State Route 43/State Route 119 Intersection Improvements

In Kern County at the intersection of State Route 43, Enos Lane and State Route 119

06-KER-43/119-0.1/0.4, 17.8/18.5

06-0612000293/06-0P900

SCH# 2015041023

Initial Study
with Mitigated Negative Declaration

Prepared by the

State of California Department of Transportation

October 2015

Caltrans

General Information About This Document

What's in this document:

This document contains a Mitigated Negative Declaration that examines the environmental effects of the proposed project on State Route 43 and State Route 119 near the city of Taft in Kern County.

The Initial Study and proposed Mitigated Negative Declaration were circulated to the public from April 1, 2015 to May 8, 2015. Comment letters about the draft document that were received and responded to are shown in the Comments and Responses section. This section of the document was added after the draft was circulated. Elsewhere throughout this document, a line in the right margin indicates a change to the document since the draft was circulated.

What happens after this:

The proposed project has completed environmental compliance after the circulation of this document. When funding is approved, the California Department of Transportation, as assigned by the Federal Highway Administration, can design and build all or part of the project.

The document can also be accessed electronically at the following website: http://www.dot.ca.gov/dist6/environmental/envdocs/d6/.

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 call or write to Caltrans, Attn: G. William "Trais" Norris III, Environmental Management Branch, 855 "M" Street, Suite 200, Fresno, CA; (559) 445-6447, District 6 Public Affairs Office at (559) 488-4067, or use California Relay Service 1 (800) 735-2929 (TTY), 1 (800) 735-2929 (Voice), or 711.

Project Description and Background:

Note: *Pursuant to (State) Division 13, California Public Resources Code*—This project documentation has been prepared in compliance with the California Environmental Quality Act (CEQA). A Categorical Exclusion has been signed for National Environmental Policy Act (NEPA) compliance.

Project Title:	**State Route 43/State Route 119 Intersection Improvements**
Lead Agency Name and Address:	**Caltrans, 1352 W. Olive Avenue. Fresno, CA 93726**
Contact Person and Telephone Number:	**G. William "Trais" Norris III, (559) 445-6447**
Project Sponsor's Name and Address:	**Caltrans, 1352 W. Olive Avenue. Fresno, CA 93726**
Approved By:	**Signature:** [signature] **Date:** 10/20/2015 **Title: Senior Environmental Planner**
Project Location:	The project is located at the intersection of State Routes 119 and 43, and a county road named Enos Lane in south-central Kern County, near Taft and Shafter. The project area is from post mile 0.1 to 0.4 on State Route 43, post mile 17.8 to 18.4 on State Route 119, and from the intersection to 0.2 miles south on Enos Lane.
General Plan Description:	State Route 119 is an intra-regional route for agricultural and oil-industry related traffic, as well as commuter traffic between the cities of Taft and Bakersfield. State Route 43 also carries Taft-Bakersfield commuter traffic, but experiences a larger component of large agricultural implements during growing and harvest seasons. Enos Lane leads to the public access of the Buena Vista Aquatic Recreational Area, just two miles south of the project, and thus experiences a significant contingent of recreational vehicles and boat trailers.
Zoning:	Zoning designation for land within the project area: northwest quadrant-exclusive agriculture (A); northeast quadrant-highway commercial (CH), precise development combining (PD); southwest and southeast quadrant-light industrial (M-1), precise development combining (PD)
Description of Project:	The project would construct a mixed single and dual lane roundabout at the intersection of State Route 119 and State Route 43, and Enos Lane. The roundabout

	would have a single-lane to dual-lane transitioning approach and dual circulatory lanes in the westbound and eastbound State Route 119 direction with a single westbound departure continuing as a single-lane east of the intersection and dual eastbound departure transitioning to a single-lane west of the intersection. The roundabout would also have a single-lane to dual-lane transitioning approach for southbound State Route 43 with a single southbound circulatory and single northbound departure lane north of the intersection, and a single-lane approach and circulatory lane in the northbound Enos Lane direction and a single southbound departure lane south of the intersection. The roadways would have concrete splitter islands separating direction of travel within the roundabout approaches and departures. The center of the roundabout within the circulatory paths would have reinforced concrete contrast surface treatment for the truck apron and center island with minor raised slopes to accommodate oversized, overweight and variance load large truck vehicles. Electrical work for lighting is required. Utility poles within the project area would be relocated.
Surrounding Land Uses and Setting:	State Route 119 and State Route 43 are both conventional, two-lane undivided highways. State Route 119 is situated in an east-west alignment with a 12-foot wide lane and 8-foot wide shoulder in each travel direction. State Route 43 begins at the intersection with State Route 119 and proceeds north with a 12-foot wide lane and a one to two-foot wide shoulder in each travel direction (north and south). On the south side of the State Route 119/State Route 43 intersection, Enos Lane proceeds south. Enos Lane also has 12-foot lanes and one to two-foot wide shoulders in each travel direction. At the intersection, left turn lanes are present in all four travel directions, but the left-turn channelization lanes are all of less than standard length. The existing intersection is controlled by a fully phased, four-way signal light system. One small gas station/convenience store is located in the southwest quadrant of the intersection. The other quadrants are vacant land, but Kern Water Bank Authority conservation properties are located at the

	northwest quadrant and adjacent to the western edge of the northeast quadrant. The highway junctions with Interstate 5 are located 1.5 miles east of the project area on State Route 119 and 1.75 miles north of the project area on State Route 43.
Other Public Agencies Whose Approval is Required:	United States Fish and Wildlife Service, California Department of Fish and Wildlife,

Environmental Factors Potentially Affected:

The environmental factors checked below would be potentially affected by this project. Please see the CEQA checklist for additional information. Any boxes *not* checked represent issues that were considered as part of the scoping and environmental analysis for the project, but for which no adverse impacts were identified; therefore, no further discussion of those issues is in this document.

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

Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) would construct a mixed single and dual-lane roundabout at the intersection of State Route 119 and State Route 43, and Enos Lane.

Determination

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

The project would have no effect on: agriculture and forest resources, geology and soils, hydrology and water quality, land use and planning, mineral resources, population and housing, recreation, and wetlands.

In addition, the project would have no significant effect on: aesthetics, air quality, cultural resources, emergency and public services, hazardous waste and materials, natural communities, transportation/traffic, utilities and service systems

In addition, the project would have no significantly adverse effect on threatened, endangered and protected species (Giant kangaroo rat, Tipton kangaroo rat, San Joaquin kit fox, California jewel-flower and blunt-nosed leopard lizard) because the following avoidance, minimization and mitigation measures would reduce potential effects to insignificance:

- Giant kangaroo and Tipton kangaroo rat: Conduct pre-construction field surveys and install Environmentally Sensitive Area fencing to suitable habitat.
- San Joaquin kit fox: Conduct pre-construction field surveys, apply exclusion zones around San Joaquin kit fox dens, and/or track-plates and/or camera stations may to confirm the presence. An Incidental Take permit will be acquired from the California Department of Fish and Wildlife.
- California jewel-flower: Conduct pre-construction field surveys.
- Blunt-nosed leopard lizard: Conduct pre-construction field surveys, hand-excavate and collapse burrows within the construction footprint no more than one week prior to construction and install Environmentally Sensitive Area exclusion fencing.

G. William "Trais" Norris III
Senior Environmental Planner
District 6
California Department of Transportation

10/20/2015
Date

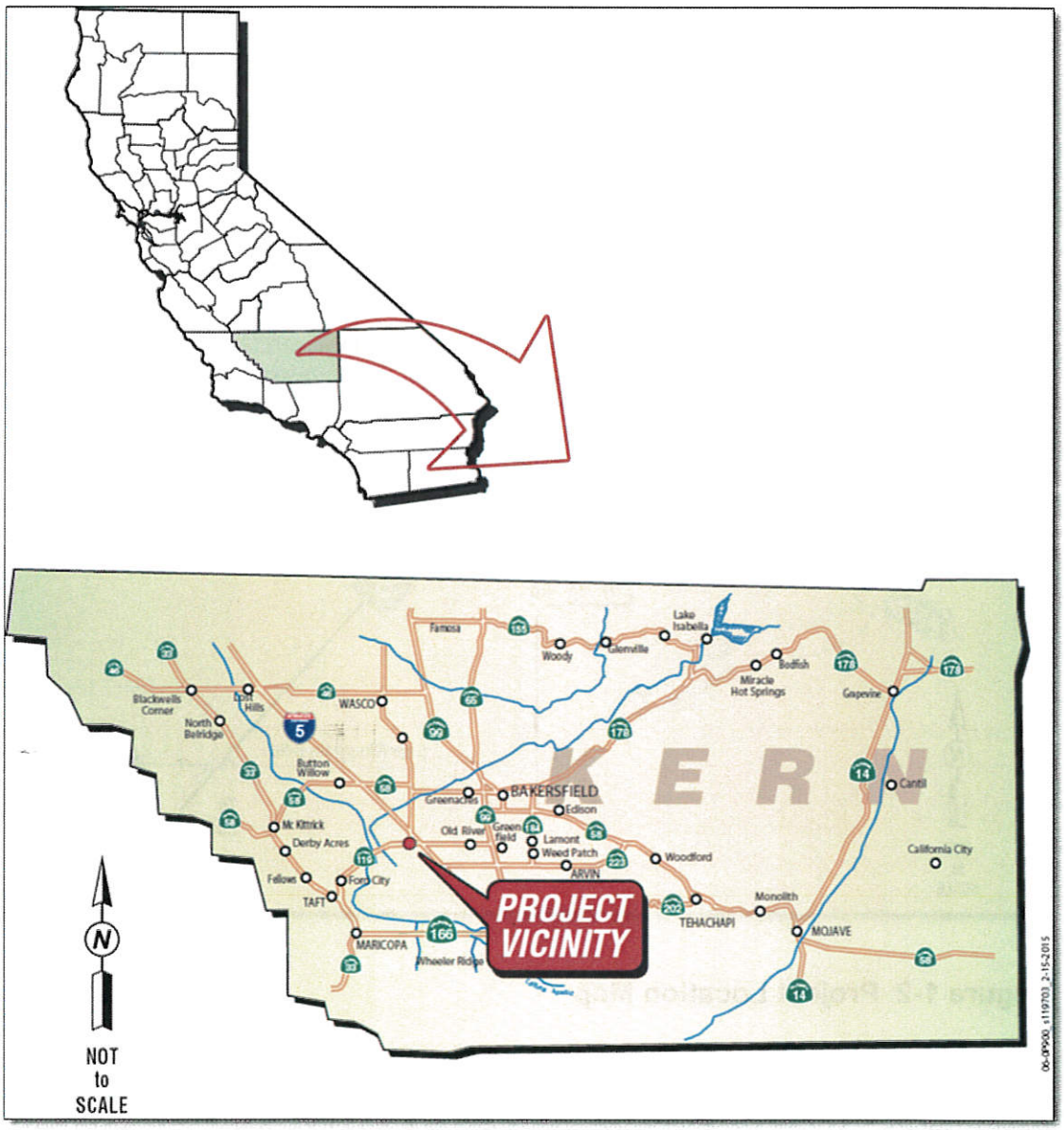


Figure 1-1 Project Vicinity Map

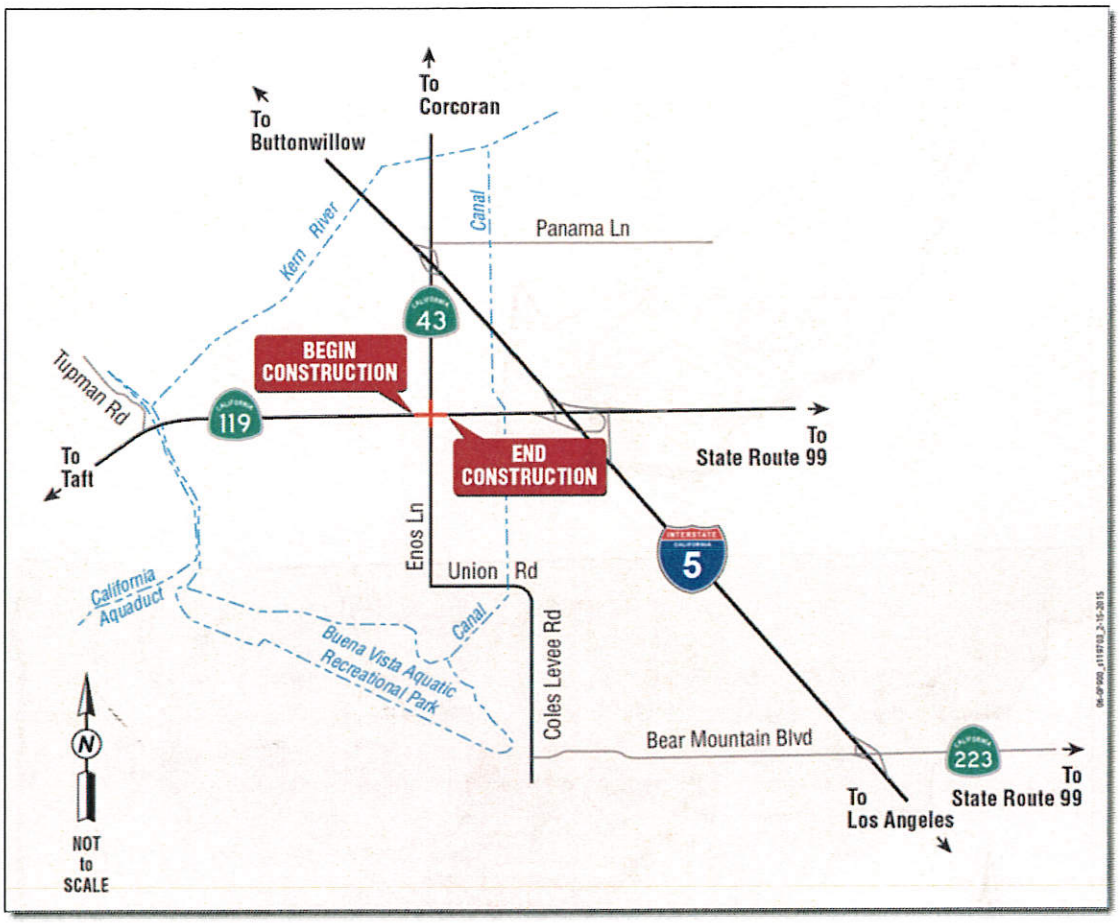


Figure 1-2 Project Location Map

CEQA Environmental Checklist

06-KER-43/119	0.1-0.4/17.8-18.5	06-0612000293
Dist.-Co.-Rte.	P.M/P.M.	Project ID#

This checklist identifies physical, biological, social and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects indicated no impacts. A NO IMPACT answer in the last column reflects this determination. Where a clarifying discussion is needed, the discussion either follows the applicable section in the checklist or is placed within the body of the environmental document itself. The words "significant" and "significance" used throughout the following checklist are related to CEQA—not NEPA—impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

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

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

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒
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?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	☒
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)?	☐	☐	☐	☒
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

IV. BIOLOGICAL RESOURCES: Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on 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?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒
V. CULTURAL RESOURCES: Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒
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:	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

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?

If applicable, an assessment of 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 greenhouse gas 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. Necessary information is located in Technical Studies Bound Separately.

VIII. 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?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
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?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
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?	☐	☐	☐	☒
IX. HYDROLOGY AND WATER QUALITY: Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☒
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)?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f) Otherwise substantially degrade water quality?	☐	☐	☐	☒
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?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
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?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒
X. LAND USE AND PLANNING: Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
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?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒
XI. 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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
XII. 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?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
XIII. 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)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
XIV. PUBLIC SERVICES:				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	☐	☐	☐	☒
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XV. 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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
XVI. TRANSPORTATION/TRAFFIC: Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☒
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
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?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒
XVII. UTILITIES AND SERVICE SYSTEMS: Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
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?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

XVIII. 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☒
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	☒
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

Additional Explanations for Questions in the Impacts Checklist

IV. Biological Resources (checklist questions a and b)

Threatened and Endangered Species

Affected Environment

A Natural Environmental Study was completed for this project in March 2015. A Biological Assessment was completed in July 2015. The United States Fish and Wildlife Service prepared a Biological Opinion (see Appendix E) in October 2015.

Animals

Animals that have the potential to occur within the project area are the blunt-nosed leopard lizard (*Gambelia sila*), Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*), the giant kangaroo rat (*Dipodomys ingens*) and the San Joaquin kit fox *(Vulpes macrotis mutica)*.

Blunt-Nosed Leopard Lizard

The blunt-nosed leopard lizard (*Gambelia sila*) is federally listed as endangered and state listed as endangered and fully protected. It is a relatively large lizard, ranging from 3.4 to 4.7 inches in length. Its color varies from yellowish or light grey-brown to dark brown, depending on the surrounding soils and vegetation. The color pattern on its back consists of longitudinal rows of dark spots interrupted by a series of 7 to 10 white, cream-colored, or yellow transverse bands.

Typically, the blunt-nosed leopard lizard can be found at elevations of 100 to 2,400 feet above sea level, on alkali flats, desert washes, arroyos, canyons and low foothills. Suitable habitat for the blunt-nosed leopard lizard contains sparely vegetated shrubs and grassland habitats in areas of lower elevation. In areas of higher elevation, blunt-nosed leopard lizards are confined to broad sandy washes. These lizards will find shade in mammal burrows, shrubs or structures such as fence posts. Blunt-nosed leopard lizards are diurnal, hibernating in the winter months and active from March to June or July. Blunt-nosed leopard lizards feed on grasshoppers, cicadas, and small lizards.

Caltrans biologists conducted juvenile blunt-nosed leopard lizard field surveys during the late summer of 2013. Caltrans contracted Quad Knopf, Inc. to conduct full-protocol adult blunt-nosed leopard lizard field surveys on the project site in early summer of 2014. The protocol surveys did not locate any blunt-nosed leopard lizards within or near the project area. Given the lack of recent sightings, the poor habitat quality, and lack of results from protocol-level surveys, the potential that blunt-nosed leopards lizard are present on the site is low.

Giant Kangaroo and Tipton Kangaroo Rat

The giant kangaroo rat (*Dipodomys ingens*) is federally and state listed as endangered. Adult giant kangaroo rats are 12.2 to 13.7 inches long and weigh about

4.6 to 6.4 ounces. They have short necks, large flattened heads and long tails. The giant kangaroo rat has large, fur-lined cheek pouches open on each side of its mouth extending as deep pockets of skin along the sides if its head. Giant kangaroo rats are found in locations where fine sandy loam soils and sparse annual grasses and flowering plants occur. They require level land for burrowing. The giant kangaroo rat primarily feeds on seeds from pepper grass and filaree. Giant kangaroo rats are nocturnally active all year long.

Potential signs of giant kangaroo rat activity were observed at six locations during the blunt-nosed leopard field surveys in early summer of 2014, all of them east of State Route 43 and Enos Lane. Three of these observations are adjacent to the proposed construction footprint. However, no giant kangaroo rats were observed during the small mammal field surveys.

The Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*) is listed as federal and state endangered. Adult Tipton kangaroo rats are 8.7 to 9.25 inches long and weigh about 1.3 ounces. They are distinguished from other kangaroo rats within their range by the presence of four toes on their hind feet (the other species have five toes). Tipton kangaroo rats inhabit open, arid vegetated grassy areas having saltbrush and goldenbrush scrub. They dig burrows in soft, finely textured soils, on small mounds, or embankments that are higher than the surrounding terrain. Tipton kangaroo rats eat mostly seeds, but will supplement their diet with green, herbaceous vegetation and insects.

Potential signs of Tipton kangaroo rat activity were observed at six locations during the blunt-nosed leopard field surveys in early summer of 2014, all of them east of State Route 43 and Enos Lane. One of these observations are adjacent to the proposed construction footprint. However, no Tipton kangaroo rats were observed during the small mammal field surveys.

San Joaquin Kit Fox

The San Joaquin kit fox *(Vulpes macrotis mutica)* is federally listed as endangered and state listed as threatened. San Joaquin kit foxes average 31 inches long and about 12 inches tall at their shoulders. They have a small slim body, relatively long ears set close together, narrow nose and a long bushy tail with a narrow black tip. Coat color varies from buff, tan, grizzled or yellow-grey. San Joaquin kit foxes are mostly nocturnal and inhabit annual grassland or grassy vegetation with scattered shrubs and brush. They dig their dens in loose-textured soils on open and level land. San Joaquin kit foxes feed on desert cottontails, rodents, insects, reptiles, birds, bird eggs and vegetation.

Evening field surveys were conducted in 2013 and 2014 within the project area. A den that appeared to be recent was monitored with a motion-activated camera station for one evening during the 2014 spotlighting surveys. The camera station did not record any San Joaquin kit foxes. San Joaquin kit foxes have not been observed on or near the project site during any of the other biological field survey efforts as well.

Plants

Plants that have the potential to occur within the project area are the California jewel-flower (*Caulanthus californicus*), Kern mallow (*Eremalche kernensis*), and the San Joaquin woolly threads (*Monolopia congdonii*).

California Jewel-Flower

The California jewel-flower *(Caulanthus californicus)* is federally and state listed as endangered. The California jewel-flower is also included in the California Native Plant Society inventory of rare and endangered plants as a CNPS 1B.1 plant: rare, threatened or endangered throughout its range; seriously threatened. It occurs in non-alkaline, undisturbed grasslands in subshrub scrub, valley grassland and pinyon-juniper woodland. The stems are often branched. Flowers appear pouch-like at their base, and are attached at the top of the plant. The leaves are attached to the base of the plant. California jewel-flower typically blooms from February to May.

Kern Mallow

The Kern mallow *(Eremalche kernensis)* is federally listed as endangered and state-listed as a California Native Plant Society inventory of rare and endangered plants as a CNPS 1B.1 plant: rare, threatened, or endangered throughout their range; seriously threatened. The Kern mallow typically occurs in Valley saltbrush scrub with alkaline sandy loam or clay soils in areas where the brush cover is minimal. The form of the Kern mallow varies widely depending on seasonal precipitation: it can be single-stemmed or multiple stemmed, erect, or lateral stems trailing on the ground. The stems can be from one to twenty inches in length with white to pinkish flowers. Kern mallow blooms from March through May.

San Joaquin Woolly Threads

The San Joaquin woolly threads (*Monolopia congdonii*) is federally listed as endangered. It is also included in the California Native Plant Society inventory of rare and endangered plants as a CNPS 1B.2 plant: rare, threatened or endangered throughout its range; fairly threatened. This plant typically occurs in sandy grasslands and alkali sink habitats. This plant is two to twelve inches tall and loosely woolly. The San Joaquin woolly threads has wavy, narrow, oblong leaves and yellow flower heads clustered at the branch tips. This plant blooms from February to May.

Environmental Consequences

Animals

Blunt-Nosed Leopard Lizards

The proposed project would impact 3.76 acres of low-quality habitat that may be potentially suitable for the blunt-nosed leopard lizard. Of these, 0.41 acres are permanent impacts and 3.35 acres are temporary in that they will be re-contoured and

re-vegetated after construction. However, no take of this species is anticipated with the implementation of the avoidance and minimizations measures.

Giant Kangaroo and Tipton Kangaroo Rat

The proposed project would impact approximately 3.76 acres of potentially suitable habitat for the giant kangaroo rat. This habitat is considered low-quality, due to its proximity to a busy travel way and level of disturbance. Of these, approximately 0.41 acres of impacts would be considered permanent and 3.35 acres would be temporary in that those areas would be re-contoured and seeded after construction, and thus available to be used as habitat in the future.

The proposed project would impact approximately 3.76 acres of potentially suitable habitat for the Tipton kangaroo rat. This habitat is considered low-quality, due to its proximity to a busy travel way, level of disturbance, and documented presence of Heerman's kangaroo rats. Of these, approximately 0.41 acres of impacts would be considered permanent and 3.35 acres would be temporary in that those areas would be re-contoured and seeded after construction, and thus available to be used as habitat in the future.

San Joaquin Kit Fox

The proposed project would impact approximately 3.76 acres of potentially suitable habitat for the San Joaquin kit fox. This habitat is considered low-quality, due to its proximity to a busy travel way and level of disturbance. Of these, approximately 0.41 acres of impacts would be considered permanent and 3.35 acres would be temporary in that those areas would be re-contoured and seeded after construction, and thus available to be used as habitat in the future.

Plants

California Jewel-Flower

The project will result in 0.47 acres of temporary impacts to habitat. However, with implementation of the avoidance and minimizations measures, no impacts to California jewel-flower populations are anticipated.

Kern Mallow

No impacts to Kern mallow populations are anticipated.

San Joaquin Woolly Threads

An estimated 0.41 acres of permanent impacts and 3.35 acres of temporary impacts to low-quality, valley saltbrush scrub and ruderal habitat would occur as a result of project activities. With the implementation of avoidance and minimization measures, no impacts to San Joaquin woolly threads populations are anticipated.

Avoidance, Minimization, and/or Mitigation Measures

Animals

Blunt-Nosed Leopard Lizard

- Protocol-level pre-construction surveys within the project area to determine any presence or sign of the blunt-nosed leopard lizard would be conducted the season prior to the start of construction. If blunt-nosed leopard lizards are found within the action area, the U.S. Fish and Wildlife Service will be contacted to discuss ways to proceed with the project and avoid take to the maximum extent possible.
- Full protocol blunt-nosed leopard lizard surveys, including 12 survey visits during the active adult season and 5 additional surveys during the active juvenile season will be performed the year prior to the commencement of construction. Since the total avoidance of all rodent burrows within the proposed project footprint, in addition to the corresponding 50-foot buffer, is not possible, the burrows within the proposed construction foot print would be hand-excavated and collapsed no more than one week prior to construction.
- Environmentally Sensitive Area exclusion fencing of a design sufficient to exclude entry by blunt-nosed leopard lizard (and other small animals) will be installed around the limits of the project site in areas where suitable blunt-nosed leopard lizard habitat is present.
- A qualified and approved biological monitor would be onsite during initial ground-disturbing activities.
- Requiring low speed limits within the construction site will lessen the probability that blunt-nosed leopard lizards could be ran over by vehicles and equipment.
- No mitigation measures for impacts to potential, very low quality blunt-nosed leopard lizard habitat are proposed because A) no occurrences of the species have been recorded in spite of protocol-level surveys; B) the habitat within the project site is low quality due to dense growth of invasive grass and weeds and periodic disking, so re-colonization of the site by the species is highly unlikely.
- In the event that blunt-nosed leopard lizard is detected, consultation with California Department of Fish and Wildlife would be warranted to discuss how to avoid take.

Giant Kangaroo and Tipton Kangaroo Rat

- Preconstruction surveys would be conducted to avoid potential impacts to this species. If occupied suitable habitat is observed during surveys, avoidance measures will be implemented within identified suitable habitat where feasible.
- A qualified biological monitor would be on site during initial ground-disturbing activities.

- To avoid inadvertent impacts to adjacent suitable habitat, the work area would be clearly delineated with Environmentally Sensitive Area fencing.
- With the implementation of avoidance and minimization measures, no impacts to individual giant kangaroo rats and Tipton kangaroo rats are anticipated. Giant kangaroo rats and Tipton kangaroo rats are not expected to occur on the project site, so no compensatory mitigation is proposed.
- If avoidance is not feasible, and take could potentially occur as a result of construction related activities, acquisition of an Incidental Take permt from California Fish and Wildlife would be warranted.

San Joaquin Kit Fox

- Preconstruction/pre-activity surveys would be conducted no less than 14 days and no more than 30 days prior to the beginning of ground disturbance and/or construction activities or any project activity likely to impact the San Joaquin kit fox.
- Surveys would be conducted within the proposed project boundary and a 200-foot area outside the project footprint to identify habitat features.
- If natal/pupping dens are discovered within the project area or within 200 feet of the project boundary, the Service would be immediately notified.
- The configuration of exclusion zones around San Joaquin kit fox dens should have a 50-foot radius around potential dens and a 100-foot radius around known dens measured outward from the entrance or cluster of entrances.
- Disturbance to all San Joaquin kit fox dens would be avoided to the maximum extent possible.
- A qualified biologist would be present at the construction site during initial ground-disturbing activities.
- To the extent possible, a biologist would be available on-call during all construction periods when not present onsite. Appropriate provisions found in the *U.S. Fish and Wildlife Service Standard Measures for Protection of the San Joaquin Kit Fox for Prior to or During Ground Disturbance, Construction and On-Going Operational Requirements* would also be implemented.
- If warranted, additional actions such as track-plates and/or camera stations may also be employed to confirm the presence and status of San Joaquin kit fox on and near the site.
- An Incidental Take permit for the San Joaquin kit fox will be acquired from the California Department of Fish and Wildlife.

- With avoidance and minimization measures, no direct impacts to individual San Joaquin kit foxes are anticipated. The species is unlikely to occur on the project site, so no compensatory mitigation is proposed.

Plants

California Jewel-Flower

- Pre-construction surveys would be completed during the appropriate blooming period the season prior to groundbreaking activities.
- If the California jewel-flower is observed onsite, Caltrans will notify the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife to discuss conservation measures to be implemented.
- No compensatory mitigation is proposed because no impacts to California jewel-flower are anticipated. Habitat on the project site is not considered suitable for California jewel-flower.

Kern Mallow

- Pre-construction surveys would be completed during the appropriate blooming period the season prior to groundbreaking activities.
- If the Kern mallow is observed onsite, Caltrans will notify the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife to discuss conservation measures to be implemented.

San Joaquin Woolly Threads

- Pre-construction surveys would be completed during the appropriate blooming period the season prior to groundbreaking activities.
- If the San Joaquin wooly threads are observed onsite, Caltrans will notify the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife to discuss conservation measures to be implemented.
- Impacts to San Joaquin woolly-threads populations are not anticipated. Therefore, no compensatory mitigation is proposed.

VIII. HAZARDS AND HAZARDOUS MATERIALS (checklist question a)

Affected Environment

The project area topography is generally flat, consisting of vacant land and disturbed, fallow agricultural fields. The immediate area around the project site is very open and sparsely developed. A California Department of Fish and Wildlife conservation property, the Kern Water Bank, is located in the northwest quadrant. A gas-station/convenience store located on the southwest quadrant of the State Route 119/State 43/Enos Road intersection. An informal parking lot/turn out area consisting of bare, compacted dirt is located directly adjacent to the northeast quadrant of the intersection.

A California Environmental Protection Agency regulatory search of Geotracker (underground storage tanks/leaking underground storage tanks), EnviroFacts (list of hazardous materials/hazardous waste sites), Solid Waste Information Systems (solid waste landfills) and EnviroStor (Cortese sites) databases was conducted and did not identify any actively worked on sites.

Environmental Consequences

One closed case site and one permitted underground storage tank location are within the project scope. Right of way and construction impacts are a concern for these two individual sites. Although a site has formal closure from regulatory agency, contamination can still exist. The sites are:

SO. Coles Levee # 10/Marathon Oil Company (closed case)
Cross Street State Route 119 and State Route 43
Bakersfield, CA 93311

Texaco Food Mart (registered underground storage tank)
Cross Street State Route 119 and State Route 43
Bakersfield, CA 93311

A previous aerial deposited lead study was conducted along State Route 119 from post mile 5.5 to post mile 13.3 and showed soluble lead levels above the regulatory threshold.

Residue from removal of yellow thermoplastic and yellow painted traffic stripe and pavement marking may contain lead chromate. Residue produced from the separate removal of yellow thermoplastic and yellow painted traffic stripe and pavement marking may contain heavy metals.

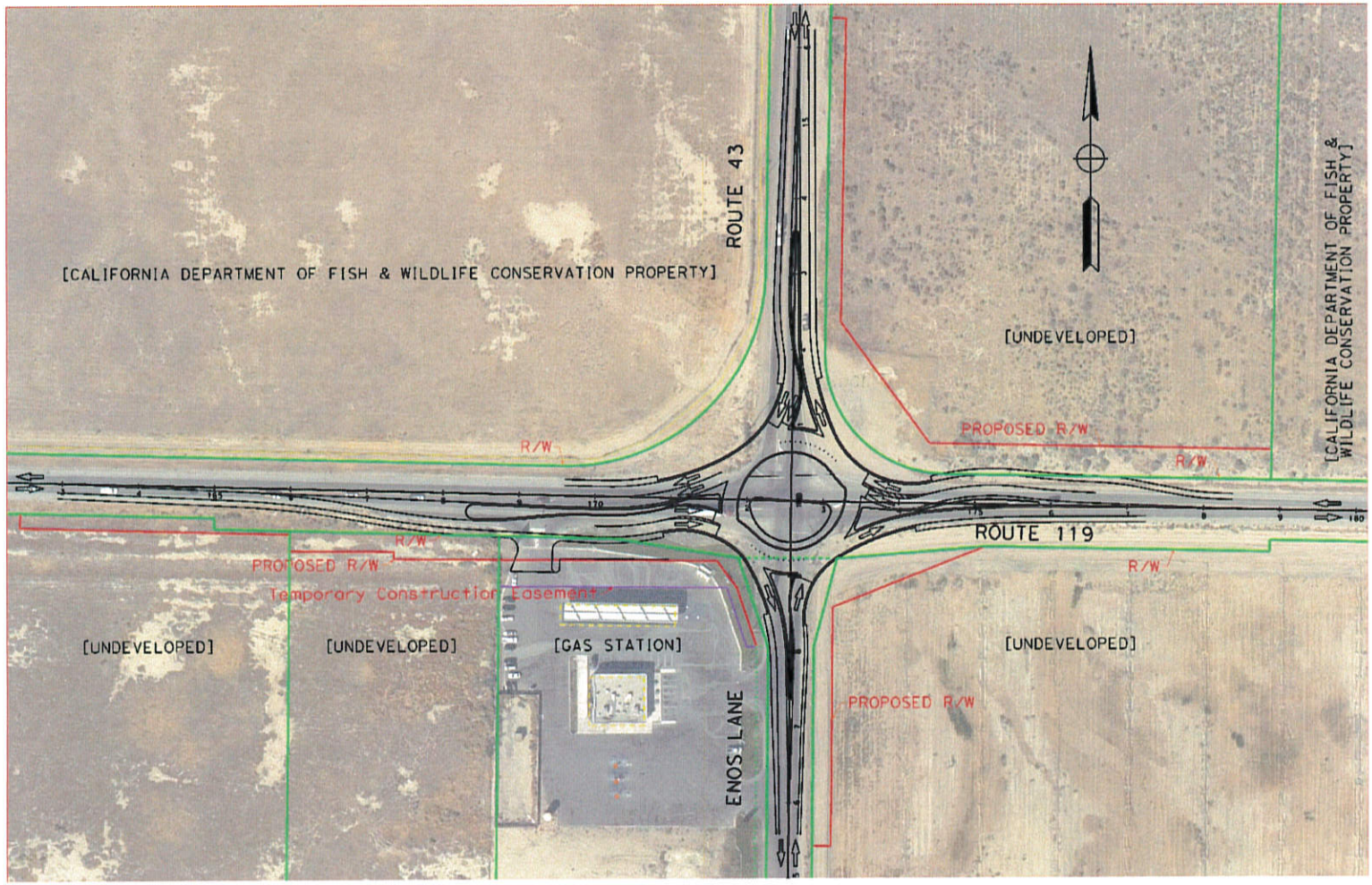
Avoidance, Minimization, and/or Mitigation Measures

A project specific study for heavy metals (CAM-17) prior to construction is recommended. California Administrative Manual (CAM) is also known as the California Code of Regulations (CCR). CCR Title 22 section 66261.24 specifies the 17 metals that can qualify waste as hazardous.

The former SO Coles Levee #10 location may contain residual petroleum-impacted soil that construction activities or right of way acquisition may affect. Testing for petroleum-impacted soil prior to construction to verify that disposal at a permitted landfill is not required is recommended. Once testing results are available confirming that the soil does not require special disposal, soil will be available for reuse on the project or relinquished to the contractor.

A lead compliance plan shall be included for soil management on the project. Caltrans Special Provisions for dealing with painted traffic stripe and pavement markings will be included in the contract.

Appendix A Roundabout Mapping



Appendix B Title VI Statement

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
P.O. BOX 942873, MS-49
SACRAMENTO, CA 94273-0001
PHONE (916) 654-5266
FAX (916) 654-6608
TTY 711
www.dot.ca.gov

Flex your power!
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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.

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 14th Street, MS-79, Sacramento, CA 95811. Telephone: (916) 324-0449, TTY: 711, or via Fax: (916) 324-1949.

MALCOLM DOUGHERTY
Director

"Caltrans improves mobility across California"

Appendix C United States Fish and Wildlife Species List

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
FEDERAL BUILDING, 2800 COTTAGE WAY, ROOM W-2605
SACRAMENTO, CA 95825
PHONE: (916)414-6600 FAX: (916)414-6713

Consultation Code: 08ESMF00-2015-SLI-1195 September 08, 2015
Event Code: 08ESMF00-2015-E-03467
Project Name: Kern 43/119 Enos Lane Roundabout

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, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) 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 Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

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). 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.

The table below outlines lead FWS field offices by county and land ownership project type. Please refer to this table when you are ready to coordinate (including requests for section 7 consultation) with the field office corresponding to your project, and send any documentation regarding your project to that corresponding office. Therefore, the lead FWS field office may not be the office listed above in the letterhead. Please visit our office's website (http://www.fws.gov/sacramento) to view a map of office jurisdictions.

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.

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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.

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Lead FWS offices by County and Ownership/Program			
County	**Ownership/Program**	**Species**	**Office Lead***
Alameda	Tidal wetlands marsh adjacent to Bays	Salt marsh species, delta smelt	BDFWO
Alameda	All ownerships but tidal estuarine	All	SFWO
Alpine	Humboldt Toiyabe National Forest	All	RFWO
Alpine	Lake Tahoe Basin Management Unit	All	RFWO
Alpine	Stanislaus National Forest	All	SFWO
Alpine	El Dorado National Forest	All	SFWO
Colusa	Mendocino National Forest	All	AFWO
Colusa	Other	All	By jurisdiction (see map)
Contra Costa	Legal Delta (Excluding ECCHCP)	All	BDFWO
Contra Costa	Antioch Dunes NWR	All	BDFWO
Contra Costa	Tidal wetlands/marsh adjacent to Bays	Salt marsh species, delta smelt	BDFWO
Contra Costa	All ownerships but tidal/estuarine	All	SFWO

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El Dorado	El Dorado National Forest	All	SFWO
El Dorado	LakeTahoe Basin Management Unit		RFWO
Glenn	Mendocino National Forest	All	AFWO
Glenn	Other	All	By jurisdiction (see map)
Lake	Mendocino National Forest	All	AFWO
Lake	Other	All	By jurisdiction (see map)
Lassen	Modoc National Forest	All	KFWO
Lassen	Lassen National Forest	All	SFWO
Lassen	Toiyabe National Forest	All	RFWO
Lassen	BLM Surprise and Eagle Lake Resource Areas	All	RFWO
Lassen	BLM Alturas Resource Area	All	KFWO
Lassen	Lassen Volcanic National Park	All (includes Eagle Lake trout on all ownerships)	SFWO
Lassen	All other ownerships	All	By jurisdiction (see map)

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Marin	Tidal wetlands/marsh adjacent to Bays	Salt marsh species, delta smelt	BDFWO
Marin	All ownerships but tidal estuarine	All	SFWO
Mendocino	Russian River watershed	All	SFWO
Mendocino	All except Russian River watershed	All	AFWO
Napa	All ownerships but tidal/estuarine	All	SFWO
Napa	Tidal wetlands/marsh adjacent to San Pablo Bay	Salt marsh species, delta smelt	BDFWO
Nevada	Humboldt Toiyabe National Forest	All	RFWO
Nevada	All other ownerships	All	By jurisdiction (See map)
Placer	Lake Tahoe Basin Management Unit	All	RFWO
Placer	All other ownerships	All	SFWO
Sacramento	Legal Delta	Delta Smelt	BDFWO
Sacramento	Other	All	By jurisdiction (see map)
San Francisco	Tidal wetlands/marsh adjacent to San Francisco Bay	Salt marsh species, delta smelt	BDFWO

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San Francisco	All ownerships but tidal estuarine	All	SFWO
San Mateo	Tidal wetlands/marsh adjacent to San Francisco Bay	Salt marsh species, delta smelt	BDFWO
San Mateo	All ownerships but tidal estuarine	All	SFWO
San Joaquin	Legal Delta excluding San Joaquin HCP	All	BDFWO
San Joaquin	Other	All	SFWO
Santa Clara	Tidal wetlands/marsh adjacent to San Francisco Bay	Salt marsh species, delta smelt	BDFWO
Santa Clara	All ownerships but tidal/estuarine	All	SFWO
Shasta	Shasta Trinity National Forest except Hat Creek Ranger District (administered by Lassen National Forest)	All	YFWO
Shasta	Hat Creek Ranger District	All	SFWO
Shasta	Bureau of Reclamation (Central Valley Project)	All	BDFWO
Shasta	Whiskeytown National Recreation Area	All	YFWO
Shasta	BLM Alturas Resource Area	All	KFWO

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Shasta	Caltrans	By jurisdiction	SFWO AFWO
Shasta	Ahjumawi Lava Springs State Park	Shasta crayfish	SFWO
Shasta	All other ownerships	All	By jurisdiction (see map)
Shasta	Natural Resource Damage Assessment, all lands	All	SFWO BDFWO
Sierra	Humboldt Toiyabe National Forest	All	RFWO
Sierra	All other ownerships	All	SFWO
Solano	Suisun Marsh	All	BDFWO
Solano	Tidal wetlands/marsh adjacent to San Pablo Bay	Salt marsh species, delta smelt	BDFWO
Solano	All ownerships but tidal/estuarine	All	SFWO
Solano	Other	All	By jurisdiction (see map)
Sonoma	Tidal wetlands/marsh adjacent to San Pablo Bay	Salt marsh species, delta smelt	BDFWO
Sonoma	All ownerships but tidal/estuarine	All	SFWO
Tehama	Mendocino National Forest	All	AFWO
	Shasta Trinity National Forest		

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Tehama	except Hat Creek Ranger District (administered by Lassen National Forest)	All	YFWO
Tehama	All other ownerships	All	By jurisdiction (see map)
Yolo	Yolo Bypass	All	BDFWO
Yolo	Other	All	By jurisdiction (see map)
All	FERC-ESA	All	By jurisdiction (see map)
All	FERC-ESA	Shasta crayfish	SFWO
All	FERC-Relicensing (non-ESA)	All	BDFWO
***Office Leads:**			
AFWO=Arcata Fish and Wildlife Office			
BDFWO=Bay Delta Fish and Wildlife Office			
KFWO=Klamath Falls Fish and Wildlife Office			
RFWO=Reno Fish and Wildlife Office			
YFWO=Yreka Fish and Wildlife Office			

Attachment

8

United States Department of Interior
Fish and Wildlife Service

Project name: Kern 43/119/Enos Lane Roundabout

Official Species List

Provided by:

Sacramento Fish and Wildlife Office
FEDERAL BUILDING
2800 COTTAGE WAY, ROOM W-2605
SACRAMENTO, CA 95825
(916) 414-6600

Consultation Code: 08ESMF00-2015-SLI-1195
Event Code: 08ESMF00-2015-E-03467

Project Type: TRANSPORTATION

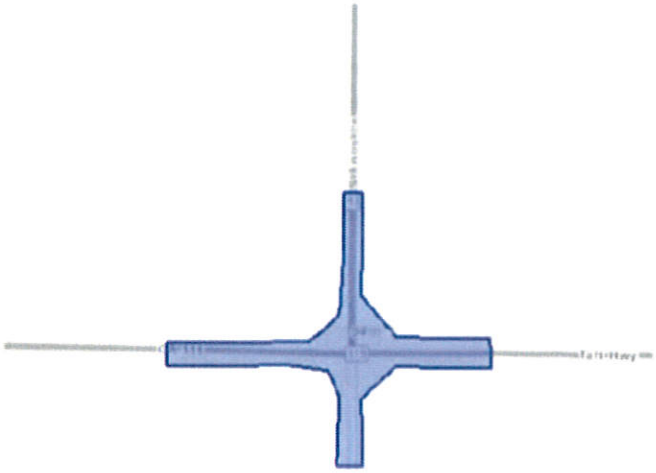
Project Name: Kern 43/119/Enos Lane Roundabout
Project Description: Install a roundabout at the existing intersection of SR 119, 43, and Enos Lane. Project should go into construction in mid-to late 2018.

Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.

United States Department of Interior
Fish and Wildlife Service

Project name Kern 43/119/Enos Lane Roundabout

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-119.25282597541809 35.26954482196504, -119.2525041103363 35.26954482196504, -119.2525362968445 35.268152049398, -119.2519462108612 35.2676001894936, -119.25039052963255 35.26758267007, -119.25036907196045 35.2671709625247, -119.25196766853331 35.267188482037334, -119.25252556800841 35.266768012688594, -119.2525041103363 35.26584822838073, -119.2529547214508 35.26584822838073, -119.25290107727051 35.266794292086814, -119.25309419631957 35.267135923488084, -119.25373792648314 35.267214761299165, -119.25578713417052 35.26719724179223, -119.25579249858855 35.26752135205757, -119.25344824790953 35.26753011177647, -119.2531371116638 35.2677053059557, -119.25291180610657 35.2679242981469 8, -119.25283670425415 35.26876522266078, -119.25282597541809 35.26954482196504)))

Project Counties: Kern, CA

United States Department of Interior
Fish and Wildlife Service

Project name: Kern 43/119/Enos Lane Roundabout

Endangered Species Act Species List

There are a total of 12 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Amphibians	**Status**	**Has Critical Habitat**	**Condition(s)**
California red-legged frog *(Rana draytonii)* Population: Entire	Threatened	Final designated	
Crustaceans			
Vernal Pool fairy shrimp *(Branchinecta lynchi)* Population: Entire	Threatened	Final designated	
Fishes			
Delta smelt *(Hypomesus transpacificus)* Population: Entire	Threatened	Final designated	
Flowering Plants			
California jewelflower *(Caulanthus californicus)*	Endangered		
San Joaquin wooly-threads *(Monolopia (=lembertia) congdonii)*	Endangered		
San Mateo thornmint *(Acanthomintha obovata ssp. duttonii)*	Endangered		

Mammals			
Buena Vista Lake Ornate Shrew *(Sorex ornatus relictus)* Population Entire	Endangered	Final designated	
Giant kangaroo rat *(Dipodomys ingens)* Population Entire	Endangered		
San Joaquin Kit fox *(Vulpes macrotis mutica)* Population U S A(CA)	Endangered		
Tipton kangaroo rat *(Dipodomys nitratoides nitratoides)* Population Entire	Endangered		
Reptiles			
Blunt-Nosed Leopard lizard *(Gambelia silus)* Population Entire	Endangered		
Giant Garter snake *(Thamnophis gigas)* Population Entire	Threatened		

United States Department of Interior
Fish and Wildlife Service

Project name: Kern 43/119/Enos Lane Roundabout

Critical habitats that lie within your project area

There are no critical habitats within your project area.

Appendix D Comments and Responses

This appendix contains the comments received during the public circulation and comment period from April 1, 2015 to May 8, 2015. A Caltrans response follows each comment presented.

Comment from the State Clearinghouse and Planning Unit

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

May 7, 2015

G. William "Trais" Norris III
California Department of Transportation, District 6
855 M Street, Suite 200
Fresno, CA 93721

Subject: State Route 43/State Route 119 Intersection Improvements
SCH#: 2015041023

Dear G. William "Trais" Norris III:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to selected state agencies for review. The review period closed on May 6, 2015, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Scott Morgan

Scott Morgan
Director, State Clearinghouse

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Response to Comment from the State Clearinghouse

The State Clearinghouse letter acknowledges that Caltrans has completed the review requirements for draft environmental documents as required in the California Environmental Quality Act.

Comment from the California Department of Fish and Wildlife

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Central Region
1234 East Shaw Avenue
Fresno, California 93710
(559) 243-4005
www.wildlife.ca.gov

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director

May 1, 2015

G. William "Trais" Norris III
San Joaquin Environmental Management Branch
California Department of Transportation
855 M Street, Suite 200
Fresno, California 93721-2716

Subject: Mitigated Negative Declaration
State Route 43/State Route 119 Intersection Improvements
SCH#: 2015041023

Dear Mr. Norris:

The California Department of Fish and Wildlife (Department) has reviewed the State Route 43/State Route 119 Intersection Improvements (Project) submitted by the California Department of Transportation. The Project proposes to construct a mixed single and dual lane roundabout at the intersection of State Route 119, State Route 43, and Enos Lane. The Project site is located at the intersection of State Routes 119 and 43, and a county road named Enos Lane in south-central Kern County, near Taft and Shafter. The Project area is from post mile 0.1 to 0.4 on State Route 43, post mile 17.8 to 18.4 on State Route 119, and from the intersection to 0.2 miles south on Enos Lane.

The Department has reviewed the Mitigated Negative Declaration (MND). Although the comment period has passed, we would appreciate that you consider our recommendations. Our comments follow:

Department Jurisdiction

Trustee Agency Authority: The Department is a Trustee Agency with responsibility under the California Environmental Quality Act (CEQA) for commenting on projects that could impact plant and wildlife resources. Pursuant to Fish and Game Code Section 1802, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and the habitat necessary for biologically sustainable populations of those species. As a Trustee Agency for fish and wildlife resources, the Department is responsible for providing, as available, biological expertise to review and comment upon environmental documents and impacts arising from

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Conserving California's Wildlife Since 1870

project activities, as those terms are used under CEQA (Division 13 [commencing with Section 21000] of the Public Resources Code).

Responsible Agency Authority: The Department has regulatory authority over projects that could result in the "take" of any species listed by the State as threatened or endangered, pursuant to Fish and Game Code Section 2081. If the Project could result in the take of any species listed as threatened or endangered under the California Endangered Species Act (CESA), the Department may need to issue an Incidental Take Permit (ITP) for the Project. CEQA requires a Mandatory Finding of Significance if a project is likely to substantially impact threatened or endangered species (sections 21001{c}, 21083, Guidelines sections 15380, 15064, 15065). Impacts must be avoided or mitigated to less than significant levels unless the CEQA Lead Agency makes and supports Statement of Overriding Consideration (SOC). The CEQA Lead Agency's SOC does not eliminate the Project proponent's obligation to comply with Fish and Game Code Section 2080. 2

Fully Protected Species: The Department has jurisdiction over fully protected species of birds, mammals, amphibians, reptiles, and fish pursuant to Fish and Game Code Sections 3511, 4700, 5050, and 5515. Take of any fully protected species is prohibited and the Department cannot authorize their take. 3

Bird Protection: The Department has jurisdiction over actions which may result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections that protect birds, their eggs and nests include sections 3503 (regarding unlawful take, possession or needless destruction of the nest or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird).

Potential Project Impacts and Recommendations

Blunt-nosed Leopard Lizard (BNLL): BNLL (*Gambelia sila*) is State and federally endangered and has been documented adjacent to the Project site. The Department recommends focused surveys following the 2004 survey methodology titled "Approved Survey Methodology for the Blunt-nosed Leopard Lizard" for the Project site, which provides potential BNLL habitat. Suitable BNLL habitat includes all areas of grassland and shrub habitat that contains required habitat elements, such as small mammal burrows and open areas for basking. BNLL are also known to utilize open space patches between suitable habitat features including disturbed sites and unpaved access roadways. BNLL is fully protected and the Department cannot authorize take of this species. 4

The recommended survey methodology, the parameters of which were designed to optimize detectability, must be conducted within one year from the start of Project activities to reasonably assure the Department that take of this fully protected species will not occur as a result of Project implementation. It is important to note that protocol-level surveys must be conducted on multiple dates during late spring, summer, and fall, of the same survey season, and that within these time periods there are specific date, temperature, and time parameters which must be adhered to; as a result, protocol-level surveys for this species are not synonymous with 30-day "pre-construction" surveys often recommended for other wildlife species. It is unclear if the proposed "protocol-level pre-construction surveys" will follow the recommended survey methodology or will conduct a one-time survey within 30 days prior to the start of construction activities.

In addition, CDFW advises that all potential burrows, which could be occupied by BNLL, and all individuals observed above-ground be avoided. CDFW recommends that suitable burrows within and adjacent to potential habitat for BNLL be avoided by a minimum 50 feet in all areas where ground-disturbing Project activities will occur, that an appropriate number of qualified biologists be present during all ground-disturbing Project activities to ensure that BNLL above ground are not impacted, and that any individual that may enter the Project activity area be allowed to leave unobstructed on its own. In the event that BNLL is detected, consultation with CDFW would be warranted to discuss how to implement the Project and avoid take.

San Joaquin Kit Fox (SJKF): SJKF (*Vulpes macrotis mutica*) is a State threatened and federally endangered species and has been documented near the Project site. As a result, it is likely that SJKF may occur on the Project site. SJKF population sizes are known to fluctuate over time, and absence in any one year does not necessarily indicate a negative finding. Particularly in Kern County, SJKF are known to den in right of ways, vacant lots, parks, landscaped areas, golf courses, oil fields, etc. and SJKF may be attracted to the Project site due to the creation of loose and friable soils as a result of ground disturbance. CDFW agrees with the MND that the United States Fish and Wildlife Service (USFWS) "*Standardized recommendations for protection of the San Joaquin kit fox prior to or during ground disturbance*" (2011) be followed prior to and during any ground-disturbing activities occurring within the Project area, and that the burrow and/or den buffers will be implemented. We recommend that the Project proponent acquire an ITP for SJKF prior to any ground-disturbing activities given the likelihood that SJKF are present in the Project area. 5

Tipton Kangaroo Rat (TKR) and Giant Kangaroo Rat (GKR): Both TKR (*Dipodomys nitratoides nitratoides*) and GKR (*Dipodomys ingens*) are State and federally endangered and have been documented near the Project site. In order to determine if 6

TKR and GKR currently occupy the Project site, focused protocol-level trapping surveys would need to be conducted by a qualified wildlife biologist that is permitted to do so by both the Department and USFWS. These surveys are recommended to be conducted well in advance of ground-disturbing activities and before MND update approval in order to determine if impacts to special status kangaroo rats could occur. In order to implement full avoidance for both these species, the Department recommends a minimum 50-foot no-disturbance buffer be employed around all burrows that could be used by kangaroo rats. If full avoidance is not feasible and take could potentially occur as a result of construction related activities, acquisition of an ITP (in accordance with Section 2081(b) of the Fish and Game Code) would be warranted prior to initiating ground-disturbing activities. Alternatively, the applicant has the option of assuming presence for this species and securing an ITP for TKR and GKR.

San Joaquin Antelope Squirrel (SJAS): SJAS (*Ammospermophilus nelsoni*) have been documented adjacent to the Project site. In order to determine if Project implementation would impact SJAS, surveys focused on SJAS would need to be conducted by a qualified wildlife biologist during the appropriate conditions for detection of the species. Conditions considered appropriate for SJAS include daytime temperatures between 68 to 86 degrees Fahrenheit and between April 1 and September 30 (CDFG 1990). These surveys are recommended to be conducted well in advance of ground-disturbing activities and before MND update approval in order to determine if impacts to SJAS could occur during construction related activities. In order to implement full avoidance for SJAS, the Department recommends a minimum 50-foot no-disturbance buffer be employed around all burrows that could be used by SJAS. If implementation of avoidance measures is not feasible and if take could occur as a result of construction-related activities, acquisition of an ITP would be warranted prior to initiating ground-disturbing activities. Alternatively, the applicant has the option of assuming presence for this species and securing an ITP for SJAS.

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Special Status Plant Species: There is the potential for multiple special status plant species to occur on the Project site. The Department recommends the Project site be surveyed for special status plants by a qualified botanist following the "*Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities*" (November 24, 2009). This protocol, which is intended to maximize detectability, includes the identification of reference populations to facilitate the likelihood of field investigations occurring during the appropriate floristic period. In the absence of protocol-level surveys being performed, additional surveys may be necessary. Further, the Department recommends special status plant species be avoided whenever possible by delineation and observing a no-disturbance buffer of at least 50 feet from the outer edge of the plant population(s) or specific habitat type(s) required by special status plant species. If buffers cannot be maintained, then

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consultation with the Department is warranted to determine appropriate minimization and mitigation measures for impacts to special status plant species. If a State- or federally listed plant species is identified during botanical surveys, it is recommended that consultation with the Department and/or the USFWS be conducted to determine permitting needs.

Burrowing Owl: Burrowing owl (*Athene cunicularia*) has the potential to be present near the Project area. To avoid impacts to the species, the Department recommends pre-construction surveys for burrowing owl regardless of when construction will occur to identify any burrowing owls that may occur on the Project site. In the event that burrowing owls are found, we recommend that impacts to occupied burrows be avoided in accordance with the following table unless a qualified biologist approved by the Department verifies through non-invasive methods that either: 1) the birds have not begun egg laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival. The below table can be found from the Burrowing Owl Staff Report (CDFG 2012). 9

Location	Time of Year	Level of Disturbance		
		Low	Med	High
Nesting sites	April 1-Aug 15	200 m*	500 m	500 m
Nesting sites	Aug 16-Oct 15	200 m	200 m	500 m
Nesting sites	Oct 16-Mar 31	50 m	100 m	500 m

* meters (m)

The Staff Report recommends that foraging habitat be acquired and permanently protected to offset the loss of foraging and burrow habitat. The Department also recommends replacement of occupied burrows with artificial burrows at a ratio of 1 burrow collapsed to 1 artificial burrow constructed (1:1) as mitigation for the potentially significant impact of evicting a burrowing owl if a biologist knowledgeable with the biology and natural history of the species determines that suitable burrows are a potential limiting factor for burrowing owl in the Project area.

Nesting Birds: The trees, shrubs, and grasses within and in the vicinity of the Project site likely provide nesting habitat for songbirds and raptors. The Department encourages Project implementation to occur during the non-nesting bird season. However, if ground-disturbing activities must occur during the breeding season (February through mid-September), the Project applicant is responsible for ensuring that implementation of the Project does not result in any violation of the Migratory Bird Treaty Act or relevant Fish and Game Codes as referenced above. Prior to work commencing, the Department recommends surveys for active nests be conducted by a 10

qualified wildlife biologist no more than 10 days prior to the start of any ground or vegetation disturbance and that the surveys be conducted in a sufficient area around the work site to identify any nests that are present and to determine their status. A sufficient area means any nest within an area that could potentially be affected by the Project. In addition to direct impacts, such as nest destruction, nests might be affected by noise, vibration, odors, and movement of workers or equipment. The Department recommends identified nests are continuously surveyed for the first 24 hours prior to any construction related activities to establish a behavioral baseline. Once work commences, continuously monitoring all nests to detect any behavioral changes is advised. If behavioral changes are observed, the work causing that change may cease and the Department consulted for additional avoidance and minimization measures.

If continuous monitoring of identified nests by a qualified wildlife biologist is not feasible, the Department recommends a minimum no-disturbance buffer of 250 feet around active nests of non-listed bird species and a 500-foot no-disturbance buffer around the nests of unlisted raptors until the breeding season has ended, or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival. Variance from these no-disturbance buffers may be implemented when there is compelling biological or ecological reason to do so, such as when the Project area would be concealed from a nest site by topography. Any variance from these buffers is advised to be supported by a qualified wildlife biologist and it is recommended the Department be notified in advance of implementation of a no-disturbance buffer variance.

Kern Water Bank: Kern Water Bank Authority's (KWBA) conservation bank is located at the northwest quadrant of the intersection and directly adjacent to the proposed Project area. This conservation bank is composed of land which has been permanently protected to mitigate for Project-related impacts throughout the KWBA master permit area to listed species and the habitat on which they depend. Many of the special status species known to occur on KWBA's conservation bank lands adjacent to the Project area are nocturnal and can be sensitive to artificial lighting and noise. The Department recommends the MND address impacts to special status species, including indirect impacts resulting for any Project activities that occur at night. An Incidental Take (2081) Permit may be required if take of State-listed species could occur. 11

The Department holds a Conservation Easement on this land. Since this conservation bank was established solely to mitigate impacts to threatened and endangered species habitat, any activities, such as implementation of the proposed Project, which could degrade the habitat quality, directly impact wildlife utilizing these areas, or limit the habitat connectivity in these areas, should mitigate these impacts by protection in perpetuity of an appropriate amount of acreage in the Project area vicinity. The

Department cannot comment on what the appropriate mitigation acreage would be until the amount of land proposed to be impacted within the bank property is identified. Since land would be impacted which has been already secured as mitigation for other projects, mitigation should occur in advance of Project implementation at a minimum of twice the standard (e.g. 3:1 x 2=6:1) mitigation rate.

More information on survey and monitoring protocols for sensitive species can be found at the Department's website (www.dfg.ca.gov/wildlife/nongame/survey_monitor.html). If you have any questions on these issues, please contact Reagen O'Leary, Environmental Scientist, at the address provided on this letterhead, by telephone at (559) 243-4014, extension 244, or by electronic mail at Reagen.OLeary@wildlife.ca.gov.

Sincerely,

Julie Vance
Acting Regional Manager

cc: Thomas Leeman
United States Fish and Wildlife Service
2800 Cottage Way, Room W-2605
Sacramento, California 95825-1846

Response to comment from the California Department of Fish and Wildlife (letter, 8 pages)

1. Caltrans acknowledges that California Department of Fish and Wildlife is a Trustee Agency with responsibility under California Environmental Quality Act for commenting on projects that could impact plant and wildlife resources, and pursuant to Fish and Game Code Section 1802, the California Department of Fish and Wildlife has jurisdiction over the conservation, protection and management of fish, wildlife, native plants and the habitat necessary for biologically sustainable populations of those species.

2. Caltrans acknowledges that California Department of Fish and Wildlife has regulatory authority over projects that could result in the "take" of any species listed by the State as threatened or endangered, pursuant to Fish and Game Code Section 2081.

3. Impacts, avoidance, minimization and mitigation measures are discussed on pages 19 through 24 of the environmental document.

4. Caltrans acknowledges that the Blunt-nosed Leopard Lizard *(Gambelia sila)* is a fully protected species and understand that "take" of any fully protected species is prohibited. Additionally, the California Department of Fish and Wildlife cannot authorize their "take" for development.

   Full protocol Blunt-nosed Leopard Lizard surveys, including 12 survey visits during the active adult season and 5 additional surveys during the active juvenile season will be performed the year prior to the commencement of construction. Since the total avoidance of all rodent burrows within the proposed project footprint, in addition to the corresponding 50-foot buffer, is not possible, the burrows within the proposed construction foot print would be hand-excavated and collapsed no more than one week prior to construction. Biological monitor(s) would be on site during all initial ground-disturbing activities. Environmentally Sensitive Area exclusion fencing of a design sufficient to exclude entry by Blunt-nosed Leopard Lizard (and other small animals) will be installed around the limits of the project site in areas where suitable Blunt-nosed Leopard Lizard habitat is present. Caltrans' assessment is that Blunt-nosed Leopard Lizard have a very low potential to occur on the site.

5. Pre-construction burrow and spot-light surveys for San Joaquin kit fox *(Vulpis macrotis mutica)* will be performed the season prior to the commencement of construction. If warranted, additional actions such as track-plates and/or camera stations may also be employed to confirm the presence and status of San Joaquin kit fox on and near the site. Biological monitor(s) would be on site during all initial ground-disturbing activities. Caltrans agrees that San Joaquin kit fox have the potential to be present on or near the project site, and an Incidental Take permit will be acquired. Appropriate recommendations from the United States Fish and Wildlife 2011 document will also be followed.

6. Protocol small mammal trapping will be performed for Tipton kangaroo rat *(Dipodomys nitratoides nitratoides)* and Giant kangaroo rat *(Dipodomys ingens)* at least 30 days prior to the commencement of construction. Providing that survey results are negative for Tipton kangaroo rat and Giant kangaroo rat, Caltrans would hand-excavate and collapse all rodent burrows within the construction footprint no more than one week prior to construction. Environmentally Sensitive Area exclusion fencing of a design sufficient to exclude entry by kangaroo rats will be installed around the limits of the project site in areas where suitable habitat is present. Biological monitor(s) would be present on site during all initial ground-disturbing activities. Caltrans assessment is that the Tipton kangaroo rat and Giant kangaroo rat have a low potential to occur on site.

7. Caltrans will perform focused San Joaquin antelope squirrel *(Ammospermophilus nelsoni)* surveys during the season prior to construction. Caltrans would hand-excavate and collapse all rodent burrows within the construction footprint no more than one week prior to construction. Environmentally Sensitive Area exclusion fencing of a design sufficient to exclude entry by San Joaquin antelope squirrel will be installed around the limits of the project site in areas where suitable habitat is present. Biological monitor(s) would be present on site during all initial ground-disturbing activities. Caltrans agrees that the San Joaquin antelope squirrel have the potential to occur on or near the site and an Incidental Take permit will be prepared.

8. Protocol botanical surveys, targeting potential special-status plant species will be performed during the appropriate blooming periods, in the season prior to commencement of construction. Due to the disturbed and weedy nature of the project site, Caltrans assessment is that special-status plant species have a low potential to occur on the site.

9. Caltrans will perform pre-construction surveys for burrowing owls *(Athene cunicularia)*. Active burrows will be protected through reproductive phases and passive burrow relocation to sites with suitable habitat will be conducted if necessary. Caltrans does not purchase mitigation credits to compensate for habitat loss of non-listed species, so the loss of 0.41 acres of foraging habitat will not be offset by acquisition and permanent protection of other habitat. Caltrans agrees that the potential for burrowing owls to be found is high, as they have been observed during spring surveys.

10. All tree and shrubbery removal will take place during the non-nesting season to avoid impacts to nesting birds and raptors. Where this is not possible, comprehensive pre-removal surveys will be conducted by a qualified biologist prior to removal. Active nests found during the nesting season (February 15 through August 30) will be protected by a no-disturbance buffer until the young are fledged. This is in accordance with Caltrans' migratory bird protection standard provision.

11. The project was specifically designed to avoid all direct impacts to the Kern Water Bank conservation property. All work in the northwest and northeast quadrants of the project site will either be within the Caltrans right of way or on private property, so no mitigation acreage is expected to be necessary. Temporary impacts from noise, vibration and dust may be expected within the radius of construction activity, but these disturbances are not expected to be substantially higher that what occurs presently in that area due to normal, high volume of traffic in this area. Night construction is very likely for this project, for both speed of construction, worker safety and to minimize the disruption of daytime traffic. Caltrans will consider methods to minimize disturbances from artificial lighting and noise to the adjacent conservation property.

Appendix E United States Fish and Wildlife Service Biological Opinion

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Suite W-2605
Sacramento, California 95825-1846

In Reply Refer to:
08ESMF00-
2014-F-0651

OCT 14 2015

Dena Gonzalez
Chief, Central Region Biology Branch
California Department of Transportation, District 6
855 M Street, Suite 200
Fresno, California 93721

Subject: Formal Consultation on the State Route 119/43/Enos Lane Intersection Safety Improvement Project, Kern County, California (California Department of Transportation 06-KER-43, 119 - PM 0.1/0.4, 17.8/18.4; EA 06-0P900)

Dear Ms. Gonzalez:

This letter is in response to the California Department of Transportation's (Caltrans) July 30, 2015 request for initiation of formal consultation with the U.S. Fish and Wildlife Service (Service) on its action to construct the proposed State Route 119/43/Enos Lane Intersection Safety Improvement Project (project) in Kern County, California. Your request was received by the Service by email on July 30, 2015. At issue are the proposed project's effects on the federally-listed as endangered San Joaquin kit fox (*Vulpes macrotis mutica*) and Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*). This response is provided under the authority of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*) (Act), and in accordance with the implementing regulations pertaining to interagency cooperation (50 CFR 402).

The Moving Ahead for Progress in the 21st Century Act (MAP-21) was signed into law on July 16, 2012. Caltrans was approved to participate in the MAP-21 Surface Transportation Project Delivery Program through the National Environmental Policy Act (NEPA) assignment Memorandum of Understanding (MOU) between the Federal Highway Administration (FHWA) and Caltrans (effective October 1, 2012), as codified in 23 U.S.C. 327. The MOU allows Caltrans to assume the FHWA's responsibilities under NEPA as well as the FHWA's consultation and coordination responsibilities under Federal environmental laws for the majority of transportation projects in California.

The federal action on which we are consulting is Caltrans' proposed construction of a new roundabout at the intersection of State Route (SR) 119, SR 43, and Enos Lane in Kern County. Pursuant to 50 CFR 402.12(j), you submitted a letter, dated April 13, 2015, which we received in this office on April 15, 2015, along with a biological assessment for our review; you requested concurrence with the findings presented therein. These findings concluded that the proposed project may affect, but is not likely to adversely affect the federally-listed as endangered California jewelflower (*Caulanthus californicus*), Kern mallow (*Eremalche kernensis*), San Joaquin wooly-threads (*Monolopia congdonii*), blunt-nosed leopard lizard (*Gambelia sila*), giant kangaroo rat (*Dipodomys ingens*), Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*), and the San Joaquin kit fox (*Vulpes macrotis*

mutica). You revised your determination for the San Joaquin kit fox on July 30, 2015, concluding that the proposed project may affect, and is likely to adversely affect this species. Following further discussion with the Service, you also revised your determination for the Tipton kangaroo rat on October 5, 2015, concluding that the proposed project may affect, and is likely to adversely affect this species.

In considering your request, we based our evaluation on the following: (1) Caltrans' April 13, 2015 letter and its supporting *SR 43/SR 119/Enos Lane Intersection Safety Improvement Biological Assessment* (Biological Assessment), dated April 2015; (2) email and telephone correspondence between the Service and Caltrans; (3) Caltrans' July 30, 2015 and October 5, 2015 emails revising its determinations for the San Joaquin kit fox and the Tipton kangaroo rat; and (4) other information available to the Service.

Caltrans has determined that the proposed project may affect, but is not likely to adversely affect the California jewelflower, Kern mallow, San Joaquin wooly-threads, blunt-nosed leopard lizard, or giant kangaroo rat, based on a combination of factors, including the absence of recorded occurrences in the project footprint, habitat quality, the results of species surveys, and species' distribution.

According to the California Natural Diversity Database (CNDDB, 2015)[1], there are no records of any of the five species within the project footprint.

Focused botanical surveys were not conducted, but Caltrans carried out generalized plant surveys concurrently with other species surveys. It identified only common plant species present at the site; no California jewelflowers, Kern mallows, or San Joaquin wooly-threads were detected. While there is a small portion (0.47 acre [ac]) of saltbrush scrub within the project footprint located beyond Caltrans' existing right-of-way (ROW) in the northeast quadrant that could serve as potential habitat for the species, the habitat is degraded and disturbed, so the potential for any of these plant species to occur in the footprint is low.

Caltrans and its consultant, Quad Knopf, Inc., conducted protocol surveys for the blunt-nosed leopard lizard (juvenile surveys: five visits between August 1-September 15, 2013; and adult surveys: 12 visits between May 12-June 26, 2014). No individuals were detected during these efforts. Large portions of the project footprint are only minimally suitable as habitat for the species due to the presence of dense invasive weed species and disking practices. The most suitable habitat is likely within the Kern Water Bank Authority (KWBA) conservation property, which is located outside the footprint in the northwest quadrant of the intersection. Given the absence of previously recorded sightings within the footprint, the impaired quality of the habitat, and the results of the protocol surveys, the potential for the blunt-nosed leopard lizard to occur in the footprint is low.

Caltrans conducted non-protocol small mammal trapping for the giant kangaroo rat over the course of four nights (September 30-October 3, 2014). Although suitable (but disturbed) habitat is present within the footprint in the form of saltbrush scrub, and there is even higher-quality saltbrush scrub habitat outside the project footprint (mainly in the northeast quadrant, and on the KWBA property in the northwest quadrant), no giant kangaroo rats were observed or captured during this period; only non-listed Heermann's kangaroo rats (*Dipodomys heermanni*) were detected. Potential kangaroo rat burrows were observed at 12 sites during the 2014 blunt-nosed leopard lizard surveys, all of them located east of SR 43 and Enos Lane. However, no associated sign, such as haystacks, seed pits, and

[1] California Natural Diversity Database. 2015. Natural Heritage Division, California Department of Fish and Wildlife. RareFind 5. Sacramento, California. Accessed June 16, 2015.

mown grass were detected. The potential for the giant kangaroo rat to occur in the footprint is low based on the species' current range (which is distributed predominantly west of the footprint), the results of the 2014 non-protocol small mammal trapping surveys, and the absence of observable sign.

Caltrans has concluded that the potential for these five species to occur at the project site is low However, out of an abundance of concern, Caltrans proposes to implement the conservation measures below. For the purpose of this consultation, a "qualified biologist," as referenced in this document, refers to an individual who, at a minimum, holds a four-year degree in a relevant biological field and who has demonstrated knowledge of, and experience with, a given species.

California jewelflower, Kern mallow, and San Joaquin wooly-threads

1. Caltrans will conduct preconstruction botanical surveys of the project area during the appropriate blooming period for each species in the season prior to project groundbreaking. Caltrans will use the California Department of Fish and Wildlife's (CDFW) *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities*, dated November 24, 2009, or the most recent guidelines.

2. If any of the species is observed on-site, Caltrans will notify the Service to discuss any additional conservation measures that should be implemented to avoid take, or to discuss reinitiating this consultation.

Blunt-nosed leopard lizard

1. Caltrans will conduct pre-construction surveys of the project footprint, plus an additional 200-foot (ft.) area outside the footprint where possible using the CDFW's May 2004 *Approved Survey Methodology for the Blunt-nosed Leopard Lizard* in the year prior to the start of construction. If the species is found within the project area, Caltrans will contact the Service to discuss measures to avoid take of the blunt-nosed leopard lizard, or to discuss reinitiating this consultation.

2. A qualified biologist(s) will be on-site during initial ground-disturbing activities.

Giant kangaroo rat

1. A qualified biologist(s) will be on-site to monitor initial ground-disturbing activities.

2. Exclusion fencing will be installed in the northern half of the project area along segments of SR 119 and SR 43 to discourage the species from entering the work site from the neighboring KWBA conservation property in the northwest quadrant and from the adjacent saltbrush scrub habitat in the northeast quadrant, in the event these areas are occupied by the species.

The Service concurs that the action is not likely to adversely affect the California jewelflower, Kern mallow, San Joaquin wooly-threads, blunt-nosed leopard lizard, and giant kangaroo rat. We concur because there is a very low likelihood that these species occur within the action and therefore the potential for the action to affect them is discountable.

The remainder of this document provides our biological opinion on the effects of the proposed project on the San Joaquin kit fox and the Tipton kangaroo rat.

Consultation History

September 18-23, 2014.	Caltrans requested approval from the Service to conduct trapping surveys at the project site for the giant and Tipton kangaroo rats. The Service provided authorization.
April 6, 2015.	The Service received a hard copy of Caltrans' 90-day small mammal trapping report.
April 15, 2015.	The Service received hard copies of Caltrans' Biological Assessment and its April 13, 2015 letter requesting initiation of informal consultation.
June 18-19, 2015.	The Service emailed Caltrans to request additional information concerning the Biological Assessment. Caltrans responded to several of the Service's comments and questions.
June 24-25, 2015.	Caltrans emailed the Service to respond to its remaining comments and questions.
June 26, 2015.	The Service emailed Caltrans to discuss the potential for including conservation measures for non-listed pollinator species as part of the project.
July 27-28, 2015.	The Service and Caltrans exchanged emails addressing several of the responses from Caltrans' earlier June 18 email.
July 29, 2015.	Caltrans telephoned the Service to discuss revising its determination for the San Joaquin kit fox and initiating formal consultation.
July 30, 2015.	Caltrans emailed the Service to state that upon further evaluation of the project, it had decided to modify its determination for the San Joaquin kit fox, and to conclude that the project was likely to adversely affect this particular species. The project initiation package was deemed complete and formal consultation was initiated.
August 3 & 6, 2015.	The Service, the CDFW, and Caltrans exchanged emails discussing the viability of implementing conservation measures for non-listed pollinator species as part of the project.
October 5, 2015.	The Service and Caltrans exchanged emails and a telephone call to discuss revising Caltrans' determination for the Tipton kangaroo rat. Caltrans concluded that the project was likely to adversely affect the species.
October 13, 2015.	The Service and Caltrans exchanged emails to discuss the introduction of modified k-rail as an additional conservation measure.

Description of the Action

Caltrans proposes to replace the current intersection of SR 119, SR 43, and Enos Lane with a mixed single/dual lane roundabout. The site is located in south-central Kern County, midway between the cities of Bakersfield and Taft. The project area extends from post-mile (PM) 17.8 to 18.4 on SR 119, from PM 0.1 to 0.4 on SR 43, and from the intersection to 0.2-mile (mi) south on Enos Lane. Construction of the roundabout is expected to improve intersection safety by reducing collisions along the approaches and at the intersection; it also will address the operational deficiencies created by traffic queues that occur during peak morning and evening hours by improving channelization and widening the roadway.

SR 119 and SR 43 are both conventional, two-lane undivided highways. SR 119 is on an east-west alignment and comprises a 12-ft. lane and an 8-ft. wide shoulder in each travel direction. SR 43 begins at the intersection with SR 119 and heads north; it comprises a 12-ft. wide lane and a 1-2 ft. wide shoulder in each travel direction. On the south side of the intersection, Enos Lane heads south; this county road also comprises a 12-ft. wide lane and a 1-2-ft. wide shoulder in each travel direction. Left-turn lanes are present in all four travel directions at the intersection, but the left-turn channelization lanes are all less than standard length. The intersection is controlled by a fully phased, four-way signal light system.

Most of the existing roadways within the construction limits will be removed as part of the project and replaced with curved roadways ("chicane" areas designed to slow traffic) and the roundabout intersection. The design will include a center concrete island with an inscribed circle diameter of 220-ft. to accommodate large trucks and extra-legal-oversized-overweight vehicles. Within the circulatory path of the roundabout, dual lanes will be constructed. The approaches to, and exits from the roundabout will be designed using either single or dual lanes. Single lanes will be constructed for the SR 119 eastbound exit, for the Enos Lane northbound approach and southbound exit, and for the SR 43 northbound exit. Dual lanes will be constructed for the SR 119 westbound approach and westbound exit, for the SR 119 eastbound approach, and for the SR 43 southbound approach.

Concrete work will be required for a portion of the approach pavement, the circulatory intersection area, the truck aprons, the intersection center island and splitter island curbs, the outside gutters, the sidewalks/bicycle paths and curb ramp areas, and the drainage inlets. Existing electrical facilities will need to be removed in order to facilitate electrical work for lighting and flashing beacons. Other required activities will include permanent erosion control/landscaping, placement of duff and concrete aesthetic treatments for the truck aprons, and temporary and permanent road striping and signage.

Right-of-Way and Staging Areas

Caltrans will acquire additional ROW parcels in the northeast, southeast, and southwest quadrants. Caltrans has indicated that designated staging areas for equipment storage and vehicle parking will be pre-approved by a Caltrans biologist. Equipment staging areas may be established within the gas station parcel or in the open, dirt areas of the commercial parcels in the northeast and southeast quadrants. For the purpose of this project, all staging areas will occur within the project footprint, as described on page 8 of this document under the *Action Area* heading. Any location the contractor uses that is outside this area will need to be evaluated and may require Caltrans to revise its consultation.

Detours and Project Staging

The construction of the roadway, embankment, side slopes, and ditch will be organized by stage and will require detour- and temporary traffic handling. Traffic may be detoured to Interstate (I)-5, which is located east of the project area, via Union Road, Coles Levee Road, and Bear Mountain Boulevard to the south. Detour routes will vary according to the construction stage and which parts of the intersection are obstructed by work activities at any given time. Project staging will be broken into the following:

Stage 1: Work will occur on the northern portion of the roundabout (SR 43) with some work on the outside edges of the eastern segment of SR 119. SR 43 will be closed at this time, with detours in place.
Stage 2: Work will occur on the southern portion of the roundabout (Enos Lane), which will be closed at this time, with detours in place.
Stage 3: Work will occur on the center portion of the roundabout (SR 119 east- and westbound). Traffic will be limited to one lane, alternating east- and westbound, and will be controlled by a signal light.

K-rail

Temporary k-rail barriers will be installed on-site to prevent traffic from entering the work zones and to protect personnel in these areas. These barriers will be placed along linear segments at the intersection site (at a maximum of approximately 0.6-mi along SR 119 and approximately 0.5-mi along SR 43 and Enos Lane). There will be only a single line of k-rail placed parallel to SR 119 during Stages 1 and 2, with barricades placed at the end of construction on the north leg of the intersection for Stage 1, and at the end of construction on the south leg of the intersection for Stage 2. For Stage 3, a single line of k-rail will be installed along SR 119 to keep traffic to the north of the k-rail and on the south side of the intersection at Enos Lane. Caltrans does not expect the k-rail barriers to enclose any areas or to be installed in such a way as to convey live traffic between parallel structures. All k-rail will be removed once construction at the site is completed.

Scheduling, Dust Control, Borrow/Fill, and Parking/Access

Caltrans proposes to begin construction in October 2018 and to finish by July 2020. The project is expected to take approximately 150 working days to complete. Due to the heavy volume of daytime traffic throughout the project area, night work is proposed in order to minimize construction-related traffic delays and to improve safety for the traveling public and construction personnel. Because Caltrans has indicated that the traveling public traverses detours and construction areas better when work is restricted solely to either daytime or nighttime activities, for this project Caltrans has chosen to consider all working days as night work.

The contractor will follow Best Management Practices during construction. Dust control measures will be implemented as part of the project. Prior to construction, the contractor will be responsible for the selection and environmental compliance of a selected borrow site in the event that fill material needs to be imported to the project area. Equipment parking, project access, equipment maintenance, and other project-related activities may occur within the existing ROW, proposed ROW areas, or temporary construction easements.

Conservation Measures

Caltrans will implement the following measures to reduce the potential for adverse effects to the species.

San Joaquin kit fox

1. The construction area will be clearly delineated in order to avoid inadvertent impacts to adjacent suitable habitat.

2. Preconstruction surveys will be conducted no less than 14 days and no more than 30 days prior to the beginning of ground disturbance and/or construction activities. Surveys for the San Joaquin kit fox and its dens will be performed throughout the project footprint as well as within 200-ft. of the footprint.

3. A qualified biologist(s) will conduct an environmental awareness training program for all construction personnel, covering the status of the San Joaquin kit fox, the importance of avoiding impacts to the species, and the penalties for not complying with minimization requirements. New construction personnel who are added to the project after the training is first conducted also will be required to take the training.

4. A qualified biologist(s) will be present on-site during initial ground-disturbing activities. To the extent possible, the biologist(s) also will be available on-call when not present on-site.

5. Disturbance to all San Joaquin kit fox dens will be avoided to the maximum extent possible.

    a. Potential and atypical dens that are located at least 50-ft. from construction will be protected with a 50-ft. zone. Known dens that are located at least 100-ft. from construction will be protected with a 100-ft. zone. In instances where 50-ft. or 100-ft. exclusion zones cannot be maintained, potential and/or known dens will be monitored; once these dens are verified to be unoccupied, they will be blocked temporarily (via sandbagging or installation of a one-way door) for the duration of the project.

    b. If a natal/pupping den is discovered either within the project footprints or within 200-ft. of the footprint, Caltrans will notify the Service immediately.

6. Caltrans will install modified temporary k-rail barriers that facilitate San Joaquin kit fox movement and passage across the roadways. Openings in the barriers will be spaced at approximately 140-ft. intervals (segments of k-rail are 20-ft. long, so openings will be spaced every seven segments). One, or a combination, of two design options will be implemented. Designs include:

    a. A Modified Type K segment with one 8-inch diameter hole cast or bored into a typical rail segment.
    b. A Type L passageway that off-sets a segment of k-rail via a gap measuring between 8-inches and 5-ft.

7. All food-related trash items such as wrappers, cans, bottles, and food scraps will be disposed of in closed containers and removed daily from the project site in order to reduce the potential for attracting predator species.

8. No pets or firearms will be allowed on the project site.

9. Parts of the project area that are temporarily affected will be re-contoured and re-vegetated with an appropriate, weed-free native plant seed mixture following the completion of construction.

Tipton kangaroo rat

1. Exclusion fencing will be installed in the northern half of the project area along segments of SR 119 and SR 43 to discourage the species from entering the work site from the neighboring KWBA conservation property in the northwest quadrant and from the adjacent saltbush scrub habitat in the northeast quadrant.

2. Trapping surveys will be conducted no more than 30 days prior to construction and will cover the excluded area mentioned in measure #1 above. If occupied suitable habitat is observed during the surveys, Caltrans will discuss with the Service the implementation of measures to minimize take, including relocating individuals out of the project footprint. Caltrans will develop and provide a detailed relocation plan to the Service prior to the start of construction, or prior to relocating any animals.

3. A qualified biologist(s) will be on-site to monitor initial ground-disturbing activities.

Action Area

The action area is defined in 50 CFR § 402.02, as "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action." The action area for the proposed project is composed of the project footprint (or project impact area), which encompasses 1) the SR 119/SR 43/Enos Lane intersection (0.6-mi east/west segment and 0.5-mi north/south segment); and 2) portions of ruderal areas, degraded saltbrush scrub, and developed areas in which the roundabout will be constructed, staging areas established, and other roadway improvements carried out. The action area also includes land extending approximately 200-ft. from the edge of the footprint, which will experience further-reaching effects of construction activities such as noise and visual disturbance.

Analytical Framework for the Jeopardy Determination

In accordance with policy and regulation, the jeopardy analysis in this biological opinion relies on four components: (1) the *Status of the Species*, which evaluates the range-wide condition of the San Joaquin kit fox and the Tipton kangaroo rat, the factors responsible for that condition, and their survival and recovery needs; (2) the *Environmental Baseline*, which evaluates the condition of the San Joaquin kit fox and the Tipton kangaroo rat in the action area, the factors responsible for that condition, and the relationship of the action area to the survival and recovery of the San Joaquin kit fox and the Tipton kangaroo rat; (3) the *Effects of the Action*, which determines the direct and indirect effects of the proposed Federal action and the effects of any interrelated or interdependent activities on the San Joaquin kit fox and the Tipton kangaroo rat; and (4) *Cumulative Effects*, which evaluates

the effects of future, non-Federal activities in the action area on the San Joaquin kit fox and the Tipton kangaroo rat.

In accordance with policy and regulation, the jeopardy determination is made by evaluating the effects of the proposed Federal action in the context of the current status of the San Joaquin kit fox and the Tipton kangaroo rat, taking into account any cumulative effects, to determine if implementation of the proposed action is likely to cause an appreciable reduction in the likelihood of both the survival and recovery of the species in the wild.

The jeopardy analysis in this biological opinion places an emphasis on consideration of the range-wide survival and recovery needs of the San Joaquin kit fox and the Tipton kangaroo rat, and the role of the action area in the survival and recovery of the San Joaquin kit fox and the Tipton kangaroo rat as the context for evaluating the significance of the effects of the proposed Federal action, taken together with cumulative effects, for purposes of making the jeopardy determination.

Status of the Species

For the most recent comprehensive assessment of the range-wide status for the San Joaquin kit fox and the Tipton kangaroo rat, please refer to the San Joaquin Kit Fox 5-year Review[2] and the Tipton Kangaroo Rat 5-year Review[3], respectively. No change in either species' listing status was recommended in its 5-year review. Threats evaluated during those reviews and discussed in the final documents have continued to act on the species since the February 2010 5-year reviews were finalized, with loss of habitat being the most significant effect. While there have been continued losses of San Joaquin kit fox and Tipton kangaroo rat habitat throughout the various recovery units, including the Western Kern County San Joaquin kit fox core recovery unit in which the proposed project is located, to date no project has proposed a level of effects for which the Service has issued a biological opinion of jeopardy for either species.

Environmental Baseline

Within the action area, it is reasonably likely that the San Joaquin kit fox and the Tipton kangaroo rat have been affected by the introduction of transportation infrastructure like SR 119, SR 43, and Enos Lane; roadway and vehicle-related risks pose threats of injury and mortality to the species. It is also reasonably likely that the species have been affected by the conversion of once natural lands to agricultural use, and by the subsequent abandonment of these lands. The project footprint is composed of multiple habitat types: ruderal areas, saltbrush scrub, and developed areas. Of the footprint's total 7.5 ac, ruderal habitat comprises 3.29 ac (44 percent), saltbrush scrub comprises 0.47 ac (6 percent), and developed areas comprise 3.74 ac (50 percent). Part of a gas station and convenience store is located within the action area in the southwest quadrant of the intersection at SR 119, SR 43, and Enos Lane. Ruderal land, plus a small portion of a conservation property owned by the KWBA are located within the action area in the northwest quadrant of the intersection. Saltbrush scrub habitat, plus an informal parking lot/turn-out area measuring approximately 0.25 ac and composed of bare, compacted dirt are located within the action area in the northeast quadrant. And ruderal areas are located within the action area in the southeast quadrant. All land in the project area used to be cultivated, but the majority of the parcels in the four quadrants of the

[2] U.S. Fish and Wildlife Service. 2010. San Joaquin Kit Fox (*Vulpes macrotis mutica*) 5-Year Review: Summary and Evaluation. Sacramento Fish and Wildlife Office, Sacramento, California. 122 pp.
[3] U.S. Fish and Wildlife Service. 2010. Tipton Kangaroo Rat (*Dipodomys nitratoides nitratoides*) 5-Year Review: Summary and Evaluation. Sacramento Fish and Wildlife Office, Sacramento, California. 102 pp.

intersection were allowed to go fallow. The native saltbrush scrub is recovering in areas that are no longer actively worked (such as the KWBA property in the northwest quadrant), but in parcels where periodic disking or other activities still occur, the vegetation consists primarily of disturbance-favoring, invasive species like Russian thistle (*Salsola tragus*) and other weedy species.

San Joaquin kit fox

According to the CNDDB (2015)[1], there are no records of the San Joaquin kit fox within the action area. Eleven potential San Joaquin kit fox dens were identified both within the action area and in the immediate vicinity of the action area during the blunt-nosed leopard lizard surveys conducted in 2014; only one of these potential dens, located along SR 119 in the northwest quadrant of the site, was observed within the project footprint and is likely to be eliminated during construction. As well as providing denning potential, the project site offers foraging opportunities for the species. In addition to detecting Heermann's kangaroo rats and other small mammals during the on-site trapping efforts, Caltrans observed ground squirrels (*Otospermophilus beecheyi)* and their burrows.

Caltrans conducted spotlighting surveys for the San Joaquin kit fox on September 4, 2014; no individuals were observed within, or in proximity to, the action area despite there being suitable habitat present. That same night, Caltrans set up a motion-activated camera station to monitor a recently used potential den in the northeast quadrant of the intersection, located approximately 400-ft. from the action area. The camera station did not record any San Joaquin kit foxes. Prior to setting up the camera, Caltrans talked with a watermelon vendor who was stationed in the pullout in the northeast quadrant of the intersection; the vendor claimed to have seen San Joaquin kit fox pups outside his stall during late summer 2014 and believed they had come from vegetated habitat located east of the intersection; Caltrans was unable to confirm this report.

There is reasonable potential for the San Joaquin kit fox to occur in, or move through, the action area. This is based on the following reasons: 1) the project site is located within the range of the species (in particular, within the Western Kern County core population and recovery area for the species [Service, 2010][2]); 2) the presence of a potential den in the project footprint as well as multiple potential dens situated in close proximity to the action area; 3) suitable prey sources; and 4) the presence of suitable, though disturbed, habitat.

Tipton kangaroo rat

The CNDDB (2015)[1] identifies one record of the Tipton kangaroo rat within the action area, which dates from 1985.

Caltrans conducted non-protocol small mammal trapping for the Tipton kangaroo rat over the course of four nights (September 30-October 3, 2014). Although suitable (though disturbed) habitat is present within the footprint in the form of saltbrush scrub, and there is even higher-quality saltbrush scrub habitat outside the project footprint (mainly in the northeast quadrant, and on the KWBA property in the northwest quadrant), no Tipton kangaroo rats were observed or captured during this period; only non-listed Heermann's kangaroo rats (*Dipodomys heermanni*) were detected Since competitive interactions exist between Tipton and Heermann's kangaroo rats (Tennant and Germano, 2013)[4], and Heermann's kangaroo rats were discovered during the recent surveys, it is possible that the presence of *D. heermanni* on-site could be limiting the presence of *D. n. nitratoides*.

[4] Tennant, E.N. and D.J. Germano. 2013. Competitive interactions between Tipton and Heermann's kangaroo rats in the San Joaquin Valley, California. The Southwestern Naturalist 58(2): 258-264.

Even so, the species are still known to co-occur. Potential kangaroo rat burrows were observed at 12 sites during the 2014 blunt-nosed leopard lizard surveys, all of them located east of SR 43 and Enos Lane. However, no associated sign was detected.

There is reasonable potential for the Tipton kangaroo rat to occur in the action area based on the following reasons: 1) the project site is located within the current range of the species; 2) the presence of suitable habitat both within, and neighboring, the action area, 3) the existence of a historical record of the species within the action area; and 4) the presence of potential kangaroo rat burrows.

Effects of the Action

Habitat Impacts

The proposed project is expected to affect a total of 3.76 ac of habitat. Of this total, construction activities will permanently remove 0.41 ac and temporarily disturb 3.35 ac as a result of work associated with building the roundabout. Caltrans has defined permanently affected habitat as those areas that are converted to new hardscape/roadway; in so doing, all habitat availability is eliminated. Caltrans further has defined temporarily affected habitat as those areas that are re-contoured and re-vegetated following the completion of construction, and which within 3-5 years can once again become available habitat for the species. The permanently affected portion of the footprint is composed only of ruderal land (0.41 ac), while the temporarily affected area is composed of ruderal land (2.88 ac) and saltbrush scrub (0.47 ac). Caltrans has identified the existing saltbrush scrub areas and ruderal lands as suitable, though disturbed, habitat for the San Joaquin kit fox and the Tipton kangaroo rat (saltbrush scrub only). Although there is reasonable potential for the San Joaquin kit fox and the Tipton kangaroo rat to occur in the action area, the loss of, and disturbance to, this habitat is unlikely to result in adverse effects to the species since the amount of land to be permanently and temporarily impacted is minimal and of impaired quality. Therefore, it is unlikely that such effects will rise to the level of take of the species.

Construction Activities

Adverse effects to the San Joaquin kit fox from project-related equipment/vehicle strikes are likely to occur given the high likelihood of the species' presence in the action area, and that construction work will take place predominantly at night, which is a time when the species is most active. Also, since suitable (though degraded) denning habitat and potential San Joaquin kit fox dens exist within, and in proximity to, the action area, it is reasonable to conclude that the species does den in the project area. Any known or potential dens identified in the project footprint during preconstruction surveys that require excavation and/or collapse (following appropriate monitoring) will remove shelter and cover for the San Joaquin kit fox. However, because crews will receive environmental awareness training and a biologist(s) will be monitoring the site for the species, the risk of crushing or entombing the San Joaquin kit fox in dens during excavation/collapsing activities, as well as during ground-breaking and construction is not reasonably likely to occur.

With the implementation of Caltrans' proposed avoidance and minimization measures like exclusion fencing, trapping surveys, relocation efforts, and monitoring during ground-breaking, adverse effects to the Tipton kangaroo rat in the forms of injury and death resulting from project-related equipment/vehicle strikes, and from being crushed or entombed in burrows during construction work are unlikely to occur.

Trapping and Relocation

Despite their utility in conservation, trapping and relocation activities are likely to risk harassing, harming, or even injuring and killing Tipton kangaroo rats found in the project area. There is a risk of individuals being injured by the trap or mishandled by the surveyors, or dying from exposure, lack of food and water, or human error. In the event an individual requires removal from its existing habitat in order to avoid the effects from construction, the Tipton kangaroo rat is likely to experience distress as a result of the relocation process.

Road Mortality

Injury and mortality are likely to occur to the San Joaquin kit fox when individuals attempt to cross roads. Each highway and roadway associated with this project is already an existing hazard for this widely ranging and dispersing species, and each highway/roadway will continue to be a hazard for the San Joaquin kit fox.

Temporary K-rail Barriers

The temporary k-rail barriers that Caltrans plans to install on the project site as a means of traffic control and safety are likely to prevent the San Joaquin kit fox from making successful road crossings. Since the San Joaquin kit fox is highly likely to occur in and/or use the action area, those individuals traversing the action area therefore are at high risk of encountering a k-rail barrier and becoming trapped between it and the roadway. Consequently, they are likely to end up being injured or killed by vehicles. Caltrans will reduce this risk by modifying the k-rail design to include one, or a combination, of two types of passageways spaced at 140-ft. intervals, thereby continuing to provide a degree of roadway permeability and a means for the San Joaquin kit fox potentially to move through the barrier.

Cumulative Effects

Cumulative effects include the effects of future State, Tribal, local, or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act. During this consultation, the Service did not identify any future non-federal actions that are reasonably certain to occur in the action area of the proposed project.

Conclusion

After reviewing the current status of the San Joaquin kit fox and Tipton kangaroo rat, the environmental baseline for the action area, the effects of the proposed SR 119/43/Enos Lane Intersection Safety Improvement Project, and the cumulative effects, it is the Service's biological opinion that the SR 119/43/Enos Lane Intersection Safety Improvement Project, as proposed, is not likely to jeopardize the continued existence of the San Joaquin kit fox or the Tipton kangaroo rat. The Service reached this conclusion because the project-related effects to the species, when added to the environmental baseline and analyzed in consideration of all potential cumulative effects, will not rise to the level of precluding recovery or reducing the likelihood of survival of the species. This conclusion is based on the following factors: (1) the results of recent species surveys; (2) the impaired quality of suitable habitat within the project footprint; and (3) the conservation measures proposed to minimize potential effects to the species.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harass is defined by Service regulations at 50 CFR 17.3 as an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering. Harm is defined by the same regulations as an act which actually kills or injures wildlife. Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavior patterns, including breeding, feeding, or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this Incidental Take Statement.

The measures described below are non-discretionary, and must be undertaken by Caltrans so that they become binding conditions of any contract developed with the contractor, as appropriate, for the exemption in section 7(o)(2) to apply. Caltrans has a continuing duty to regulate the activity covered by this incidental take statement. If Caltrans (1) fails to assume and implement the terms and conditions or (2) fails to require its contractor to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the contract, the protective coverage of section 7(o)(2) may lapse. In order to monitor the impact of incidental take, Caltrans must report the progress of the action and its impact on the species to the Service as specified in the incidental take statement [50 CFR §402.14(i)(3)].

Amount or Extent of Take

San Joaquin kit fox

The Service anticipates that incidental take of the San Joaquin kit fox will be difficult to detect or quantify because the number of individuals in the action area is unknown and estimates of population density in the action area are unavailable. There is a risk of harm, harassment, injury, and mortality as a result of the proposed construction activities. Therefore, the Service anticipates take incidental to the proposed action as the harm, harassment, injury, and mortality of all San Joaquin kit foxes within 3.76 ac of suitable habitat. The Service anticipates that no more than one individual will be killed or injured as a result of project related activities and will be detected by biological monitors. Upon implementation of the following reasonable and prudent measures, incidental take of the San Joaquin kit fox associated with the proposed project will become exempt from the prohibitions described in section 9 of the Act.

Tipton kangaroo rat

The Service anticipates that incidental take of the Tipton kangaroo rat will be difficult to detect or quantify because the number of individuals in the action area is unknown and estimates of population density in the action area are unavailable. There is a risk of harm, harassment, injury, and mortality as a result of the proposed construction activities, in addition to trapping and removal/relocation efforts. Therefore, the Service anticipates take incidental to the proposed action as the capture, removal, harm, harassment, injury, and mortality of all Tipton kangaroo rats within

0.47 ac of suitable habitat. Upon implementation of the following reasonable and prudent measures, incidental take of the Tipton kangaroo rat associated with the proposed project will become exempt from the prohibitions described in section 9 of the Act.

Effect of the Take

In the accompanying biological opinion, the Service determined that this level of anticipated take is not likely to result in jeopardy to either species.

Reasonable and Prudent Measures

As part of the project's proposed conservation measures, Caltrans has included measures to avoid or minimize effects on the San Joaquin kit fox and the Tipton kangaroo rat resulting from implementation of this project. Therefore, the Service believes the following reasonable and prudent measure is necessary and appropriate to minimize incidental take of the San Joaquin kit fox and the Tipton kangaroo rat:

1. All conservation measures, as described in the biological assessment and restated here in the *Description of the Action* section of this biological opinion, shall be fully implemented and adhered to. Further, this reasonable and prudent measure shall be supplemented by the terms and conditions below.

Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the Act, Caltrans must ensure compliance with the following term and condition, which implements the reasonable and prudent measure described above. This term and condition is nondiscretionary.

1. Caltrans shall include full implementation and adherence to the conservation measures as a condition of any contract issued for the project.

Monitoring:

In order to monitor whether the amount or extent of incidental take anticipated from implementation of the project is approached or exceeded, Caltrans shall adhere to the following reporting requirements. Should this anticipated amount or extent of incidental take be exceeded, Caltrans must immediately reinitiate formal consultation as per 50 CFR 402.16.

a. For those components of the action that may result in direct encounters between listed species and project workers and their equipment whereby incidental take in the form of harassment, harm, injury, or death is anticipated, Caltrans shall immediately contact the Service's Sacramento Fish and Wildlife Office (SFWO) at (916) 414-6544 to report the encounter. If the encounter occurs after normal working hours, Caltrans shall contact the SFWO at the earliest possible opportunity the next working day.

b. For those components of the action that will require the capture and relocation of any listed species, Caltrans shall immediately contact the SFWO to report the action. If capture and relocation need to occur after normal working hours, Caltrans shall contact the SFWO at the earliest possible opportunity the next working day.

c. For those components of the action that will result in habitat loss or disturbance, Caltrans shall provide monthly updates to the Service with an accounting of the total acreage of habitat affected. This shall continue until there is no new ground disturbance. Updates also shall include any information about changes in project implementation that result in habitat disturbance not described in the *Description of the Action* and not analyzed in this biological opinion.

d. In the event that fill material needs to be imported to the project area, Caltrans shall verify that the contractor fulfills its responsibility for the appropriate selection and environmental compliance of a selected borrow site.

e. A post-construction report detailing compliance with the project design criteria and proposed conservation measures described under the *Description of the Action* section of this biological opinion shall be provided to the Service within 90 calendar days of completion of the project. The report shall include: (1) dates of project groundbreaking and completion; (2) pertinent information concerning the success of the project in meeting the conservation measures; (3) an explanation of failure to meet such measures, if any; (4) known project effects on the San Joaquin kit fox and the Tipton kangaroo rat, if any; (5) observed incidents of harassment to the San Joaquin kit fox or the Tipton kangaroo rat, if any; (6) the number of dens and burrows lost, if any; and, (7) any other pertinent information.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information. The Service recommends the following action:

1. Caltrans should report new sightings of the San Joaquin kit fox or its dens, and the Tipton kangaroo rat to the CNDDB. A copy of the reporting form and a topographic map clearly marked with the location in which the animals were observed also should be provided to the Service.

In order for the Service to be kept informed of actions minimizing or avoiding adverse effects or benefiting species or their habitats, the Service requests notification of the implementation of any conservation recommendations.

REINITIATION—CLOSING STATEMENT

This concludes formal consultation on the SR 119/43/Enos Lane Intersection Safety Improvement Project. As provided in 50 CFR §402.16, reinitiation of formal consultation is required and shall be requested by the Federal agency or by the Service where discretionary Federal agency involvement or control over the action has been retained or is authorized by law and:

(a) If the amount or extent of taking specified in the incidental take statement is exceeded;

(b) If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered;

(c) If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion; or

(d) If a new species is listed or critical habitat designated that may be affected by the identified action.

If you have any questions regarding this biological opinion, please contact Jen Schofield (jen_schofield@fws.gov), or Thomas Leeman (thomas_leeman@fws.gov) at the letterhead address, by e-mail, or at (916) 414-6544.

Sincerely,

Jennifer M. Norris
Field Supervisor

cc:
Craig Bailey, California Department of Fish and Wildlife, Fresno, California