity zones. The project would not introduce new structures or uses that exacerbate fire risk or 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. The project will not impair emergency response vehicles or emergency evacuation. Accordingly, the project is not anticipated to exacerbate the impacts of wildfires intensified by climate change.



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## **Public Involvement and Draft IS Circulation**

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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 February 20, 2021 and updated on October 29, 2021.

### **Native American Tribes**

On November 3, 2020, the following Native American Tribes were contacted: 29 Palms Band of Mission Indians and San Manuel Band of Mission Indians. A follow-up letter was sent to both Tribes on January 12, 2021, followed by an email on June 12, 2021. One response was received as a result of this correspondence. San Manuel Band of Mission Indians responded June 12, 2021, requesting cultural documents but had no other immediate concerns. Caltrans replied to the San Manuel Band of Mission Indians and provided the Draft Archaeological Survey Report on November 9, 2021. No reply was received. The 29 Palms Band of Mission Indians did not respond.

## References

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## Appendix A Maps

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- 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**

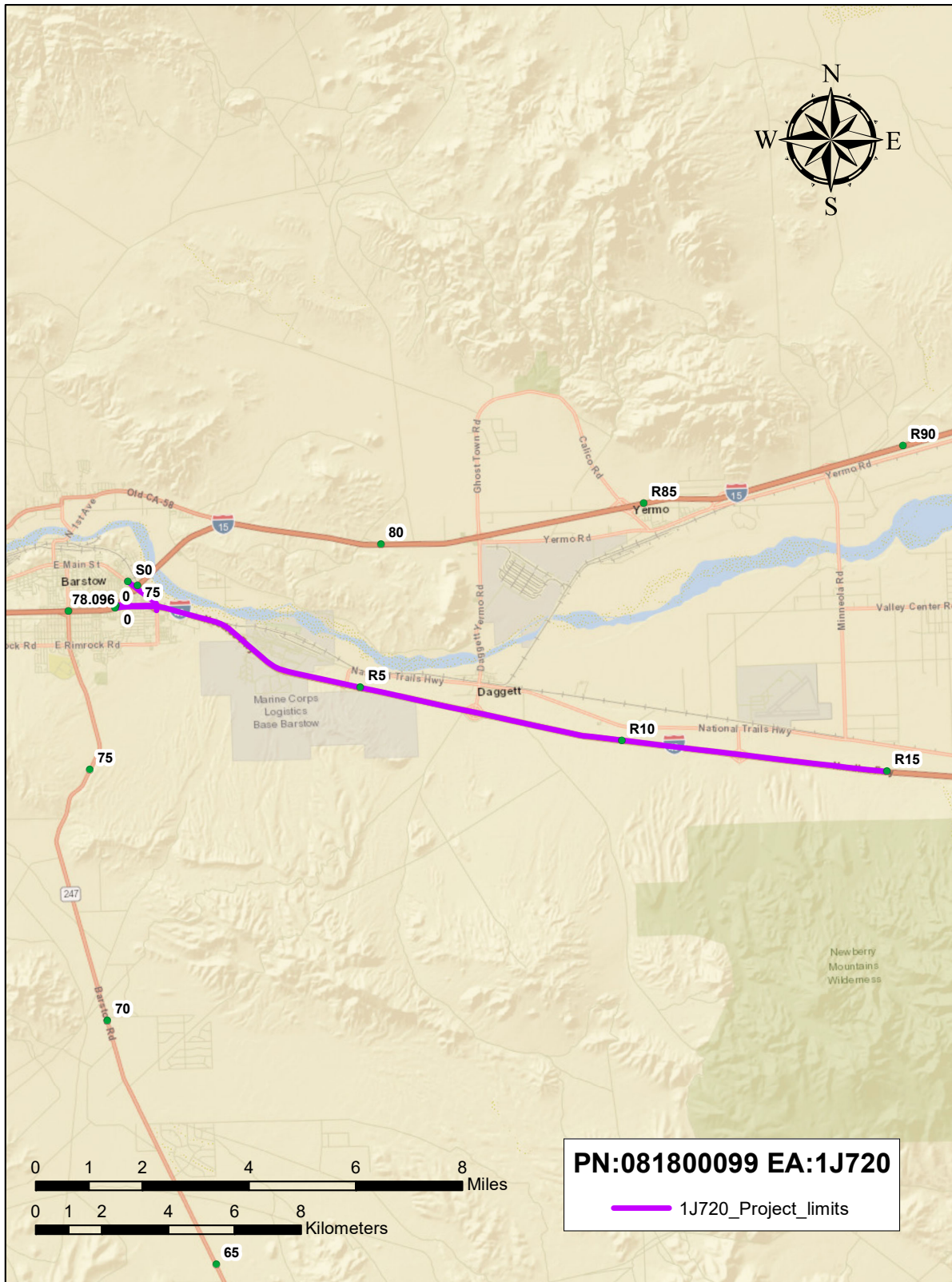


Figure 7. Project Location Map

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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, a Notice of Intent was published in the local newspaper with instructions to access the Draft Environmental Document for public comment.

U.S. Fish and Wildlife Service Carlsbad Office 2177 Salk Avenue, Suite 250 Carlsbad, CA 92008	BLM Barstow Field Office 2601 Barstow Road Barstow, CA 92311	Dr. Raymond Wolfe Executive Director San Bernardino County Transportation Authority 1170 W. 3 <sup>rd</sup> ST., 2 <sup>nd</sup> Floor San Bernardino, CA 92410
Hon. Paul Cook Supervisor, District 1 San Bernardino County Board of Supervisors 385 N. Arrowhead Ave., 5 <sup>th</sup> Floor San Bernardino, CA 92415	Hon. Janice Rutherford Supervisor, District 2 San Bernardino County Board of Supervisors 385 N. Arrowhead Ave., 5 <sup>th</sup> Floor San Bernardino, CA 92415	Hon. Dawn Rowe Supervisor, District 3 San Bernardino County Board of Supervisors 385 N. Arrowhead Ave., 5 <sup>th</sup> Floor San Bernardino, CA 92415
Lynna Monell Clerk of the Board of Supervisors 385 N. Arrowhead Ave., 2nd Floor San Bernardino, CA 92415- 0130	Hon. Curt Hagman Supervisor, District 4 San Bernardino County Board of Supervisors 385 N. Arrowhead Ave., 5 <sup>th</sup> Floor San Bernardino, CA 92415	Hon. Joe Baca, Jr. Supervisor, District 5 San Bernardino County Board of Supervisors 385 N. Arrowhead Ave., 5 <sup>th</sup> Floor San Bernardino, CA 92415
Hon. Thurston Smith Assembly Member California State Assembly, District 33 9700 7 <sup>th</sup> . Ave., Suite 227 Hesperia, CA 92345	Dan Munsey, Fire Chief San Bernardino County Fire 157 W. Fifth Street, 2 <sup>nd</sup> Floor San Bernardino, CA 92415-0451	California Highway Patrol 300 East Mountain View Street Barstow, CA 92311
Leonard X. Hernandez Chief Executive Officer County Administrative Office 385 N. Arrowhead Avenue San Bernardino, CA 92415-0120	San Bernardino County Sheriff's Dept 225 East Mountain View Barstow, CA 92311	State Clearinghouse 1400 Tenth Street Sacramento, CA 95814
California Department of Fish and Wildlife, Region 6 3602 Inland Empire Blvd., Suite C-220 Ontario, CA 91764	Wayne Clemons Jr., M.Ed, Fire Chief Daggett Fire Department 33702 Second St. Daggett, CA 92327	City of Barstow, Planning Dept. 220 E. Mountain View Street, Suite A Barstow, CA 92311
Barstow Police Department 220 E Mountain View St. #B Barstow, CA 92311	Andrea Flores Barstow City Clerk 220 E. Mountain View Street, Suite A Barstow, CA 92311	Nick Dianpoli, Acting Fire Chief City of Barstow 220 E. Mountain View Street, Suite A Barstow, CA 92311



<p>Dr. Paul Anthony Courtney, Mayor, City of Barstow 220 E. Mountain View Street, Suite A Barstow, CA 92311</p>	<p>State of California Lahontan Regional Water Quality Control Board 15095 Amargosa Road, Bldg. 2, Suite 210 Victorville, CA 92394</p>	<p>Col. Gregory B. Pace, Commanding Officer Marine Corps Logistics Base Barstow Box 100130 Barstow, Ca 92311-5050</p>
<p>Kevin Johnston 2288 Buena Vista Ave., Livermore, CA 94550</p>		

## **Appendix C List of Preparers**

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The following personnel contributed to the preparation of this IS:

### **California Department of Transportation**

- Donald Cheng, Civil Engineer/Environmental Engineering, Environmental Engineering “B”
- Adam Compton, Senior Environmental Planner, Regulatory Permits
- Gabrielle Duff, Senior Environmental Planner, Environmental Studies “B”
- Dicken Everson, Associate Environmental Planner, Cultural Studies
- Nancy Frost, Senior Environmental Planner, Biological Studies
- Christopher Gonzalez, Civil Engineer/Environmental Engineering, Environmental Engineering “B”
- Maria Hamlett, Associate Environmental Planner, Regulatory Permits
- Farhana Islam, Civil Engineer/Environmental Engineering, Environmental Engineering “B”
- Elmer Llamas, Associate Environmental Planner, Biological Studies
- Olufemi Odufalu, Civil Engineer/Environmental Engineering, Branch Chief: Environmental Engineering “B”
- Julie Scrivner, Associate Environmental Planner (Generalist), Environmental Studies “B”
- Andrew Walters, Senior Environmental Planner, Cultural Studies

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# Appendix D Title VI Policy Statement

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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](http://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 14<sup>th</sup> Street, MS-79, Sacramento, CA 95811; (916) 324-8379 (TTY 711); or at [Title.VI@dot.ca.gov](mailto:Title.VI@dot.ca.gov).

A handwritten signature in blue ink, appearing to read 'Toks Omishakin'.

Toks Omishakin  
Director



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## **Appendix E List of Technical Studies**

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Historic Property Survey Report, Pavement Rehabilitation (CAPM) San Bernardino County, 08-SBD-I40-PM 0.00/15.00, EA 1J720/0818000099. Prepared by Dicken Everson, Caltrans, November 2021.

Initial Site Assessment (ISA) Checklist for Pavement Rehabilitation (CAPM) San Bernardino County, 08-SBD-I40-PM 0.00/15.00, EA 1J720/0818000099 Prepared by Donald Cheng, Caltrans, November 2021

Natural Environment Study (Minimal Impacts), Pavement Rehabilitation (CAPM) San Bernardino County, 08-SBD-I40-PM 0.00/15.00, EA 1J720/0818000099. Prepared by Elmer Llamas, Caltrans, November 2021.

Questionnaire to Determine Visual Impact Assessment Level Pavement Rehabilitation (CAPM) San Bernardino County, 08-SBD-I40-PM 0.00/15.00, EA 1J720/0818000099. Prepared by Gabriela Cardenas, Caltrans, June 2021.

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## **Appendix F Environmental Commitments Record**

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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
1602	California Department of Fish & Wildlife	N/A	N/A	N/A
401	Report of Waste Discharge (RWD) from the State Water Resources Quality Control Board	N/A	N/A	N/A

Date of ECR: 1/26/2021  
Date:

## ENVIRONMENTAL COMMITMENTS RECORD

(Minor Pavement Rehabilitation (CAPM) I-40)

Project Phase:  
 PA/ED (DED/FED)  
 PS&E Submittal \_\_\_\_\_ %  
 Construction

PM 0.0/15.00  
EA 08-1J720  
PN 081800099  
Generalist: Julie Scrivner  
ECL:

Avoidance, Minimization, and/or Mitigation Measures	Page	Environmental Analysis Source	Responsible for Development and/or Implementation of Measure	Timing/Phase	SSP or NSSP :	Action(s) Taken to Implement Measure/if checked No, add Explanation here	PS&E Task Complete	Construction Task Complete	Environmental Compliance	
							Date / Initials	Date / Initials	YES	NO
<b><u>CULTURAL RESOURCES</u></b>										
<b>CR-1: Treatment of Previously Unidentified Cultural Resources.</b> 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		HPSR (11/15/21)	Resident Engineer/ Contractor	Construction						

Date of ECR: 1/26/2021  
Date:

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(Minor Pavement Rehabilitation (CAPM) I-40)

Project Phase:  
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							Date / Initials	Date / Initials	YES	NO
archaeologist can evaluate the nature and significance of the find.										
<b>CR-2: Treatment of Human Remains.</b> 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		HPSR (11/15/21)	Resident Engineer/ Contractor	Constru ction						

Date of ECR: 1/26/2021  
Date:

## ENVIRONMENTAL COMMITMENTS RECORD

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							Date / Initials	Date / Initials	YES	NO
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.										
<b><u>BIOLOGICAL RESOURCES</u></b>										
<b>BIO-1 (BIO-General-1): Equipment Staging, Storing &amp; Borrow Sites.</b> Equipment, vehicles, and materials staged and stored in Caltrans right-of-way will be sited in previously paved or previously disturbed areas.		NESMI (11/02/2021)	Resident Engineer/ Authorized Biologist/ Contractor	Pre-Construction, During Construction	SSP: 14-6.03A					
<b>BIO-2-(Bio-Plant-1) Rare Plant Surveys, Flagging and Fencing:</b>		NESMI (11/02/2021)			SSP:					



Date of ECR: 1/26/2021  
Date:

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							Date / Initials	Date / Initials	YES	NO
Within 14-days prior to construction, a preconstruction survey must be conducted by a qualified biologist during the typical rare plant blooming season (March-June) for all off pavement work areas, as well as any construction staging areas prior to use. Special-status plants must be flagged for visual identification to construction personnel for work avoidance. Special-status plants detected featuring multiple plants in a single location must be fenced with Environmentally Sensitive Area (ESA) temporary fencing.					14-6.03A					

Date of ECR: 1/26/2021  
Date:

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Project Phase:  
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 PS&E Submittal \_\_\_\_\_ %  
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 ECL:

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							Date / Initials	Date / Initials	YES	NO
<b>BIO-3-(Bio-Reptile-1) Desert Tortoise Under Vehicles and/or Equipment:</b> The qualified biologist and project personnel must carefully check under parked vehicles and equipment for desert tortoises before any of the vehicles or equipment can be moved.		NESMI (11/02/2021)			SSP: 14-6.03A					
<b>BIO-4-(Bio-Avian-1) Preconstruction Nesting Bird Survey:</b>  If project activities cannot avoid the nesting season, generally regarded as Feb. 1 – Sept 30, then preconstruction nesting bird surveys must be conducted 3-		NESMI (11/02/2021)			SSP: 14-6.03B					

Date of ECR: 1/26/2021  
Date:

## ENVIRONMENTAL COMMITMENTS RECORD

(Minor Pavement Rehabilitation (CAPM) I-40)

Project Phase:  
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 PS&E Submittal \_\_\_\_\_ %  
 Construction

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EA 08-1J720  
PN 081800099  
Generalist: Julie Scrivner  
ECL:

Avoidance, Minimization, and/or Mitigation Measures	Page	Environment al 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
days prior to construction by a qualified biologist to locate and avoid nesting birds. If an active avian nest is located, a no construction buffer may be established and monitored by the qualified biologist and/or monitored until the young have fledged or the nest is no longer active.										
<b>BIO-5-(Bio-General-2) Temporary Artificial Lighting Restrictions:</b>  Artificial lighting must be directed at the work site to minimize light spillover outside of the construction footprint if project activities occur at night.		NES (11/02/2021)								

Date of ECR: 1/26/2021  
Date:

## ENVIRONMENTAL COMMITMENTS RECORD

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							Date / Initials	Date / Initials	YES	NO
<b>BIO-6-(Bio-Reptile-2) Injured or Dead Desert Tortoise:</b> The qualified biologist must inform USFWS and CDFW of any injured or dead desert tortoises (and other special status species) found on site (verbal notification within 24 hours and written notification within 5 days).		NESMI (11/02/2021)								
<b>BIO-7-(Bio-General-4) Preconstruction Surveys:</b> Preconstruction desert tortoise surveys must be conducted by a qualified biologist within 7-days and immediately prior to project activities. If a desert		NESMI (11/02/2021)			SSP 14-6.03A					

Date of ECR: 1/26/2021  
Date:

## ENVIRONMENTAL COMMITMENTS RECORD

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							Date / Initials	Date / Initials	YES	NO
tortoise is located, the Resident Engineer and Caltrans biologist must be contacted and additional measures and/or agency coordination may be required.										
<b>BIO-8-(Bio-Reptile-4) Speed Limits in Desert Tortoise Habitat:</b> Except on maintained public roads designated for higher speeds or within desert tortoise proof fenced areas, driving speeds must not exceed 20 miles per hour through potential desert tortoise habitat on unpaved roads.		NESMI (11/02/2021)								
<b>BIO-9-(Bio-Reptile-5) Desert Tortoise Predation</b>		NESMI (11/02/2021)								

Date of ECR: 1/26/2021  
Date:

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							Date / Initials	Date / Initials	YES	NO
<p><b>Prevention:</b> To preclude attracting predators, such as the common raven (<i>Corvus corax</i>) and coyotes (<i>Canis latrans</i>), food-related trash items must be placed in covered refuse cans and removed daily from the work sites and disposed of at an appropriate refuse disposal site.</p> <p>Workers are prohibited from feeding all wildlife.</p>										
<p><b>BIO-10-(Bio-General-7) Worker Environmental Awareness Program (WEAP):</b> A qualified biologist must present a biological resource information</p>		NESMI (11/02/2021)			SSP: 14-6.03A					

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 Construction

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 Generalist: Julie Scrivner  
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program/WEAP for desert tortoise and other special-status species/habitat found within the BSA prior to project activities to all personnel who remain within the project limits for longer than 30 minutes at any given time.										
<b>BIO-11-(Bio-General-8) Biological Monitor:</b> The qualified biologist must monitor project activities weekly to ensure that measures are being implemented and documented at the following locations: Bloom Wash (SBD-40-PM R11.45), Blossom Wash (SBD-40-PM R12.0), Airport Wash (SBD-40-PM		NESMI (11/02/2021)			SSP 14-6.03A 14-6.03D (1)					

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R13.5), and Lava Wash (SBD-40-PM R14.6).										
<b>BIO-12-(Bio-General-9) Environmentally Sensitive Area (ESA):</b> To address impacts to desert tortoise, desert tortoise designated critical habitat, and other special-status species delineate the project impact area as an ESA as shown on the plans and/or described in the specifications at the following locations: Bloom Wash (SBD-40-PM R11.45), Blossom Wash (SBD-40-PM R12.0), Airport Wash (SBD-40-PM R13.5), Lava Wash (SBD-40-PM R14.6), and all		NESMI (11/02/2021)			SSP: 14-6.03D (3) 14-6.03A					



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staging areas adjacent to special-status species habitat.										
<b>BIO-13-(Bio-General-11) Environmentally Sensitive Area (ESA) Fence Removal:</b> All temporary fencing must be removed as a last order of work. During removal, a qualified biologist must be present.		NESMI (11/02/2021)			SSP: 14-6.03D (3) 14-6.03A					
<b>BIO-14-(Bio-General-12) Animal Entrapment:</b> To prevent inadvertent entrapment of desert tortoise during project activities, all excavated steep-walled holes or trenches more than 6 inches deep must be covered at the close of each working		NESMI (11/02/2021)			SSP: 14-6.03A					

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day by plywood (or similar material) or provided with one or more escape ramps constructed of earth fill or wooden planks. At the beginning of each working day, all such holes or trenches must be inspected to ensure no animals have been trapped during the previous night. Before such holes or trenches are filled, they must be thoroughly inspected for trapped animals. Trapped animals must be released by the qualified biologist.										
<b><u>TRAFFIC AND TRANSPORTATION/BICYCLE AND PEDESTRIAN FACILITIES</u></b>										
<b>TRF-1:</b> Prior to construction, a Traffic Management Plan will be developed by Caltrans	34	IS/MND	District Design / District	Pre-Construction						

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to minimize potential impacts on emergency services and commuters during construction.			Traffic Management / District Environmental Planning / Resident Engineer / Contractor							
<b>WATER QUALITY AND STORM RUNOFF</b>										
<b>WQ-1:</b> Prior to the start of construction, a SWPP for reducing impacts on water quality shall be developed by the contractor, and approved by the Department.	28	IS/MND	Resident Engineer	Pre-Construction						
<b>WQ-2:</b> The SWPPP control measures shall address the following categories: soil stabilization practices; sediment control practices;	28	IS/MND	District Design / District Storm Water / Resident	Pre-Construction						

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sediment tracking control practices; wind erosion control practices; and non-stormwater management and waste management and disposal control practices.			Engineer / Contractor							
<b>WQ-3:</b> 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.	28	IS/MND	District Design / District Storm Water / Resident Engineer / Contractor	Construction						
<b>WQ-4:</b> If necessary, soil disturbed areas of the project site will be fully protected using soil stabilization and	28	IS/MND	District Design / District Storm Water / Resident	Construction						

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sediment control BMPs at the end of each day, unless fair weather is predicted.			Engineer / Contractor							
<b>NOISE AND VIBRATION</b>										
<b>NOI-1:</b> Control and monitor noise resulting from work activities. Do not exceed 86 dBA Lmax at 50 feet from the job site from 9:00 p.m. to 6:00 a.m. Do not operate construction equipment or run equipment engines from 7:00 p.m. to 7:00 a.m. or on Sundays at the job site except to:  1. Service traffic-control facilities	31	IS/MND	/ Resident Engineer / Contractor	Construction	SSP: 14-8.02					

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2. Service construction equipment.										
<b>NOI-2:</b> 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.	31	IS/MND	/ Resident Engineer / Contractor	Constru ction	SSP: 14-8.02					
<b>HAZARDOUS WASTE / MATERIALS</b>										
<b>HW-1:</b> SSP 14-11.14 for the removal of treated wood waste	1	ISA Checklist (11/3/21)	District Design / District Environmen tal	Final Design, Constru ction	SSP: 14-11.14					

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			Engineering / Resident Engineer / Contractor							
<b>AIR QUALITY</b>										
<b>AQ-1:</b> Fugitive Dust. Contractor must abide by Caltrans' provisions in Section 14-9, Air Quality of the 2018 Standard Specifications and Special Provisions	10	IS/MND	Resident Engineer/Contractor	Construction	SS 14-9					
<b>AQ-2:</b> Implement and follow erosion control and air quality best management practices (BMPs)	10	IS/MND	Resident Engineer/Contractor	Construction						
<b>AQ-3</b> Comply with AQMD rule 403 for Fugitive Dust and Caltrans Standard Specification Section 14-9	10	IS/MND	Resident Engineer/Contractor	Construction	SS 14-9					