Red Rock Canyon Bridge Replacement

On State Route 14 between 0.1 mile south of Red Rock Canyon Bridge (No. 50-0178) and 0.4 mile north of Red Rock Canyon Bridge.

06-KER-14-39.8 to 40.3

06-0H180

Initial Study
with Proposed Mitigated Negative Declaration

Prepared by the
State of California Department of Transportation

July 2009
General Information About This Document

What’s in this document?
The California Department of Transportation (Caltrans) has prepared this Initial Study, which examines the potential environmental impacts of alternatives being considered for the proposed project located in Kern County, California. The document describes the proposed project, the existing environment that could be affected by the project, and potential impacts from the project, and the proposed avoidance, minimization, and/or mitigation measures.

What should you do?
- Please read this Initial Study. Additional copies of this document as well as the technical studies are available for review at the Caltrans District 09 office at 500 South Main Street, Bishop, CA; the California City Branch Library at 9507 California City Boulevard, California City, CA; and the Beale Memorial Library at 701 Truxton Avenue, Bakersfield, CA.
- We welcome your comments. If you have any concerns regarding the proposed project, please send your written comments to Caltrans by the deadline. Submit comments via U.S. mail to Caltrans at the following address:

  Sarah Gassner, Branch Chief  
  Southern Sierra Environmental Analysis Branch  
  California Department of Transportation  
  2015 E. Shields Avenue, Suite 100  
  Fresno, CA 93726  

  Submit comments via email to: sarah_gassner@dot.ca.gov

- Submit comments by the deadline:__________.

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

For individuals with sensory disabilities, this document is available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please contact: Caltrans, Attn: Sarah Gassner, Southern Sierra Environmental Analysis, 2015 E. Shields Avenue, Suite 100 Fresno, CA 93726; 559-243-8243 Voice, or use the California Relay Service TTY number, 1-800-735-2929.
Proposed Mitigated Negative Declaration
Pursuant to: Division 13, Public Resources Code

Project Description
The California Department of Transportation (Caltrans) proposes to remove and replace the existing Red Rock Canyon Bridge (No. 50-0178) on State Route 14 between post miles 39.8 and 40.3 within Red Rock Canyon State Park in Kern County.

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

Caltrans has prepared an Initial Study for this project following public review, anticipates 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 the risk of earthquake damage, farmland, timber resources, land use or growth, local or regional air quality, water quality, local emergency services, traffic levels, regulatory floodplains, regional hydrology, noise, cultural resources, aesthetics or visual environment, unique paleontological resources, geological or topographical features.
- The proposed project would have no significant effect on: parks, pedestrian facilities, and hazardous waste sites.

In addition, the proposed project would have no significantly adverse effect on threatened and endangered species, special status species, and wetlands and other waters of the U.S. because the following mitigation measures would reduce potential effects to insignificance:

- Impacts to threatened and endangered species would be mitigated by the terms and conditions provided in the U.S. Fish and Wildlife Service “May Affect, Not Likely To Adversely Affect concurrence, standard contract provisions, and Best Management Practices.
- Impacts to wetlands and waters of the United States would be mitigated by the terms and conditions provided in the Streambed Alteration Agreements, Section 404 and 401 permits. All construction activity would be limited to the project impact area and an environmental sensitive area would be implemented.

______________________________  __________________________
Christine Cox-Kovacevich, Office Chief   Date
Office Chief, Central Region
Environmental North
Section 1  Project Information

Project Title
Red Rock Canyon Bridge Replacement

Lead Agency Name and Address
California Department of Transportation
2015 E. Shields Avenue, Suite 100
Fresno, California 93726

Contact Person and Phone Number
Sarah Gassner, Branch Chief, Southern Sierra Environmental Branch
(559) 243-8243

Project Location
The project is located on State Route 14 between 0.1 mile south of Red Rock Canyon Bridge (No. 50-0178) and 0.4 mile north of Red Rock Canyon Bridge. Figure 1-1 shows the project location and Figure 1-2 shows the project vicinity.

Project Sponsor’s Name and Address
California Department of Transportation
2015 E. Shields Avenue, Suite 100
Fresno, California 93726

General Plan Description and Zoning
The project is located within Red Rock Canyon State Park, a park owned and managed by the California Department of Parks and Recreation.

Description of Project
The California Department of Transportation (Caltrans) proposes to remove and replace the existing Red Rock Canyon Bridge (No. 50-0178) on State Route 14 between post miles 39.8 and 40.3 within Red Rock Canyon State Park in Kern County. Figure 1-1 shows the project location and Figure 1-2 shows the project vicinity.

Surrounding Land Uses and Setting
The project is located on the west side of Red Rock Canyon State Park in eastern Kern County, about 24 miles northeast of the City of Mojave and 80 miles east of Bakersfield. The park is located where the southernmost tip of the Sierra Nevada
comes together with the El Paso Range. The park features about 270,000 acres of desert cliffs, buttes, and unique and colorful rock formations. The park offers two natural preserves, a visitors’ center, trails for hiking and horseback riding, one campground, and dirt roads for off-highway vehicles.

The Red Rock Wash crosses State Route 14 at the Red Rock Canyon Bridge. Mostly dry throughout the year, the dry wash experiences flash floods and flows into Koehn Lake, southwest of the park. The portion of the State Route 14 is a four-lane access controlled highway with a posted speed limit of 65 miles per hour.

**Other Public Agencies Whose Approvals Are Required**

The following permits, reviews, and approvals would be required for project construction:

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<tr>
<th>Agency</th>
<th>Permit/Approval</th>
<th>Status</th>
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<tr>
<td>United States Fish and Wildlife Service</td>
<td>Section 7 Consultation for Threatened and Endangered Species</td>
<td>Concurrence of Not Likely to Adversely Affect Determination was obtained from the U.S. Fish and Wildlife Service on July 21, 2009. (See Appendix C)</td>
</tr>
<tr>
<td>United States Army Corps of Engineers</td>
<td>Wetland Verification</td>
<td>A Wetland Verification Report would be submitted for approval before the final environmental document is approved.</td>
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<tr>
<td>United States Army Corps of Engineers</td>
<td>Section 404 Permit for filling or dredging waters of the United States</td>
<td>Application for Section 404 permit is anticipated after final environmental document is approved</td>
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<tr>
<td>California Department of Fish and Game</td>
<td>1602 Agreement for Streambed Alteration</td>
<td>Application for 1602 agreement and Section 2081 permit is anticipated before construction.</td>
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<td>Section 2081 Agreement for Threatened and Endangered Species</td>
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<tr>
<td>Regional Water Quality Control Board</td>
<td>Section 401 Permit for water discharge</td>
<td>Application for permit to be submitted after final environmental is approved</td>
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</table>
Figure 1-1 Project Location Map
Figure 1-2  Project Vicinity Map

State Route 14
Red Rock Canyon
PM 39.8 - 40.3
Section 2  Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

☐ Aesthetics
☐ Agricultural Resources
☐ Air Quality
☒ Biological Resources
☐ Cultural Resources
☐ Geology/Soils
☐ Hazards and Hazardous Materials
☐ Hydrology/Water Quality
☐ Land Use/Planning
☐ Mineral Resources
☐ Noise
☐ Population/Housing
☐ Public Services
☐ Recreation
☐ Transportation/Traffic
☐ Utilities/Service Systems
☐ Mandatory Findings of Significance
Section 3 Determination

On the basis of this determination:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ 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.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ 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.

☐ 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.

Christine Cox-Kovacevich
Office Chief, Central Region
Environmental North

7/30/09
Section 4  Impacts Checklist

The impacts checklist starting on the next page identifies physical, biological, social, and economic factors that might be affected by the proposed project. Direct and indirect impacts are addressed in checklist items I through XVI. Mandatory Findings of Significance are discussed in item XVII. The California Environmental Quality Act impact levels include “potentially significant impact,” “less than significant impact with mitigation,” “less than significant impact,” and “no impact.”

A brief explanation of each California Environmental Quality Act checklist determination follows each checklist item. Lengthy explanations, if needed, are provided after the checklist.
I. AESTHETICS — Would the project:

a) Have a substantial adverse effect on a scenic vista? ☐ ☐ ☐ ☒

_Explanation:_ There are no scenic vistas affected by the project. (Visual Report, March 12, 2009)

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? ☐ ☐ ☐ ☒

_Explanation:_ Scenic resources would not be damaged. State Route 14 is not a state scenic highway. (Visual Report, March 12, 2009)

c) Substantially degrade the existing visual character or quality of the site and its surroundings? ☐ ☐ ☐ ☒

_Explanation:_ There are no scenic vistas affected by the project. (Visual Report, March 12, 2009)

d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area? ☐ ☐ ☐ ☒

_Explanation:_ No new source of light or glare would be created.

II. AGRICULTURE RESOURCES — In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

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? ☐ ☐ ☐ ☒

_Explanation:_ No right-of-way would be acquired. Prime, Unique, and/or Important farmland would not be converted.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? ☐ ☐ ☐ ☒

_Explanation:_ Refer to II (a).

c) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of farmland, to non-agricultural use? ☐ ☐ ☐ ☒

_Explanation:_ Refer to II (a).
III. AIR QUALITY — 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? [X]

_Explanation:_ According to 40 Code of Regulations, Section 93.126, the project is exempt from regional emissions analysis requirements. Current ozone and particulate matter pollutants are in compliance with state and federal regulations, the Regional Transportation Plan, the Transportation Improvement Program, and the appropriate State Implementation Plan. (Air Quality Assessment Report, April 24, 2007)

- b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? [X]

_Explanation:_ Refer to III (a). (Air Quality Assessment Report, April 24, 2007)

- 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)? [X]

_Explanation:_ Refer to III (a). (Air Quality Assessment Report, April 24, 2007)

- d) Expose sensitive receptors to substantial pollutant concentrations? [X]

_Explanation:_ The project is located within a State park with no residences. Caltrans Standard Specifications pertaining to dust control and dust palliative requirement would effectively reduce and control emissions impacts to sensitive receptors during construction. (Air Quality Assessment Report, April 24, 2007)

- e) Create objectionable odors affecting a substantial number of people? [X]

_Explanation:_ The project is a bridge replacement project located within a State park with no residences along State Route 14. The project does not propose any activity that would introduce new objectionable odors. (Air Quality Assessment Report, April 2009)

IV. BIOLOGICAL RESOURCES — Would the project:

- a) Have a substantial adverse effect, either directly or through habitat modifications, on any species
Potentially significant
Less than significant impact with mitigation
Less than significant impact
No impact

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 Game or U.S. Fish and Wildlife Service?

Explanation: Direct and indirect impacts may occur on special-status species and their habitat as a result of the proposed project. Please see additional explanations for further information. (Natural Environmental Study, July 2009)

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Explanation: See Additional Explanations for further information. (Natural Environmental Study, July 2009)

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?

Explanation: See Additional Explanations for further information.

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?

Explanation: The project would not interfere with the movement of fish or wildlife species. (Natural Environmental Study, July 2009)

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Explanation: The project would not conflict with local policies or ordinances.

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?

Explanation: There are no Habitat Conservation Plans in effect, for this area.

V. CULTURAL RESOURCES — Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

Explanation: The project would not cause adverse changes to historical resources. (Historic Property Survey Report, June, 2009)
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?  

[ ] Potentially significant impact  [ ] Less than significant impact with mitigation  [ ] Less than significant impact  [ ] No impact  
Explain: Archaeological resources are considered “historical resources” and are covered under question V(a).


c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?  

[ ] Potentially significant impact  [ ] Less than significant impact with mitigation  [ ] Less than significant impact  [ ] No impact  

Explain: The project would not cause direct or indirect destruction of paleontological resources. (Paleontology Compliance Studies, January 5, 2009)

d) Disturb any human remains, including those interred outside of formal cemeteries?  

[ ] Potentially significant impact  [ ] Less than significant impact with mitigation  [ ] Less than significant impact  [ ] No impact  

Explain: There are no known burial sites that would be affected within the project area. (Cultural Resources Compliance Memo, April 2009)

VI. GEOLOGY AND SOILS — Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.  

[ ] Potentially significant impact  [ ] Less than significant impact with mitigation  [ ] Less than significant impact  [ ] No impact  

Explain: The project would replace a bridge and would not increase seismic risk. There are not known faults in the project area. (Project Report, November 15, 2007)

ii) Strong seismic ground shaking?  

[ ] Potentially significant impact  [ ] Less than significant impact with mitigation  [ ] Less than significant impact  [ ] No impact  

Explain: Please see VI (a) (i). (Project Report, November 15, 2007)

iii) Seismic-related ground failure, including liquefaction?  

[ ] Potentially significant impact  [ ] Less than significant impact with mitigation  [ ] Less than significant impact  [ ] No impact  

Explain: Please see VI (a) (i). (Project Report, November 15, 2007)

iv) Landslides?  

[ ] Potentially significant impact  [ ] Less than significant impact with mitigation  [ ] Less than significant impact  [ ] No impact  

Explain: Please see VI (a) (i). (Project Report, November 15, 2007)

b) Result in substantial soil erosion or the loss of topsoil?  

[ ] Potentially significant impact  [ ] Less than significant impact with mitigation  [ ] Less than significant impact  [ ] No impact  

Explain: Please see VI (a) (i). (Project Report, November 15, 2007)
Explanation: All disturbed area of this project would receive standard erosion control and storm water runoff control measures. (Project Report, November 15, 2007)

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 onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?

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Explanation: The proposed project is not located in an area that is susceptible to landslides, lateral spreading or collapse.

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.

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Explanation: The project proposes to replace a bridge; no buildings are proposed. Therefore, the project is exempt from the Uniform Building Code.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

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Explanation: The project would not generate wastewater nor need to dispose of wastewater.

VII. HAZARDS AND HAZARDOUS MATERIALS — Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

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Explanation: See Additional Explanations for further information. (Hazardous Waste Memo, January 15 2009)

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?

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Explanation: The project would reduce the potential for accidents, spills, and the release of hazardous materials. (Hazardous Waste Memo, January 15 2009)

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

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Explanation: There are no schools located within one-quarter mile of the project area. (Field Visit, March 19, 2009)
d) Be located on a site that is included in the 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?

**Explanation:** The project is not located on a listed hazardous material site pursuant to Government Code Section 65962.5. (Hazardous Waste Memo, January 15, 2009)

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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?

**Explanation:** The project is not located within an airport land use plan or within two miles of an airport. (Field Visit, March 19, 2009)

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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?

**Explanation:** The project is not located within the vicinity of a private airstrip. (Field Visit, March 19, 2009)

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g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

**Explanation:** The project would allow the highway to remain in operation during construction and therefore would not interfere with emergency response routes. A Traffic Management Plan would be implemented. (Project Report, November 15, 2007)

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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?

**Explanation:** The project would not expose nearby residences to wildland fires. (Field Visit, March 19, 2009)

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**VIII. HYDROLOGY AND WATER QUALITY**

Would the project:

a) Violate any water quality standards or waste discharge requirements?

**Explanation:** Best management practices through a Water Pollution Control Program or a Storm Water Pollution Prevention Plan would be implemented during construction to prevent surface water runoff impacts. (Water Quality Assessment Report, April 24, 2007)

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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 that would not support existing land uses or planned uses for which permits have been granted)?

Explanation: The project would not deplete groundwater supplies or interfere with groundwater recharge. (Water Quality Assessment Report, April 24, 2007)


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 that would result in substantial erosion or siltation on- or offsite?

Explanation: The project would not alter the existing drainage pattern or cause erosion or siltation. (Project Report, November 15, 2007)

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 that would result in flooding on- or offsite?

Explanation: Refer to VIII (c). (Project Report, November 15, 2007)

e) Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

Explanation: Refer to VIII (a). (Project Report, November 15, 2007)

f) Otherwise substantially degrade water quality?

Explanation: Refer to VIII (a). (Project Report, November 15, 2007)

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?

Explanation: The Red Rock Canyon Wash lies in a designated “Zone A” floodplain within the project area. The “Zone A” floodplain would not be affected because the project proposes to replace the existing bridge. The project would not increase the flood backwater elevations. The project would not constitute a significant encroachment or risk on the floodplain as defined by 23 CFR 650.105. (Floodplain Evaluation Report Summary, January 28, 2009)

h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?
Red Rock Canyon Bridge Replacement

Potential impact

Less than significant impact with mitigation

Less than significant impact

No impact

Explanation: Refer to VIII (g). (Floodplain Evaluation Report Summary, January 28, 2009)

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?

Explanation: There is no levee or dam located in the project area. (Field Review, March 19, 2009)

j) Result in inundation by a seiche, tsunami, or mudflow?

Explanation: There are no lakes, oceans, or mudflows in the project area. (Field Review, March 19, 2009)

IX. LAND USE AND PLANNING — Would the project:

a) Physically divide an established community?

Explanation: The project is located within Red Rock Canyon State Park. There is no community in or near the project area. (Project Report, November 15, 2009)

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?

Explanation: The project would not conflict with the Red Rock Canyon State Park General Plan, (1981). (Correspondence with the California State Parks, Tehachapi District, July 28, 2009).

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

Explanation: The project would not conflict with any habitat conservation plans. (Natural Environmental Study, July 2009)

X. MINERAL RESOURCES — 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?

Explanation: The project would not affect the availability of aggregate, which is an important resource in the production of concrete.

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?
Explanation: The project would not affect the availability of aggregate, which is an important resource in the production of concrete.

XI. NOISE — 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?

Explanation: There are no existing sensitive receptors from residences, schools, hospitals, or churches in the project area. The entrance to the Red Rock Canyon State Park Visitors Center and Campground is about two-thirds of a mile north of the project. There would be a temporary increase in noise levels during construction. The noise levels would vary in intensity and be intermittent depending on the type of construction activity. Caltrans standard special provisions for noise would be followed: mufflers would be required for all construction equipment engines during the construction phase. Further noise abatement would not be required. (Noise Assessment Report, February 26, 2009)

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Explanation: Refer to XI (a). (Noise Assessment Report, February 26, 2009)

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Explanation: Refer to XI (a). (Noise Assessment Report, February 26, 2009)

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Explanation: Refer to XI (a). (Noise Assessment Report, February 26, 2009)

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?

Explanation: The project is not located within an airport land use plan or within two miles of any airport. (Field Review, February 2009)

f) 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?

Explanation: Refer to XI (e). (Noise Assessment Report, February 26, 2009)
XII. POPULATION AND HOUSING — 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)?

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*Explanation:* The project is the replacement of an existing bridge, which by its nature is not growth-inducing.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

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*Explanation:* No right-of-way acquisition or residential relocations would be needed for the project. (Field review, February 2009)

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

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*Explanation:* Refer to XII (b). (Field review, February 2009)

XIII. PUBLIC SERVICES —

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

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Explanation: The project would not impact fire or police protection, schools, and other public facilities. Construction-related activities would temporarily affect recreational access for hiking, bicycling, off-highway vehicle use and other pursuits. Without the proposed project the existing Red Rock Canyon Bridge, bridge No. 50-0178, would be subject to failure. The proposed bridge would be wider, longer, and more resistant to the degradation and erosion caused by flash floods in the Red Rock Wash. The replacement bridge would maintain access in the park for recreational users. (Project Report, November 7, 2007)

XIV. RECREATION —

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? ☐ ☐ ☐ ☒

Explanation: The project would not modify existing use of Red Rock Canyon State park. The project would replace the existing Red Rock Canyon Bridge, bridge No. 50-0178, which is subject to failure. The proposed bridge would be wider, longer, and more resistant to the degradation and erosion caused by flash floods in the Red Rock Wash. The replacement bridge would maintain access in the park for recreational users. (Project Report, November 7, 2007)

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment? ☐ ☐ ☐ ☒

Explanation: The project would not modify existing use of the State park. Refer to XIV a. (Project Report, November 7, 2007)

XV. TRANSPORTATION/TRAFFIC — Would the project:

a) Cause an increase in traffic that 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)? ☐ ☐ ☐ ☒

Explanation: The project is a bridge replacement project and is not capacity increasing. (Project Report, September 2003)

b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways? ☐ ☐ ☐ ☒

Explanation: Refer to XV (a). (Project Report, September 2003)
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?

Explanation: There are no airports within the project vicinity. (Field review, February 2009)

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Explanation: The project would correct roadway deficiencies and address safety issues. The project would replace the existing Red Rock Canyon Bridge, bridge No. 50-0178, which is subject to failure. The proposed bridge would be wider, longer, and more resistant to the degradation and erosion caused by flash floods in the Red Rock Wash. The replacement bridge would maintain access and vehicle operations along State Route 14 within the park. (Project Report, November 15, 2007)

e) Result in inadequate emergency access?

Explanation: The project would allow the highway to remain in operation during construction and therefore would not interfere with emergency response routes. A traffic management plan would be implemented. (Project Report, November 15, 2007)

f) Result in inadequate parking capacity?

Explanation: The project would have no affect on parking capacity. (Project Report, November 15, 2007)

g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

Explanation: The project would not conflict with any alternative transportation plan.

XVI. UTILITY AND SERVICE SYSTEMS — Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Explanation: The project is a bridge replacement, which does not affect wastewater.

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?

Explanation: See explanation for XVI a.

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?

Explanation: Construction of new or expanded facilities is not part of this project.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Explanation: Sufficient water is available to serve project needs during construction.

e) Result in a determination by the wastewater treatment provider that 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?

Explanation: No wastewater will be generated by the project.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs?

Explanation: Any solid waste would be disposed of at appropriate facilities, including landfills, with sufficient capacity to accept it.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

Explanation: Solid waste would be disposed of in compliance with all laws, rules and regulations that apply.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE —

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?

Explanation: The bridge replacement project would be contained within Caltrans’ right-of-way. Direct impacts may occur on special-status species and their habitat because of the proposed project. However, the project would not substantially reduce the number or restrict the range of any rare or endangered species. (Natural Environmental Study, July 2009). Refer to the discussion at the end of the checklist.

b) Does the project have impacts that are individually
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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)?

Explanation: Cumulative impacts would not occur from construction of the proposed project or in connection with other known projects in the study area.

c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

Explanation: On the basis of this Initial Study, the project would not have substantial or adverse effects to human beings.
Additional Explanations for Questions in the Impacts Checklist

IV. Biological Resources (checklist questions a, b and c)

The biological study area runs the length of the project limits and includes the area within Caltrans right-of-way and an 800-foot radius outside the right-of-way. The project impact area, a subset of the biological study area, would be directly impacted by construction-related activities.

Threatened and Endangered Species

Affected Environment

A Natural Environmental Study was completed in June 2009.

Desert Tortoise

The potential desert tortoise habitat observed within the biological study area was low quality. No desert tortoise or evidence of the tortoise was observed during protocol-level surveys. The closest recorded occurrence of a desert tortoise was about three miles to the southeast of the project site according to the California Natural Diversity Database.

There is no designated or proposed critical habitat for the desert tortoise within the biological study area.

Mohave Ground Squirrel

The Mohave ground squirrel is a state listed threatened species. Although the squirrel was not observed during biological surveys, there are reported occurrences of the squirrel within three-quarters of a mile to the northwest of the biological study area, according to the California Natural Diversity Database.

Environmental Consequences

Desert Tortoise

The proposed project is not likely to adversely affect the desert tortoise since the project site features steep hillsides and low quality habitat, and is used by off-highway vehicles. In addition, no desert tortoise or sign of desert tortoise was observed during surveys of the biological study area, and no recorded occurrences of desert tortoise exist within the biological study area. A “Not Likely to Adversely Affect” concurrence from U.S. Fish and Wildlife Service was obtained on July 22, 2009. (See Appendix C).
**Mohave Ground Squirrel**

Project impacts, both direct and indirect, are likely to adversely affect Mohave ground squirrel.

Construction-related activities would potentially impact the Mohave ground squirrel both directly and indirectly. The squirrel could potentially be injured or killed if crushed by equipment during construction activities. Collapsed or excavated burrows could also potentially kill or injure this species. The potential total area of the Mohave ground squirrel habitat impacted would be 22.024 acres.

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

**Desert Tortoise**

The following avoidance and mitigation measures would reduce potential impacts to desert tortoise and desert tortoise habitat:

- A worker education program and well-defined operational procedures would be implemented to avoid the take of desert tortoise and minimize loss of their habitat during construction activities.

- All persons employed on the construction project would receive instruction regarding the desert tortoise before performing on-site work. Instruction would include the importance of the desert tortoise to the environment and the importance of following all terms and conditions provided in the U.S. Fish and Wildlife Service not likely to adversely affect concurrence. Employees would be notified that they are not authorized to handle or otherwise move desert tortoise encountered on the project site.

- Temporary desert tortoise fencing would be installed around the perimeter of the project area before the start of on-site construction. Installation of the desert tortoise fencing would be monitored by a qualified biologist(s) to ensure that tortoises would not be killed or injured during this activity. The temporary desert tortoise fencing would be installed in construction areas that are beyond the perimeter of the Caltrans right-of-way in areas where construction staging would occur. After installation, the tortoise fence would be regularly inspected to ensure its integrity. Vehicle access outside desert tortoise fencing would be prohibited. The installation of desert tortoise fencing would prevent tortoises from entering...
the project limits during construction activities, thereby minimizing project impacts.

- The entire project area would be surveyed for desert tortoise by a qualified biologist(s) after installation of the tortoise fencing. If a desert tortoise were found within the area, California Department of Transportation would contact U.S. Fish and Wildlife Service immediately for additional consultation.

- A qualified biologist(s) would be present during all initial brushing or grading activities within the project area. During project implementation, all workers would inform the qualified biologist(s) if a desert tortoise was found within or near the project area. If a tortoise was found, all work in the vicinity of the desert tortoise, which could injure or kill the animal, would stop and the desert tortoise would be observed until it leaves the project area. If this situation occurs, the Fish and Wildlife Service would be contacted immediately.

- Workers would inspect for desert tortoises under vehicles and equipment before such equipment was moved. If a desert tortoise was present, the worker would wait for the desert tortoise to move from under the vehicle.

- All food-related trash items would be placed in a container that prevents access to wildlife (i.e., common ravens and coyotes). Food-related trash would be regularly removed from the construction site and disposed of at an approved refuse disposal site. Workers would not deliberately feed wildlife.

- A qualified biologist(s) would maintain a record of all desert tortoises or sign of desert tortoise (i.e., scat, tracks, burrows, shells, scutes, etc.) encountered during project activities in the project area.

- The construction contractor would comply with all requirements specified by the California Department of Fish and Game and U.S. Fish and Wildlife Service.

- Standard contract provisions and best management practices would be implemented to minimize impacts to the desert tortoise.

**Mohave Ground Squirrel**

Caltrans would compensate for all potential impacts to Mohave ground squirrel and its habitat by preserving habitat in areas that are important for the recovery of the Mohave ground squirrel population. Caltrans proposes to replace each acre of lost
Additional Explanations

habitat, due to direct or indirect impacts, with three acres of quality habitat at a U.S. Fish and Wildlife Service and California Department of Fish and Game approved location. The construction of the project would directly and indirectly impact 22.024 acres of potential Mohave ground squirrel habitat; therefore, at a 3:1 compensation ratio, 66.072 acres of quality Mohave ground squirrel habitat would be acquired and preserved for the recovery of the Mohave ground squirrel.

The temporary fencing that would be used as an avoidance measure for the Desert tortoise and the Red Rock tar plant would also benefit the Mohave ground squirrel. Please see the discussion on desert tortoise (above) and the plant discussion for detailed information regarding these species.

Wetlands and Other Waters of the U.S.

Affected Environment
A Natural Environmental Study was completed in June 2009.

Surface drainage throughout the biological study area is from northwest to southeast. The Red Rock Wash, which crosses State Route 14 at the Red Rock Canyon Bridge, is the one main drainage channel in the biological study area. The dry wash is seasonal and flows directly or indirectly into Koehn Lake. Although it is dry most of the year, the wash does experience flash flooding due to rainstorm events in higher elevations and seasonal water flow from seeps or springs.

Wetland plants such as salt grass, Baltic grass, mulefat, salt cedar, common monkey flower, and Red Rock tarplant dominate the seeps or springs located within and next to the Red Rock Wash. This area has a sensitive biological habitat value for the Mojave Desert, and provides potential breeding, nesting, and foraging habitat for a variety of species.

A jurisdictional delineation of the biological study area was conducted on March 18, March 19, and May 7, 2009. It was determined that the Red Rock Wash, within the biological study area, is considered a potential water of the United States. In addition, it was determined that the habitat within and next to the wash is a potential wetland.
**Environmental Consequences**

The project would result in permanent and temporary impacts to riparian and wetland habitats. Permanent impacts to riparian habitat include the potential removal of one red willow tree.

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

All construction work would be limited to the areas within the project impact area. Before construction, Caltrans would establish environmentally sensitive areas using orange mesh fencing, to help prevent unplanned construction accidents to the wetland and waters. Best management practices would be followed during construction to reduce the potential for sediments and other pollutants entering the waters of the United States. Parking of equipment, project access, supply logistics, equipment maintenance, and other project-related activities would occur in areas pre-approved for staging by a Caltrans biologist. Terms, conditions, and provisions provided in the Streambed Alteration Agreements, Clean Water Act, Section 404 and 401 permits were designed to minimize and avoid impacts to waterways and wetlands.

To ensure that temporary impacts to wetland habitats are minimized to the greatest extent possible, wetland habitat areas would be restored once construction activities are complete. The potential removal of one red willow tree would be replaced at a 3:1 ratio.

**Plant Species**

“Special-status” is a general term for species that are afforded varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the Federal Endangered Species Act and/or the California Endangered Species Act. Please see the earlier Threatened and Endangered Species discussion for detailed information regarding these species.

This discussion examines all the other special-status plant species, including California Department of Fish and Game fully-protected species and species of special concern, U.S. Fish and Wildlife Service candidate species, and non-listed California Native Plant Society rare and endangered plants.

**Affected Environment**

A Natural Environmental Study was completed in June 2009.
The biological study area includes potential suitable habitat for five special-status plant species.

**Alkali Mariposa Lily**

Alkali Mariposa lily is listed as a California Native Plant Species 1B.2 species. Suitable habitat is present within the biological study area in the floodplain, ephemeral wash, and seep habitats. The alkali Mariposa lily was not observed during the surveys. There is one record of occurrence within the general area of the biological study area according to the California Natural Diversity Database. This species has the potential to occur within the biological study area.

**Red Rock Tarplant**

Red Rock tarplant is listed as rare by the State of California and is listed as a California Native Plant Species List 1B.2 species. A small population of the Red Rock tarplant was observed within the biological study area in the seep and spring habitats of the Red Rock Wash.

**Red Rock Poppy**

Red Rock poppy is listed as a California Native Plant Species 1B.2 species. The California Natural Diversity Database indicates recorded occurrences for this species within a mile of the biological study area. The Red Rock poppy was not observed during surveys within the biological study area. However, suitable Mojave Creosote Bush Scrub habitat for this species was present within the biological study area and would be affected by construction-related activities.

**Creamy Blazing Star**

Creamy blazing star is listed as a California Native Plant Species 1B.3 species. The creamy blazing star was not observed during surveys. However, there is a California Natural Diversity Database occurrence for this species within one half mile of the biological study area. Suitable Mojave Creosote Bush Scrub habitat was within the biological study area and would be affected by construction related activities.

**Charlotte’s Phacelia**

Charlotte’s phacelia is listed as a California Native Plant Species 1B.2 species. The California Natural Diversity Database indicates there are several recorded occurrences for this species within and in the immediate vicinity of the biological study area. Charlotte’s phacelia was not observed during surveys within the biological study area.
studies but suitable Mojave Creosote Bush Scrub habitat was present. The Mojave Creosote Bush Scrub habitat would be affected by construction related activities.

**Environmental Consequences**
The project may affect the alkali Mariposa lily, Red Rock tarplant, Red Rock poppy, creamy blazing star, and Charlotte’s phacelia.

The work on the rock slope protection would disturb an area where a small population of Red Rock tarplant occurs. The impacts would be minimal. Flash floods in the biological study area would have a greater disturbance on this population.

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

**Alkali Mariposa Lily**
Preconstruction surveys would be conducted for the species during its blooming period. If the species were discovered in the biological study area, the California Department of Fish and Game would be consulted. An environmentally sensitive area would be established for the species and avoided during construction to prevent potential disturbance.

**Red Rock Tarplant**
Preconstruction surveys would be conducted for this species during its blooming period the year before construction to identify the exact location of the plant in the biological study area.

Red rock tarplant areas avoided during construction would be established as an environmentally sensitive area, and would be bordered by orange mesh fencing. This would avoid construction-related impacts. In areas where avoidance is not possible, the following minimization measures would be implemented:

- Under the direction of a Caltrans biologist, topsoil/duff would be collected and salvaged from areas where the red rock tarplant would be disturbed. The topsoil/duff would then be stored within the biological study area. After construction activities were completed, the topsoil/duff would be relocated back to the Red Rock tarplant disturbed areas. No other soil should replace these disturbed areas.

**Red Rock Poppy, Creamy Blazing Star, Charlotte’s Phacelia**
The project would avoid and minimize impacts to the Mojave creosote bush scrub habitat to the greatest extent possible. Seed planting would be used for erosion control or revegetation in project impact areas.
Animal Species

This discussion examines potential impacts and permit requirements associated with wildlife not listed or proposed for listing under the state or federal Endangered Species Act. Species listed or proposed for listing as threatened or endangered were discussed earlier. All other special-status animal species are discussed here, including California Department of Fish and Game fully protected species and species of special concern, and the U.S. Fish and Wildlife Service or National Oceanic and Atmospheric Fisheries Service candidate species.

Affected Environment

A Natural Environmental Study was completed in June 2009.

Eight special-status species potentially exist within the biological study area. See Appendix B for a list of the special-status species within the biological study area. Suitable habitat for these species exists within the biological study area.

Tricolored Blackbird

The tricolored blackbird is a California Department of Fish and Game Species of Special Concern. Although the tricolored blackbird was not observed during biological surveys, there are reported occurrences four miles southeast of the project area according to the California Natural Diversity Database. Nesting and foraging habitat for this species exists within the biological study area.

Burrowing Owl

The burrowing owl is a California Department of Fish and Game Species of Special Concern. Although the burrowing owl was not observed during biological surveys, there is a reported occurrence about two miles southeast of the project area according to the California Natural Diversity Database. Nesting and foraging habitat for this species exists within the biological study area.

Crissal Thrasher

The Crissal thrasher is a California Department of Fish and Game Species of Special Concern. Although the Crissal thrasher was not observed during biological surveys, there are reported occurrences near the biological study area according to the California Natural Diversity Database. Suitable desert scrub habitat is present within the biological study area. The project area is within the known range of the species. Nesting and foraging habitat for this species exists within the biological study area.
**Le Conte’s Thrasher**
The Le Conte’s thrasher is a California Department of Fish and Game Species of Special Concern. Although the Le Conte’s thrasher was not observed during biological surveys, there are reported occurrences near the biological study area according to the California Natural Diversity Database. Suitable desert scrub habitat is present within the biological study area. The project area is within known range of the species. Nesting and foraging habitat for this species exists within the biological study area.

**Pallid Bat**
The pallid bat is a California Department of Fish and Game Species of Special Concern. The pallid bat was not observed during biological surveys; however, during surveys there were unidentified bat species roosting on the underside of the Red Rock Canyon Bridge and foraging near the bridge. There are reported occurrences near the biological study area according to the California Natural Diversity Database. Suitable habitat is present within the biological study area and the bat is known to use bridge structures.

**Spotted Bat**
The spotted bat is a California Department of Fish and Game Species of Special Concern. The spotted bat was not observed during biological surveys. During surveys, however, there were unidentified bat species roosting on the underside of the Red Rock Canyon Bridge and foraging was found near the bridge. There are reported occurrences near the biological study area according to the California Natural Diversity Database. Suitable habitat is present within the biological study area and the bat is not known to use bridge structures.

**Tulare Grasshopper Mouse**
The Tulare grasshopper mouse is a California Department of Fish and Game Species of Special Concern. Although the Tulare grasshopper mouse was not observed during biological surveys, there are reported occurrences near the biological study area according to the California Natural Diversity Database. Suitable habitat is present within the biological study area.

**American Badger**
The American badger is a California Department of Fish and Game Species of Special Concern. Although the badger was not observed during biological surveys,
there are reported occurrences near the biological study area according to the California Natural Diversity Database.

**Environmental Consequences**

*Tricolored Blackbird*
Potential direct impacts to tricolored blackbirds would include the displacement of the bird to another area or the loss of suitable habitat. Potential indirect impacts could include long-term decline of habitat quality.

*Burrowing Owl*
Potential direct impacts to the burrowing owl would include the displacement of the owl to another area or the loss of suitable nesting and foraging habitat. Potential indirect impacts could include long-term decline of habitat quality.

*Crissal Thrasher*
Potential direct impacts to this species would be the loss of suitable habitat during construction related activities. The Crissal thrasher share the same habitat with the desert tortoise so the potential impacts to their habitat would be similar. See Threatened and Endangered Species section in this document.

*Le Conte’s Thrasher*
Potential direct impacts to this species would be the loss of suitable habitat during construction related activities. The Le Conte’s thrasher shares the same habitat with the Mohave ground squirrel so the potential impacts to their habitat would be similar. See Threatened and Endangered Species section in this document.

*Pallid Bat*
Demolition of the existing bridge would have a potential direct impact to the pallid bat by potentially injuring or killing this species. Mortality would be highest if the bridge was demolished anytime between April and September, when young bats would likely be present.

*Spotted Bat*
Demolition of the existing bridge would have a potential direct impact to the spotted bat by potentially injuring or killing this species. Mortality would be highest if the bridge was demolished anytime between April and September, when young bats would likely be present.
Tulare Grasshopper Mouse
Construction-related activities would potentially impact the Tulare grasshopper mouse both directly and indirectly. The mouse could potentially be injured or killed if crushed by equipment during construction activities. Collapsed or excavated burrows could also potentially kill or injure this species. The potential total area of the Tulare grasshopper mouse habitat impacted would be 22.024 acres.

American Badger
Construction related activities would potentially impact the American badger both directly and indirectly. The badger could potentially be injured or killed if crushed by equipment during construction activities. Collapsed or excavated burrows could also potentially kill or injure this species. The potential total area of the American badger habitat impacted would be 22.024 acres.

Avoidance, Minimization, and/or Mitigation Measures

Tricolored Blackbird
No mitigation is proposed for the tricolored blackbird. The temporary fencing that would be used as an avoidance measure for the desert tortoise would also protect the tricolored blackbird. Please see the discussion on Threatened and Endangered Species for detailed information on the desert tortoise.

Burrowing Owl
The following avoidance and mitigation measures would be incorporated to reduce impacts to burrowing owl and burrowing owl habitat:

- Pre-construction surveys for burrowing owl would be conducted in accordance with the survey requirements detailed in the California Department Fish and Games’ *Staff Report on Burrowing Owl Mitigation* (October 17, 1995). Pre-construction surveys of construction areas would be conducted no more than 30 days before ground disturbing activities. If more than 30 days lapse between the time of the preconstruction survey and the start of ground-disturbing activities, another preconstruction survey must be completed.

- If burrowing owls were present on the construction site during the breeding season (April 15 through July 15), and appear to be engaged in nesting behavior, a fenced 500-foot buffer would be installed between the nest site or active burrow and any earth-moving activity or other disturbance. This 500-
foot buffer would be removed once it was determined by a qualified biologist that the young have left the burrow. Typically, the young vacate the burrow before the end of August or earlier.

- If burrowing owls are present in the non-breeding season and must be passively relocated from the project site, passive relocation should not begin until October 1, and must be completed by February 1 in accordance with the survey requirements detailed in the Department of Fish and Games’ *Staff Report on Burrowing Owl Mitigation* (October 17, 1995). Passive relocation must be conducted by a qualified biologist or ornithologist and with approval by Department of Fish and Game. After passive relocation was completed, the area where owls occurred and its immediate vicinity (within 500 feet) would be monitored by a qualified biologist daily for one week and once per week for an additional two weeks to survey any additional owl occurrences.

Compensation for the loss of burrowing owl habitat would be based on the number of owls or pairs of owls located in the area of potential impact or biological study area during pre-construction surveys. Mitigation would follow the California Department of Fish and Games’ *Staff Report on Burrowing Owl Mitigation*, (October 17, 1995).

Compensatory mitigation for the Mohave ground squirrel (Threatened Species section) would also benefit the burrowing owl, because the two species share similar habitat.

**Crissal Thrasher**
Although the Crissal thrasher was not observed during surveys, Migratory Bird Special Provisions would be included in the construction contract. These provisions would require pre-construction surveys for nesting migratory birds, including Crissal thrashers, so that if Crissal thrashers were identified, avoidance measures could be taken.

**Le Conte’s Thrasher**
Although the Le Conte’s thrasher was not observed during surveys, Migratory Bird Special Provisions would be included in the construction contract. These provisions would require pre-construction surveys for nesting migratory birds, including Le Conte’s thrashers, so that if Le Conte’s thrashers were identified, avoidance measures could be taken.
**Pallid Bat**

Exclusion measures would be required before construction to prevent the bat species from roosting on the Red Rock Canyon Bridge. Measures may include installation of exclusionary features while the bats were away from the roost before April 15 of the construction year. No exclusion measures would take place during the maternity season (April-September).

Caltrans would provide temporary bat roosts during construction, if there were no suitable roosting habitat in the vicinity of the biological study area.

Bat roosting habitat would be incorporated into the structural design of the new bridge and/or offsite near the bridge. Bats would be allowed to continue roosting on the existing bridge until the new structure and/or offsite habitat was complete. If bats were present at the time of demolition, they would be excluded from roosting in the existing bridge via installation of exclusion netting and/or filling of the expansion joints. These methods would not exclude all bats and therefore a monitor would be present during the exclusion and bridge demolition to remove remaining bats. Exclusion measures would be timed so that no exclusion occurs during the maternity season (April-September).

**Spotted Bat**

Exclusion measures would be required before construction to prevent the bat species from roosting on the Red Rock Canyon Bridge. Measures may include installation of exclusionary features while the bats were away from the roost before April 15 of the construction year. No exclusion measures would take place during the maternity season (April-September).

Caltrans would need to provide temporary bat roosts during construction, if there are no suitable roosts near the biological study area.

Bat roosting habitat would be incorporated into the structural design of the new bridge and/or near the bridge. Bats would be allowed to continue roosting on the existing bridge until the new structure and/or offsite habitat was complete. If bats were present at the time of demolition, they would be excluded from roosting in the existing bridge via installation of exclusion netting and/or filling of the expansion joints. These methods would not exclude all bats and therefore a monitor would be present during the exclusion and bridge demolition to remove remaining bats. Exclusion measures would be timed so that no exclusion occurs during the maternity season (April-September).
**Tulare Grasshopper Mouse**

Worker education programs would be conducted to avoid take of Tulare grasshopper mouse and to minimize loss of habitat during construction activities. If a Tulare grasshopper mouse were found within or near the project area, a qualified biologist would be notified immediately. All work near the Tulare grasshopper mouse, that could injure or kill this species, would stop until the mouse were moved from harm’s way by an authorized biologist, or moves from the construction area on its own accord. If an authorized biologist identifies a Tulare grasshopper mouse using burrows within the project area, the California Department of Fish and Game would be consulted regarding the need for a trapping effort to relocate this species to a safe location. The construction contractor would comply with the requirements specified by the California Department of Fish and Game and U.S Fish and Wildlife Service.

Compensatory mitigation for Mojave ground squirrel habitat (Threatened and Endangered Species section) would consist of similar potentially suitable habitat that could benefit the Tulare grasshopper mouse.

**American Badger**

Compensatory mitigation for the Mojave ground squirrel (Threatened and Endangered Species section) would also benefit the American badger, because the two species share similar habitat.

**IV. Hazards and Hazardous Materials (Checklist question a)**

**Hazardous Waste or Materials**

**Affected Environment**

Caltrans conducted a Hazardous Waste Compliance Study Report dated April 1, 2009. Aerially deposited lead and Title 22 metals investigations were conducted along the highway shoulders. The existing Red Rock Canyon Bridge was studied for lead-based paint and asbestos containing material.
**Environmental Consequences**

Aerially deposited lead and heavy metals were found to be present in the shoulder soils. However, the results were well below regulatory criteria for special handling and disposal.

No lead-based paint was found on the bridge structure or guardrails.

Asbestos-containing material was found in the bridge structure at concentrations above Federal and State regulatory criteria. Concentrations were found at 40 to 50 percent in samples representing about 100 square feet and at two percent in samples representing about 10 square feet. Federal and State standards classify asbestos-containing material as any material or product ranging from 0.1 percent to two percent asbestos.

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

An asbestos inspection of the bridge would be completed before demolition of the bridge. If asbestos-containing materials that would be disturbed during demolition were found, they would need to be removed beforehand.

In accordance with the Kern County Air Pollution Control District Regulation IV, Rule 402, written notification would be sent to the District 10 working days before demolition activity, whether asbestos is present or not. This written notification would require a report from a certified asbestos consultant assessing the presence and percentage of asbestos materials before demolition activities.

California Occupational Safety and Health Administration would require Caltrans to monitor health and safety of workers (including contractors) for asbestos exposure. An independent third party certified asbestos inspector would inspect and test/monitor for asbestos in construction materials and in the air just before construction as well as after. Caltrans would hire this independent inspector before the preconstruction meeting. The inspector’s role would also be clearly described in the Special Provisions. The consultant who does the initial survey identifying asbestos would not be involved in the removal or monitoring of the asbestos.

Pursuant to District Rule 3050, notifications for the bridge demolition would be submitted to the Kern County Air Pollution Control District.
The project would require a Demolition Permit Release form when a building department demolition permit would be needed. Building officials would require an approved copy of this form, signed by Kern County Air Pollution Control District, before demolition of the bridge.

XIII. PUBLIC SERVICES

Parks and Recreation

Affected Environment

On State Route 14, the project is located on the west side of Red Rock Canyon State Park, in eastern Kern County, about 24 miles northeast of the City of Mojave and 80 miles east of Bakersfield. The park is located where the southernmost tip of the Sierra Nevada comes together with the El Paso Range. The park features about 270,000 acres of desert cliffs, buttes, and unique and colorful rock formations. The park offers two natural preserves, a visitor center, trails for hiking and horseback riding, one campsite, and dirt roads for off-highway vehicles.

The project is located between the park’s two natural preserves: Red Cliffs Natural Preserve lies to the north and Hagen Canyon Natural Preserve is to the south. Iron Canyon Road is less than a half-mile north of the project. The entrance to the Red Rock Canyon State Park Visitors Center and Campground is at Abbot Road about two-thirds of a mile north of the project. Off the highway, the Red Cliffs day use area and trail is located in the preserve to the north.

State Route 14 is a designated bike route and pedestrians are allowed on the highway within the project area. Off-highway vehicles, bicyclists, and hikers use the dry wash below the bridge to access each side of the park. The future Red Rock Canyon State Park General Plan would potentially exclude off-highway vehicle use from using the access under the bridge, according to staff from the park. The highway here is a four-lane access controlled highway with a posted speed limit of 65 miles per hour.

Environmental Consequences

The project would not require additional right-of-way. This project would not encroach upon Red Rock Canyon State Park.

Construction-related activities would temporarily affect recreational access for hiking, bicycling, off-highway vehicle use, and other pursuits.
Avoidance, Minimization, and/or Mitigation Measures
Along State Route 14, pedestrian and bicycle traffic would be accommodated during the construction phase of the project. Bicycles would be routed around the construction zone in the same manner as vehicular traffic. Shuttles for pedestrians and bicyclists may be provided. Caltrans, Red Rock Canyon State Park officials, and the Bureau of Land Management’s Jawbone Visitor’s Center would coordinate to address access needs for recreational users.

Without the proposed project the existing Red Rock Canyon Bridge, bridge No. 50-0178, would be subject to failure. The proposed bridge would be wider, longer, and more resistant to the degradation and erosion caused by flash floods in the Red Rock Wash. The replacement bridge would maintain access in the park for vehicle and recreational users.
Appendix A  Alternative Cross-Section

Typical Cross Sections
Red River Canyon Bridge Replacement
PM 39.8±40.3
06-KERN-14
06-0111800

ALTERNATIVE 2

1.5 ft

10 ft 12 ft 12 ft 4 ft 12 ft 12 ft 10 ft

Pile

Original Ground

Not to Scale
### Appendix B  Special Status Species Potentially Occurring within the Biological Study Area

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Status</th>
<th>General Habitat Description</th>
<th>Habitat Present/Absent</th>
<th>Determination/Rationale</th>
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<tbody>
<tr>
<td><strong>Plants:</strong></td>
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<tr>
<td><em>Calchortus striatus</em></td>
<td>alkali Mariposa-lily</td>
<td>CNPS 1B.2</td>
<td>Alkali meadows, ephemeral washes, vernally moist depressions and seeps.</td>
<td>P</td>
<td>May Affect, Not Likely to Trend Toward Listing. Suitable ephemeral wash and seep habitat is present within the BSA. This species was not observed during surveys of the BSA.</td>
</tr>
<tr>
<td><em>Deinandra arida</em></td>
<td>Red Rock tarplant</td>
<td>SR, CNPS 1B.2</td>
<td>Sandy to gravelly washes, and moist alkaline margins of seeps and springs.</td>
<td>P</td>
<td>May Affect, Not Likely to Trend Toward Listing. Suitable seeps and springs are present within the BSA. Species was observed within the BSA.</td>
</tr>
<tr>
<td><em>Eschscholzia minutiflora ssp. twisselmannii</em></td>
<td>Red Rock poppy</td>
<td>CNPS 1B.2</td>
<td>Mojave Creosote Bush Scrub habitat.</td>
<td>P</td>
<td>May Affect, Not Likely to Trend Toward Listing. Mojave Creosote Bush Scrub habitat is present within the BSA. This species was not observed during surveys of the BSA.</td>
</tr>
<tr>
<td><em>Mentzelia tridentate</em></td>
<td>creamy blazing star</td>
<td>CNPS 1B.3</td>
<td>Rocky, gravelly and sandy areas within Mojave Creosote Bush Scrub habitat.</td>
<td>P</td>
<td>May Affect, Not Likely to Trend Toward Listing. Suitable Mojave Creosote Bush Scrub habitat exists within the BSA. This species was not observed during surveys of the BSA.</td>
</tr>
<tr>
<td>Scientific Name</td>
<td>Common Name</td>
<td>Status</td>
<td>General Habitat Description</td>
<td>Habitat Present/Absent</td>
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<tr>
<td>Phacelia nashiana</td>
<td>Charlotte’s phacelia</td>
<td>CNPS 1B.2</td>
<td>Mojave Creosote Bush Scrub habitat.</td>
<td>P</td>
<td><strong>May Affect, Not Likely to Trend Toward Listing.</strong> Suitable Mojave Creosote Bush Scrub habitat exists within the BSA. A recorded occurrence (CNDDB) for this species exists within the BSA. This species was not observed during surveys of the BSA.</td>
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<tr>
<td>Reptiles:</td>
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<tr>
<td>Gopherus agassizii</td>
<td>desert tortoise</td>
<td>FT</td>
<td>Desert scrub, desert wash and Joshua tree habitats.</td>
<td>P</td>
<td><strong>Not Likely to Adversely Affect.</strong> Low quality habitat for the desert tortoise exists within the BSA. However, no desert tortoise or sign of desert tortoise (i.e., burrows, scat, tracks, etc.) was observed during surveys of the BSA.</td>
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<tr>
<td>Birds:</td>
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<tr>
<td>Agelaius tricolor</td>
<td>tricolored blackbird</td>
<td>SSC</td>
<td>Nest near fresh water and prefer emergent wetland vegetation with tall, dense cattails or tules. Also found in thickets of willow, blackberry, wild rose, and tall herbs.</td>
<td>P</td>
<td><strong>May Affect, Not Likely to Trend Towards Listing.</strong> Suitable habitat is present within the BSA. There is a recorded occurrence (CNDDB) of this species within 4.0 miles of the BSA. This species was not observed during surveys of the BSA.</td>
</tr>
<tr>
<td>Scientific Name</td>
<td>Common Name</td>
<td>Status</td>
<td>General Habitat Description</td>
<td>Habitat Present/Absent</td>
<td>Determination/Rationale</td>
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<tr>
<td><em>Asio otus</em></td>
<td>long-eared owl</td>
<td>SSC</td>
<td>Conifer, oak, riparian, pinyon-juniper, and desert woodland habitat that is either open or adjacent to grasslands, meadows, or shrublands.</td>
<td>A</td>
<td><strong>No Effect.</strong> Suitable habitat is not present within the BSA.</td>
</tr>
<tr>
<td><em>Athene cunicularia</em></td>
<td>burrowing owl</td>
<td>SSC</td>
<td>Open, dry grassland and desert habitats. Require rodent or other burrows for roosting and nesting cover. Forage in open plains, grasslands, and prairies.</td>
<td>P</td>
<td><strong>May Affect, Not Likely to Trend Towards Listing.</strong> Suitable habitat is present within the BSA. There is a recorded occurrence (CNDDB) of this species within 6.6 miles of the BSA.</td>
</tr>
<tr>
<td><em>Charadrius alexandrinus nivosus</em></td>
<td>western snowy plover</td>
<td>FT</td>
<td>Sandy beaches, salt pond levees, and shores of large alkali lakes in northeastern California, Central Valley, and southeastern deserts.</td>
<td>A</td>
<td><strong>No Effect.</strong> Suitable habitat of sandy beaches, salt pond levees, and shores of large alkali lakes are not present within the BSA.</td>
</tr>
<tr>
<td><em>Coccyzus americanus</em></td>
<td>yellow-billed cuckoo</td>
<td>FC</td>
<td>Riparian thickets with dense understory foliage near slow moving watercourses; preferably with a dense sub-canopy layer dominated by willows.</td>
<td>A</td>
<td><strong>No Effect.</strong> Suitable riparian thickets with dense understory foliage are not present within the BSA.</td>
</tr>
<tr>
<td>Scientific Name</td>
<td>Common Name</td>
<td>Status</td>
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<td>Habitat Present/Absent</td>
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<tr>
<td><em>Empidonax tralii extimus</em></td>
<td>southwestern willow flycatcher</td>
<td>FE</td>
<td>Wet meadow and montane riparian habitats in the Sierra Nevada and Cascade Range. Most often occur in broad, open river valleys or large mountain meadows with lush growth of shrubby willows.</td>
<td>A</td>
<td>No Effect. Suitable wet meadow and montane riparian habitat is not present within the BSA.</td>
</tr>
<tr>
<td><em>Gymnogyps californianus</em></td>
<td>California condor</td>
<td>FE</td>
<td>Open savannah, grasslands and foothill chaparral. Nests on mountains, gorges, and hillsides, which create updrafts, thus providing favorable soaring conditions.</td>
<td>A</td>
<td>No Effect. Suitable savannah, grasslands and foothill chaparral habitat is not present within the BSA.</td>
</tr>
<tr>
<td><em>Toxostoma crissale</em></td>
<td>Crissal thrasher</td>
<td>SSC</td>
<td>Variety of desert riparian and scrub habitats from below sea level to over 6000 feet. Regardless of habitat type, dense, low scrubby vegetation is required.</td>
<td>P</td>
<td>May Affect, Not Likely to Trend Towards Listing. Suitable habitat is present within the BSA. There are recorded occurrences (CNDDB) of this species within the BSA. This species was not observed during surveys of the BSA.</td>
</tr>
<tr>
<td>Scientific Name</td>
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<tr>
<td><em>Toxostoma lecontei</em></td>
<td>Le Conte’s thrasher</td>
<td>SSC</td>
<td>Desert flats with sparse vegetation and sandy soils. Nests in tall, robust saltbushes that can support a nest approximately 26-38 inches above the ground.</td>
<td>P</td>
<td>May Affect, Not Likely to Trend Towards Listing. Suitable habitat is present within the BSA. There are recorded occurrences (CNDDB) of this species within the BSA. This species was not observed during surveys of the BSA.</td>
</tr>
<tr>
<td><em>Vireo bellii pusillus</em></td>
<td>Least Bell’s vireo</td>
<td>FE</td>
<td>Riparian habitats dominated by willows with dense understory vegetation.</td>
<td>A</td>
<td>No Effect. Suitable riparian habitat dominated by willows with dense understory vegetation is not present within the BSA.</td>
</tr>
<tr>
<td><strong>Mammals:</strong></td>
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<tr>
<td><em>Antrozous pallidus</em></td>
<td>Pallid bat</td>
<td>SSC</td>
<td>Grasslands, shrublands, woodlands, and forests from sea level up through mixed conifer forests. Common in open, dry habitats with rocky areas for roosting. Locally common species in low elevations in California.</td>
<td>P</td>
<td>May Affect, Not Likely to Trend Towards Listing. Suitable roosting habitat is present in the bridge and rocky outcrop habitat within the BSA. There are recorded occurrences (CNDDB) of this species within the BSA. Unidentified bat species were observed within the BSA.</td>
</tr>
<tr>
<td>Scientific Name</td>
<td>Common Name</td>
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<tr>
<td><em>Euderma maculatum</em></td>
<td>Spotted bat</td>
<td>SSC</td>
<td>Wide variety of habitats from arid deserts and grasslands through mixed conifer forests. Prefers to roost in rock crevices, but occasionally found in caves and buildings.</td>
<td>P</td>
<td>May Affect, Not Likely to Trend Towards Listing. Suitable roosting habitat is present in the bridge and rocky outcrop habitat within the BSA. There are recorded occurrences (CNDDB) of this species within the BSA. Unidentified bat species were observed within the BSA.</td>
</tr>
<tr>
<td><em>Onychomys torridus tularensis</em></td>
<td>Tulare grasshopper mouse</td>
<td>SSC</td>
<td>Shrubland communities in hot, arid grassland and shrubland associations. Including alkali sink and mesquite associations on the Valley Floor, and grassland associations on the sloping margins of the San Joaquin Valley and Carrizo Plain region.</td>
<td>P</td>
<td>May Affect, Not Likely to Trend Towards Listing. Suitable habitat is present within the BSA. However, no Tulare grasshopper mouse or sign of Tulare grasshopper mouse (i.e., burrows, scat, tracks, etc.) was observed during surveys of the BSA.</td>
</tr>
<tr>
<td><em>Spermophilus mohavensis</em></td>
<td>Mohave ground squirrel</td>
<td>ST</td>
<td>Sandy to gravelly soils in open desert scrub, alkali scrub and joshua tree woodland.</td>
<td>P</td>
<td>Likely to Adversely Affect. Suitable habitat is present within the BSA. There are recorded occurrences (CNDDB) of this species within the BSA.</td>
</tr>
<tr>
<td><em>Taxidea taxus</em></td>
<td>American badger</td>
<td>SSC</td>
<td>Dry, open grasslands, edges of farmlands and pastures.</td>
<td>P</td>
<td>May Affect, Not Likely to Trend Towards Listing. Suitable dry, open desert scrub habitat is present within the BSA.</td>
</tr>
<tr>
<td>Scientific Name</td>
<td>Common Name</td>
<td>Status</td>
<td>General Habitat Description</td>
<td>Habitat Present/Absent</td>
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**Federal and State Listing:** Federal Endangered [FE], Federal Threatened [FT], Federal Species of Concern [FSC], Federal Candidate [FC], Fully Protected [FP], State Endangered [SE], State Threatened [ST], State Rare [SR], CDFG Species of Special Concern [SSC]

**California Native Plant Society [CNPS] Listing:** Rare, Threatened or Endangered in California and Elsewhere [1B], Fairly Endangered in California [.2], Not Very Endangered in California [.3]

**Habitat in the Biological Study Area (BSA):** Suitable Habitat Present [P], Suitable Habitat Absent [A]
Zackary Parker  
Branch Chief, Central Region Biology  
Department of Transportation  
2015 East Shields Avenue, Suite A-100  
Fresno, California 93726

Subject: Red Rock Canyon Bridge Replacement Project on State Route 14, Kern County, California

Dear Mr. Parker:

We have reviewed your letter received in our office via electronic mail on July 2, 2009, requesting our concurrence with your determination that the subject project is not likely to adversely affect the federally threatened desert tortoise (Gopherus agassizii). Your request and our response are made pursuant to section 7(a)(2) of the Endangered Species Act of 1973, as amended.

The California Department of Transportation conducted desert tortoise surveys in May 2009; no desert tortoises or their sign were found within the project site. The closest known occurrence was recorded by California Department of Transportation biologists approximately 3.0 miles southeast of the project site. The project is located within low quality habitat because of its proximity to State Route 14; desert tortoise numbers are known to decrease around major highways. In addition, the California Department of Transportation has proposed minimization measures including the installation of a temporary desert tortoise fence around the perimeter of the project area. A qualified biologist will be present during the installation of the fence and will conduct desert tortoise surveys following installation. The qualified biologist will also be present during initial construction activities. Therefore, we concur with your determination that the proposed project is not likely to adversely affect the desert tortoise.

Consequently, further consultation, pursuant to section 7(a)(2) of the Act, is not required. If the proposed action changes in any manner that could result in adverse effects that you have not anticipated, you should contact us immediately to determine whether additional consultation would be appropriate.
Zachary Parker

If you have any questions regarding this matter, please contact Erin Shapiro of the Ventura Fish and Wildlife Office at (805) 644-1766, extension 369.

Sincerely,

[Signature]

Carl T. Benz
Assistant Field Supervisor