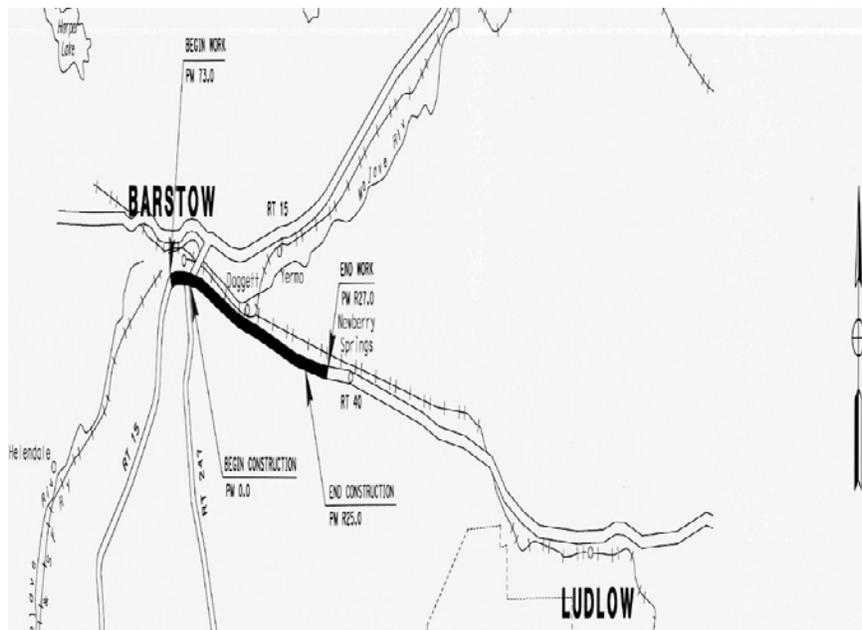


# RE-GRADE MEDIAN CROSS SLOPES ON INTERSTATE 40 POSTMILE 0.0 to R25.0

SAN BERNARDINO COUNTY, CALIFORNIA  
DISTRICT 08-SBd-40 (PM 0.0/R25.0)  
EA 08-0R1200/Project Number 0812000026

## Draft Focused Initial Study with Proposed Mitigated Negative Declaration



Prepared by the  
State of California Department of Transportation



December 2014

## General Information about This Document

### What's in this document:

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

### What you should do:

- Please read this Focused Initial Study.
- Additional copies of this document and related technical studies are available for review at:

Caltrans District 8 Office Building  
Division of Environmental Planning  
Environmental Studies "A"  
464 West 4<sup>th</sup> Street, 8<sup>th</sup> Floor MS 823  
San Bernardino, CA 92401

Barstow Branch Library  
304 East Buena Vista Street  
Barstow, CA 9231-2806  
Phone (760) 256-4850  
Hours: Mon-Wed 11 a.m.- 7 p.m.  
Thursday 10 a.m.- 6 p.m.  
Saturday 9 a.m.- 5 p.m.

This document may be downloaded at the following website <http://www.dot.ca.gov/dist8/projects/index.htm>

- We'd like to hear what you think. If you have any comments about the proposed project, send your written comments to the Department by the deadline.
- Send comments via postal mail to:

Kerrie Hudson, Office Chief  
Environmental Studies "A"  
Division of Environmental Planning  
California Department of Transportation  
464 W. 4th Street, 6<sup>th</sup> Floor, MS 823  
San Bernardino, CA 92401

Attention: I-40 Re-Grade Median Cross Slopes

- Send comments via email to [kerrie\\_hudson@dot.ca.gov](mailto:kerrie_hudson@dot.ca.gov)
- Be sure to send comments by the deadline: February 3, 2015

### What Happens Next:

After comments are received from the public and reviewing agencies, the Department 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, Department could design and construct all or part of the project.

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, Public Affairs, Attn: Phillip Havins, Public Information Officer, 464 West 4th Street, 6th Floor, 12th Floor, San Bernardino, CA 92401; (909) 383-6799 (Voice), or use the California Relay Service 1 (800) 735-2929 (TTY), 1 (800) 735-2929 (Voice) or 711.

SCH# \_\_\_\_\_  
08-SBd-40-PM 0.0/R25.0  
PN 0812000026  
EA 0R1200

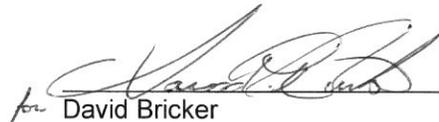
Re-Grade Median Cross Slopes, Interstate 40, east of Fort Cady Road Overcrossing  
(Post Mile 0.0/R25.0) in San Bernardino County

**FOCUSED INITIAL STUDY with Proposed Mitigated Negative Declaration**

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

THE STATE OF CALIFORNIA  
Department of Transportation

12-23-2014  
Date of Approval

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

# PROPOSED MITIGATED NEGATIVE DECLARATION

Pursuant to: Division 13, Public Resources Code

## ***Project Description***

The California Department of Transportation (Department) proposes to Re-grade Median Cross Slopes inside the clear recovery zone from existing 6:1 or steeper gradients in the direction of 10:1 or flatter, and drainage improvements & modifications in the median. Preserve and improving the existing California Highway Patrol (CHP) crossovers on Interstate 40 (I-40) from Junction 15/40 post mile 0.0 (PM 0.0) to 1.4 mile east of Fort Cady Road Overcrossing post mile 25.0 (PM R25.0) in San Bernardino County. The total length of the proposed project is twenty-five miles.

## ***Determination***

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

The Department has prepared a Focused Initial Study (FIS) 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, Agricultural Resources, Air Quality, Paleontological Resources, Hazards & Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Mineral Resources, Population and Housing, Public Services, Recreation, Transportation and Traffic, Utilities and Service Systems, Mandatory Findings of Significance, Cumulative Impacts.

In addition, the proposed project would have less than significant effects to Aesthetics, Cultural Resources, Geology/Soils.

With the following mitigation measures incorporated, the proposed project would have less than significant effect to Biological Resources:

**BIO-2:** Impacts to special-status plant species are not quantifiable until focused surveys have been conducted and presence/absence determined. Compensatory mitigation will be determined after focused surveys have been conducted and impacts are determined, if any. Cumulative effects shall be determined after focused surveys have been conducted.

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

**BIO-26:** Desert tortoise exclusion fence construction will follow the guidelines in chapter 8 of the Desert Tortoise Field Manual (Service 2010) which is available at the VFWO website ([www.fws.gov/ventura](http://www.fws.gov/ventura)).

**BIO-27:** All desert tortoise fences, will be regularly maintained at a frequency sufficient to ensure that they will continually provide an effective barrier to passage of desert tortoises.

**BIO-32:** No compensatory mitigation is anticipated if appropriate avoidance and minimization measures are implemented. However, through the Section 2081 consultation process, CDFW may request mitigation to address the removal of habitat in the median where desert tortoises have the potential to occur. No cumulative effects are anticipated if appropriate avoidance and minimization measures are implemented.

**BIO-33:** Focused burrowing owl surveys will be conducted before the start of construction activities. All required biological surveys must be complete and approved before construction activities may proceed. Specific avoidance and minimization efforts will be determined after focused surveys have been conducted. However, all project sites containing burrows or suitable habitat, whether owls were found or not, require take avoidance surveys that shall be conducted within 14 days prior to ground disturbance to avoid direct take of burrowing owls.

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

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Date

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# Chapter 1 – Proposed Project

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## 1.1 Project Location

The California Department of Transportation (Department) has prepared this Focused Initial Study (FIS), which examines the potential environmental impacts of the alternatives considered for the proposed project Re-grade Median Cross Slopes inside the clear recovery zone from the existing 6:1 or steeper gradients in the direction of 10:1 or flatter, and drainage improvements & modifications in the median. Preserving and improving the existing California Highway Patrol (CHP) crossovers are also included in the scope of the proposed project.

The proposed project is located in the County of San Bernardino along Interstate 40 (I-40), from Junction 15/40 Postmile 0.0 (PM 0.0) to 1.4 mile east of Fort Cady Road Overcrossing Postmile R25.0 (PM R25.0). It passes through the City of Barstow, and the desert communities of Daggett, Nebo and Newberry Springs (See Figure 1).

I-40 is a four-lane major freeway that begins at the junction with Interstate 15 (I-15) in Barstow and crosses the United States where it terminates in Wilmington, North Carolina. I-40 is a major transcontinental transportation corridor linking California and the East Coast. It carries a high volume of truck traffic, transportation goods across the nation. The route also serves significant recreational trips to the Mojave Desert, Colorado River, and Laughlin destinations. Within the State of California, I-40 is a four lane freeway with truck climbing lanes at major grades. A dirt median, variable in width, separates the roadbeds. The California portion is 154.6 miles long and is entirely within San Bernardino County, extending from the City of Barstow to the City of Needles, at the Arizona State line.

## 1.2 Project Description

This section describes the proposed action and the design alternatives that were developed to meet the identified need through accomplishing the defined purpose(s), while avoiding or minimizing environmental impacts. The alternatives are Alternative 1 “No Build” and the “Build” Alternative 2.

The proposed project is located in San Bernardino County on Interstate 40 (I-40) from Junction 15/40 Postmile 0.0 (PM 0.0) to east of Fort Cady Road Overcrossing Postmile R25.0 (PM R25.0). The total length of the proposed project is twenty-five miles. Within the limits of the proposed project, I-40 is a four-lane divided freeway with truck climbing lanes at major grades. A dirt median, variable in width, separates the roadbeds. The left shoulder is 5 feet and the right shoulder is 10 feet in both directions, and the lane width is twelve feet.

The purpose and need of the proposed project is to improve the safety of the travelling public by improving the varying gradients of the existing median cross-slopes, which include drainage modification & improvement work, and preserving and improving the existing California Highway Patrol (CHP) crossovers.

There are two alternatives identified for the proposed project:

- **Alternative 1:** The no-build alternative proposes that no improvements be implemented to the facility at this time. No capital costs would be associated with this alternative. The median cross slopes would remain at a 6:1 or steeper

## Chapter 1 – Proposed Project

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gradient. These existing conditions would continue to deteriorate under the no-build alternative.

- **Alternative 2:** The build alternative consist of re-grading the median cross slopes from the existing 6:1 or steeper gradients to 10:1 or flatter on I-40 from Junction 15/40 (PM 0.0) to 1.4 mile east of Fort Cady Road Overcrossing (PM R25.0) in San Bernardino County. Drainage modifications and improvements work will consist of reconstruction of existing off-site drainage facilities by extending the storm drain in the median. Preserving and improving along the existing California Highway Patrol (CHP) crossovers are also included. Also, a large Environmentally Sensitive Area (ESA) will be avoided between PM R18.76 and PM R19.94. There will be no grading and culvert improvement in the median. Only a compacted AB shoulder backing with three foot varied thickness (see Appendix E, Typical Cross-Sections) will be allowed to be performed on this site.

The capital cost estimate for the construction and right-of-way cost is \$21,730,000.

### Non-Standard Advisory Design Features:

A Fact Sheet outlining Exception for Advisory Design Standards will be prepared and submitted prior to PA/ED approval.

#### 1. Design Exception Feature No. 1

Non-Standard Feature: Non-Standard Median Cross-Slopes within the ESA Area (PM R18.76/R19.94)

Standard for which the Exception is Requested:

Chapter 300, Index 305.2 of the *Highway Design Manual 6th Edition*, states:

“Unsurfaced medians up to 65 feet wide should be sloped downward from the adjoining shoulder to form shallow valley in the center. Cross-slopes should be 10:1 or flatter.”

Utility Involvement: Existing utilities will be protected in place. To positively identify the utilities, potholing will be performed during the PS&E phase.

Cost Estimate: The total project cost for the build alternative is estimated at \$21,730,000 with the Roadway Cost of \$19,630,000 and the Right of Way and Utility Relocation at \$2,100,000.

Right of Way Data: All of the proposed improvements are within the existing Right of Way.

# Chapter 1 – Proposed Project

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## 1.3 Purpose and Need

### Purpose:

The purpose of the proposed project is:

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

### Need:

The need for this project is to improve the safety of the motorist from the run-off-road accidents. From the TASAS Selective Accident Retrieval (TSAR) report, the highest percentage of the accidents occurred from the driver's left shoulder, in both the eastbound and westbound traffic. Re-grading the existing median to a flatter slope will provide an errant vehicle the opportunity to regain control in order to avoid collision and return to the roadway.

### **Current and Forecast Traffic:**

The following table outlines the current and forecasted traffic data for this project location. Traffic growth assumptions are based on projected population growth, zoning, land use, and forecasted economic growth.

**Table 1: Traffic Volumes**

<b>08-SBD-40 PM 0.0-R25.0 Mainline</b>	<b>2012 Existing</b>	<b>2015 Build/ No-Build</b>	<b>2025 Build/ No-Build</b>	<b>2035 Build/ No-Build</b>
<b>Annual Average Daily Traffic (AADT)</b>	15,800	17,300	23,300	31,500
<b>Design Hour Volume (DHV)</b>	1,790	1,850	2,220	2,560
<b>Directional Split (D/S)</b>	71%	67%	58%	54%
<b>Level of Service (LOS)</b>	B	B	B	B
<b>Volume to Capacity (V/C) Ratio</b>	0.35	0.35	0.36	0.39
<b>Truck Percent in ADT</b>	44%	45%	49%	53%
<b>Truck Percent in DHV</b>	26%	27%	35%	39%

Source: *Project Study Report, (June 29, 2012)/Draft Project Report (December 2014)*

Traffic volumes are projected to increase by 38% within the next 20 years.

However, the forecasted level of service on this segment of Route 40 will remain the same up to year 2035. According to the District Transportation Concept Report dated September 2012, the ultimate concept for this segment of Route 40 is four mixed flow lanes, which currently exist within the proposed project area. Therefore, no capacity improvements or construction of new lanes or auxiliary lanes will be anticipated for the next 20 years.

## Chapter 1 – Proposed Project

### Collision Analysis:

The Traffic Accident Surveillance and Analysis System (TASAS) – Transportation System Network (Table 2) shows the following accident summaries for this segment of I-40 in San Bernardino County between Post Miles 0.0 and R25.0 within the three-year period from October 1, 2009 to September 30, 2012.

### Summary of Actual and Average Accident Rates from 10/01/2009 to 09/30/2012

<b>Table 2: TASAS – TSN SELECTIVE ACCIDENT RATE CALCULATIONS</b>						
<b>I-40 PM 0.0-R25.0</b>	<b>Actual (Per Million Vehicle Miles)</b>			<b>Average (Per Million Vehicle Miles)</b>		
	Fatal	Fatal + Injury	Total	Fatal	Fatal + Injury	Total
	0.016	0.13	0.26	0.01	0.15	0.36

Source: Project Study Report, (June 29, 2012)/Draft Project Report (December 2014)

The table listed above show that the Actual Total Accident Rate and the fatal + injury rate are lower than the Statewide Average Accident Rate; however, the Actual Fatal Accident Rate is greater than the Statewide Average Accident Rate.

The output report from the TASAS Selective Accident Retrieval (TSAR) for the three-year period from October 01, 2009 to September 30, 2012 is shown in Tables 3 and 4 below.

### Table 3: Location of Collision (Eastbound)

<b>Location</b>	<b>Percent (%)</b>
Beyond Shoulder Drivers Left	28.6
Beyond Median or Stripe-Left	6.1
Left Lane	20.4
Beyond Shoulder Drivers Right	34.7

Source: Project Study Report, (June 29, 2012)/Draft Project Report (December 2014)

### Table 4: Location of Collision (Westbound)

<b>Location</b>	<b>Percent (%)</b>
Beyond Shoulder Drivers Left	46.2
Left Lane	13.5
Right Lane	25.0
Beyond Shoulder Drivers Right	26.9

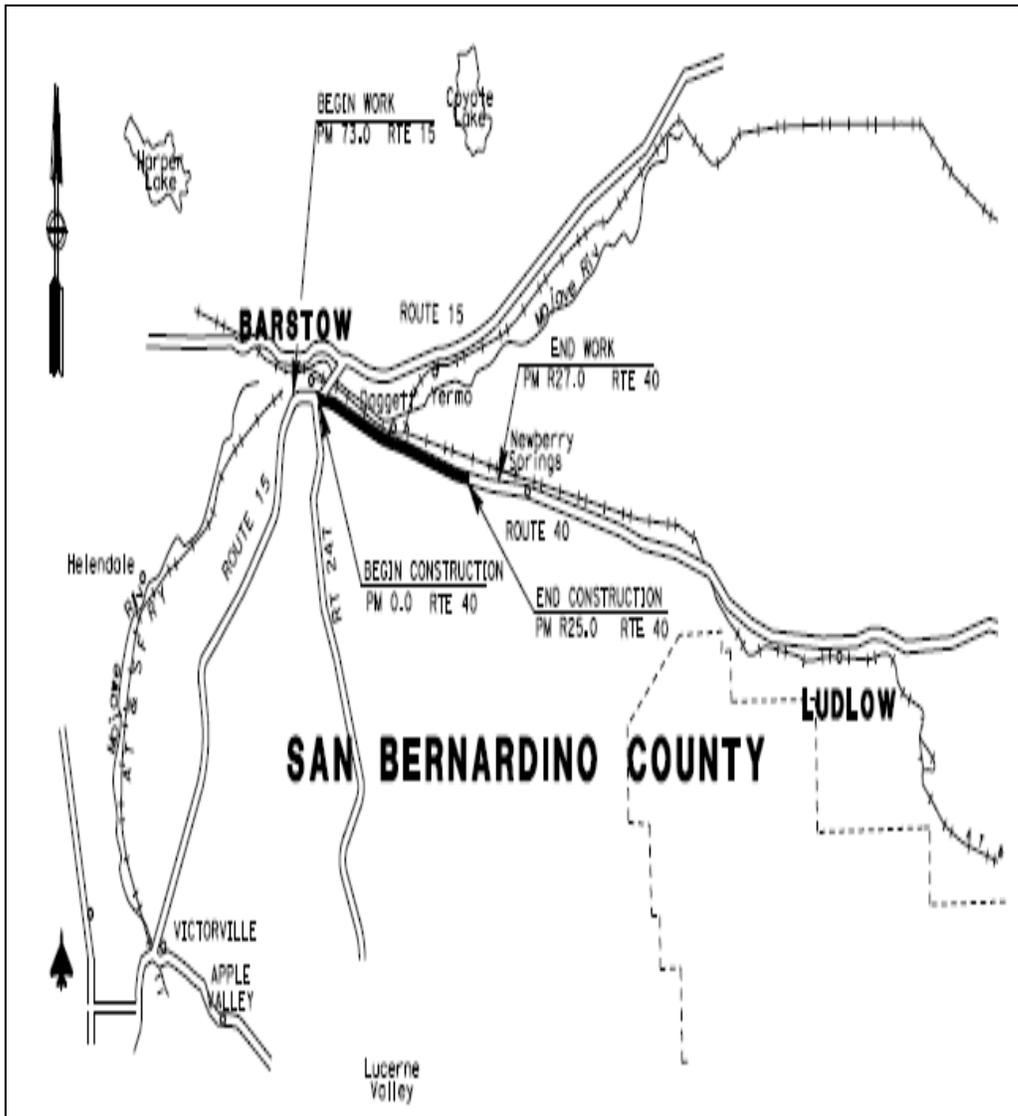
Source: Project Study Report, (June 29, 2012)/Draft Project Report (December 2014)

Tables 3 and 4, show that high percentages of accidents, 28.6 % in the eastbound, and 46.2% in the westbound traffic are located beyond the driver's left shoulder. Implementation of this project, to re-grade the median slope to 10:1 or flatter, would provide a 30-foot clear recovery zone for the errant vehicles and provide the opportunity to recover and return to the roadway.

# Chapter 1 – Proposed Project

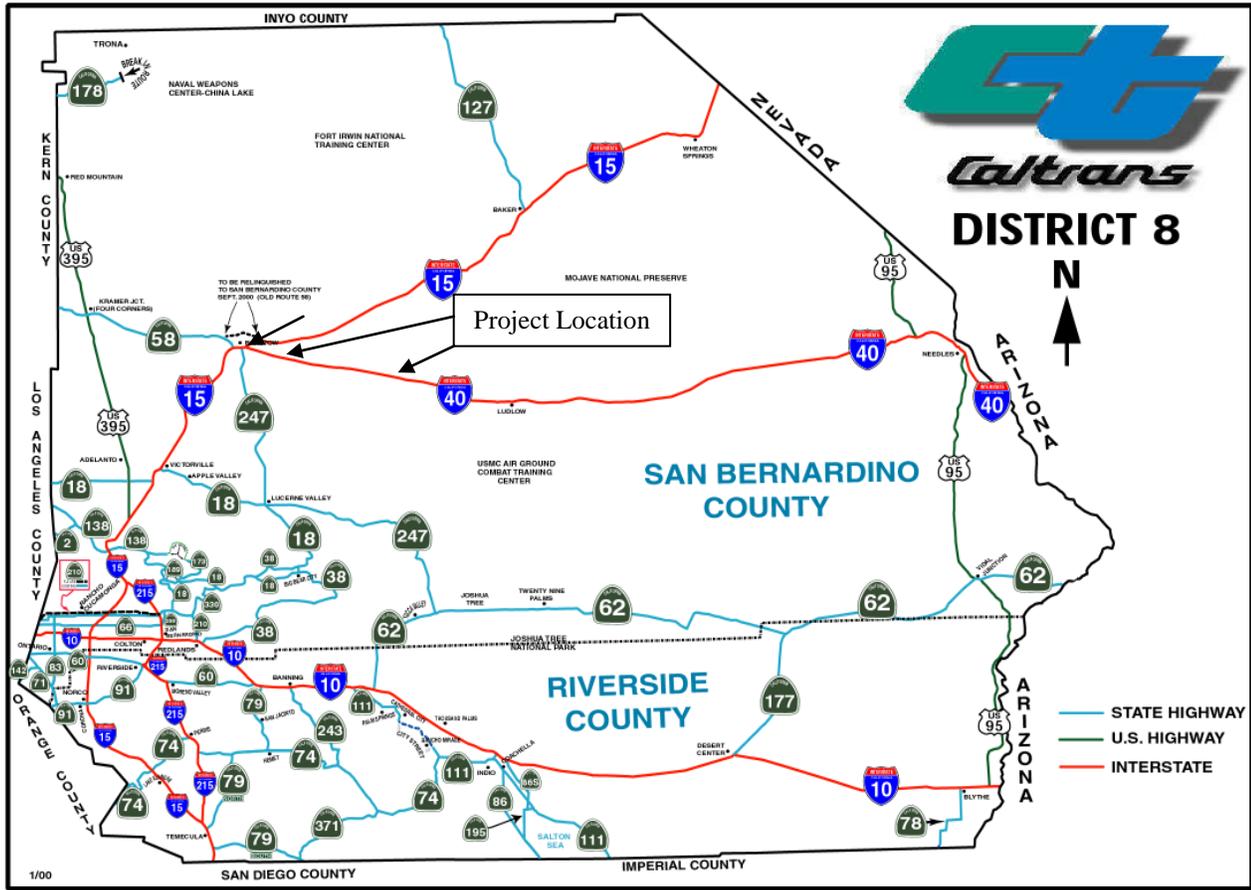
## 1.4 Project Maps

Figure 1: Project Location Map



# Chapter 1 – Proposed Project

## Figure 2: Project Vicinity Map



## Chapter 1 – Proposed Project

### 1.5 Permits and Approvals Needed

**Table 5: Permits, Review, and Approvals**

Agency	Permit/Review/Approval	Status
United States Army Corps of Engineers (USACE)	Section 404 Nationwide Permit in compliance with The Clean Water Act (NWP 14)	Expected Submittal Date: July 1, 2015 Expected Date of Receipt: February 2016 Actual Date of Receipt:
California Regional Water Quality Control Board (CRWQCB)	Section 401 Water Quality Certification in compliance with The Clean Water Act	Expected Submittal Date: July 1, 2015 Expected Date of Receipt: February 2016 Actual Date of Receipt:
California Department of Fish and Wildlife (CDFW)	Section 1602 Streambed Alteration Agreement	Expected Submittal Date: July 1, 2015 Expected Date of Receipt: February 2016 Actual Date of Receipt:
State Water Resources Control Board (SWRCB)	NPDES General Permit, Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction Activities (Order No. 2009-0009-DWQ NPDES No. CAS000002)	The permit has been issued by CSWRCB, and only requires notification of implementation (CAS000002) (Attachment D, Part 2).
State Water Resources Control Board (SWRCB)	National Pollutant Discharge Elimination System (NPDES) Permit Statewide Storm Water Permit and Waste Discharge Requirements for The State of California, Department of Transportation (Order No. 99-06-DWQ, NPDES No. CAS000003)	Registered Engineer and/or Contractor will apply prior construction.
Programmatic Biological Opinion (BO) 8-8-10-F-59	United States Fish and Wildlife Service	Effective Date: February 28, 2017 – February 28-2019

## Chapter 2 – CEQA Checklist

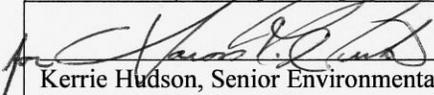
The environmental factors checked below would be potentially affected by this project. Please see the checklist below for additional information.

- |  |   |  |
|--|---|--|
| <input checked="" type="checkbox"/> Aesthetics           | <input type="checkbox"/> Agriculture Resources              | <input type="checkbox"/> Air Quality               |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources      | <input checked="" type="checkbox"/> Geology /Soils |
| <input type="checkbox"/> Hazards & 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/Traffic    |
| <input type="checkbox"/> Utilities / Service Systems     | <input type="checkbox"/> Mandatory Findings of Significance |  |

This CEQA checklist identifies physical, biological, social and economic factors of the human environment that might be affected by the proposed project. The checklist achieves the important statutory goal of integrating the requirements of CEQA with the environmental requirements of other laws.

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 directly after the cited environmental resource. The words “significant” and “significance” used throughout the following checklist are related to CEQA, not NEPA, impacts.

On the basis of this initial evaluation:

<input type="checkbox"/>	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
<input checked="" type="checkbox"/>	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
<input type="checkbox"/>	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
<input type="checkbox"/>	I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
<input type="checkbox"/>	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.
 Kerrie Hudson, Senior Environmental Planner District 8, Division of Environmental Planning California Department of Transportation	
Date <u>December 23, 2014</u>	

## Chapter 2 – CEQA Checklist

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### 2.1 Aesthetics

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	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 2.1.1 Discussion of Environmental Evaluation Question 2.1 - Aesthetics

##### Regulatory Setting

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

##### Environmental Consequences

A determination of “Less Than Significant Impact” to Aesthetics is based coordination with the District Landscape Architect and the completion of the Scenic Resource Evaluation (SRE) and Visual Impact Assessment (VIA) review of the proposed project for potential impacts to visual resources. The result of the evaluation and assessment states because of the scope of work, re-grade median cross slopes from existing 6:1 or steeper gradients to 10:1 or flatter, the proposed project would not result in substantial adverse impacts to the visual environment of the area (February 26, 2014 Memorandum). Therefore, a VIA technical study is not required for this proposed project (per e-mail dated April 24, 2014). And, the “Questionnaire to Determine Visual Impact Assessment” prepared May 21, 2014, determined no formal analysis is required.

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

No mitigation is required; however, the following avoidance and/or minimization measure will be implemented to minimize potential impacts:

**AES 1:** To restore disturbed areas, erosion control “hydroseed” will be applied to return the site to its natural condition (see Standard Specifications 2010, Section 21 – Erosion Control, 21-1.03E Hydromulch and Hydroseed).

## Chapter 2 – CEQA Checklist

### 2.2 Agricultural Resources

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<p><b>II. AGRICULTURE RESOURCES:</b> In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 2.2.1 Discussion of Environmental Evaluation Question 2.2 - Agricultural Resources

##### Regulatory Setting

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

##### Environmental Consequences

A determination of “No Impact” to Agricultural Resources is based on the information obtained from the City of Barstow General Plan Land Use Policy Map (June 1997 – Revised March 2009). The map identifies the surrounding land uses as Neighborhood Residential, General Industrial, General Commercial, Mixed Used, Specific Plan, Recreational Opportunities/Specific Plan, and Military Zone.

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The County of San Bernardino 2007 General Plan Land Use Zoning District Map identifies the surrounding land uses as Highway, General and Neighborhood Commercial, Single and Multiple Residential, Rural Living, and Resource Conservation.

There were no farmlands within or adjacent to the proposed project during the May 23, 2014 review of the California Department of Conservation - San Bernardino County Important Farmland 2008 Map (Sheet 1 or 2).

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

No avoidance, minimization, and/or mitigation measures are required for this proposed project.

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### 2.3 Air Quality

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>III. AIR QUALITY:</b> Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 2.3.1 Discussion of Environmental Evaluation Question 2.3 - Air Quality

##### Environmental Consequences

A determination of “No Impact” to Air Quality is based on coordination with the Environmental Engineering Unit and the scope of work consisting of only re-grading median cross slopes within the existing roadway. This proposed project is listed in Table 1, Carbon Monoxide (CO) Protocol and it is exempt from all emission analyses. No long-term air quality impacts would result from the project. There would be no significant adverse air quality impacts due to project construction activities, and there would be no operational air quality impacts. Potential short-term air quality impacts may result from the construction phase of the project. However, with the appropriate Erosion Control and Air Quality Best Management Practices (BMP’s) the impacts would be minimal (see below) (Environmental Engineering Memorandum, September 30, 2013). An Air Quality Report (AQR) is not required for this proposed project.

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

No mitigation is required; however, the following avoidance and/or minimization measure will be implemented to minimize potential impacts.

**AQ-1:** Construction equipment engines shall be maintained in good condition and in proper tune as per manufacturers’ specifications.

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### 2.4 Biological Resources

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>IV. BIOLOGICAL RESOURCES:</b> Would the project:				
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 or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 2.4.1 Discussion of Environmental Evaluation Question 2.4 - Biological Resources

##### Regulatory Setting

The State of California Code of Regulations empowers the California Department of Fish and Wildlife (CDFW) to issue Agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be substantially adversely affected. Streams and rivers are defined by the presence of a channel bed and bank with at least an ephemeral flow of water. The CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by the CDFW.

CDFW has not defined wetlands for jurisdictional purposes. CDFW generally includes within the jurisdictional limits of streams and lakes any riparian habitat present. Riparian habitat includes willows, alders, and other vegetation typically associated with stream banks or lake shoreline. In most situations, wetlands associated with a stream or lake would fall within the limits of riparian habitat. Thus, defining the limits of CDFW jurisdiction based on riparian habitat will automatically include wetland areas. Wetlands not associated with a lake, stream or other regulated areas generally are not subject to CDFW jurisdiction.

The California Endangered Species Act (CESA) is administered by CDFW and prohibits “take” of plant and animal species identified as either threatened or endangered in the state of California by the Fish and

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Game Commission (Fish and Game Code Section 2050 to 2097). “Take” includes pursuit, hunt, kill, capture, or any other action that results in adverse impacts to listed species. Section 2091 and 2081 of CESA allow CDFW to authorize exceptions to the “take” of the State-listed threatened or endangered plant and animal species for purposes such as public and private development. CDFW requires formal consultation to ensure that its actions would not jeopardize the continued existence of any listed species or destroy or adversely modify critical habitat.

On December 9, 2014, the Department approved the Natural Environment Study (NES) completed for this proposed project.

### **Affected Environment**

The biological study area (BSA) was created to encompass the proposed project footprint and typical habitats in the immediate project vicinity that may be affected by the proposed project. The BSA includes the entire median, which is the area between the I-40 west-bound and east-bound lanes. The BSA is currently undeveloped and varies in width from approximately 60 feet to 100 feet, with the exception of the I-15/I-40 interchange where the median increases in width to approximately 200 feet. The surrounding areas north and south of I-40 are largely undeveloped.

With the exception of the steep, often riprap-lined embankments of the many perpendicular washes as well as several bisecting road embankments and areas where the embankments to traffic lanes of I-40 are steep, the project site is relatively flat with only gradual sloping occurring along the 25-mile alignment. On-site elevations range from 1,784 to 2,145 feet above mean sea level. Trash and debris were abundant in the median throughout the project length.

Soils ranged from sandy/gravelly (in the washes) to silty in the alkaline saltbush communities to very rocky/cobbly in some areas. Soils, as mapped by United States Department of Agriculture, Soil Conservation Service (2014) are shown in Table 6 on the next page.

**Table 6. Soils Within the BSA**

Soil Type	Description
Arizo gravelly loamy sand, 2-9% slopes	The Arizo series consists of very deep, excessively drained soils that formed in mixed alluvium. Arizo soils are on recent alluvial fans, inset fans, fan apron, fan skirts, stream terraces, floodplains of intermittent streams and channels. These soils are used for rangeland and wildlife habitat. The present vegetation is mainly creosote bush and burrobush.
Cajon sand, 2-9% slopes Cajon gravelly sand, 2-15% slopes	The Cajon series consists of very deep, somewhat excessively drained soils that formed in sandy alluvium from dominantly granitic rocks. Cajon soils are on alluvial fans, fan aprons, fan skirts, inset fans and river terraces. Used mostly for range, watershed, and recreation. A few areas are irrigated and are used for growing alfalfa and other crops. Vegetation is mostly desert shrubs including creosote bush, saltbush, Mormon-tea, Joshua trees, some Indian ricegrass, annual grasses and forbs.
Halloran sandy loam	The Halloran series consists of deep, moderately well drained soils that formed in mixed alluvium dominantly from granitic sources. Halloran soils are on old alluvial terraces and depressional areas. Used mainly for wildlife habitat and recreation. Small areas are used for irrigated alfalfa, small grains and pasture. Vegetation is mainly creosote bush, saltbush, and alkali tolerant vegetation. Where wind-blown hummocks and small dunes occur, mesquite trees grow.
Kimberlina loamy fine sand, cool, 0-2% slopes	The Kimberlina series consists of very deep, well drained soils on flood plains and recent alluvial fans. These soils formed in mixed alluvium derived dominantly from igneous and/or sedimentary rock sources. Used for growing irrigated field, forage, and row crops. Some areas used for livestock grazing.

Table 6. Soils Within the BSA

Soil Type	Description
Nebona-Cuddeback complex, 2-9% slopes	The Nebona series consists of shallow, well drained soils that formed in mixed alluvium. Used mainly for wildlife habitat and recreation. Native vegetation is very sparse stands of creosote bush, white bur-sage, yucca species, some saltbush, annual grasses and forbs. The Cuddeback series consists of moderately deep, well drained soils that formed in alluvium from mixed sources. Cuddeback soils are on old terraces and alluvial fans. Used mainly for wildlife habitat and recreation. Very sparse stands of creosote bush, yucca species, annual grasses and forbs.
Rosamond loam, saline-alkali Rosamond loam, strongly saline-alkali	The Rosamond series consists of deep, well drained soils that formed in material weathered mainly from granitic alluvium. Rosamond soils are on the lower margin of the alluvial fans between the sloping fans and the playas. Large areas are used for desert range. Other extensive areas are irrigated and cropped to alfalfa and row crops. Native vegetation is rabbitbrush, big sagebrush, a small amount of <i>Atriplex</i> and a little annual and perennial grass and weeds.

*Source: Natural Environment Study, (December 2014)*

The BSA contains 86 jurisdictional drainages which encompass 1.46 acres of jurisdiction. All drainages were ephemeral and flowed from south to north through the BSA. The substrate of all on-site drainages was composed of coarse sand with gravel and sometimes cobble. The banks of the larger drainages were generally steeply-sloping and made of rip-rap. The banks of the smaller drainages generally did not contain rip-rap and were vertically-incised. All on-site drainages were either sparsely vegetated or unvegetated. Dominant vegetation within the drainages included creosote bush (*Larrea tridentata*), cheesebush (*Ambrosia salsola*), allscale saltbush (*Atriplex polycarpa*), and desert trumpet (*Eriogonum inflatum*).

**Vegetation/Natural Communities:**

Dominant and conspicuous plant species were recorded in personal field notes and on the desert tortoise pre-project survey data sheets. The project site is located within the Mojave Desert biome of southern California. The on-site vegetation communities consisted of creosote bush series and saltbush series as described by Sawyer and Keeler-Wolf (1995). Dominant plant species within the creosote bush series included, but were not limited to: creosote bush, white bur-sage (*Ambrosia dumosa*), and cheesebush. Dominant plant species within the saltbush series included allscale saltbush and creosote bush.

Seventeen (17) vertebrates, including the desert tortoise, were either directly observed or detected through presence of sign (e.g., scat, burrows, carcass, tracks, etc.) on the project site. These included five (5) reptiles, eight (8) birds and four (4) mammals. Some of these are resident, common species in the Mojave Desert while others (birds) are seasonal migrants passing through the area. Representative common wildlife species detected included, but were not limited to: side-blotched lizard (*Uta stansburiana*), western whiptail (*Aspidoscelis tigris*), common raven (*Corvus corax*), and desert woodrat (*Neotoma lepida*).

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### Special-Status Species:

The presence or absence of special-status species depends upon many factors, including habitat conditions, behavior, seasonal activity, and seasonal occurrence. It is often not readily possible to ascertain the presence or absence of a species at any particular moment in time. Thus, the presence, or the likelihood of the presence, of special-status species is based on the following criteria (in descending order, from species determined to be present to those considered potentially present): (1) direct observation of the species or its sign in the BSA or immediate vicinity during surveys conducted for this study or reported in previous biological studies; (2) sighting by other qualified observers; (3) record reported by the CNDDDB; (4) presence or location of specific species lists provided by private groups (e.g., CNPS); and/or (5) the study area lies within known distribution of a given species and contains appropriate habitat.

Table 7 below describes the special-status species occurring or potentially occurring in the BSA and vicinity. There is no designated critical habitat present in the BSA; however, desert tortoise critical habitat occurs to the north and south of I-40.

Focused surveys were conducted for desert tortoise. The results of the focused surveys are discussed in further detail after Table 7 along with project-related effects to all of these species/habitats, and further study needs.

**Table 7. Special-Status Species Occurring or Potentially Occurring in the BSA and Vicinity**

Scientific Name	Common Name	Status <sup>1</sup>	Habitat and Distribution	Habitat Present / Absent <sup>2</sup>	Rationale
<b>FISH</b>					
<i>Siphateles bicolor mohavensis</i>	Mohave tui chub	F/FE S/SE	Endemic to the Mojave River basin, adapted to alkaline, mineralized waters. Needs deep pools, ponds, or slough-like areas. Needs vegetation for spawning.	A	Suitable habitat not present.
<b>PLANTS</b>					
<i>Abronia villosa</i> var. <i>aurita</i>	chaparral sand-verbena	F/None S/None CNPS/1B .1	Chaparral, coastal scrub. Sandy areas. 80-1,600m.	A	Suitable habitat not present.
<i>Androstaphylos breviflorum</i>	small-flowered androstaphylos	F/None S/None CNPS/2B .2	Mojavean desert scrub, desert dunes. Bajadas. One site known from sand dunes. 220-800m.	P	Potential habitat on east end of project. Historical records within 5 miles to the east.

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**Table 7. Special-Status Species Occurring or Potentially Occurring in the BSA and Vicinity**

Scientific Name	Common Name	Status <sup>1</sup>	Habitat and Distribution	Habitat Present / Absent <sup>2</sup>	Rationale
<i>Astragalus jaegerianus</i>	Lane Mountain milk-vetch	F/FE S/None CNPS/1B .1	Joshua tree woodland, Mojavean desert scrub. Dry, stony hillsides and desert mesas, in granite sand and gravel, commonly with Joshua trees, usually under shrubs. 900-1,200m.	A	Outside elevation range.
<i>Castela emoryi</i>	Emory's crucifixion thorn	F/None S/None CNPS/2B .2	Mojavean desert scrub, Sonoran desert scrub, playas. Gravelly soils, sometimes in alkali playas or washes. 85-770m.	P	Suitable habitat present. Historical records near Daggett.
<i>Cymopterus multinervatus</i>	purple-nerve cymopterus	F/None S/None CNPS/2B .2	Mojavean desert scrub, pinyon and juniper woodland, Joshua tree woodland. Sandy or gravelly places. 790-1,800m.	A	Outside elevation range.
<i>Eriophyllum mohavense</i>	Barstow woolly sunflower	F/None S/None CNPS/1B .2	Desert chenopod scrub, Mojavean desert scrub, desert playas. Mostly in open, silty, or sandy areas with saltbush scrub, or creosote bush scrub. Barren ridges or margins of playas. 500-900m	A	Median on west portion of project (near its range) is highly disturbed/cleared and not suitable habitat.
<i>Menodora spinescens</i> var. <i>mohavensis</i>	Mojave menodora	F/None S/None CNPS/1B .2	Mojavean desert scrub. Rocky hillsides, canyons. Andesite gravel. 690-2,000 m.	A	Outside elevation range.
<i>Mentzelia puberula</i>	Darlington's blazing star	F/None S/None CNPS/2B .2	Mojave desert scrub. Sandy crevices in cliffs or on rocky slopes. 90-1,280 m.	A	Suitable habitat not present.
<i>Mentzelia tricuspis</i>	spiny-hair blazing star	F/None S/None CNPS/2B .1	Mojavean desert scrub. Sandy or gravelly slopes and washes. 150-1,280 m.	P	Suitable habitat present.
<i>Mentzelia tridentata</i>	creamy blazing star	F/None S/None CNPS/1B .3	Mojavean desert scrub. 700-1,160m.	A	Outside elevation range.

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**Table 7. Special-Status Species Occurring or Potentially Occurring in the BSA and Vicinity**

Scientific Name	Common Name	Status <sup>1</sup>	Habitat and Distribution	Habitat Present / Absent <sup>2</sup>	Rationale
<i>Mimulus mohavensis</i>	Mojave monkeyflower	F/None S/None CNPS/1B .2	Joshua tree woodland, Mojavean desert scrub. Dry sandy or rocky washes along the Mojave River. 600-1,175m.	A	Suitable habitat not present.
<i>Monardella boydii</i>	Boyd's monardella	F/None S/None CNPS/1B .2	Mojavean desert scrub, pinyon and juniper woodland, riparian scrub (desert). Usually in alluvial soils and in cracks of bedrock in washes. On canyon bottoms or rocky slopes. 1,400-1,650 m.	A	Outside elevation range.
<i>Muhlenbergia appressa</i>	appressed muhly	F/None S/None CNPS/2B .2	Coastal sage scrub, Mojavean desert scrub, valley and foothill grassland. Possibly undercollected in California. Rocky slopes, canyon bottoms. 20-1,600m.	A	Suitable habitat not present.
<i>Pediomelum castoreum</i>	Beaver Dam breadroot	F/None S/None CNPS/1B .2	Joshua tree woodland, Mojavean desert scrub. Sandy soils, washes and roadcuts. 610-825m.	P	Suitable habitat present. Numerous historical records in vicinity.
<i>Penstemon albomarginatus</i>	white-margined beardtongue	F/None S/None CNPS/1B .1	Mojavean desert scrub, desert dunes. Deep stabilized desert sand, in washes and along roadsides. 635-1,065m.	A	Historical range ~10 miles to east of project.
<i>Phacelia parishii</i>	Parish's phacelia	F/None S/None CNPS/1B .1	Mojavean desert scrub, playas. Alkaline flats and slopes or on clay soils. 540-1,200 m.	A	Suitable habitat not present.
<i>Plagiobothrys parishii</i>	Parish's popcornflower	F/None S/None CNPS/1B .1	Great Basin scrub, Joshua tree woodland. Alkaline soils, mesic sites. 750-1,400m.	A	Outside elevation range.

**Table 7. Special-Status Species Occurring or Potentially Occurring in the BSA and Vicinity**

Scientific Name	Common Name	Status <sup>1</sup>	Habitat and Distribution	Habitat Present / Absent <sup>2</sup>	Rationale
<i>Wislizenia refracta</i> ssp. <i>refracta</i>	jackass-clover	F/None S/None CNPS/2B .2	Playas, desert dunes, Mojavean desert scrub, Sonoran desert scrub. Sandy washes, roadsides, alkaline flats. 600-800 m.	A	Suitable habitat not present.
<b>AMPHIBIANS AND REPTILES</b>					
<i>Anaxryus californicus</i>	arroyo toad	F/FE S/SC	Semi-arid regions near washes or intermittent streams, including valley-foothill and desert riparian, desert wash, etc. Rivers with sandy banks, willows, cottonwoods, and sycamores; loose, gravelly areas of streams in drier parts of range.	A	Suitable habitat not present.
<i>Emys marmorata</i>	western pond turtle	F/None S/SC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation. Need basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	A	Suitable habitat not present.
<i>Gopherus agassizii</i>	desert tortoise	F/FT S/ST	Most common in desert scrub, desert wash, and Joshua tree habitats; occurs in almost every desert habitat. Require friable soil for burrow and nest construction. Creosote bush habitat with large annual wildflower blooms preferred.	P	Carcasses found during focused surveys.

**Table 7. Special-Status Species Occurring or Potentially Occurring in the BSA and Vicinity**

Scientific Name	Common Name	Status <sup>1</sup>	Habitat and Distribution	Habitat Present / Absent <sup>2</sup>	Rationale
<i>Uma scoparia</i>	Mojave fringe-toed lizard	F/None S/SC	Fine, loose, wind-blown sand in sand dunes, dry lakebeds, riverbanks, desert washes, sparse alkali scrub and desert scrub. Shrubs or annual plants may be necessary for arthropods found in the diet.	A	Suitable habitat not present.
<b>BIRDS</b>					
<i>Aquila chrysaetos</i>	golden eagle	F/None S/FP	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	A	Suitable habitat not present in BSA. Could occur in nearby mountain ranges.
<i>Athene cunicularia</i>	burrowing owl	F/BCC S/SC	Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	P	Marginal habitat – not many burrows present, but could use culverts, pipes, and/or kit fox burrows. Historical records in vicinity.
<i>Coccyzus americanus occidentalis</i>	western yellow-billed cuckoo	F/FPT, BCC S/SE	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	A	Suitable habitat not present.

**Table 7. Special-Status Species Occurring or Potentially Occurring in the BSA and Vicinity**

Scientific Name	Common Name	Status <sup>1</sup>	Habitat and Distribution	Habitat Present / Absent <sup>2</sup>	Rationale
<i>Falco mexicanus</i>	prairie falcon	F/BCC S/None	Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.	P	Foraging habitat present in BSA vicinity.
<i>Icteria virens</i>	yellow-breasted chat	F/None S/SC	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian consisting of willow, blackberry, wild grape; forages and nests within 10 ft of ground.	A	Suitable habitat not present.
<i>Lanius ludovicianus</i>	loggerhead shrike	F/None S/SC	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	P	Species occurs in BSA vicinity
<i>Pyrocephalus rubinus</i>	vermillion flycatcher	F/None S/SC	During nesting, inhabits desert riparian adjacent to irrigated fields, irrigation ditches, pastures, and other open, mesic habitats. Nest in cottonwood, willow, mesquite, and other large desert riparian trees.	A	Suitable habitat not present.

**Table 7. Special-Status Species Occurring or Potentially Occurring in the BSA and Vicinity**

Scientific Name	Common Name	Status <sup>1</sup>	Habitat and Distribution	Habitat Present / Absent <sup>2</sup>	Rationale
<i>Toxostoma bendirei</i>	Bendire's thrasher	F/BCC S/SC	Local spring/summer resident in flat areas of desert succulent shrub/Joshua tree habitats in Mojave Desert. Nests in cholla, yucca, palo verde, thorny shrub, or small tree, usually 0.5 to 20 feet above ground.	A	Suitable habitat not present. Potentially present to north/south of I-40, but unlikely to be present in BSA.
<i>Toxostoma lecontei</i>	Le Conte's thrasher	F/BCC S/SC	Desert resident; primarily of open desert wash, desert scrub, alkali desert scrub, and desert succulent scrub habitats. Commonly nests in a dense, spiny shrub or densely branched cactus in desert wash habitat, usually 2-8 feet above ground.	A	Suitable habitat not present. Potentially present to north/south of I-40, but unlikely to be present in BSA.
<b>MAMMALS</b>					
<i>Antrozous pallidus</i>	pallid bat	F/None S/SC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	A	Suitable habitat not present.
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	F/None S/SCT, SC	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	A	Suitable habitat not present.

**Table 7. Special-Status Species Occurring or Potentially Occurring in the BSA and Vicinity**

Scientific Name	Common Name	Status <sup>1</sup>	Habitat and Distribution	Habitat Present / Absent <sup>2</sup>	Rationale
<i>Taxidea taxus</i>	American badger	F/None S/SC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	A	Suitable habitat not present.
<i>Xerospermophilus mohavensis</i>	Mohave ground squirrel	F/None S/ST	Open desert scrub, alkali scrub and Joshua tree woodland. Also feeds in annual grasslands. Restricted to Mojave Desert. Prefers sandy to gravelly soils, avoids rocky areas. Uses burrows at base of shrubs for cover. Nests are in burrows.	A	Suitable habitat not present.

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**Table 7. Special-Status Species Occurring or Potentially Occurring in the BSA and Vicinity**

Scientific Name	Common Name	Status <sup>1</sup>	Habitat and Distribution	Habitat Present / Absent <sup>2</sup>	Rationale
<p>Notes:</p> <p><b><sup>1</sup>Status:</b></p> <p><u>F: Federal Classification</u></p> <p>FE - Federal Endangered</p> <p>FT - Federal Threatened</p> <p>FPT - Federal Proposed Threatened</p> <p>BCC - Bird of Conservation Concern</p> <p><u>S: California Classification</u></p> <p>SE - State Endangered</p> <p>ST - State Threatened</p> <p>SCT - State Candidate Threatened</p> <p>FP - Fully Protected</p> <p>SC - Species of Concern</p> <p><u>CNPS: California Native Plant Society Classifications</u></p> <p>1A - Plants Presumed Extirpated in CA and Either Rare or Extinct Elsewhere.</p> <p>1B - Plants Rare, Threatened, or Endangered in CA and Elsewhere.</p> <p>2A - Plants Presumed Extirpated in CA, But More Common Elsewhere.</p> <p>2B - Plants Rare, Threatened, or Endangered in CA, But More Common Elsewhere.</p> <p>3 - Plants about which more information is needed – a CNPS review list.</p> <p>4 - Plants of Limited Distribution – A Watch List</p> <p>.1 - Seriously threatened in CA (over 80% of occurrences threatened).</p> <p>.2 - Moderately threatened in CA (20-80% occurrences threatened).</p> <p>.3 - Not very threatened in CA (&lt;20% of occurrences threatened).</p>			<p><b><sup>2</sup>Habitat Present/Absent</b></p> <p>P - Present – general habitat is present; species is/may be present.</p> <p>A - Absent – no further work needed.</p>		

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### **Natural Communities of Special Concern:**

The BSA is dominated by barren, highly disturbed areas, creosote bush scrub, and saltbush scrub. These habitats are not classified as communities of special concern; therefore, no specific avoidance and minimization efforts or compensatory mitigation are required. However, Best Management Practices (BMP) will be implemented throughout the project.

### **Special-Status Plant Species:**

Four (4) special-status plant species have suitable habitat present within the BSA: small-flowered androstephium (*Androstephium breviflorum*), Emory's crucifixion thorn (*Castela emoryi*), spiny-hair blazing star (*Mentzelia tricuspidis*), and Beaver Dam breadroot (*Pediomelum castoreum*).

Focused plant surveys have not been conducted. Impacts to special-status plant species are not quantifiable until focused surveys have been conducted and presence/absence confirmed. Focused surveys for special-status plants shall be conducted by qualified botanists during appropriate blooming periods. Typical blooming periods for these species are:

- small-flowered androstephium: Mar-Apr
- Emory's crucifixion thorn: Apr-Oct
- spiny-hair blazing star: Mar-May
- Beaver Dam breadroot: Apr-May

Surveys shall adhere to established protocols developed by CDFW (*2009 Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities*) and CNPS (*2001 Botanical Survey Guidelines*).

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

**BIO-1:** Special-status plant surveys will be conducted before the start of construction activities. All required biological surveys must be complete and approved before construction activities may proceed. Specific avoidance and minimization efforts shall be determined after focused surveys have been conducted.

**BIO-2:** Impacts to special-status plant species are not quantifiable until focused surveys have been conducted and presence/absence determined. Compensatory mitigation will be determined after focused surveys have been conducted and impacts are determined, if any. Cumulative effects shall be determined after focused surveys have been conducted.

### **Special-Status Animal Species:**

The desert tortoise (*Gopherus agassizii*) is a long-lived, terrestrial land turtle with a domed carapace (upper shell) and rounded, stumpy elephantine hind limbs. The front limbs are flattened and heavily scaled for digging and without webbed toes. The carapace is oblong with rounded sides due to the joining of the carapace to the plastron (lower shell). The scutes are often yellowish in the middle and have grooved, parallel, concentric growth rings that form outward with age toward the scute margins. The plastron is typically yellowish, becoming brown around the scute margins. The head is relatively small and rounded in front with reddish-tan coloring and the iris being greenish-yellow. The front and hind feet are about equal in size, and the tail is of short length.

The desert tortoise is found in a variety of desert habitats, including arid, sandy or gravelly areas in creosote bush scrub. Desert tortoises feed on a variety of herbaceous annual forbs and grasses. They retreat into their horizontal burrow to avoid surface temperature extremes and to escape from predators. Desert tortoises are known to utilize an average of 7-12 burrows at any given time. Multiple tortoises are also known to occasionally share a single burrow.

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The Mojave population of the desert tortoise was listed as threatened by the State of California Department of Fish and Wildlife (CDFW). Reasons for its protection include loss and degradation of habitat by development, off-road vehicles, military training maneuvers, mining, illegal dumping, livestock grazing, invasion of exotic grasses and forbs, predation by an increasing common raven population, illegal collecting (poaching) and intentional killing and harassment by an increasing human population, and a serious and fatal upper respiratory disease. The site is located in the undeveloped median area between the east and west-bound traffic lanes of I-40, technically outside of designated critical habitat for the desert tortoise. The project site is also located approximately 60 miles west of the Desert Coordinated Management Plan's Chemehuevi Desert Wildlife Management Area (DWMA).

Desert tortoise sign (*i.e.*, carcasses) were detected at twelve (12) on-site locations. All of the carcasses were class 5 remains (disarticulated and scattered). No live desert tortoises, or recent sign thereof, were observed. Although it is impossible to conclusively determine the cause of death of these tortoises, it is highly likely that these tortoises were killed as a result of collisions with traffic on I-40, as this section of the highway does not contain desert tortoise exclusion fencing. Although no live desert tortoises were observed, desert tortoise sign such as carcasses is an indication that desert tortoises have occurred on-site and likely still occur off-site in the vicinity. Because this 25-mile section of I-40 does not contain desert tortoise exclusion fencing and as there are 119 culverts and bridges that provide potential access points, desert tortoises have the potential to occur on-site (in the median) at any time and thus a consultation with the CDFW will be required for this project.

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

**BIO-3:** Caltrans will submit the names and qualifications of biologists that they believe meet the minimum requirements to serve as Authorized Biologists to the Service for review and authorization under this biological opinion prior to beginning on-site activities (forms at [http://www.fws.gov/ventura/speciesinfo/protocols\\_guidelines/](http://www.fws.gov/ventura/speciesinfo/protocols_guidelines/)). Once a biologist has been authorized by the Service, that individual may work on subsequent projects pursuant to this biological opinion without additional approval, provided that his or her performance remains satisfactory. Caltrans will maintain a record of all authorized biologists who work on its projects.

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

**BIO-5:** A resident engineer is, according to Caltrans' May 2006 Standard Specifications, "the Chief Engineer, Department of Transportation, acting either directly or through properly authorized agents, the agents acting within the scope of the particular duties delegated to them." The resident engineer has authority over the contract and is responsible for all aspects of the specific projects to which he or she is assigned. The resident engineer has the authority to stop work on a project. The authorized biologist will have the authority to halt any activity, through the Resident Engineer or other identified authority in charge of implementation that may pose a threat to desert tortoises and to direct movements of equipment and personnel to avoid injury or mortality to desert tortoise.

**BIO-6:** When handling desert tortoises, authorized biologists (and trained individuals) must follow the guidelines outlined in the Desert Tortoise Field Manual (Service 2010), chapters 6 and 7. The manual is available on the web through the VFWO website ([www.fws.gov/ventura](http://www.fws.gov/ventura)).

**BIO-7:** Immediately prior to the start of any ground-disturbing activities and prior to the installation of any desert tortoise exclusion fencing, clearance surveys for the desert tortoise will be conducted by the authorized biologist, as appropriate. The entire project area will be surveyed for desert tortoise and their burrows by an authorized biologist or approved desert tortoise monitor before the start of any ground-

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disturbing activities following the 2010 field survey protocol (Service 2010) or more current approved protocol. If burrows are found, they will be examined by an authorized biologist to determine if desert tortoises are present. If a tortoise is present and the burrow cannot be avoided, it will be relocated in accordance with Service protocol (Service 2010). If the authorized biologist determines clearance surveys are not needed, clearance surveys would not be required. If desert tortoises are found at a project site where Caltrans (or the authorized biologist) had previously concluded they were unlikely to occur, Caltrans will contact the Service to determine if the implementation of additional protective measures would be appropriate.

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

The program will cover the following topics at a minimum:

- the distribution, general behavior, and ecology of the desert tortoise;
- its sensitivity to human activities;
- the protection it is afforded by the Endangered Species Act;
- penalties for violations of State and Federal laws;
- notification procedures by workers or contractors if a tortoise is found in a construction area, and; protective measures specific to each project.

**BIO-9:** Whenever project vehicles are parked outside of a fence that is intended to preclude entry by desert tortoises, workers will check under the vehicle before moving it. If a desert tortoise is beneath the vehicle, the worker will notify the authorized biologist or an approved desert tortoise monitor to relocate the tortoise. If an authorized biologist is not present on-site, the Resident Engineer or supervisor must notify an authorized biologist. Workers will not be allowed to capture, handle, or relocate tortoises. Any such handling must be reported as described in the Reporting Requirements section of this biological opinion.

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

**BIO-11:** Caltrans will require all contractors to comply with the Act in the performance of work necessary for project completion. Evidence of compliance is required prior to Caltrans accepting or receiving materials or goods produced from outside of the right-of-way or through the use of facilities located outside of the right-of-way, including but not limited to, non-commercial batch plants, haul roads, quarries, and

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similar operations. Copies of the compliance documents will be maintained at the work-site by the resident engineer.

**BIO-12:** The resident engineer is responsible for ensuring that all protective measures are being fully implemented. If the resident engineer determines, or is notified by the authorized biologist, that one or more protective measures are not being fully implemented, he or she will halt all 11 activities that are out of compliance until all problems have been remedied. All workers, authorized biologists, and biological monitors will be required to notify the resident engineer of any such problem they notice. The resident engineer must always be able to contact an approved biological monitor or authorized biologist to resolve any unforeseen issues.

**BIO-13:** Caltrans will determine whether the presence of authorized biologists and approved desert tortoise monitors will be required during project activities as outline in the ‘criteria for use in reaching appropriate determination’ section of this programmatic biological opinion and the submitted Appendix I notification form to the Service. In general, where the risk to desert tortoises is low, the authorized biologist or an approved biological monitor will be present at the onset of the project to ensure protective measures are in place and will, if necessary (for example, for projects that will require a substantial length of time to complete), conduct periodic field checks to ensure compliance.

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

**BIO-15:** Upon locating a dead or injured tortoise within a project site, the resident engineer will immediately notify the authorized biologist whom then will notify the Service within 24 hours of the observation via telephone. Written notification must be made to the appropriate Fish and Wildlife field office within 5 days of the finding. The information provided must include the date and time of the finding or incident (if known), location of the carcass or injured animal, a photograph, cause of death or injury, if known, and other pertinent information (i.e., size, sex, recommendations to avoid future injury or mortality).

**BIO-16:** Injured desert tortoises will be transported to a veterinarian for treatment at the expense of the contractor or Caltrans. Only the authorized biologist or an approved desert tortoise biological monitor will be allowed to handle an injured tortoise. If an injured animal recovers, the appropriate Fish and Wildlife field office will be contacted for final disposition of the animal.

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

**BIO-18:** If working outside of a desert tortoise-proof fenced area, auger holes or other excavations will be covered following inspection at the end of each workday to prevent desert tortoises from becoming trapped.

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

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

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

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

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

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

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

**BIO-26:** Desert tortoise exclusion fence construction will follow the guidelines in chapter 8 of the Desert Tortoise Field Manual (Service 2010) which is available at the VFWO website ([www.fws.gov/ventura](http://www.fws.gov/ventura)).

**BIO-27:** All desert tortoise fences, will be regularly maintained at a frequency sufficient to ensure that they will continually provide an effective barrier to passage of desert tortoises.

**BIO-28:** Desert tortoise-proof fencing will not cross washes. When washes and culverts are encountered, the desert tortoise-proof fence will follow the wash to the roadway and either tie into the existing bridge or cross over the top of a culvert.

**BIO-29:** During fence inspections and repairs, if any desert tortoises are observed, workers are to notify the authorized biologist because only authorized biologists and approved biological monitors are permitted to handle tortoise. All desert tortoises encountered within the roadway side of the fence will be relocated across the fence to safety in accordance with Service protocol (Service 2010). Any such incident will be reported in the annual report.

**BIO-30:** On a case by case basis, individual active burrows may be fenced if the authorized biologist determines this protective measure is necessary to prohibit desert tortoises from repeatedly entering work areas. Fencing around individual burrows will be removed when adjacent construction is complete.

**BIO-31:** To further ensure that actions implemented under the auspices of this consultation do not substantially degrade the status of the desert tortoise or its critical habitat, Caltrans will reinitiate formal consultation in the event either of the following thresholds regarding injury or mortality to desert tortoises or loss or disturbance of their critical habitat is reached: a. two (2) desert tortoises injured or killed in any

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calendar year, within the action area, in each county considered in this biological opinion; or seven (7) desert tortoises injured or killed, within the action area (regardless of county) considered in this biological opinion, in any calendar year; and b. five (5) acres located outside of the ultimate rights-of-way containing the primary constituent elements of critical habitat of the desert tortoise are adversely affected on a long-term basis within each of the critical habitat units considered in this biological opinion, in any calendar year.

### Project Impacts:

Because of the numerous potential access points, desert tortoises have the potential to occur on-site (in the median) at any time. However, substantial impacts are not anticipated if appropriate avoidance and minimization measures, are implemented. Desert tortoises present to the north and south of I-40 may continue to be harmed as a result with collisions with vehicles, but this project will not contribute to or increase the number of collisions.

**BIO-32:** No compensatory mitigation is anticipated if appropriate avoidance and minimization measures are implemented. However, through the Section 2081 consultation process, CDFW may request mitigation to address the removal of habitat in the median where desert tortoises have the potential to occur. No cumulative effects are anticipated if appropriate avoidance and minimization measures are implemented.

### Burrowing Owl:

The burrowing owl (*Athene cunicularia*) is a Federal Bird of Conservation Concern and California Species of Concern. It is a small ground-dwelling owl that occurs in open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation (Haug et al. 1993). In southern California, burrowing owls are not only found in undisturbed natural areas, but also fallow agricultural fields, margins of active agricultural areas, livestock farms, airports, and vacant lots. It is a subterranean nester, typically utilizing pre-existing burrows (e.g. California ground squirrel, kit fox, drain pipes, culverts, etc.). The entrance of the burrow is often adorned with animal dung, feathers, debris, and other small objects (CDFW 2012). The species is active both day and night, and may be seen perching conspicuously on fence posts or standing at the entrance of their burrows. In spite of their apparent tolerance to human activities, burrowing owl populations in California are clearly declining and, if declines continue, the species may qualify for listing under the state and/or federal ESA(s). The declines in burrowing owl populations are attributed to loss and degradation of habitat, ongoing residential and commercial development, and rodent control programs.

The project site supports suitable habitat for burrowing owl nesting and foraging. Kit fox burrows, pipes, and culverts were observed in the median during the desert tortoise surveys.

### Surveys:

Focused burrowing owl surveys have not been conducted. Focused surveys shall be conducted by a qualified biologist during the appropriate time of year. Surveys should adhere to the CDFW protocol (2012 *Staff Report on Burrowing Owl Mitigation*).

### Avoidance, Minimization and/or Mitigation:

**BIO-33:** Focused burrowing owl surveys will be conducted before the start of construction activities. All required biological surveys must be complete and approved before construction activities may proceed. Specific avoidance and minimization efforts will be determined after focused surveys have been conducted. However, all project sites containing burrows or suitable habitat, whether owls were found or not, require take avoidance surveys that shall be conducted within 14 days prior to ground disturbance to avoid direct take of burrowing owls.

**BIO-34:** Construction activities (e.g., grading) must begin within 14 days from the date of the survey or an updated survey shall be required. Surveys shall be conducted in accordance with recommended survey methods in the *CDFW Staff Report on Burrowing Owl Mitigation*. Surveys shall include any off-site

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improvements to be impacted. Once grading and associated construction activities have begun, no further surveys are required. If time lapses between project activities occur (*i.e.*, construction activities in a certain area halt for more than two weeks), additional take avoidance surveys may be required.

**BIO-35:** In the event burrowing owls are observed on-site, potential mitigation measures such as passive or active relocation will be discussed.

### Prairie Falcon:

The prairie falcon (*Falco mexicanus*) is a Federal Bird of Conservation Concern and California Species of Concern. It typically nests on cliffs that provide ample nesting niches (*e.g.* holes, cracks, ledges, rock shelters) and forages widely over varied habitats. Prairie falcons predate mammals, especially ground squirrels and rabbits, and ground-dwelling birds such as California quails and chukars. During the winter, horned larks and western meadowlarks are also sources of prey (Steenhof 1998).

### Surveys:

Prairie falcons could potentially use the adjacent habitats to the north and south of I-40 as foraging habitat. Focused surveys for prairie falcon are not required. Prairie falcons were not observed during desert tortoise surveys.

### Avoidance, Minimization and/or Mitigation:

**BIO-36:** Although it is unlikely prairie falcons nest in the BSA, pre-construction breeding bird surveys conducted in compliance with the Migratory Bird Treaty Act (MBTA) would ensure no impacts to nests.

### Loggerhead Shrike:

The loggerhead shrike (*Lanius ludovicianus*) is a California Species of Concern. This species has declined throughout much of its range, particularly in Canada, as well as the Gulf States and Midwest, where a variety of factors including habitat loss and pesticide use have impacted this species. It occurs in open country with short vegetation: pastures with fence rows, old orchards, mowed roadsides, cemeteries, golf courses, agricultural fields, riparian areas, and open woodlands (Yosef 1996). Breeders usually settle near isolated trees or large, dense shrubs.

Loggerhead shrikes likely use the adjacent habitats to the north and south of the I-40 for nesting and foraging, while using the median for foraging since large, dense shrubs they prefer for nesting are not located within the median.

### Surveys:

Focused surveys for loggerhead shrikes are not required. The loggerhead shrike was incidentally observed on-site during desert tortoise surveys.

### Avoidance, Minimization and/or Mitigation:

**BIO-37:** Although it is unlikely loggerhead shrikes nest in the BSA, pre-construction breeding bird surveys conducted in compliance with the Migratory Bird Treaty Act (MBTA) (see Sections 4.4.5 and 5.6) would ensure no impacts to nests.

### Migratory Bird Treaty Act (MBTA)/Nesting Birds/Avoidance, Minimization and/or Mitigation:

**BIO-38:** To avoid potential effects to nesting birds protected by the MBTA and state code, vegetation clearing and preliminary ground disturbance work will be completed outside of the bird breeding season (generally February 15 through August 31).

**BIO-39:** In the event that initial groundwork cannot be conducted outside the bird breeding season, focused surveys will be conducted prior to ground-disturbing activities (within 3 days). Should nesting birds be found, an exclusion buffer will be established by the biologist. The buffer may be up to 500 feet in diameter depending on the species of nesting bird. This buffer will be clearly marked in the field by

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construction personnel under guidance of the biologist, and construction or clearing will not be conducted within this buffer until the biologist determines that the young have fledged or the nest is no longer active.

### Wetlands and Other Waters Coordination Summary.

The proposed development plan was overlaid on the jurisdictional delineation boundary using GIS to determine the extent of impacts to jurisdictional areas. Generally, the larger drainages will not be impacted and the smaller ones will be culverted. There will be no temporary impacts. The proposed project will permanently impact 0.74 acre of WUS, WSC, and CDFW streambed, including 0.37 acre of permanent impacts in the Mojave River watershed and 0.37 acre of impacts in the Troy Dry Lake watershed. Since the proposed project requires permanent impacts to jurisdictional drainages, authorizations from the RWQCB and CDFW may be required as described below.

The project area is within the jurisdiction of the Lahontan RWQCB (Region 6). Under Section 401 of the CWA, the RWQCB must certify that the discharge of dredged or fill material into WUS does not violate state water quality standards. The RWQCB also regulates impacts to WSC under the Porter Cologne Water Quality Control Act through issuance of a Construction General Permit, State General Waste Discharge Order, or Waste Discharge Requirements, depending upon the level of impact and the properties of the waterway.

A CDFW 1602 Streambed Alteration Agreement is required for all activities that alter streams and lakes and their associated riparian habitat.

### Invasive Species:

The California Department of Food and Agriculture (CDFA), Division of Plant Health and Pest Prevention Services, has listed the noxious weed seed of California. Ratings (A, B, C, or Q) have been designated for noxious species. These ratings reflect CDFA's view of the statewide importance of invasive species, the likelihood that eradication or control efforts would be successful, and the present distribution of the pest within the State. The ratings are policy guidelines that indicate the most appropriate action to take against a pest under general circumstances. Pests designated as Level A are those subject to State- or County Agricultural Commissioner (CAC)-enforced action involving eradication, containment, rejection, or other holding action. Pests designated as Level B are those which the CAC has the discretion to eradicate, contain, control, or perform other holding actions, or are those pests subject to State-endorsed holding action and eradication only when found in a nursery. Pests designated as Level C are those not subject to State-enforced action outside of nurseries, except to retard the spread (at the discretion of the CAC) or to provide for pest cleanliness in nurseries. Pests designated as Level Q are those at the State/County level pending determination of a permanent rating.

The California Exotic Pest Plant Council (CalEPPC) list is based on information submitted by members, land managers, botanists, and researchers throughout the State, as well as published sources. The list highlights non-native plants that are serious problems in wildlands (natural areas that support native ecosystems, including national, State, and local parks, ecological reserves, wildlife areas, national forests, BLM lands, etc.). It includes List A, the most invasive wildland pest plants, which are documented as aggressive invaders that displace natives and disrupt natural habitats. This list includes two sub-lists: List A-1 is composed of widespread pests that are invasive in three Jepson regions, and List A-2 is composed of regional pests invasive in three or fewer Jepson regions. List B is composed of wildland pest plants of lesser invasiveness; invasive pest plants that spread less rapidly and cause a lesser degree of habitat disruption. The List B species may be widespread or regional. Red Alert are those pest plants with potential to spread explosively and whose infestations currently are small or localized. Annual grasses are those annual grasses that are abundant and widespread in California and pose serious threats to wildlands.

The proposed project has the potential to spread invasive species by entering and exiting construction with contaminated equipment, the inclusion of invasive species in seed mixtures and mulch, and by the improper removal and disposal of invasive species so that seed is spread along the highway.

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The following measures will be implemented to avoid and minimize the potential of invasive species from spreading into the project area:

Avoidance, Minimization and/or Mitigation:

**BIO-40:** Bare soil will be landscaped with Caltrans-recommended seed mix from locally adopted species, where feasible, to preclude the invasion of noxious weeds. The use of site-specific materials, which are adapted to local conditions, increases the likelihood that revegetation will be successful and maintains the genetic integrity of the local ecosystem. Arrangements shall be made well in advance of planting for the scheduled planting time. Sufficient time should be allocated for a professional seed company to visit the project site during the appropriate season and collect the native plant seed. If local propagules are not available or cannot be collected in sufficient quantities, materials collected or grown from other sources within southern California shall be substituted. For widespread native herbaceous species that are more likely to be genetically homogenous, site specificity is a less important consideration and seed from commercial sources may be used.

**BIO-41:** Seed purity shall be certified by planting seed labeled under the California Food and Agricultural Code or that has been tested within a year by a seed laboratory certified by the Association of Official Seed Analysts or by a seed technologist certified by the Society of Commercial Seed Technologists.

**BIO-42:** Construction equipment will be cleaned of mud or other debris that may contain invasive plants and/or seeds and inspected to reduce the potential of spreading noxious weeds (before mobilizing to arrive at site and before leaving site).

**BIO-43:** Trucks with loads carrying vegetation shall be covered and vegetation shall be covered and vegetative materials removed from the site shall be disposed of in accordance with all applicable laws and regulations.

**BIO-44:** All project workers will attend Workers Environmental Education Programs (WEEP) training prior to entering the project site. The training will include sensitive biological resources and required mitigation measures.

**BIO-45:** Project access should be limited to existing access roads to the extent available.

**BIO-46:** Soils and topsoil will be stockpiled in either disturbed areas lacking native vegetation or areas delineated for project-related disturbance. Topsoil will be re-spread following compaction.

**BIO-47:** All trenches, pipes, and culverts will be inspected at the end of each work day to ensure that all potential wildlife pitfalls have been backfilled, sloped at a 3:1 ratio at the end to provide wildlife escape ramps, or completely covered to prevent wildlife access.

**BIO-48:** Best Management Practices (BMP) will be implemented to control dust, potential spills, leaks, runoff, and other potential construction-related impacts.

**BIO-49:** A biological monitor will be present during ground-disturbed activities to ensure any wildlife that is unearthed or enters the work area during Project activities is moved out of harm's way. This monitor will also inspect all excavations at the beginning and end of each day to ensure wildlife has not become trapped.

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### 2.5 Cultural Resources

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>V. CULTURAL RESOURCES:</b> Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 2.5.1 Discussion of Environmental Evaluation Question 2.5 - Cultural Resources

##### Regulatory Setting

The term “cultural resources” as used in this document refers to all “built environment” resources (structures, bridges, railroads, water conveyance systems, etc.), culturally important resources, and archaeological resources (both prehistoric and historic), regardless of significance. Laws and regulations dealing with cultural resources include:

Historical resources are considered under the California Environmental Quality Act (CEQA), as well as CA Public Resources Code (PRC) Section 5024.1, which established the California Register of Historical Resources. PRC Section 5024 requires state agencies to identify and protect state-owned resources that meet the National Register of Historic Places listing criteria. It further specifically requires the Department to inventory state-owned structures in its rights-of-way.

##### Affected Environment

A Historic Property Survey Report (HPSR) (November 2014), Archaeological Survey Report (ASR) (November 2014), California Archaeological Resource Identification Data Acquisition Program: Sparse Lithic Scatters Proposal (CARIDAP: SLS) (June 2014), and CARIDAP: SLS Report (November 2014) were completed for this project. A records search (conducted on June 20, 2013), a field survey (September 16, 2013-September 21, 2013), and fieldwork associated with the CARIDAP: SLS Report (June 19, 2014 and June 20, 2014) provided the data for the above mentioned technical studies. Native American consultation commenced on June 13, 2013 with a request for the Native American Heritage Commission to conduct a search of Sacred Lands File (SLF). A response was received on June 18, 2013 which stated that a search of the SLF failed to indicate the presence of Native American traditional cultural places in the Project APE and provided a list of Native American individuals/organizations with cultural ties to the Project area for additional consultation. Twelve individuals received initial consultation letters on June 25, 2013. Follow up calls were completed in October 2013. Supplemental consultation letters were sent on May 6, 2014 discussing the ESA Action Plan and the use of the California Archaeological Resource Identification and Data Acquisition Program (CARIDAP). Supplemental consultation efforts were completed in June of 2014. For additional information regarding Native American consultation, please refer to the Historic Property Survey Report.

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On November 12, 2014, the APE for this project was established in consultation with Gabrielle Duff, Principal Investigator, Prehistoric Archaeology and Rafih Achy, Project Manager. The APE is delineated to encompass the maximum extent of ground disturbances as well as direct, indirect, and cumulative effects, including visual and atmospheric effects to the setting, required by the Project design. Within the APE Caltrans identified and evaluated two cultural resources (CA-SBR-17113 and CA-SBR-17114) through application of the CARIDAP process and determined both to be ineligible for listing on the NRHP and CRHR, and are therefore not considered historical resources for the purposes of CEQA. One additional site, CA-SBR-317/H (the Newberry Springs Site), was previously determined NRHP/CRHR eligible and is considered an historical resource for the purposes of CEQA. The site has been previously determined eligible for listing in the National Register (September 5, 1990) and the site is therefore listed in the California Register. This historical resource will be protected from all project impact through establishment on an environmentally sensitive area(ESA) and monitoring.

### Environmental Consequences

A determination of “Less Than Significant Impact” to Cultural Resources is based on coordination with the Cultural Resource Specialist and the completion of the technical reports mentioned-above.

Impacts to site CA-SBR-317/H, the only historical resource located within the APE, will be avoided; median regrading activities are located outside of the ESA/AMA area and will involve soil compaction adjacent to the road that is abutting to the ESA.

Further protective measures will be implemented prior to the commencement of ground disturbing activities, including the installation of ESA fencing and monitoring by qualified archaeologists and Native American monitors. No other ground disturbance will take place within the Environmentally Sensitive Area. Due to these efforts and in accordance CEQA, Caltrans PQS has determined there is **no substantial adverse change-ESAs**

Caltrans initiated consultation with the State Historic Preservation Officer (SHPO) pursuant to Section 106 on November 12, 2014. On December 15, 2014 SHPO concurred with Caltrans findings that the two evaluated cultural resources (list) within the APE are not eligible for listing in the National Register of Historic Places. Therefore, Caltrans has determined that these sites are not eligible for listing in the California Register and are not historical resources for the purposes of CEQA. Caltrans also provided notification to SHPO of the Department’s intent to propose a finding of No Adverse Effect-Standard Conditions-ESA (NAE-SC) for the project pursuant to X.B.1(a) of the Caltrans Section 106 PA and provided SHPO the opportunity to comment on that finding. In its December 15, 2014 response letter, the SHPO expressed concern regarding the adequacy of the proposed ESA to project site CA-SBR-317/H. Caltrans provided clarification by revising the project’s ESA Action Plan. On December 18 2014, SHPO responded via letter that they had no objection to the proposed finding of No Adverse Effect with Standard Conditions based on the revised ESA Action Plan (see xx for correspondence). Therefore, Caltrans has determined a finding of **no substantial adverse change – ESAs** site CA-SBR-317/H, because the impacts to this historical resources within the Project Area limits will be avoided through the establishment of Environmentally Sensitive Areas (ESA), enforcement measures and conditions that are included below.

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

No mitigation measures are required; however, the following avoidance and/or minimization measures will be implemented to minimize potential impacts:

**CR-1:** If cultural materials are discovered during construction, all earth-moving activity within 60 feet of the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

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**CR-2:** If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to CA Public Resources Code (PRC) Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), which will then notify the Most Likely Descendent (MLD). The person who discovered the remains will contact District 8 Division of Environmental Planning: Gabrielle Duff, DEBC: (909)383-6933 and Gary Jones DNAC: (909) 383-7505 so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

**CR-3:** ESA fencing to be installed according to plan and directed by cultural monitors.

**CR-4:** Archaeological and Native American monitors shall be present during construction activities occurring adjacent to the ESA/AMA location. An AMA will be designated in the final plans and specifications. In the event that additional cultural deposits are uncovered during construction operations, the archaeological monitor shall be empowered to halt, or divert work in the vicinity of the find until the archaeologist is able to determine the nature and significance of the discovery.

### **Paleontology**

#### **Regulatory Setting**

Paleontology is a natural science focused on the study of ancient animal and plant life as it is preserved in the geologic record as fossils. Under California law, paleontological resources are protected by the California Environmental Quality Act (CEQA).

#### **Environmental Consequences**

A determination of “No Impact” is based on the California Department of Transportation (Department), Division of Environmental Planning, Office of Environmental Studies “D” performing a preliminary and an additional review of this proposed project’s scope of work for potential impacts to paleontological resources. The preliminary environmental assessment of this proposed project for potential paleontological resources in the project vicinity information concluded in the Preliminary Environmental Analysis Report (June 12, 2012) “The proposed project is within the previously disturbed area; therefore, no paleontological studies will be required.” Furthermore, an additional review of the proposed project was performed to determine potential paleontological impacts in the project vicinity and the findings dated in the Paleontological Review E-mails (June 27, 2013) and (November 15, 2013) stated, “No paleontological studies [Paleontological Identification Report (PIR), Paleontological Evaluation Report (PER), Paleontological Mitigation Plan (PMP), Paleontological Mitigation Report (PMR), or Paleontological Stewardship Summary (PSS)] will be required for this project, the project is within previously disturbed area.”

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

No avoidance, minimization, or mitigation measures are required for this proposed project.

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### 2.6 Geology and Soils

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>VI. GEOLOGY AND SOILS:</b> Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 2.6.1 Discussion of Environmental Evaluation Question 2.6 - Geology and Soils

##### Regulatory Setting

For geologic and topographic features, the key federal law is the Historic Sites Act of 1935, which establishes a national registry of natural landmarks and protects “outstanding examples of major geological features.” Topographic and geologic features are also protected under the California Environmental Quality Act (CEQA).

This section also discusses geology, soils, and seismic concerns as they relate to public safety and project design. Earthquakes are prime considerations in the design and retrofit of structures. The Department’s Office of Earthquake Engineering is responsible for assessing the seismic hazard for Department projects. Structures are designed using the Department’s Seismic Design Criteria (SDC). The SDC provides the minimum seismic requirements for highway bridges designed in California. A bridge’s category and classification will determine its seismic performance level and which methods are used for estimating the seismic demands and structural capabilities. For more information, please see the Department’s Division of Engineering Services, Office of Earthquake Engineering, Seismic Design Criteria

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### Affected Environment

#### Topography

The highway traverses flat and rolling desert terrain. The general slope along the tributary areas to the project alignment is towards the northeast. The runoff generated from the various hydrologic basins flows northeasterly in a direction roughly normal to the proposed highway alignment. Topography of the area is typical of desert areas. It varies from rugged rocky mountaintops, surrounded by gravel laden alluvial fans and aprons, to sand and clay deposits in flat valley areas. Drainage flow lines are generally well defined in the higher elevations and on the steeper gradient alluvial fans. They lose definition as the gradient decreases, becoming wide and flat areas of shallow flow. Many existing culverts have training dikes to concentrate the flows into the inlet.

The elevation of the watershed along the proposed alignment ranges from about 1940 feet above mean sea level, in the Mojave River bed near Newberry Springs, to elevation 6309 feet above mean sea level at the top of Ord Mountain, toward the east end of the project.

The USGS quad sheets (1:24000) used to delineate the drainage basins draining to the Route 40 alignment were: Barstow, Barstow Southeast, Nebo, Daggett, Minneola, Newberry Springs, Stoddard Wells, West Ord Mountain, Ord Mountain, Camp Rock Mountain, and Troy Lake.

#### Soil Type and Land Use

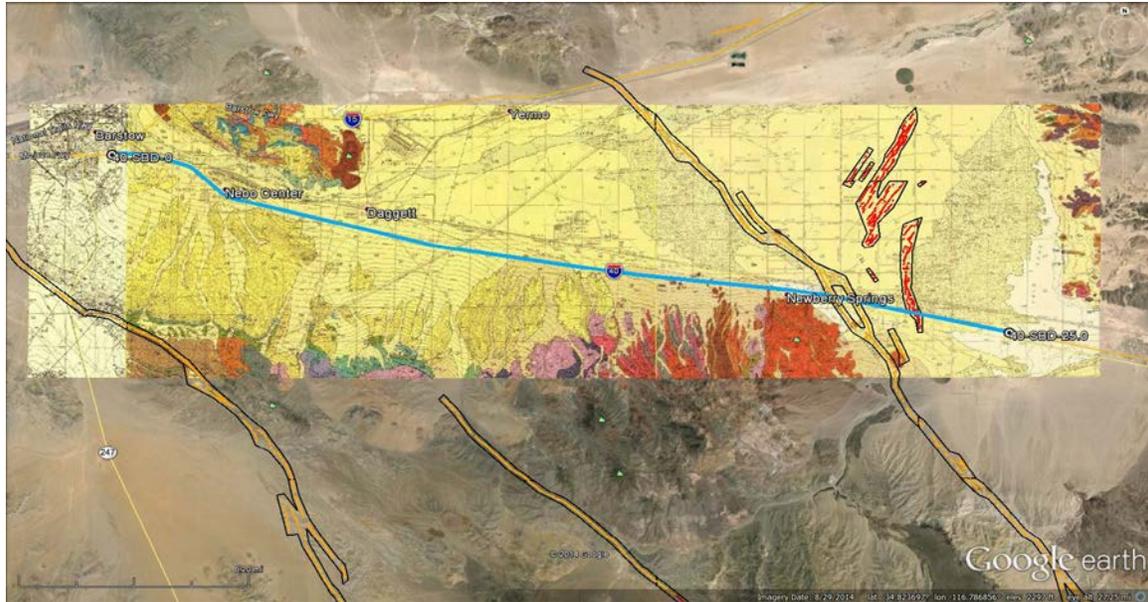
The U.S. Soil Conservation Service (SCS) performed a soil survey in 1970. The soil types in the tributary basins are B, C, and D. Type B soil consists of well drained sandy-loam soils with moderately fine to moderately coarse textures. Type C has slow infiltration rate and consists of silty-loam soils. Type D has a slow infiltration rate and consists mostly of clay soils which exist at the higher elevations. (Floodplain Evaluation Report, October 13, 2014)(Location Hydraulic Study, October 13, 2014).

The Interstate 40 Median Improvement project is located along the southern side of the Mojave River valley portion of Mojave Desert area of southern California, just east of Barstow. Locally the Mojave River valley consist of broad alluvial fans that are locally incised by seasonally dry washes, and dry lake playas flanking the northern margins of the local mountains on the south. Topographically, elevations across the project range from a high of near 2200 feet at the projects start (PM 0.0) in Barstow, to a low of 1785 feet at is eastern end (PM 26.5) near the Mojave River and Troy dry lake.

Topographically terrain of the I-40 median improvement project alignment is varied. The western portion (in Barstow) of the alignment is situated on the relatively gentle undulating terrain across the alluvial fan slopes from the Daggett Ridge. The alignment then drops to near the dry wash of the Mojave River just of Barstow before rising up on the older alluvial fans near Nebo. The alignment continues east along the rolling topography of the distal alluvial fans, crossing numerous shallow dry washes. Near Newberry Springs the road alignment drops to the relatively flat flood plain of the Mojave River on which it remains to near the projects end near Troy dry lake.

#### Local Geology

The local geologic conditions of the I-40 median improvement project may be characterized as an elevated, internally draining area of the Mojave River basin, comprised of broad desert alluvial fans emanating from the Daggett Ridge and Newberry Mountains on the south, that have been incised recent alluvial washes, river plain sands, windblown sands, and lacustrine deposits (Figure 1).



Source: *Geotechnical Design Report (November 10, 2014)*

**Figure 1 - Regional Geologic Map I-40 median improvement alignment (shown in blue)**

The project is situated in the seismically active southern California region. Splays of the active Calico-Hidalgo Fault cross the roadway on both sides of the Newberry Road OC (Bridge 54-0709, SBD-040-R20.27). The Calico-Hidalgo fault is a northwest - southeast trending strike slip fault similar in pattern to the other faults in the region. It is an active fault by Caltrans definition (MTD 20-10, 2016) and is contained within an Alquist-Priolo Earthquake Fault Zone (EFZ.) Coseismic rupture occurred on the fault as a part of the Mw 7.3 Landers earthquake (06/28/92).

Soils locally derived from the recent wash alluvium consist of interbedded braided layers of sands and silts, locally with fine gravel. Traces of caliche or a weak carbonate cementation are known to occur in the underlying sands and gravels at depth. In the Mojave River the sandy soils were found to contain few “granitic” cobbles. In the areas of the older fan, the soils consist of fine sands, silts, and gravels, derived from the Newberry Mountains south of the alignment.

Soils locally derived from the younger alluvium fan deposits primarily consist of layers of sands and silts, locally with gravel. Thin layers of caliche or a weak to moderately well developed carbonate cementation are known to occur in these soils. The older alluvial valley deposits soils primarily consist of layers of sands, silts, and sandy clays, locally with gravel. Moderately well to strongly developed layers of caliche or carbonate cementation are known to occur in these older alluvial soils. The lacustrine (dry lake origin) deposits, and contain silts and clays.

### **Geologic Hazards**

The principal hazard is considered to be strong ground shaking associated with regional seismic events. Several active and potentially active faults are known to occur in the region. The potential for ground rupture from known faults is considered to be moderate to high at this time.

There are several natural slopes and road cuts in the area. These slopes are underlain by older alluvial sands and gravel deposits that are not prone to natural slope instability or landsliding. The fill embankments and cut slopes will be engineered and not prone to slope instability under gravitational forces or seismic

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loading. Consequently, landsliding and slope instability does not appear to be an issue. However, slopes constructed in or with the local alluvial soils will be subject to erosion.

### **Seismicity**

The I-40 median improvement project is located in the high desert area in the seismically active southern California region, and is subject to moderate to strong ground shaking from local and more distant earthquake events. Faulting in the immediately surrounding area includes the strike slip Calico-Hiladgo fault that had coseismic rupture associated with the 1992 Landers event (Mw 7.3)

### **Site Geology and Seismicity Information**

Due to the dense granular material at the site and lack of groundwater the potential for liquefaction at the site is considered low and therefore seismic settlement due to liquefaction and lateral spreading are not considered design concerns at the site. The following geotechnical information is based on our investigation and knowledge of the area. The existing median slope material was visually classified as loose to medium dense silty Sand. The existing roadway embankments appear to be constructed of engineered fill and material.

### **Site Investigation**

Our site investigation for this project included a Certified Engineering Geologist, a Transportation Engineer and the previous Maintenance Supervisor for that section of roadway driving the site multiple times looking for distress in the median or pavement that would indicate the need further geotechnical investigations. During our site investigation we stopped in the existing median at several locations in order to advance a geology probe, searching for loose or soft median material. We also viewed and photographed the barrow site that was previously used by Caltrans for fill material when building this section of roadway. Additionally we reviewed existing Caltrans Log of Test Borings (LOTBs) for any indication of geotechnical issues that may affect the geotechnical design and or construction of this project. All investigative work performed was approved by Brian Gutierrez, Professional Engineer.

## **CONCLUSIONS AND RECOMMENDATIONS**

The geotechnical aspects discussed in this section are preliminary and are based on our observations, mapped geologic, and soil conditions. Generally, the site is suitable for construction provided site development is performed in accordance with Caltrans standard design and construction procedures.

### **Earthwork**

Earthwork should be conducted in accordance with the latest edition of Caltrans Standard Specifications (Currently, Section 19 of the 2010 Caltrans Standard Specifications). In areas where compacted fill will be placed, the existing compressible surficial materials including topsoil, loose or soft alluvium, and otherwise unsuitable materials must be removed prior to fill placement. Fill placed on sloping ground should be properly keyed and benched into existing ground and placed as specified in 2010 Caltrans Standard Specifications. The alluvial soils are anticipated to be readily excavatable using appropriately sized earthmoving equipment in well maintained operating condition.

### **Soil Expansion Potential**

Based on local As-built and the current field boring logs, the soils encountered along the alignment are predominantly fine to coarse-grained sands with minor amounts of gravel and are not generally considered to be cohesive. These sandy soils are anticipated to be non-expansive or have a very low expansion potential. However, there may be localized, discontinuous layers of clayey soils or lake bed deposits that can possess higher expansion potential, which could be dealt with during construction

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### **Soil Erosion Potential**

Since the native soils are anticipated to be predominantly fine- to coarse-grained sands with minor amounts of gravel, the soils can suffer moderate to severe erosion. However, by incorporating selective grading and adhering to provisions for site drainage, slope planting, and other measures required by Caltrans, the potential for surface soil erosion can be minimized.

### **Liquefaction Potential and Seismically-Induced Settlement**

Soil liquefaction is a phenomenon in which saturated loose to medium dense, predominantly granular soils lose most, if not all, of shear strength and stiffness due to the development of excess pore pressure when subjected to ground shaking. Effects of liquefaction on ground surface include foundation settlement and reduction in bearing capacity, sand boils, and ground settlement and lateral spreading.

Based on the existing subsurface information, liquefaction of subsurface soils is unlikely due to absence of groundwater and the medium dense to dense nature of the subsurface soils. Consequently, seismic settlement due to liquefaction is unlikely. Also, because of the dense nature of the subsurface soils, seismic settlement of dry in-situ soils is expected to be negligible.

### **Embankment Settlement**

Embankments along the roadway are anticipated to range in height up to 5 feet and locally up to approximately 25 feet. Embankments will be constructed with 10:1 (Horizontal to Vertical) side slopes. Because the subsurface soils are predominantly granular, the soils are not expected to undergo consolidation settlement (settlement over long periods of time). However, the soils can undergo “immediate” elastic settlement which usually occurs during earthwork activities and shortly thereafter.

### **Stability of Slopes**

Assuming the earthen embankments will be constructed using compacted fill having a minimum friction angle of 34 degrees and minimum cohesion of 150 psf, slopes up to 45 feet high and with inclinations of 5H:1V or flatter are expected to be globally stable (i.e. minimum factor-of-safety is 1.5 and 1.1 under static and pseudo-static conditions, respectively). Foundation soils (existing below proposed embankments) are anticipated to be stable with respect to global slope stability.

### **Culver Extension Foundation Recommendations**

The following foundation recommendations are based on the existing geotechnical data, our site investigation and our experience in the area. Proposed culvert foundations and/or footing plans were not available for review at the time this report was written. Due to the anticipation of loose alluvial soils at the ground surface, sub-excavation and recompaction of the native materials at the proposed culvert sites will be required if the culvert will have a concrete footing. The sub-excavations should extend to a depth of approximately 1.5 feet below the bottom of footing elevations at all of the culvert locations. The material at the bottom of the 1.5 foot over excavation shall be scarified, moisture conditioned and recompacted to not less than 90% relative compaction. The sub-excavated areas shall then be backfilled with native material compacted to 95% relative compaction as stated in Section 19.5 of the Standard Specifications. The limits of the sub-excavated and backfilled area shall include the full footing footprints of culvert extensions, headwalls, and wingwalls and extend a minimum of 3 feet outside of those footing footprints. All headwalls, wingwalls and culvert extensions are to be built in accordance to 2010 Standard Plans. The footings of the culvert extensions shall be embedded a sufficient depth to provide adequate bearing and footing protection from scour, riprap should also be placed to protect drainage elements.

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### Construction Considerations

The primary geotechnical concern during construction would be the proper clearing and grubbing of the all areas, and the proper benching and compaction of all areas prior to receiving fill material. From the preliminary cross sections and our site investigation, it appears the benching shall be done in existing engineered fill embankments and the existing material should remain stable for standard benching.

Construction should be done in the dry season, groundwater is not anticipated to be encountered during construction. Geotechnical Design Report (GDR), November 10, 2014

### Environmental Consequences

A determination of “Less Than Significant Impact” to Geology and Soils is based on coordination with the Office of Geotechnical Design – South 2 and information from the GDR, the proposed project exist in the high desert area in the seismically active southern California region, which is subject to moderate to strong ground shaking from local and more distant earthquake events. Faulting in the immediately surrounding area includes the strike slip Calico-Hiladgo fault that had coseismic rupture associated with the 1992 Landers event (Mw 7.3) - splays of the active Calico-Hidalgo Fault cross the roadway on both sides of the Newberry Road OC (Bridge 54-0709, SBD-040-R20.27). The Calico-Hidalgo fault is a northwest - southeast trending strike slip fault similar in pattern to the other faults in the region. It is an active fault by Caltrans definition (MTD 20-10, 2016) and is contained within an Alquist-Priolo Earthquake Fault Zone (EFZ.) Coseismic rupture occurred on the fault as a part of the Mw 7.3 Landers earthquake (06/28/92). Several active and potentially active faults are known to occur in the region. The potential for ground rupture from known faults is considered to be moderate to high at this time.

In addition to the seismic information, there are several natural slopes and road cuts in the area. These slopes are underlain by older alluvial sands and gravel deposits that are not prone to natural slope instability or land-sliding. The fill embankments and cut slopes will be engineered and not prone to slope instability under gravitational forces or seismic loading. Consequently, land-sliding and slope instability does not appear to be an issue. However, slopes constructed in or with the local alluvial soils will be subject to erosion.

The native soils can suffer moderate to severe erosion. However, by incorporating selective grading and adhering to provisions for site drainage, slope planting, and other measures required by Caltrans, the potential for surface soil erosion can be minimized.

During construction there is a potential exposure of workers to these hazards as well as the exposure of the traveling public once the project is completed.

There are no potential impacts to natural landmarks and landforms (see the Aesthetics section of this document).

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

No mitigation measures are required; however, the following standard measures will be followed to further avoid and/or minimize any potential construction impacts:

- **GEO-1:** The Department’s Soil stabilization BMPs- Preparing the soil surface and applying one of the following BMPs, or combination thereof, to disturbed soil areas or erodible slopes: compaction; wood mulch; hydraulic mulch; hydroseeding/handseeding; soil binders; straw mulch; geotextiles, mats, and erosion control blankets; and riprap (rock slope protection).

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- **GEO-2:** Earthwork in the project area shall be performed in accordance with the latest Department's Standard Specifications.
- **GEO-3:** The Department performs a variety of maintenance activities on highways throughout California to maintain a safe and usable condition for the motoring public. In contrast to construction projects, maintenance activities are performed by a small crew for a short duration (most require no more than one day), and minimal soil is disturbed (generally less than 1.0 acre). The storm water pollution prevention BMPs that are used at maintenance activity sites and at maintenance facilities include the following.

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### 2.7 Greenhouse Gas Emissions:

#### VII. GREENHOUSE GAS EMISSIONS: Would the project:

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

An assessment of the greenhouse gas emissions and climate change is included in the body of environmental document. While Caltrans has included this good faith effort in order to provide the public and decision-makers as much information as possible about the project, it is Caltrans determination that in the absence of further regulatory or scientific information related to GHG emissions and CEQA significance, it is too speculative to make a significance determination regarding the project's direct and indirect impact with respect to climate change. Caltrans does remain firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined in the body of the environmental document.

#### 2.7.1 Discussion of Environmental Evaluation Question 2.7 - Greenhouse Gas Emissions

As stated above an assessment of the greenhouse gas emissions and climate change is included in the body of this Draft Environmental Document in Chapter 3.

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### 2.8 Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>VII. HAZARDS AND HAZARDOUS MATERIALS:</b> Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 2.8.1 Discussion of Environmental Evaluation Question 2.8 - Hazards and Hazardous Materials

##### Regulatory Setting

Hazardous materials, including hazardous substances and wastes, are regulated by many state and federal laws. Statutes govern the generation, treatment, storage and disposal of hazardous materials, substances, and waste, and also the investigation and mitigation of waste releases, air and water quality, human health and land use.

California regulates hazardous materials, waste, and substances under the authority of the CA Health and Safety Code and is also authorized by the federal government to implement RCRA in the state. California law also addresses specific handling, storage, transportation, disposal, treatment, reduction, cleanup and emergency planning of hazardous waste. The Porter-Cologne Water Quality Control Act also restricts disposal of wastes and requires clean up of wastes that are below hazardous waste concentrations but could impact ground and surface water quality. California regulations that address waste management and

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prevention and clean up contamination include Title 22 Division 4.5 Environmental Health Standards for the Management of Hazardous Waste, Title 23 Waters, and Title 27 Environmental Protection.

Worker and public health and safety are key issues when addressing hazardous materials that may affect human health and the environment. Proper management and disposal of hazardous material is vital if it is found, disturbed, or generated during project construction.

### Environmental Consequences

A determination of “No Impact” is based on an Initial Site Assessment (ISA) was completed on April 24, 2014. The result of the ISA determined there is a low risk for hazardous waste involvement within the limits of the proposed project.

An Aerially Deposited Lead (ADL) Report was completed on February 28, 2014, which found that soils within the project limits are non-hazardous for ADL. The soils are non-hazardous for lead and are considered Type X, and may be reused on the proposed project or relinquished to the contractor.

Within the proposed project limits, the median was surveyed on September 9, 10 & 11, 2013 for the potential presence of aerially deposited lead (ADL) concentrations in subsurface soils. The soils encountered during sampling were generally light brown to rusty brown in color and consisted primarily of medium-grained sands with silts, clays, and minor coarse gravels. Groundwater was not encountered in any of the boreholes and not expected to be present in the upper 10 feet.

One hundred seventy-two (172) soil samples were analyzed for total lead by EPA test method 6010B. Total lead concentrations ranged from <1.0 to 110 mg/kg with a mean concentration of 9.0 mg/kg.

Soil samples with total lead concentrations in excess of 25 mg/Kg were analyzed for soluble lead by the Cal WET-Citric extraction method. Soluble lead concentrations exceeded the STLC of 5mg/L in ten (10) of the eighteen (18) soil samples submitted for soluble lead analysis. Soluble lead concentrations ranged from 0.65 to 10 mg/L with a mean concentration of 5.3 mg/L.

Soil samples with STLC lead concentrations in excess of 5 mg/L were additionally analyzed for soluble lead by the TCLP extraction method. TCLP soluble lead concentrations ranged from 0.02 to 0.25 mg/L with a mean concentration of 0.074 mg/L. TCLP lead concentrations did not exceed the 5 mg/L Federal toxicity characteristic hazardous waste threshold in any of the ten (10) soil samples.

The Caltrans variance allows for reuse of materials exceeding the STLC for lead if the Cal WET-DI soluble concentrations do not exceed certain thresholds using a less rigorous extraction test that incorporates distilled water as the solvent rather than the Cal WET Citric acid or TCLP acetic acid extractant. This method is known as the DHS modified Cal WET-DI test. Five (5) samples, those reporting the highest Cal WET citric concentrations, were further analyzed for soluble lead using the CAL WET-DI test. Soluble lead concentrations were all reported at less than 0.20 mg/L (the laboratory reporting limit). The soil samples analyzed for TCLP were also analyzed for pH using EPA test method 9045C. Analytical data obtained for ten (10) selected soil samples submitted for analysis indicated pH levels ranging from 8.6 to 9.7 within the range of expected natural pH for the environment.

A total of 58 hand auger borings were advanced to a maximum depth of 2.5 feet bgs with three (3) soil samples collected from surface to 0.5, 1.0 to 1.5, and 2.0 to 2.5 feet bgs from each boring. One hundred seventy-two (172) soil samples were analyzed for total lead, eighteen (18) samples were analyzed for soluble lead using Cal WET-Citric, ten (10) samples were analyzed for soluble lead by TCLP, and then (10) samples were analyzed for pH.

The survey concludes the proposed project will not generate excess soil and imported fill will be required in the median, ADL is present in soils, but total lead was not reported above the California TTLC of 1,000 mg/kg. Although, Cal WET-citric soluble lead concentrations exceeded the California STLC of 5 mg/L in

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ten (10) samples, statistical evaluation of the data show that the  $UCL_{95}$  for any combination of layers within the 2.5-foot investigation depth does not exceed the STLC. TCLP soluble lead was not reported above the Federal hazardous waste threshold (toxicity characteristic) of 5 mg/L in any sample. DHS Modified Cal WET-DI soluble lead was not detected at concentrations above the 1.5 mg/L Caltrans variance threshold for Type Y-1 material.

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

No mitigation is required; however, the following avoidance and/or minimization measures will be implemented to minimize potential impacts:

- **HW-1:** Bid item (#070030) for Lead Compliance Plan \$5,000 in the Bid Cost Estimate.
- **HW-2:** SSP 7-1.02K(6)(j)(iii) - Earth Material Containing Lead shall be included in the PS&E package. Excavated soils may be used onsite without restriction or released as surplus to the Contractor for disposition as non-hazardous waste.

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### 2.9 Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>VIII. HYDROLOGY AND WATER QUALITY:</b> Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 2.9.1 Discussion of Environmental Evaluation Question 2.9 - Hydrology and Water Quality

##### Affected Environment

The proposed project area is located in the Mojave hydrologic basin (HUC18090207), Subbasin Daggett Wash-Mojave River Watershed (HUC 1809020811). The Mojave Watershed encompasses approximately 4,500 square miles, and is located entirely within the County of San Bernardino. The Mojave River is the nearest significant watercourse, approximately 0.5 miles northeast of the proposed project.

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Most of the Mojave River flows subterranean, breaching the surface between the cities of Barstow and Victorville, and again at Afton Canyon.

The local topography is comprised of relatively flat desert land with occasional gently rolling hills and has a general drainage pattern of superficial flow from the southwest to the northeast. Drainage generally occurs in washes and flood-flow channels during infrequent major rain events. There are numerous well-defined as well as undefined watercourses, which drain a substantial area of desert. None of these watercourses are permanent streams, and have water only after major storms, and only for a short period of time even then. Other than the watercourses noted on the FIRM maps, there are no inhabited structures in the vicinity of any of these washes. Since the construction will not result in the placement of any fill or other obstruction within any watercourse, the project does not have the potential to contribute to these impacts. Perennial and intermittent streams are rare in this area, and no major streams are located within or cross the proposed project area.

The proposed project is within a number of FEMA-designated flood plains. Per FIRM (Flood Insurance Rate Map) 06071C3938H, I-40 passes through both a Zone A and a Zone X resulting from the East Barstow Channel. Additionally, the Mojave River is defined as a Zone AE (subject to inundation in the one-hundred year flood with base flood elevations determined) where it runs parallel to I-40 near the western end of the project; this floodplain is additionally detailed on FIRM Map 06071C3939H. There are additional Zone X's along the Interstate resulting from intermittent streams flowing from the southwest, one roughly centered on Ontarra Road, the other farther east in the vicinity of Victor Street and Dillsin Lane.

### Environmental Consequences

FIRM Map 06071C3919H, although west of the project limits, provides further information on the East Barstow Channel flood plain. Finally, FIRM Map 06071C4556H details the downstream terminus of the Mojave River Zone A, Zone AE, and Zone X. There are also several non-printed panels, where flood hazards are possible but not determined (Zone D).

In addition to the delineated flood plains shown on the FIRM Maps, there are numerous other watercourses within the project limits for which flood hazards are possible but not determined. The largest of these is Ord Ditch, which is part of numerous dry weather crossings that are within the project, actually a portion of an alluvial fan crossing just west of Daggett.

The median will be graded to fill in areas where there is a significant drop-off to eliminate the steep grades encountered by cars drifting into the median in those locations. No grading will interfere with existing flows within any established watercourse. Please refer to the Location Hydraulic Study (LHS) and Floodplain Evaluation Report Summary (FERS) dated October 13, 2014 for additional information.

Groundwater supplies and water percolation would not be impacted. Water flow would be maintained at all times if present during construction and operation. There would be no additional surface runoff generated by the project. There are no FEMA floodplains within the project, and no inhabited dwellings that could be impacted. The project was determined to have no risk for impacts to hydrology and water quality. (Water Quality Scoping Questionnaire dated September 17, 2014). The project would not lead to substantial erosion, siltation, or flooding on-site or off-site. There would be no exposure of people or structures to flooding, seiche, tsunami, or mudflows associated with this proposed project.

According to the Draft Project Report dated December 2014, Appendix L Long Form – Storm Water Data Report dated April 19, 2012 the total disturbed soil area will be 268 acres and the proposed project risk level is low.

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

No mitigation measures are required; however, the following avoidance and/or minimization measures will be implemented to minimize potential impacts:

- **WQ-1:** All appropriate construction Site BMPs will be used.
- **WQ-2:** The contractor shall provide a Storm Water Pollution Prevention Plan (SWPPP) and erosion control plan. The plans must be reviewed by the Resident Engineer (RE) and submitted to Storm Water Multiple Application and Report Tracking System (SMARTS) for approval to the Regional Water Quality Control Board (RWQCB).

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### 2.10 Land Use and Planning

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>IX. LAND USE AND PLANNING:</b> Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 2.10.1 Discussion of Environmental Evaluation Question 2.10 - Land Use and Planning

##### Affected Environment

This proposed project is located in the Desert Region of San Bernardino County, which includes a considerable portion of the Mojave Desert. The Desert Region includes all of the unincorporated area of the County lying north and east of the Mountain Region. The Desert Region is an assemblage of mountain ranges interspersed with long, broad valleys that often contain dry lakes. This proposed project passes through the City of Barstow, and the desert communities of Daggett, Nebo, and Newberry Springs; and the jurisdictions of the Bureau of Land Management (BLM), Military, and State, which are all located within the County of San Bernardino.

##### Environmental Consequences

A determination of “No Impact” to Land Use and Planning is based on review of the City of Barstow and County of San Bernardino General Plan. The City of Barstow General Plan Land Use Policy Map (June 1997 – Revised March 2009) identifies the surrounding land uses as Neighborhood Residential, General Industrial, General Commercial, Mixed Used, Specific Plan, Recreational Opportunities/Specific Plan, and Military Zone. The County of San Bernardino General Plan Land Use Zoning District Map (2007) identifies the surrounding land uses as Highway, General and Neighborhood Commercial, Single and Multiple Residential, Rural Living, and Resource Conservation. None of the land uses listed above will be affected by the proposed project because the scope of work will be performed within the median and Department’s Right-of-Way. Therefore, the proposed project would not divide the Western Mojave Recovery Unit, or an established community, nor would it conflict with any habitat conservation or natural community plan because the final NES shows at Appendix A “Figure 3” that the Desert Tortoise (DT) Critical Habitat area is coterminous with the proposed project. Also, there will be no impact to structures or populated areas, and no anticipated displacement of persons or structures as a result of this proposed project.

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

No avoidance, minimization, or mitigation measures are required for this proposed project.

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### 2.11 Mineral Resources

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>X. MINERAL RESOURCES:</b> Would the project:				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- Discussion of Environmental Evaluation Question 2.11- Mineral Resources**

A determination of “No Impacts” to Mineral Resources is based on coordination with the Division of Hydraulics and the completion of the technical reports in the Hydrology and Water Quality section of this DED. Based on the scope of work re-grade median cross slopes and the results of the U.S. Soil Conservation Service (SCS) Soil Survey performed in 1970 stating the soil types in the tributary basins are B, C, and D within the proposed project area. Type B soil consists of well drained sandy-loam soils with moderately fine to moderately coarse textures. Type C has slow infiltration rate and consists of silty-loam soils. Type D has a slow infiltration rate and consists mostly of clay soils which exist at the higher elevations. Therefore, this proposed project would have no impact to mineral resources based on the soil findings. The proposed project area use is for transportation purposes only.

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

No avoidance, minimization, and/or mitigation measures required.

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### 2.12 Noise

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>XII. NOISE:</b> Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 2.12.1 Discussion of Environmental Evaluation Question 2.12 - Noise

##### Regulatory Setting

##### ***CALIFORNIA ENVIRONMENTAL QUALITY ACT***

The California Environmental Quality Act (CEQA) provides the broad basis for analyzing and abating highway traffic noise effects. The intent of these laws is to promote the general welfare and to foster a healthy environment.

CEQA requires a strictly baseline versus build analysis to assess whether a proposed project will have a noise impact. If a proposed project is determined to have a significant noise impact under CEQA, then CEQA dictates that mitigation measures must be incorporated into the project unless those measures are not feasible. The CEQA noise analysis is included at the end of this section.

##### Environmental Consequences

A determination of “No Impact” is based on a preliminary environmental assessment of the proposed project for potential traffic noise impacts in the project vicinity information concluded in the Preliminary

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Environmental Analysis Report (June 12, 2012) which stated, “The proposed project is a Type III project per Traffic Noise Analysis Protocol (May 2011), and the proposed project is exempt from traffic noise analysis.

Furthermore, a formal environmental analysis of the proposed project was performed to determine potential traffic noise impacts in the project vicinity and the findings dated in the Environmental Engineering Memorandum (September 30, 2013) stated again, “This proposed project is a Type III project per Traffic Noise Analysis Protocol (May 2011), and it is exempt from traffic noise analysis” because it does not involve added capacity, construction of new through lanes or auxiliary lanes, changes in the horizontal or vertical alignment of the roadway or exposure of noise sensitive land uses to a new or existing highway noise source.

Therefore a Noise Study Report (NSR) or a Noise Abatement Decision Report (NADR) are not required for this proposed project.

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

No avoidance, minimization and/or mitigation measures will be required.

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### 2.13 Population and Housing

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>XII. POPULATION AND HOUSING:</b> Would the project:				
a) Induce substantial 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 2.13.1 Discussion of Environmental Evaluation Question 2.13- Population and Housing

##### Regulatory Setting

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

##### Affected Environment

A determination of “No Impact” to Population and Housing is based on the results of the evaluation called the “First-Cut Screening” of the proposed project for potential growth-related effects, and demonstrates that no further analysis is required. The following questions are part of the evaluation:

- a. How, if at all, does the project potentially change accessibility?

There will be no potential change to accessibility because the proposed project will not change any adjacent land uses, access to adjacent properties, or access to existing interchanges. However, the proposed project will improve the quality of the CHP crossovers.

- b. How, if at all, do the project type, project location, and growth-pressure potentially influence growth?

The proposed project and location of the project is focusing on existing maintenance and operational needs only. The purpose and need of the proposed project is to improve the safety of the travelling public by improving the varying gradients of the existing median cross-slopes, which include drainage modification & improvement work, and preserving and improving the existing California Highway Patrol (CHP) crossovers. And, there is no growth-pressure potentially influencing growth because the only development along the project area ends at the City of Barstow limits and is separated from the highway by a canal and there are no known proposed land use changes or developments on file with the City of Barstow or the County of San Bernardino.

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- c. If there is project-related growth, how, if at all, will that affect resources of concern?

There is no project-related growth.

The City of Barstow General Plan Land Use Policy Map (June 1997 – Revised March 2009) identifies the surrounding land uses as Neighborhood Residential, General Industrial, General Commercial, Mixed Used, Specific Plan, Recreational Opportunities/Specific Plan, and Military Zone. The County of San Bernardino General Plan Land Use Zoning District Map (2007) identifies the surrounding land uses as Highway, General and Neighborhood Commercial, Single and Multiple Residential, Rural Living, and Resource Conservation. None of the land uses listed above will be affected by the proposed project because the scope of work will be performed within the median and Department's Right-of-Way. The City of Barstow 2015 General Plan Draft EIR (Circulated December 1, 2014), does not propose any additional housing along the project area.

Therefore, the proposed project would not divide an established community, nor community plan. Also, there will be no impact to structures or populated areas, and no anticipated displacement of persons or structures as a result of this proposed project.

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

No avoidance, minimization, and/or mitigation measures are required for this proposed project.

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### 2.14 Public Services

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>XIII. PUBLIC SERVICES:</b>				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 2.14.1 Discussion of Environmental Evaluation Question 2.14 – Public Services

A determination of “No Impact” to Public Services is based on review of the circulated City of Barstow, Draft Environmental Impact Report (DEIR) dated December 1, 2014 for their 2015-2020 General Plan, Safety Element for fire and police protection. Verified on December 18, 2014, the Marine Corps Logistics Base is completely outside of the project area and the closest point is the main gate and access will not be impacted by the proposed project. And, per the Land Use and Planning section of this DED there are no schools or parks within the project area.

The median grading will be the 1st order of work. Grading near the existing CHP crossovers will be graded such that the CHP will be able to temporarily transverse the median while the designated CHP crossovers are being paved. The paving operations will be coordinated with the CHP.

At this time no detours are required for this proposed project. Should detours become required the Department will coordinate with state, federal, and local agencies and emergency services as a part of the Traffic Management Plan (TMP). The TMP will minimize the impacts and insure a safe driving environment. Additionally, public outreach would notify commuters about any potential disruption to their commute. At this time road closures are not anticipated; however, lane closures maybe needed. (Transportation Management Plan dated September 22, 2014).

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

No mitigation measures are required; however, the following avoidance and/or minimization measures will be implemented to minimize potential construction impacts:

- **PS-1:** The Department will develop a TMP to minimize any potential impact to emergency services, travelers and commuters.

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### 2.15 Recreation

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>XIV. RECREATION:</b>				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 2.15.1 Discussion of Environmental Evaluation Question 2.15- Recreation

A determination of “No Impact” to Recreation is based on review of the location of the proposed project, information obtained from the Land Use and Planning section of this document, the City of Barstow General Plan Land Use Policy Map (June 1997 – Revised March 2009), which identifies the surrounding land uses as Neighborhood Residential, General Industrial, General Commercial, Mixed Used, Specific Plan, Recreational Opportunities/Specific Plan, and Military Zone. The circulated City of Barstow, Draft Environmental Impact Report (DEIR) dated December 1, 2014 was also reviewed for potential impacts, and none were found. However, there are no recreational facilities in existence or being planned along the project area. Also, the circulated City of Barstow, 2015-2020 General Plan - Exhibit RC-6 Recreation Plan Map, which show there are no parks and/or recreational facilities approximately 0.5 miles of the project vicinity, and the scope of work.

In addition to the information listed above, the County of San Bernardino General Plan Land Use Zoning District Map (2007) identifies the surrounding land uses as Highway, General and Neighborhood Commercial, Single and Multiple Residential, Rural Living, and Resource Conservation.

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

No avoidance, minimization, or mitigation measures are required.

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### 2.16 Transportation and Traffic

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>XV. TRANSPORTATION/TRAFFIC:</b> Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 2.16.1 Discussion of Environmental Evaluation Question 2.16 - Transportation and Traffic

The proposed project would have no impact to local and regional traffic as it is to improve the safety of the travelling public by improving the varying gradients of the existing median cross-slopes, which include drainage modification & improvement work, and preserving and improving the existing California Highway Patrol (CHP) crossovers. There will be no capacity increase or impacts to transportation or traffic in the area as a result of this project. The Department will coordinate with local agencies and emergency services on the Transportation Management Plan (TMP) in order to minimize the impacts and insure a safe driving environment during construction. (Transportation Management Plan dated September 22, 2014).

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

No mitigation measures are required for this project; however, the following avoidance and/or minimization measure will be implemented to minimize potential construction impacts:

- **PS-1:** The Department will develop a TMP to minimize any potential impact to emergency services, travelers and commuters.

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### 2.17 Utilities and Service Systems

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>XVI. UTILITIES AND SERVICE SYSTEMS:</b> Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 2.17.1 Discussion of Environmental Evaluation Question 2.17- Utilities and Service Systems

##### Affected Environment

According to the Utility Information Sheet (UIS) dated September 4, 2014 the names of the utility companies involved in the proposed project area are Southern California Edison-Distribution, Kinder Morgan Energy Partners, Southwest Gas Company, Southern California Gas-Distribution, PG&E Gas Transmission, Mojave Pipeline Operating Company, Kern River Gas Transmission Company, El Paso Natural Gas Company, Verizon, MCI, Time Warner Cable, Level 3 Communications, and AT&T – Transmission. Although these companies are in the proposed project area, all proposed work will be done within the Department right of way to avoid any utility conflicts; therefore, no utility facilities or rights of way will be affected by the proposed project, and no potholing (Vacuum Extraction and Probing) or relocation of utilities will be necessary at this time.

A utility location search will need to be ordered because construction in the manner proposed requires excavation which exceeds 6 inches in dirt or 12 inches in pavement for grading. Facilities within the proposed project area will be protected in place.

##### Environmental Consequence

A determination of “No Impact” to Utilities and Service Systems is based on coordination with Project Engineer and information obtained from the Right of Way Data Sheet dated September 22, 2014.

## **Chapter 2 – CEQA Checklist**

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

No avoidance, minimization, and/or mitigation measures are required

## Chapter 2 – CEQA Checklist

### 2.18 Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<b>XVII. MANDATORY FINDINGS OF SIGNIFICANCE</b>				
a) Does the project have the potential to 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, 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 2.18.1 Discussion of Environmental Evaluation Question 2.18 - Mandatory Findings of Significance

A determination of "Less Than Significant Impact" to Mandatory Findings of Significance is based on the proposed project scope of work that could have the potential to degrade (worsen) the quality of the environment by substantially reducing not fish habitat because there are no fish in re-grading the median cross slopes, but there are wildlife species, such as the Desert Tortoise (see Section 2.4 Biological Resources of this DED). The proposed project would be expected to have temporary impacts to Desert Tortoise habitat due to the project design and the disturbed condition of the habitat within the project area. Project activities may also result in temporary disruption of wildlife travel (See Section 2.4 Biological Resources for more details), which could have the potential to drop wildlife population below self-sustaining levels, or threaten to eliminate a plant or animal community, or 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, but with the avoidance, minimization, and/or mitigation measures in place in the appropriate areas of this document there is a less than significant impact to area listed above.

#### 2.18.2 Cumulative Impacts

Per coordination via e-mail dated December 17, 2014 with Mr. Michael Massimini, City Planner, and Mr. Brad Merrell, Contract City Engineer; the City of Bartow has projects that have been recently completed, or are planned at the Montara Road Interchange at I-40.

- Walmart Super Center (southeast corner of Montara Road and Main Street);
- A Drainage Improvement project on East Main Street (parallel to the south side of I-40);
- A paving project of East Main Street from the north side of I-40 to the Marine Base entrance;
- Paving of East Main Street and Montara Road along their property frontage, to accommodate access to the Walmart.

## Chapter 2 – CEQA Checklist

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- Signalization to accommodate access to the Walmart.

Additionally, a Department project is currently being planned located adjacent to this one, and begins at PM R50.0:

EA	County	Route	Post Mile (PM) Start	Post Mile (PM) End	Project Description	Project Status
0R160	SBD	040	R50.0	R75.0	REGRADE MEDIAN CROSS SLOPE (NEAR LUDLOW)	In PA&ED

Based on the information contained in this FIS and the technical studies completed for this proposed project there are three subject areas with less than significant impacts: aesthetics, cultural resources, and geology/soils. There are less than significant impacts with mitigation to biological resources.

### Aesthetics

The City of Barstow proposed projects are unlikely to contribute to a cumulative visual impact, because they are only functional improvements to the existing urban landscape. The Walmart has already been constructed, and is located 0.20 miles from the Montara Interchange at I/40, and is located at a lower viewing level than I-40. The adjacent regrade median project is anticipated to have similar impacts to this proposed project. There are no substantial adverse impacts to the visual environment of the area for this proposed project as discussed in Section 2.1 Aesthetics. Therefore, there are no cumulative aesthetic impacts.

### Cultural Resources

No Cultural Resources have been identified in the City of Barstow projects. Cultural Resources have been identified in both this proposed project, and in the adjacent regrade median project. Site CA-SBR-317/H will be avoided in this project as discussed in Section 2.5 Cultural Resources. The Area of Potential Effects is still being developed in the adjacent project, and the potential for impacts is unknown at this time. Cumulative impacts will have to be determined when more information becomes available for reasonably foreseeable impacts .

### Geology/Soils

The potential impacts to Geology/Soils are based on the natural conditions within the region that could be affected during construction, but will be avoided or minimized through measures GEO-1 through 3 as discussed in Section 2.6 Geology/Soils. The combination of the projects discussed above are not likely to cumulatively impact geology/soils, because the individual impacts would be temporary and each project would have specific avoidance and minimization measures.

### Biological Resources

The Walmart was constructed in an Urbanized area, and was in-filled within an established community. The City of Barstow projects are located along existing roads, will have minor impacts, and are in heavily disturbed areas. The adjacent regrade median project is likely to have similar impacts to the current project, however, a BSA has not yet been established for analysis. Cumulative impacts will have to be determined when more information becomes available for reasonably foreseeable impacts .

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

No avoidance, minimization, and/or mitigation are required.

## Chapter 3 – Climate Change

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### CLIMATE CHANGE (CEQA)

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. Research from such establishments as the Intergovernmental Panel on Climate Change (IPCC) 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>), HFC-23 (fluoroform), HFC-134a (s, s, s, 2-tetrafluoroethane), and HFC-152a (difluoroethane).

In the U.S., the main source of GHG emissions is electricity generation, followed by transportation. In California, however, transportation sources (including passenger cars, light duty trucks, other trucks, buses, and motorcycles) make up the largest source (second to electricity generation) of GHG emitting sources. The dominant GHG emitted is CO<sub>2</sub>, mostly from fossil fuel combustion.

There are typically two terms used when discussing the impacts of climate change. "Greenhouse Gas Mitigation" is a term for reducing GHG emissions in order to reduce or "mitigate" the impacts of climate change. "Adaptation," refers to the effort of planning for and adapting to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels)<sup>1</sup>.

There are four primary strategies for reducing GHG emissions from transportation sources: 1) improving the transportation system and operational efficiencies, 2) reducing growth of vehicle miles traveled (VMT), 3) transitioning to lower GHG emitting fuels, and 4) improving vehicle technologies. To be most effective all four strategies should be pursued collectively. The following Regulatory Setting section outlines state and federal efforts to comprehensively reduce GHG emissions from transportation sources.

### Regulatory Setting

#### State

With the passage of several pieces of legislation including State Senate and Assembly bills and Executive Orders, California launched an innovative and pro-active approach to dealing with GHG emissions and climate change. Relevant legislation include the following policies:

Assembly Bill 1493 (AB 1493), Pavley.

Executive Order (EO) S-3-05: (signed on June 1, 2005, by former Governor Arnold Schwarzenegger)

AB 32, the Global Warming Solutions Act of 2006, Núñez and Pavley

Executive Order S-20-06: (signed on October 18, 2006 by former Governor Arnold Schwarzenegger)

Executive Order S-01-07: (signed on January 18, 2007 by former Governor Arnold Schwarzenegger)

Senate Bill 97 (SB 97) Chapter 185, 2007

Caltrans Director's Policy 30 (DP-30) Climate Change (approved June 22, 2012): is intended to establish a Department policy that will ensure coordinated efforts to incorporate climate change into Departmental decisions and activities. This policy contributes to the Department's stewardship goal to preserve and enhance California's resources and assets.

Federal:

Although climate change and GHG reduction is a concern at the federal level; currently there are no regulations or legislation that have been enacted specifically addressing GHG emissions

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<sup>1</sup> [http://climatechange.transportation.org/ghg\\_mitigation/](http://climatechange.transportation.org/ghg_mitigation/)

## Chapter 3 – Climate Change

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reductions and climate change at the project level. Neither the United States Environmental Protection Agency (U.S. EPA) nor the Federal Highway Administration (FHWA) has promulgated explicit guidance or methodology to conduct project-level GHG analysis. As stated on FHWA's climate change website (<http://www.fhwa.dot.gov/hep/climate/index.htm>), climate change considerations should be integrated throughout the transportation decision-making process—from planning through project development and delivery. Despite the lack of Federal GHG regulations and legislation, FHWA as well as the National Highway Traffic Safety Administration (NHTSA) and U.S. EPA are taking steps to lessen climate change impacts by improving transportation system efficiency, creating cleaner fuels, reducing the growth of vehicle hours travelled, and enabling the production of a new generation of clean vehicles with reduced GHG emissions and improved fuel efficiency from on-road vehicles and engines.

### Project Analysis

The proposed project is not a capacity increasing project so it is not anticipated to have any increase in operational GHG emissions as a result.

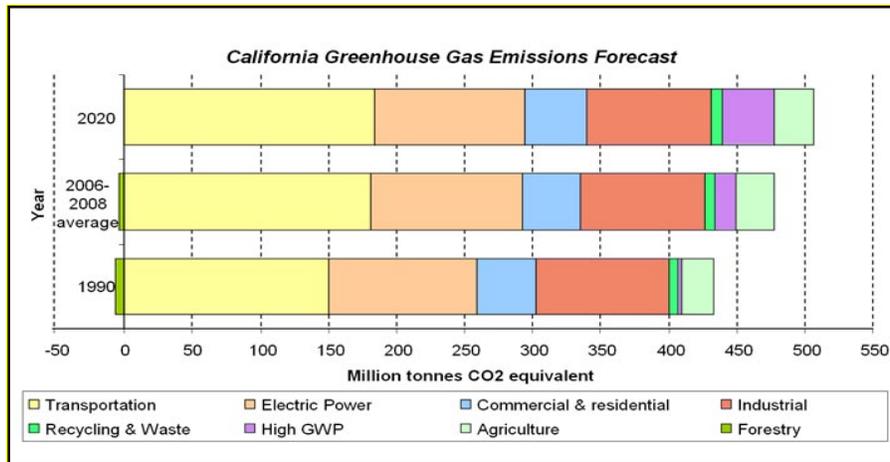
An individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may contribute to a potential impact through its *incremental* change in emissions when combined with the contributions of all other sources of GHG.<sup>2</sup> 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. To gather sufficient information on a global scale of all past, current, and future projects in order to make this determination is a difficult, if not impossible, task.

The [AB 32](#) Scoping Plan mandated by AB 32 contains the main strategies California will use to reduce GHG emissions. As part of its supporting documentation for the Draft Scoping Plan, ARB released the GHG inventory for California (forecast last updated: October 28, 2010). The forecast is an estimate of the emissions expected to occur in the year 2020 if none of the foreseeable measures included in the Scoping Plan were implemented. The base year used for forecasting emissions is the average of statewide emissions in the GHG inventory for 2006, 2007, and 2008.

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<sup>2</sup> This approach is supported by the AEP: *Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate Change in CEQA Documents* (March 5, 2007), as well as the South Coast Air Quality Management District (Chapter 6: The CEQA Guide, April 2011) and the US Forest Service (Climate Change Considerations in Project Level NEPA Analysis, July 13, 2009).

FIGURE 3 California Greenhouse Gas Forecast



Source: <http://www.arb.ca.gov/cc/inventory/data/forecast.htm>

The Department and its parent agency, the Transportation Agency, have taken an active role in addressing GHG emission reduction and climate change. Recognizing that 98 percent of California’s GHG emissions are from the burning of fossil fuels and 40 percent of all human made GHG emissions are from transportation, the Department has created and is implementing the Climate Action Program at Caltrans that was published in December 2006.<sup>3</sup>

The purpose of the proposed project is to improve the safety of the travelling public by improving the varying gradients of the existing median cross-slopes, which include drainage modification & improvement work, and preserving and improving the existing California Highway Patrol (CHP) crossovers. The proposed project will not add roadway capacity and is not expected to increase operational GHG emissions.

**CEQA Conclusion**

While the project will result in an increase in GHG emissions during construction, it is anticipated that the project will not result in any increase in operational GHG emissions. While it is Caltrans determination that in the absence of further regulatory or scientific information related to GHG emissions and CEQA significance, it is too speculative to make a significance determination regarding the project’s direct impact and its contribution on the cumulative scale to climate change, Caltrans is firmly committed to implementing measures to help reduce GHG emissions. These measures are outlined in the following section.

**Greenhouse Gas Reduction Strategies**

There are typically two terms used when discussing the impacts of climate change. "Greenhouse Gas Mitigation" is a term for reducing GHG emissions in order to reduce or "mitigate" the impacts of climate change. "Adaptation," refers to the effort of planning for and adapting to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels)<sup>4</sup>.

<sup>3</sup> Caltrans Climate Action Program is located at the following web address:  
[http://www.dot.ca.gov/hq/tpp/offices/ogm/key\\_reports\\_files/State\\_Wide\\_Strategy/Caltrans\\_Climate\\_Action\\_Program.pdf](http://www.dot.ca.gov/hq/tpp/offices/ogm/key_reports_files/State_Wide_Strategy/Caltrans_Climate_Action_Program.pdf)

<sup>4</sup> [http://climatechange.transportation.org/ghg\\_mitigation/](http://climatechange.transportation.org/ghg_mitigation/)

## Chapter 3 – Climate Change

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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)<sup>5</sup> provides a comprehensive overview of activities undertaken by Caltrans statewide to reduce greenhouse gas emissions resulting from agency operations.

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

1. According to Caltrans Standard Specifications, the contractor must comply with all local Air Pollution Control District's (APCD) rules, ordinances, and regulations for air quality restrictions. See the Department's Standard Specifications 2010 Section 7-1.02 Laws.
2. The Department will develop a Traffic Management Plan to minimize any potential impact to emergency services, travelers and commuters.

### Adaptation Strategies

“Adaptation strategies” refer to how the Department and others can 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 intensity, and the frequency and intensity of wildfires. These changes may affect the transportation infrastructure in various ways, such as damage to roadbeds from longer periods of intense heat; increasing storm damage from flooding and erosion; and inundation from rising sea levels. These effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. There may also be economic and strategic ramifications as a result of these types of impacts to the transportation infrastructure.

Interim guidance has been released by The Coastal Ocean Climate Action Team (CO-CAT) as well as the Department as a method to initiate action and discussion of potential risks to the states infrastructure due to projected sea level rise.

All projects that have filed a Notice of Preparation as of the date of EO S-13-08, and/or are programmed for construction funding from 2008 through 2013, or are routine maintenance projects may, but are not required to, consider these planning guidelines. The proposed project is outside the coastal zone and direct impacts to transportation facilities due to projected sea level rise are not expected.

Executive Order S-13-08 also directed the Business, Transportation, and Housing Agency to prepare a report to assess vulnerability of transportation systems to sea level rise affecting safety, maintenance and operational improvements of the system, and economy of the state. The Department continues to work on assessing the transportation system vulnerability to climate change, including the effect of sea level rise.

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<sup>5</sup> [http://www.dot.ca.gov/hq/tpp/offices/orip/climate\\_change/projects\\_and\\_studies.shtml](http://www.dot.ca.gov/hq/tpp/offices/orip/climate_change/projects_and_studies.shtml)

## Chapter 4 – Coordination and Comments

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### 4.1 Coordination With Resource Agencies

Early and continuing coordination with the general public and public agencies is an essential part of the environmental process. It helps to determine the necessary scope of environmental documentation, the level of analysis required, and to identify potential impacts and avoidance, minimization and/or mitigation measures and related environmental requirements.

Agency consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including Project Development Team (PDT) meetings and interagency coordination meetings. This chapter summarizes the results of the Department's efforts to fully identify, address, and resolve project-related issues through early and continuing coordination.

#### **Cultural Resources: Summary of Native American Consultation:**

On June 13, 2013, a request was made to the Native American Heritage Commission (NAHC) for a search of the Sacred Lands File (SLF). The NAHC responded on June 18, 2013 stating that a search of the SLF failed to indicate the presence of Native American traditional cultural place(s) in the Project APE. The response from the NAHC included a list of Native American individuals/organizations with cultural ties to the Project area for additional consultation regarding to Native American cultural resources or Project related concerns:

- Joseph Hamilton, Chairman Ramona Band of Cahuilla Mission Indians
- Carla Rodriguez, Chairwoman, San Manuel Band of Mission Indians
- Ann Brierty, Policy/Cultural Resources Department, San Manuel Band of Mission Indians
- Daniel McCarthy, Director of Cultural Resources Management Department, San Manuel Band of Mission Indians
- Edward Smith, Chairperson, Chemehuevi Reservation
- Ernest H. Siva, Morongo Band of Mission Indians
- Goldie Walker, Chairwoman, Serrano Nation of Mission Indians
- John Gomez Jr., Cultural Resources Coordinator, Ramona Band of Cahuilla Indians
- John Valenzuela, Chairperson, San Fernando Band of Mission Indians
- Linda Otero, Director AhaMaKav Cultural Society, Fort Mojave Indians
- Robert Martin, Chairperson, Morongo Band of Mission Indians
- Timothy Williams, Chairperson, Fort Mojave Indians

#### **Ramona Band of Cahuilla Mission Indians**

On October 10, 2014, a follow up call was made to Mr. Hamilton. A message was left and there was no response. A second call was made on October 14, 2014; a message was left, and no response was received. On May 6, 2014, a supplemental consultation letter describing proposed California Archaeological Resource Identification and Data Acquisition Program (CARIDAP) investigations was mailed. On May 21, 2014, a call to Mr. Hamilton was redirected to Mr. John Gomez Jr.

On October 10, 2013, a follow up call was made to Mr. Gomez, Jr., a message was left on Mr. Gomez Jr.'s voice mail and no response was received. A second call was made on October 17, 2014; a message was left on Mr. Gomez Jr.'s voice mail and no response was received. On May 21, 2014 a call was made to Mr. Hamilton and this call was redirected to Mr. Gomez Jr.. Mr. Gomez requested a copy of the supplementary consultation letter that was sent to Mr. Hamilton.

A copy of the supplemental consultation letter was mailed to Mr. Gomez Jr. on May 21, 2014, via email. A call was made to Mr. Gomez Jr. on May 23, 2014, a message was left on his voicemail and no response has been received.

## Chapter 4 – Coordination and Comments

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### San Manuel Band of Mission Indians

A phone call was made to the San Manuel Tribal offices on October 10, 2014 to discuss the project with Ms. Rodriguez; a voicemail was left on the office voicemail. A second call was made on October 14, 2013 and was directed to Mr. Daniel McCarthy (please see the paragraph detailing the consultation effort with Mr. McCarthy for additional information).

On May 6, 2014, a supplementary consultation letter, describing proposed CARIDAP investigations, was sent to Lynn Valbuena. A call on May 21, 2014 to the administrative office was directed to Ms. Brierty (please see the paragraph detailing the consultation effort with Ms. Brierty for additional information).

During a phone conversation on October 10, 2013, Mr. McCarthy stated that he had no concerns or comments regarding the project. A follow up call to Ms. Rodriguez on October 14, 2013 was redirected to Mr. McCarthy. Mr. McCarthy confirmed that the tribe had no comments or concerns regarding this project. Mr. McCarthy received a supplementary consultation letter. In the course of a consultation call made on May 21, 2014, Mr. McCarthy requested the sites records for the two sparse lithic scatters be emailed to him. These records were emailed to Mr. McCarthy on May 21, 2014. On May 22, 2014, Mr. McCarthy requested the primary and trinomials for the site records that were emailed to him. A response was sent to Mr. McCarthy on May 23, 2014 stating that the primary and trinomials for these sites have not been received from the San Bernardino Archaeological Information Center (SBAIC). On May 28, 2014, the numbers were received from the SBAIC and forwarded to Mr. McCarthy. On June 17, 2014, information was emailed to Mr. McCarthy regarding a field visit to the two sites and confirming that Terri Gilvin (from the list of San Manuel approved Native American monitors provided by San Manuel) could function as a Native American monitor for the proposed CARIDAP investigations. On June 17, 2014, Mr. McCarthy confirmed the details of his upcoming field visit and requested that Ms. Gilvin act as the Native American participant for the proposed investigations. On June 19, 2014, Mr. McCarthy visited the project area during the CARIDAP investigations and expressed no concerns or comments.

On October 10, 2013 and October 17, 2014, messages were left on Ms. Brierty's voicemail. On May 6, 2014, a supplemental consultation letter was mailed to Ms. Brierty. On May 21, 2014, a voicemail was left for Ms. Brierty. On May 23, 2014, a second call was left on Ms. Brierty's voicemail. Ms. Brierty called the Applied Earthworks' office, a description of the project was provided, and the proposed ESA fencing discussed. As a result of this conversation, Ms. Brierty requested the following: the presence of a Native American monitor during the CARIDAP investigation; an over view of the entire I-40 Median Regrading Project; DPR forms of sites within each portion of the Project; an updated set of maps showing the APE; a copy of the Draft ASR; SBAIC evaluations; a schedule that details the timing of project development; a field visit; and requested that Caltrans contact the tribe directly to continue government to government consultation. On May 23, 2014, Ms. Brierty received a copy of the initial consultation letter and the two requested maps. On June 6, 2014, a letter and accompanying CD were sent to Ms. Brierty from Caltrans. (The CD contained the information Ms. Brierty requested except for the APE map, which was still in development) On June 17, Ms. Brierty left a voicemail requesting additional information regarding the CARIDAP investigation. A call was placed to Ms. Brierty later that evening she was informed that Ken Moslek would be the field director. Ms. Gilvin was confirmed as the Native American participant for the CARIDAP. In addition, Ms. Brierty stated that she would be available for a field visit on June 20, 2014 and confirmed that the CARIDAP investigation would commence prior to San Manuel conducting a field visit. On June 20, 2014, Ms. Brierty visited the project area during the CARIDAP investigations. A copy of the HPSR and associated documents were mailed to Ms. Brierty and Mr. McCarthy on November 14, 2014.

## **Chapter 4 – Coordination and Comments**

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### **Chemehuevi Reservation**

On October 10, 2014, a call was made to Mr. Smith and a message was left on the office voicemail. On October 14, 2014, an email was sent to the address provided by the NAHC, it was returned as delivery to that address failed. On May 6, 2014 a supplementary consultation letter describing proposed CARIDAP investigations was sent to Mr. Smith. The tribal administrative offices were called to discuss the project with Mr. Smith and the call was directed to Dr. Jay Cravath (please see the paragraph detailing the consultation effort with Mr. McCarthy for additional information).

Dr. Cravath responded, in a letter received on July 5, 2013, to the initial consultation letter stating that the Tribe had no specific comments or concerns, but requested to be kept in the loop as the project moved forward. On May 21, 2014, a call was placed to the Chemehuevi Reservation office to discuss the project with Mr. Smith. This was directed to Dr. Cravath. A call was placed to Dr. Cravath later that day and he requested an emailed copy of the draft ASR report. The draft ASR was emailed to Dr. Cravath on May 21, 2014. On June 22, 2014, Dr. Cravath emailed confirmation that he had received the draft ASR. On May 22, 2014, an email from Dr. Cravath stated that the Tribe had no specific comments regarding the proposed plan and requested that, if during construction further evidence of human activity is found, that work cease and the Tribe be contacted. An email response on May 22, 2014 thanked Dr. Cravath and confirmed that Caltrans would contact the Tribe in any additional cultural materials were encountered during the CARIDAP investigation or construction.

### **Morongo Band of Mission Indians**

An initial consultation letter was sent to Mr. Robert Martin on June 25, 2014. On October 10, 2013, a message was left on the office voicemail of Mr. Martin and no return phone calls or message was received. On October 17, 2014 a second voicemail was left for Mr. Martin, no response was received. A supplemental consultation letter describing proposed CARIDAP investigations was mailed to Mr. Martin on May 6, 2014. On May 21, 2014 a call to Mr. Martin to discuss the project was directed to Mr. Madrigal (please see the paragraph detailing the consultation effort with Mr. McCarthy for additional information).

On May 9, 2014 a supplemental consultation letter, describing proposed CARIDAP investigations, was mailed to Mr. Madrigal. Messages were left on Mr. Madrigal Jr.'s voicemail on May 21, 2014 and May 23, 2014. No response has been received.

### **San Fernando Band of Mission Indians**

John Valenzuela was sent an initial consultation letter on June 25, 2013. Messages regarding the project were left on Mr. Valenzuela' voicemail on October 10, 2013, and on October 14, 2014, no responses were received. A supplemental consultation letter, describing proposed CARIDAP investigations, was mailed to Mr. Valenzuela on May 6, 2014. Messages were left on Mr. Valenzuela's voicemail on May 21, 2014 and May 23, 2014. No responses to those messages have been received.

### **Fort Mojave Indians**

Timothy Williams was sent an initial consultation letter on June 25, 2013. On October 10, 2013, a call was made to the Tribe's office to speak with Mr. Williams. That call was directed to Nora McDowell (please see the paragraph detailing the consultation effort with Mr. McCarthy for additional information). On May 6, 2014, a supplemental consultation letter, describing proposed CARIDAP investigations, was sent to Mr. Williams. A consultation call made to Mr. Williams was redirected to Ms. McDowell.

## Chapter 4 – Coordination and Comments

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Linda Otero was sent an initial consultation letter on June 25, 2013. A consultation call was made on October 10, 2013; no message could be left, as voicemail was not available. An email was sent to Ms. Walker on October 14, 2013, requesting comments or recommendations regarding the project. No response has been received. On May 6, 2014 a supplemental consultation letter, describing proposed CARIDAP investigations, was mailed to Ms. Walker. On May 21, 2014, the call to Ms. Otero was redirected to Ms. McDowell as Ms. Otero was on extended leave.

On October 10, 2013, the call to Mr. Williams was redirected to Ms. McDowell. Ms. McDowell requested additional information on the prehistoric cultural resources located within the APE. On October 14, 2014, an email was sent to Ms. McDowell that provided the requested information regarding the sites that had been recorded in the APE during the recent pedestrian survey. On May 6, 2014 a supplementary consultation letter, describing proposed CARIDAP investigations, was mailed to Ms. McDowell. The letter from May 6, 2014 was returned because of an incorrect address. The letter was re-mailed on May 19, 2014. A voicemail was left for Ms. McDowell on May 21, 2014. On May 23, 2014, the project was discussed with Ms. McDowell and she was provided with a summary of the three sites within the Project APE and the work that was proposed by Caltrans. The discussion also included the date the CARIDAP investigation would occur, potential dates for the installation of ESA fencing, and what other tribes were contacted during the consultation process for this project. Ms. McDowell stated she needed to speak with Ms. Otero prior to providing a response. No response has been received to date.

### Concerned Tribal Members

An initial consultation letter was sent to Ms. Walker on June 25, 2013. Two follow up calls were made on October 10, 2013, and October 14, 2013, messages were left on Ms. Walker's voicemail. No responses were received. On May 6, 2014, a supplemental consultation letter, describing proposed CARIDAP investigations, was mailed to Ms. Walker. Ms. Walker was reached by phone on May 21, 2014, and she stated she had no specific concerns about the project but requested notification if significant artifacts or human remains were found. Ms. Walker will be notified if any significant artifacts or human remains are encountered during construction.

On June 25, 2013, Ernest Siva was mailed an initial consultation letter. On October 10, 2013, a voicemail was left on Mr. Siva's voicemail and no response was received. On October 14, 2013, an email was sent to the address provided and was returned as delivery to that address had failed. On May 6, 2014, a supplementary letter describing proposed CARIDAP investigations was mailed to Mr. Siva. On May 21, 2014 and May 23, 2014, messages were left on Mr. Siva's voicemail. No response was received.

### Cultural SHPO Coordination:

Cultural Studies sent a letter to SHPO on November 12, 2014 requesting concurrence that CA-SBR-17113 and CA-SBR-17114 were not eligible for listing in the National Register of Historical Places (NRHP) and consultation regarding our finding of No Adverse Effect-Standard Conditions (NAE-SC). On December 15, 2014, SHPO responded that they concurred with our determination that CA-SBR-17113 and CA-SBR-17114 are not eligible for listing on the NRHP but requested clarification regarding the ESA Action Plan. A revised ESA Action Plan was submitted on December 17, 2014. On December 18, 2014 a new letter from SHPO stated they had no objection to the proposed finding of No Adverse Effect with Standard Conditions based on the revised ESA Action Plan. Therefore, Caltrans has determined a finding of **no substantial adverse change** – **ESAs** site CA-SBR-317/H, because the impacts to this historical resources within the Project Area limits will be avoided through the establishment of Environmentally Sensitive Areas (ESA).

## Chapter 4 – Coordination and Comments

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### Biological Resources Coordination:

The following coordination was performed by the Department's Wildlife Biologist, et al:

- A. Becky Jones of the California Department of Fish & Wildlife met with Alan Manee (Caltrans Bio– District 08) and Ken Holmes (Caltrans Bio – District 08) on December 10, 2014 in Newberry Springs at the Chevron Gas Station around noon. All three specialists went on an extended site visit and discussed how Desert Tortoise exclusionary fencing (DTEF) may be used on this proposed project. No final decisions were concluded, except for the absolute need for installing some DTEF within the project footprint.
- B. The Department's Wildlife Biologist and Scott Quinnell, Caltrans Senior Environmental Planner, Biological Studies & Permits Branch. Coordinated with Ventura USFWS Quarterly Meeting on June 19, 2014 and agreed to use the Programmatic Biological Opinion for Desert Tortoise (see Appendix D of the NES).

Coordination with the Regional Water Quality Control Board, U.S. Army Corps of Engineers and California Fish and Wildlife will take place after project approval, so the project permits can be obtained prior to construction. Additional avoidance, minimization and/or mitigation measures may be required in accordance with the project permits.

## **Chapter 4 – Coordination and Comments**

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### **Comments and Responding to Comments**

If comments are received on the Draft FIS during the public availability period, the Final FIS will be modified to reflect all substantive comments and responses to comments. Substantive comments are those comments that are related to the facts of the project, environmental document, or studies.

## Chapter 5 – List of Preparers

The following Caltrans staff contributed to the preparation of this FIS:

Kerrie Hudson, Senior Environmental Planner. B.A. Business Administration, California Baptist University. 16 years experience with Caltrans. Contribution: Environmental document preparation.

Kim Chandler, Associate Environmental Planner (Generalist). B.A. Business Administration – Information Management, California State University San Bernardino. 17 years experience with Caltrans. 17 years experience in Environmental Planning. Contribution: Environmental Document Preparation.

Scott Quinnell, Caltrans Senior Environmental Planner, Biological Studies & Permits Branch. B.S. Geography, M.S. Environmental Studies from Cal State University, Fullerton. 14 years of experience with Caltrans. Contribution: Technical Expertise, Review and Approval of Biological Technical documents.

Alan C. Manee: Associate Environmental Planner, Wildlife Biologist. B.S., M.S., Berkley- School of Environmental Design; 52 yrs. experience in: envir. analysis/envir. laws/hazardous waste/land planning/resource management/U.S. Army. 1st LT, AK./FEMA-Bio.

Gabrielle Duff, Senior Environmental Planner, M.A. Anthropology, University of California, Riverside. 20 years experience in cultural resources management.

Victoria Stosel, Cultural Studies (Archaeology). M.A. in Anthropology, California State University, Los Angeles. 11 years of cultural resource experience; 1 year with Caltrans as an Archaeologist. Contribution: Environmental document review.

Kurt Heidelberg, Senior Environmental Planner. M.A. Anthropology, University of California at Riverside, M.S. Computer Science, Virginia Commonwealth University. 24 years experience in Environmental Planning. Contribution: Paleontological Studies.

Bahram Karimi, Associate Environmental Planner/Paleontologist. 8 years of experience with Caltrans. M.S. Geology, Grahwal University India and B.S. Geology, Karnataka University India.

Tony Louka, Senior Transportation Engineer.

Rosanna Roa, Transportation Engineer, Civil - Hazardous Waste Coordinator. 22 years experience with the Department of Environmental Planning, Environmental Engineering

Hoang Pham, Transportation Engineer/Civil. Six years of experience working in Air Quality and Noise for Caltrans.

John Rogers, Senior Transportation Engineer Division of Design, Hydraulics

Roy King, RCE # 28000: Masters of Science, Water Resources Engineering, California State University, Fullerton, 1980. Bachelor of Science, Civil Engineering, University of Wyoming, 1966. Article and original derivation, *The Three-Point Resection: an Alternate Solution*, published in the April 1983 issue, *Civil Engineering Magazine*. Employment: Hydraulics Division, California Department of Transportation, District 8, fifteen years; Construction Division, ten years; various private engineering firms, government agencies, and overseas: twenty-five years. Mr. King is a Life Member of the American Society of Civil Engineers.

Rafih Achy, Senior Transportation Engineer, Project Manager

## **Chapter 5 – List of Preparers**

Program Project Management

Mark Pertile, Senior Transportation Engineer  
Division of Design, Design M

Justine Niu, Senior Transportation Engineer (Acting Office Chief)  
Division of Design, Design M

Aaron Brady, Transportation Engineer, Civil  
Division of Design, Design M

Ike Maatubang, Transportation Engineer, Civil  
Division of Design, Design M

Ray Desselle, Department of Transportation, CALTRANS, District 08, District Landscape  
Architect, Louisiana State University.

Mary Ann Johns, Landscape Architect  
Division of Design, Landscape B

Patrick Hally, Senior Transportation Engineer, Office of Stormwater Quality, California State  
Polytechnic University, Pomona, 16 years experience with Caltrans.

## **Chapter 6- Distribution List**

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The Focused Initial Study or a Notice of Availability will be distributed to local, and regional agencies and utility providers affected by the proposed project. In addition, property owners directly affected by the project will also be provided with Notice of Availability of the document.

### **Office of Planning and Research (OPR)**

#### **State Clearinghouse**

1400 Tenth Street  
Sacramento, CA 95814

### **U.S. Fish & Wildlife Service, Ventura Field Office**

2493 Portola Road, Suite B  
Ventura, CA 93003

### **California Department of Fish and Wildlife**

3602 Inland Empire Boulevard, Suite C-220  
Ontario, CA 91764

### **Bureau of Land Management – Barstow Office**

2601 Barstow Road  
Barstow, CA 92311

### **San Bernardino County - Clerk**

385 N. Arrowhead Avenue, 2nd Floor  
San Bernardino, CA 92415-0130

### **San Bernardino County Board of Supervisors**

First District Supervisor Brad Mitzelfelt  
385 N. Arrowhead Ave., 5th Fl.  
San Bernardino, CA 92415-0110

### **United States Army Corp of Engineers**

PO Box 532711  
Los Angeles, CA 90053-2325

### **California Highway Patrol**

300 E. Mountain View  
Barstow, Ca. 92311

### **Barstow Police Department**

Albert S. Ramirez Jr.  
Chief of Police  
220 East. Mountain View Street, Suite B  
Barstow, CA 92311

### **City of Barstow**

City Hall  
Community Development Department  
Mike Massimini  
City Planner  
220 East Mountain View Street, Suite A  
Barstow, CA 92311

## Chapter 6- Distribution List

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### **Marine Corps Logistics Base**

Attn: Public Affairs Office  
Box 100130  
Barstow, CA 92311-5050

### **Barstow-Daggett Airport**

James E. Jenkins  
Director  
39500 National Trails Highway  
Daggett, CA 92327

# Appendix A - Title VI Policy Statement

## DEPARTMENT OF TRANSPORTATION

OFFICE OF THE DIRECTOR  
P.O. BOX 942873, MS-19  
SACRAMENTO, CA 94273-0019  
PHONE (916) 654-3266  
FAX (916) 654-6608  
TTY 711  
www.dot.ca.gov



*Use your power!  
Be energy efficient!*

March 2013

### NON-DISCRIMINATION POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

For information or guidance on how to file a complaint based on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, please visit the following web page: [http://www.dot.ca.gov/hq/bep/title\\_vi/t6\\_violated.htm](http://www.dot.ca.gov/hq/bep/title_vi/t6_violated.htm).

Additionally, if you need this information in an alternate format, such as in Braille or in a language other than English, please contact the California Department of Transportation, Office of Business and Economic Opportunity, 1823 14<sup>th</sup> Street, MS-79, Sacramento, CA 95811. Telephone: (916) 324-0449, TTY: 711, or via Fax: (916) 324-1949.

A handwritten signature in blue ink that reads "Malcolm Dougherty".

MALCOLM DOUGHERTY  
Director

*"Caltrans improves mobility across California"*

## Appendix B – Environmental Commitment Record

Date: December 24, 2014  
(NEPA CE/CEQA FIS)

Project Phase:

- PA/ED (DED)  
 PS&E Submittal  
 Construction

## ENVIRONMENTAL COMMITMENTS RECORD

### Re-Grade Median Cross Slopes Interstate 40 (I-40)

08-SBd-40  
PM 0.0/R25.0

EA 08-OR1200  
PN 0812000026

Avoidance, Minimization, and/or Mitigation Measures	Page # in Env. Doc.	Environmental Analysis Source (Technical Study, Environmental Document, and/or Technical Discipline)	Responsible for Development and/or Implementation of Measure	Timing/Phase	If applicable, corresponding construction provision: (standard, special, non-standard)	Action(s) Taken to Implement Measure	Measure Completed (Date and Initials)	Remarks	Environmental Compliance	
									YES	NO
<b>Visual/Aesthetics</b>										
<b>AES-1:</b> To restore disturbed areas, erosion control "hydroseed" will be applied to return the site to its natural condition (see Standard Specifications 2010, Section 21 – Erosion Control, 21-1.03E Hydromulch and Hydroseed).	9	FIS	District Landscape Architecture / District Environmental Planning / Resident Engineer / Contractor	Final Design, Construction	Standard Specifications 2010: Section 21 – Erosion Control 21-1.03E Hydromulch and Hydroseed					
<b>Air Quality</b>										
<b>AQ-1:</b> Construction equipment engines shall be maintained in good condition and in proper tune as per manufacturers' specifications.	12	FIS	Resident Engineer / Contractor	Construction						
<b>Biological Resources</b>										
<b>BIO-1:</b> Special-status plant surveys will be conducted before the start of construction activities. All required biological surveys must be complete and approved before construction activities may proceed. Specific avoidance and minimization efforts shall be determined after focused	26	FIS	Resident Engineer / Contractor	Design Construction						

Date: December 24, 2014  
(NEPA CE/CEQA FIS)

Project Phase:

- PA/ED (DED)
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									YES	NO
surveys have been conducted.										
<b>BIO-2:</b> Impacts to special-status plant species are not quantifiable until focused surveys have been conducted and presence/absence determined. Compensatory mitigation will be determined after focused surveys have been conducted and impacts are determined, if any. Cumulative effects shall be determined after focused surveys have been conducted.	26	FIS	Resident Engineer / Contractor	Design Construction						
<b>BIO-3:</b> Caltrans will submit the names and qualifications of biologists that they believe meet the minimum requirements to serve as Authorized Biologists to the Service for review and authorization under this biological opinion prior to beginning on-site activities (forms at <a href="http://www.fws.gov/ventura/speciesinfo/protocols_guidelines/">http://www.fws.gov/ventura/speciesinfo/protocols_guidelines/</a> ). Once a biologist has been authorized by the Service, that individual may work on subsequent projects pursuant to this biological opinion	27	FIS	Resident Engineer / Contractor	Design Construction						

Date: December 24, 2014  
(NEPA CE/CEQA FIS)

Project Phase:

- PA/ED (DED)
- PS&E Submittal
- Construction

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										YES	NO
without additional approval, provided that his or her performance remains satisfactory. Caltrans will maintain a record of all authorized biologists who work on its projects.											
<b>BIO-4:</b> Caltrans will designate, on a project-by-project basis, an authorized biologist to be responsible for overseeing compliance with all protective measures and for coordination with the Service. The authorized biologist will immediately notify the resident engineer of project activities that may be in violation of this biological opinion. In such an event, the resident engineer can halt all construction activities until all protective measures are being fully implemented, as determined by the authorized biologist.	27	FIS	Resident Engineer / Contractor	Design Construction							
<b>BIO-5:</b> A resident engineer is, according to Caltrans' May 2006 Standard Specifications, "the Chief Engineer, Department of Transportation, acting either directly or through properly authorized agents, the	27	FIS	Resident Engineer / Contractor	Design Construction							

Date: December 24, 2014  
 (NEPA CE/CEQA FIS)

Project Phase:

- PA/ED (DED)
- PS&E Submittal
- Construction

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										YES	NO
agents acting within the scope of the particular duties delegated to them." The resident engineer has authority over the contract and is responsible for all aspects of the specific projects to which he or she is assigned. The resident engineer has the authority to stop work on a project. The authorized biologist will have the authority to halt any activity, through the Resident Engineer or other identified authority in charge of implementation that may pose a threat to desert tortoises and to direct movements of equipment and personnel to avoid injury or mortality to desert tortoise.											
<b>BIO-6:</b> When handling desert tortoises, authorized biologists (and trained individuals) must follow the guidelines outlined in the Desert Tortoise Field Manual (Service 2010), chapters 6 and 7. The manual is available on the web through the VFWO website ( <a href="http://www.fws.gov/ventura">www.fws.gov/ventura</a> ).	27	FIS	Resident Engineer / Contractor	Design Construction							

Date: December 24, 2014  
(NEPA CE/CEQA FIS)

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										YES	NO
<b>BIO-7:</b> Immediately prior to the start of any ground-disturbing activities and prior to the installation of any desert tortoise exclusion fencing, clearance surveys for the desert tortoise will be conducted by the authorized biologist, as appropriate. The entire project area will be surveyed for desert tortoise and their burrows by an authorized biologist or approved desert tortoise monitor before the start of any ground-disturbing activities following the 2010 field survey protocol (Service 2010) or more current approved protocol. If burrows are found, they will be examined by an authorized biologist to determine if desert tortoises are present. If a tortoise is present and the burrow cannot be avoided, it will be relocated in accordance with Service protocol (Service 2010). If the authorized biologist determines clearance surveys are not needed, clearance surveys would not be required.	27	FIS	Resident Engineer / Contractor	Design Construction							

Date: December 24, 2014  
 (NEPA CE/CEQA FIS)

Project Phase:

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										YES	NO
If desert tortoises are found at a project site where Caltrans (or the authorized biologist) had previously concluded they were unlikely to occur, Caltrans will contact the Service to determine if the implementation of additional protective measures would be appropriate.											
<b>BIO-8:</b> For construction projects determined likely to may affect desert tortoise, an education program will be developed and presented by the authorized biologist prior to the onset of ground-disturbing activities to be conducted under the auspices of this consultation. All onsite personnel including surveyors, construction engineers, employees, contractors, contractor's employees, supervisors, inspectors, subcontractors, and delivery personnel employed for a project will be required to participate in an education program regarding the desert tortoise before performing on-site work. The program will	28	FIS	Resident Engineer / Contractor	Design Construction							

Date: December 24, 2014  
(NEPA CE/CEQA FIS)

Project Phase:

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										YES	NO
<p>consist of a class presented by an authorized biologist or a video, provided the authorized biologist is present to answer questions. Wallet-sized cards or a one-page handout with important information for workers to carry are recommended as a future reference and a reminder of the program's content.</p> <p>The program will cover the following topics at a minimum:</p> <ul style="list-style-type: none"> <li>- the distribution, general behavior, and ecology of the desert tortoise;</li> <li>- its sensitivity to human activities;</li> <li>- the protection it is afforded by the Endangered Species Act;</li> <li>- penalties for violations of State and Federal laws;</li> <li>- notification procedures by workers or contractors if a tortoise is found in a construction area, and; protective measures specific to each project.</li> </ul>											

Date: December 24, 2014  
(NEPA CE/CEQA FIS)

Project Phase:

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										YES	NO
<b>BIO-9:</b> Whenever project vehicles are parked outside of a fence that is intended to preclude entry by desert tortoises, workers will check under the vehicle before moving it. If a desert tortoise is beneath the vehicle, the worker will notify the authorized biologist or an approved desert tortoise monitor to relocate the tortoise. If an authorized biologist is not present on-site, the Resident Engineer or supervisor must notify an authorized biologist. Workers will not be allowed to capture, handle, or relocate tortoises. Any such handling must be reported as described in the Reporting Requirements section of this biological opinion.	28	FIS	Resident Engineer / Contractor	Design Construction							
<b>BIO-10:</b> The area of disturbance will be confined to the smallest practical area, considering topography, placement of facilities, location of burrows, public health and safety, and other limiting factors. This measure includes temporary haul roads,	28	FIS	Resident Engineer / Contractor	Design Construction							

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(NEPA CE/CEQA FIS)

Project Phase:

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										YES	NO
staging/storage areas, or access roads. Work area boundaries will be clearly and distinctly delineated with flagging or other marking to minimize surface disturbance associated with vehicle movement. Special habitat features, such as desert tortoise burrows, will be identified and marked as environmentally sensitive areas by the authorized biologist, if they are to be avoided and will be discussed and identified during the worker education program. To the extent possible, previously disturbed areas within the Caltrans ROW will be used for equipment storage, office trailer locations, and vehicle parking. The development of all temporary access and work roads associated with construction will be minimized and constructed without blading where feasible. Project-related vehicle traffic will be restricted to established roads, construction areas, staging/storage areas, and											

Date: December 24, 2014  
(NEPA CE/CEQA FIS)

Project Phase:

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										YES	NO
parking areas. The resident engineer, authorized biologist or approved desert tortoise monitor will ensure that blading is conducted only where necessary.											
<b>BIO-11:</b> Caltrans will require all contractors to comply with the Act in the performance of work necessary for project completion. Evidence of compliance is required prior to Caltrans accepting or receiving materials or goods produced from outside of the right-of-way or through the use of facilities located outside of the right-of-way, including but not limited to, non-commercial batch plants, haul roads, quarries, and similar operations. Copies of the compliance documents will be maintained at the work-site by the resident engineer.	28	FIS	Resident Engineer / Contractor	Design Construction							
<b>BIO-12:</b> The resident engineer is responsible for ensuring that all protective measures are being fully implemented. If the resident engineer determines, or is notified by the authorized biologist, that one or more	29	FIS	Resident Engineer / Contractor	Design Construction							

Date: December 24, 2014  
(NEPA CE/CEQA FIS)

Project Phase:

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										YES	NO
protective measures are not being fully implemented, he or she will halt all 11 activities that are out of compliance until all problems have been remedied. All workers, authorized biologists, and biological monitors will be required to notify the resident engineer of any such problem they notice. The resident engineer must always be able to contact an approved biological monitor or authorized biologist to resolve any unforeseen issues.											
<b>BIO-13:</b> Caltrans will determine whether the presence of authorized biologists and approved desert tortoise monitors will be required during project activities as outline in the 'criteria for use in reaching appropriate determination' section of this programmatic biological opinion and the submitted Appendix I notification form to the Service. In general, where the risk to desert tortoises is low, the authorized biologist or an	29	FIS	Resident Engineer / Contractor	Design Construction							

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										YES	NO
approved biological monitor will be present at the onset of the project to ensure protective measures are in place and will, if necessary (for example, for projects that will require a substantial length of time to complete), conduct periodic field checks to ensure compliance.											

Date: December 24, 2014  
(NEPA CE/CEQA FIS)

Project Phase:

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										YES	NO
<b>BIO-14:</b> Permanent or temporary exclusion fencing may be used to prevent entry by desert tortoises into a work site, if Caltrans and the authorized biologist determine this measure is appropriate. Exclusion fencing will be installed following Service guidelines (2005) or more current protocol. The authorized biologist will ensure that desert tortoises cannot pass under, over, or around the fence. If such a fence is used, authorized biologists or desert tortoise monitors will not be required to be present at the site at all times. However, the authorized biologist must periodically check the fenced area to search for breaks in the fence and to ensure no desert tortoises have breached the fence. Preconstruction surveys for tortoise and tortoise sign will be performed within all proposed construction areas prior to the fence being installed. In addition, prior to ground disturbing activities beginning	29	FIS	Resident Engineer / Contractor	Design Construction							

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										YES	NO
in a previously undisturbed or unfenced area, preconstruction surveys will be performed.											
<b>BIO-15:</b> Upon locating a dead or injured tortoise within a project site, the resident engineer will immediately notify the authorized biologist whom then will notify the Service within 24 hours of the observation via telephone. Written notification must be made to the appropriate Fish and Wildlife field office within 5 days of the finding. The information provided must include the date and time of the finding or incident (if known), location of the carcass or injured animal, a photograph, cause of death or injury, if known, and other pertinent information (i.e., size, sex, recommendations to avoid future injury or mortality).	29	FIS	Resident Engineer / Contractor	Design Construction							
<b>BIO-16:</b> Injured desert tortoises will be transported to a veterinarian for treatment at the expense of the contractor or Caltrans. Only the authorized biologist or an approved desert tortoise	29	FIS	Resident Engineer / Contractor	Design Construction							

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										YES	NO
biological monitor will be allowed to handle an injured tortoise. If an injured animal recovers, the appropriate Fish and Wildlife field office will be contacted for final disposition of the animal.											
<b>BIO-17:</b> Caltrans will notify the authorized biologist or approved desert tortoise biological monitor to collect and place the remains of intact desert tortoise carcasses with educational or research institutions holding the appropriate State and Federal permits per their instructions. If such institutions are not available or the animal's remains are in poor condition, the information noted in this section will be obtained and the carcass left in place. If left in place and sufficient pieces are available, the authorized biologist will attempt to mark the carcass to ensure that it is not reported again.	29	FIS	Resident Engineer / Contractor	Design Construction							
<b>BIO-18:</b> If working outside of a desert tortoise-proof fenced area, auger holes or other excavations will be covered	29	FIS	Resident Engineer / Contractor	Design Construction							

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										YES	NO
following inspection at the end of each workday to prevent desert tortoises from becoming trapped.											
<b>BIO-19:</b> When feasible or practicable, construction vehicles will be cleaned of all mud, dirt, and debris from other sites prior to entering the project area. The purpose of this measure is to minimize the spread of weedy plant species that may degrade desert tortoise habitat.	30	FIS	Resident Engineer / Contractor	Design Construction							

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										YES	NO
<b>BIO-20:</b> Except on maintained public roads designated for higher speeds or within a desert tortoise-proof fenced area, driving speed will not exceed 20 miles per hour through potential desert tortoise habitat on both paved and unpaved roads.	30	FIS	Resident Engineer / Contractor	Design Construction							
<b>BIO-21:</b> Any fuel or other hazardous materials spills will be promptly cleaned up; any leaks from equipment will be stopped and repaired immediately. Vehicle and equipment fluids that are no longer useful will be transported to an appropriate off-site disposal location. Fuel and lubricant storage and dispensing locations will be constructed to fully contain spilled materials until disposal can occur. Hazardous waste, including used motor oil waste and coolant, will be stored and transferred in a manner consistent with applicable regulations and guidelines.	30	FIS	Resident Engineer / Contractor	Design Construction							
<b>BIO-22:</b> Plant species listed in Lists A and B of the California Exotic Pest Plant Council's list	30	FIS	Resident Engineer /	Design Construction							

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										YES	NO
of exotic pest plants (latest edition) will not be used to restore or stabilize areas within or near desert tortoise habitat.			Contractor								
<b>BIO-23:</b> Upon completion of construction, all refuse, including, but not limited to equipment parts, wrapping material, cable, wire, strapping, twine, buckets, metal or plastic containers, and boxes will be removed from the site and disposed of properly.	30	FIS	Resident Engineer / Contractor	Design Construction							
<b>BIO-24:</b> No firearms or pets, including dogs, will be allowed within the work area. Firearms carried by authorized security and law enforcement personnel and working dogs under the control of a handler will be exempt from this protective measure.	30	FIS	Resident Engineer / Contractor	Design Construction							
<b>BIO-25:</b> To preclude attracting predators, such as the common raven ( <i>Corvus corax</i> ) and coyotes ( <i>Canis latrans</i> ), food-related trash items will be removed daily from the work site and disposed of at an approved refuse disposal site. Workers are prohibited from	30	FIS	Resident Engineer / Contractor	Design Construction							

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										YES	NO
feeding all wildlife.											
<b>BIO-26:</b> Desert tortoise exclusion fence construction will follow the guidelines in chapter 8 of the Desert Tortoise Field Manual (Service 2010) which is available at the VFWO website ( <a href="http://www.fws.gov/ventura">www.fws.gov/ventura</a> ).	30	FIS	Resident Engineer / Contractor	Design Construction							
<b>BIO-27:</b> All desert tortoise fences, will be regularly maintained at a frequency sufficient to ensure that they will continually provide an effective barrier to passage of desert tortoises.	30	FIS	Resident Engineer / Contractor	Design Construction							
<b>BIO-28:</b> Desert tortoise-proof fencing will not cross washes. When washes and culverts are encountered, the desert tortoise-proof fence will follow the wash to the roadway and either tie into the existing bridge or cross over the top of a culvert.	30	FIS	Resident Engineer / Contractor	Design Construction							

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										YES	NO
<b>BIO-29:</b> During fence inspections and repairs, if any desert tortoises are observed, workers are to notify the authorized biologist because only authorized biologists and approved biological monitors are permitted to handle tortoise. All desert tortoises encountered within the roadway side of the fence will be relocated across the fence to safety in accordance with Service protocol (Service 2010). Any such incident will be reported in the annual report.	30	FIS	Resident Engineer / Contractor	Design Construction							
<b>BIO-30:</b> On a case by case basis, individual active burrows may be fenced if the authorized biologist determines this protective measure is necessary to prohibit desert tortoises from repeatedly entering work areas. Fencing around individual burrows will be removed when adjacent construction is complete.	30	FIS	Resident Engineer / Contractor	Design Construction							
<b>BIO-31:</b> To further ensure that actions implemented under the auspices of this consultation	30	FIS	Resident Engineer /	Design Construction							

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										YES	NO
do not substantially degrade the status of the desert tortoise or its critical habitat, Caltrans will reinitiate formal consultation in the event either of the following thresholds regarding injury or mortality to desert tortoises or loss or disturbance of their critical habitat is reached: a. two (2) desert tortoises injured or killed in any calendar year, within the action area, in each county considered in this biological opinion; or seven (7) desert tortoises injured or killed, within the action area (regardless of county) considered in this biological opinion, in any calendar year; and b. five (5) acres located outside of the ultimate rights-of-way containing the primary constituent elements of critical habitat of the desert tortoise are adversely affected on a long-term basis within each of the critical habitat units considered in this biological opinion, in any calendar year.			Contractor								

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										YES	NO
<b>BIO-32:</b> No compensatory mitigation is anticipated if appropriate avoidance and minimization measures are implemented. However, through the Section 2081 consultation process, CDFW may request mitigation to address the removal of habitat in the median where desert tortoises have the potential to occur. No cumulative effects are anticipated if appropriate avoidance and minimization measures are implemented.	31	FIS	Resident Engineer / Contractor	Design Construction							
<b>BIO-33:</b> Focused burrowing owl surveys will be conducted before the start of construction activities. All required biological surveys must be complete and approved before construction activities may proceed. Specific avoidance and minimization efforts will be determined after focused surveys have been conducted. However, all project sites containing burrows or suitable habitat, whether owls were found or not, require take avoidance surveys that shall be conducted within 14 days	31	FIS	Resident Engineer / Contractor	Design Construction							

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									YES	NO
prior to ground disturbance to avoid direct take of burrowing owls.										
<b>BIO-34:</b> Construction activities (e.g., grading) must begin within 14 days from the date of the survey or an updated survey shall be required. Surveys shall be conducted in accordance with recommended survey methods in the CDFW Staff Report on Burrowing Owl Mitigation. Surveys shall include any off-site improvements to be impacted. Once grading and associated construction activities have begun, no further surveys are required. If time lapses between project activities occur (i.e., construction activities in a certain area halt for more than two weeks), additional take avoidance surveys may be required.	31	FIS	Resident Engineer / Contractor	Design Construction						
<b>BIO-35:</b> In the event burrowing owls are observed on-site, potential mitigation measures such as passive or active relocation will be discussed.	32	FIS	Resident Engineer / Contractor	Design Construction						

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										YES	NO
<b>BIO-36:</b> Although it is unlikely prairie falcons nest in the BSA, pre-construction breeding bird surveys conducted in compliance with the Migratory Bird Treaty Act (MBTA) would ensure no impacts to nests.	32	FIS	Resident Engineer / Contractor	Design Construction							
<b>BIO-37:</b> Although it is unlikely loggerhead shrikes nest in the BSA, pre-construction breeding bird surveys conducted in compliance with the Migratory Bird Treaty Act (MBTA) (see Sections 4.4.5 and 5.6) would ensure no impacts to nests.	32	FIS	Resident Engineer / Contractor	Design Construction							
<b>BIO-38:</b> To avoid potential effects to nesting birds protected by the MBTA and state code, vegetation clearing and preliminary ground disturbance work will be completed outside of the bird breeding season (generally February 15 through August 31).	32	FIS	Resident Engineer / Contractor	Design Construction							
<b>BIO-39:</b> In the event that initial groundwork cannot be conducted outside the bird breeding season, focused surveys will be conducted prior to ground-disturbing activities	32	FIS	Resident Engineer / Contractor	Design Construction							

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										YES	NO
(within 3 days). Should nesting birds be found, an exclusion buffer will be established by the biologist. The buffer may be up to 500 feet in diameter depending on the species of nesting bird. This buffer will be clearly marked in the field by construction personnel under guidance of the biologist, and construction or clearing will not be conducted within this buffer until the biologist determines that the young have fledged or the nest is no longer active.											
<b>BIO-40:</b> Bare soil will be landscaped with Caltrans-recommended seed mix from locally adopted species, where feasible, to preclude the invasion of noxious weeds. The use of site-specific materials, which are adapted to local conditions, increases the likelihood that revegetation will be successful and maintains the genetic integrity of the local ecosystem. Arrangements shall be made well in advance of planting for the scheduled planting time. Sufficient time should be	34	FIS	Resident Engineer / Contractor	Design Construction							

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										YES	NO
allocated for a professional seed company to visit the project site during the appropriate season and collect the native plant seed. If local propagules are not available or cannot be collected in sufficient quantities, materials collected or grown from other sources within southern California shall be substituted. For widespread native herbaceous species that are more likely to be genetically homogenous, site specificity is a less important consideration and seed from commercial sources may be used.											
<b>BIO-41:</b> Seed purity shall be certified by planting seed labeled under the California Food and Agricultural Code or that has been tested within a year by a seed laboratory certified by the Association of Official Seed Analysts or by a seed technologist certified by the Society of Commercial Seed Technologists.	34	FIS	Resident Engineer / Contractor	Design Construction							
<b>BIO-42:</b> Construction equipment will be cleaned of mud or other debris that may	34	FIS	Resident Engineer /	Design Construction							

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										YES	NO
contain invasive plants and/or seeds and inspected to reduce the potential of spreading noxious weeds (before mobilizing to arrive at site and before leaving site).			Contractor								
<b>BIO-43:</b> Trucks with loads carrying vegetation shall be covered and vegetation shall be covered and vegetative materials removed from the site shall be disposed of in accordance with all applicable laws and regulations.	34	FIS	Resident Engineer / Contractor	Design Construction							
<b>BIO-44:</b> All project workers will attend Workers Environmental Education Programs (WEEP) training prior to entering the project site. The training will include sensitive biological resources and required mitigation measures.	34	FIS	Resident Engineer / Contractor	Design Construction							
<b>BIO-45:</b> Project access should be limited to existing access roads to the extent available.	34	FIS	Resident Engineer / Contractor	Design Construction							
<b>BIO-46:</b> Soils and topsoil will be stockpiled in either disturbed areas lacking native vegetation or areas delineated for project-related disturbance.	34	FIS	Resident Engineer / Contractor	Design Construction							

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										YES	NO
Topsoil will be re-spread following compaction.											
<b>BIO-47:</b> All trenches, pipes, and culverts will be inspected at the end of each work day to ensure that all potential wildlife pitfalls have been backfilled, sloped at a 3:1 ratio at the end to provide wildlife escape ramps, or completely covered to prevent wildlife access.	34	FIS	Resident Engineer / Contractor	Design Construction							
<b>BIO-48:</b> Best Management Practices (BMP) will be implemented to control dust, potential spills, leaks, runoff, and other potential construction-related impacts.	34	FIS	Resident Engineer / Contractor	Design Construction							
<b>BIO-49:</b> A biological monitor will be present during ground-disturbed activities to ensure any wildlife that is unearthed or enters the work area during Project activities is moved out of harm's way. This monitor will also inspect all excavations at the beginning and end of each day to ensure wildlife has not become trapped.	34	FIS	Resident Engineer / Contractor	Design Construction							

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									YES	NO
<b>Cultural Resources</b>										
<b>CR-1:</b> If cultural materials are discovered during construction, all earth-moving activity within 60 feet of the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.	36	FIS	Resident Engineer / Contractor	Construction	Standard Specifications 2010: Section 14-2 Cultural Resources. Archeological Resources: General.	Contact Gabrielle Duff at (909) 383-6933 or Gary Jones at (909) 383-7505.				
<b>CR-2:</b> If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall stop in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to CA Public Resources Code (PRC) Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), which will then notify the Most Likely Descendent (MLD). The person who discovered the remains will contact District 8 Division of Environmental	37	FIS	Resident Engineer / Contractor	Construction	Standard Specifications 2010: Section 14-2 Cultural Resources. Archeological Resources: General.	Contact Gabrielle Duff at (909) 383-6933 or Gary Jones at (909) 383-7505.				

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										YES	NO
Planning: Gabrielle Duff, DEBC: (909)383-6944 and Gary Jones DNAC: (909) 383-7505 so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.											
<b>CR-3:</b> ESA fencing to be installed according to plan and directed by cultural monitors.	37	FIS	Resident Engineer / Contractor	Construction	Standard Specifications 2010: Section 14-2 Cultural Resources. Archeological Resources: General.	Contact Gabrielle Duff at (909) 383-6933 or Gary Jones at (909) 383-7505.					
<b>CR-4:</b> Archaeological and Native American monitors shall be present during construction activities occurring adjacent to the ESA/AMA location. An AMA will be designated in the final plans and specifications. In the event that additional cultural deposits are uncovered during construction operations, the archaeological monitor shall be empowered to halt, or divert work in the vicinity of the find until the archaeologist is able to	37	FIS	Resident Engineer / Contractor	Construction	Standard Specifications 2010: Section 14-2 Cultural Resources. Archeological Resources: General.	Contact Gabrielle Duff at (909) 383-6933 or Gary Jones at (909) 383-7505.					

Date: December 24, 2014  
(NEPA CE/CEQA FIS)

Project Phase:

- PA/ED (DED)  
 PS&E Submittal  
 Construction

## ENVIRONMENTAL COMMITMENTS RECORD

### Re-Grade Median Cross Slopes Interstate 40 (I-40)

08-SBd-40  
PM 0.0/R25.0

EA 08-0R1200  
PN 0812000026

Avoidance, Minimization, and/or Mitigation Measures	Page # in Env. Doc.	Environmental Analysis Source (Technical Study, Environmental Document, and/or Technical Discipline)	Responsible for Development and/or Implementation of Measure	Timing/Phase	If applicable, corresponding construction provision: (standard, special, non-standard)	Action(s) Taken to Implement Measure	Measure Completed (Date and Initials)		Remarks	Environmental Compliance	
										YES	NO
determine the nature and significance of the discovery.											
<b>Geology and Soils</b>											
<b>GEO-1:</b> The Department's Soil stabilization BMPs- Preparing the soil surface and applying one of the following BMPs, or combination thereof, to disturbed soil areas or erodible slopes: compaction; wood mulch; hydraulic mulch; hydroseeding/handseeding; soil binders; straw mulch; geotextiles, mats, and erosion control blankets; and riprap (rock slope protection).	43	FIS	Project Engineer Resident Engineer / Contractor	Final Design, Construction							
<b>GEO-2:</b> Earthwork in the project area shall be performed in accordance with the latest Department's Standard Specifications.	44	FIS	Project Engineer Resident Engineer / Contractor	Final Design, Construction							
<b>GEO-3:</b> The Department performs a variety of maintenance activities on highways throughout California to maintain a safe and usable condition for the motoring public. In contrast to	44	FIS	Project Engineer Resident Engineer / Contractor	Final Design, Construction							

Date: December 24, 2014  
(NEPA CE/CEQA FIS)

Project Phase:

- PA/ED (DED)  
 PS&E Submittal  
 Construction

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### Re-Grade Median Cross Slopes Interstate 40 (I-40)

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										YES	NO
construction projects, maintenance activities are performed by a small crew for a short duration (most require no more than one day), and minimal soil is disturbed (generally less than 1.0 acre). The storm water pollution prevention BMPs that are used at maintenance activity sites and at maintenance facilities include the following.											
<b>Hazardous Waste/Materials</b>											
<b>HW-1:</b> Bid item (#070030) for Lead Compliance Plan \$5,000 in the Bid Cost Estimate	48	FIS	Resident Engineer / Contractor	Final Design, Construction							
<b>HW-2:</b> SSP 7-1.02K(6)(j)(iii) - Earth Material Containing Lead shall be included in the PS&E package. Excavated soils may be used onsite without restriction or released as surplus to the Contractor for disposition as non-hazardous waste.	48	FIS	Resident Engineer / Contractor	Final Design, Construction							

Date: December 24, 2014  
(NEPA CE/CEQA FIS)

Project Phase:

- PA/ED (DED)  
 PS&E Submittal  
 Construction

## ENVIRONMENTAL COMMITMENTS RECORD

### Re-Grade Median Cross Slopes Interstate 40 (I-40)

08-SBd-40  
PM 0.0/R25.0

EA 08-0R1200  
PN 0812000026

Avoidance, Minimization, and/or Mitigation Measures	Page # in Env. Doc.	Environmental Analysis Source (Technical Study, Environmental Document, and/or Technical Discipline)	Responsible for Development and/or Implementation of Measure	Timing/Phase	If applicable, corresponding construction provision: (standard, special, non-standard)	Action(s) Taken to Implement Measure	Measure Completed (Date and Initials)	Remarks	Environmental Compliance	
									YES	NO
<b><u>Water Quality and Storm Runoff</u></b>										
<b>WQ-1:</b> All appropriate construction Site BMPs will be used.	51	FIS	District Design / District Storm Water / Resident Engineer / Contractor	Final Design, Construction						
<b>WQ-2:</b> The contractor shall provide a Storm Water Pollution Prevention Plan (SWPPP) and erosion control plan. The plans must be reviewed by the Resident Engineer (RE) and submitted to Storm Water Multiple Application and Report Tracking System (SMARTS) for approval to the Regional Water Quality Control Board (RWQCB).	51	FIS	District Design / District Storm Water / Resident Engineer / Contractor	Final Design, Construction						
<b><u>Traffic and Transportation/Bicycle and Pedestrian Facilities</u></b>										
<b>PS-1:</b> The Department will develop a TMP to minimize any potential impact to emergency services, travelers and commuters.	58	FIS	District Design / District Traffic Management / District Environmental Planning /	Final Design, Construction						

Date: December 24, 2014  
 (NEPA CE/CEQA FIS)

Project Phase:

- PA/ED (DED)
- PS&E Submittal
- Construction

## ENVIRONMENTAL COMMITMENTS RECORD

### Re-Grade Median Cross Slopes Interstate 40 (I-40)

08-SBd-40  
 PM 0.0/R25.0

EA 08-0R1200  
 PN 0812000026

Avoidance, Minimization, and/or Mitigation Measures	Page # in Env. Doc.	Environmental Analysis Source (Technical Study, Environmental Document, and/or Technical Discipline)	Responsible for Development and/or Implementation of Measure	Timing/ Phase	If applicable, corresponding construction provision: (standard, special, non- standard)	Action(s) Taken to Implement Measure	Measure Completed (Date and Initials)		Remarks	Environmental Compliance	
										YES	NO
			Resident Engineer / Contractor								

## Appendix C – List of Acronyms

Abbreviation of example (e.g.)  
Aerially Deposited Lead (ADL)  
Aesthetics (AES)  
Air Pollution Control District's (APCD)  
Air Quality Management District (AQMD)  
Area of Potential Effects (APE)  
Assembly Bill (AB)  
Best Management Practices (BMP's)  
Biological Resources (Bio)  
CA Public Resources Code (PRC)  
California (CA)  
California Air Resources Board (ARB)  
California Air Resources Board (CARB)  
California and Federal Endangered Species Act (CEQA)  
California Department of Transportation (Department)  
California Environmental Protection Agency (Cal/EPA)  
California Fish and Wildlife (CDFW)  
California Transportation Plan (CTP)  
Carbon Dioxide (CO<sub>2</sub>)  
Carbon Monoxide (CO)  
Closed Circuit Televisions (CCTV)  
Coastal Ocean Climate Action Team (CO-CAT)  
Code of Federal Regulations (CFR)  
Community Environmental Response Facilitation Act (CERFA)  
Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA)  
Council on Environmental Quality (CEQ)  
Cultural Resources (Cult)  
Director's Policy (DP)  
Disturbed Soil Area (DSA)  
Draft Environmental Document (DED)  
Environmental Commitments Record (ECR)  
Environmental Document (ED)  
Executive Order (EO)  
Federal Emergency Management Agency (FEMA)  
Federal Highway Administration (FHWA)  
Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)  
Geology and Soils (Geo)  
Governor's Office of Planning and Research (OPR)  
Greenhouse Gas Emissions (GHG)  
Hazards and Hazardous Materials (HW)  
Historic Property Survey Report (HPSR)  
Hydrology and Water Quality (WQ)  
Initial Study (IS)  
Intelligent Transportation System (ITS)  
Intergovernmental Panel on Climate Change (IPCC)  
Intergovernmental Review (IGR)  
Interstate 40 (I-40)  
Left (L)  
Light Emitting Diodes (LED)  
Methane (CH<sub>4</sub>)  
Metropolitan Planning Organization (MPO)  
Model for estimating emissions from on road vehicles operating in California (EMFAC)

Most Likely Descendent (MLD)  
National Environmental Protection Act (NEPA)  
National Highway Traffic Safety Administration (NHTSA)  
National Oceanic and Atmospheric Administration (NOAA)  
Native American Heritage Commission (NAHC)  
Negative Declaration (ND)  
Nitrous Oxide (N2O)  
Notice of Preparation (NOP)  
Occupational Safety and Health Act (OSHA)  
Office of Planning and Research (OPR)  
Office of Science and Technology Policy (OSTP)  
Post Mile (PM)  
Project Specifications & Estimates (PS&E)  
Regional Transportation Improvement Program (RTIP)  
Regional Transportation Plan (RTP)  
Regional Water Quality Control Board (RWQCB)  
Resident Engineer (RE)  
Resource Conservation and Recovery Act of 1976 (RCRA)  
Rock Slope Protection (RSP)  
Seismic Design Criteria (SDC)  
Standard Special Provisions (SSP)  
State Highway Operations and Protection Program (SHOPP)  
Storm Water Pollution Prevention Plan (SWPPP)  
Structure Replacement and Improvement Needs (STRAIN)  
Sulfur Hexafluoride (SF6)  
Sustainable Communities Strategy (SCS)  
Sustainable Communities Strategy (SCS)  
That is; in other words; that is to say (i.e.)  
Toxic Substances Control Act (TSCA)  
Transportation Management Plan (TMP)  
Transportation and Traffic (PS)  
U.S. Army Corps of Engineers (USACOE)  
United States Environmental Protection Agency (U.S. EPA)  
Vehicle Hours Traveled (VHT)

## Appendix D – Agency Letters

DEPARTMENT OF TRANSPORTATION  
 DISTRICT 8  
 ENVIRONMENTAL PLANNING (MS 825)  
 464 W. FOURTH STREET, 6<sup>TH</sup> FLOOR  
 SAN BERNARDINO, CA 92401-1400  
 PHONE (909) 383-6933  
 FAX (909) 383-6194  
 TTY (909) 383-6300



Serious Drought  
 Please Save Water!

November 12, 2014

Carol Roland-Nawi  
 State Historic Preservation Officer  
 California Office of Historic Preservation  
 1725 23<sup>rd</sup> Street, Suite 100  
 Sacramento, CA 95816

08-SBd-40-PM 0.0/R25.0  
 Median Re-Grading  
 EA: 08-OR120  
 PN: 08-1200-0026

Dear Dr. Roland-Nawi:

**Subject: Determination of Eligibility and notification of Finding of No Adverse Effect with Standard Conditions (ESA) for the California Department of Transportation (Caltrans) Interstate-40 Median Regarding Project from PM 0.0/R50.0, San Bernardino County, CA.**

The California Department of Transportation (Caltrans) on behalf of the Federal Highway Administration (FHWA) proposes to regrade the median of Interstate-40 (I-40) from PM 0.0/R25.0. Additional features of the project include drainage modifications, median improvements, preserving and improving the existing California Highway Patrol (CHP) crossovers. This Project will take place east of Barstow in San Bernardino County.

This consultation is undertaken in accordance with the *First Amended Programmatic Agreement among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation (PA)*, executed on January 1, 2014. Caltrans as assigned by FHWA is initiating consultation as a federal agency. The enclosed Historic Property Survey Report (HPSR) is submitted for compliance with Section 106 of the National Historic Preservation Act (NHPA) and the provisions of the California Environmental Quality Act (CEQA) and the California Public Resources Code (PRC, Section 5024).

Enclosed you will find a Historic Property Survey Report (HPSR, November 2014), which documents the identification and evaluation of cultural resources within the project's Area of Potential Effect (APE). Consultation and identification resulted in the identification of two prehistoric cultural resources in the APE that required evaluation:

- CA-SBR-17113 (P-36-027112). Prehistoric Lithic Scatter
- CA-SBR-17114 (P-36-027113). Prehistoric Lithic Scatter

"Provide a safe, sustainable, integrated and efficient transportation system  
 to enhance California's economy and livability"

**OFFICE OF HISTORIC PRESERVATION  
DEPARTMENT OF PARKS AND RECREATION**

1725 23<sup>rd</sup> Street, Suite 100  
SACRAMENTO, CA 95816-7100  
(916) 445-7000 Fax (916) 445-7053  
oahp@parks.ca.gov | www.oahp.parks.ca.gov



In Reply Refer To: FHWA\_2014\_1113\_001

December 18, 2014

Gabrielle Duff, Environmental Support/Cultural Studies  
California Department of Transportation, District 8  
Environmental Planning (MS825)  
404 W Fourth Street,  
San Bernardino, CA 92401-1400

Re: Comments on the Historic Property Survey Report for the Interstate 40 Median Regrading Project from PM0.0/R50.0, San Bernardino County, CA.

Dear Ms. Duff:

Thank you for submitting a revised ESA Action Plan dated December 17, 2014 regarding the above noted undertaking on behalf of the Federal Highway Administration (FHWA). Pursuant to 36 CFR 800 (as amended 8-05-04), the regulations implementing Section 106 of the National Historic Preservation Act, the California Department of Transportation (Caltrans) is currently consulting with my office on their finding of No Adverse Effects with Standard Conditions pursuant to Stipulation X.B.1(a) of the Programmatic Agreement.

On behalf of the FHWA, Caltrans is proposing to regrade the median of Interstate 40 (I-40) from Post Mile (PM) 0.0 to R25 east of Barstow in San Bernardino County, California. Additional features of the project include drainage modifications, median improvements, and preserving and improving the existing California Highway Patrol crossovers. The APE encompasses the maximum extent of ground disturbances as well as direct, indirect, and cumulative effects of the undertaking. The APE for this undertaking extends from the edge of pavement of the east bound lanes to the edge of the pavement of the west bound lanes along the I-40 from PM 0.0 to PM ~~R-75.0~~ <sup>R25.0</sup>. All work is to be completed within the State Right of Way and the vertical limits of the project extend to a maximum depth of five feet below the current ground surface for reggrading and a maximum depth of 7 feet for drainage improvements. Along with their letter, Caltrans has submitted the following supporting documentation:

One previously recorded multicomponent site (CA-SBR-317/H) lies within the APE for this undertaking. This site has been previously determined eligible for listing on the NRHP with concurrence from my office and is listed on the California Register of Historical Resources (CRHR). The Project's construction footprint runs through the south-central portion of this site, and Applied EarthWorks has indicated that the portion of the site located within the construction footprint appears to have retained its integrity. In their previous consultation, Caltrans proposed to assume that CA-SBR-317/H is eligible for listing on the NRHP for the purposes of this undertaking and to avoid and protect the site through the establishment of Environmentally Sensitive Area (ESA). The proposed ESA would include the placement of temporary fencing along the inside shoulder on the east bound and west bound lanes inclusive of a 100 ft. buffer to the west and east boundary of the site. Caltrans has indicated that all work between these post miles will be conducted from the paved I-40 into roadbed fill. Standard Special Provisions to be used included an archaeological monitor and Native American monitor to be on site during fence installation and to spot check the area during construction to ensure the fencing is maintained. In my response, dated December 15, 2014 I did not concur with the proposed finding of No Adverse Effect with Standard Conditions and requested they provide documentation addressing the potential of the undertaking to affect the subsurface component of CA-SBR-317/H that presumably lies beneath the roadbed.



## United States Department of the Interior



### FISH AND WILDLIFE SERVICE

Carlsbad Fish and Wildlife Office  
2177 SALK AVENUE - SUITE 250  
CARLSBAD, CA 92008  
PHONE: (760)431-9440 FAX: (760)431-5901  
URL: [www.fws.gov/carlsbad/](http://www.fws.gov/carlsbad/)

Consultation Code: 08ECAR00-2015-SLI-0116

December 23, 2014

Event Code: 08ECAR00-2015-E-00260

Project Name: Caltrans EA 0R120

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

#### To Whom It May Concern:

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

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

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

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

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

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

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

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

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

Attachment



