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In Reply Refer to:
08ESMF00-2016-F-0998-R004-1

May 7, 2021

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Subject: Fourth Reinitiation of Formal Consultation for the Bakersfield State Route 99 Rehabilitation Project (including the Bakersfield Highway Lighting Project and the Bakersfield 99 Rehab Replacement Planting Project), Kern County, California (California Department of Transportation 06-KER-99-PM 23.6/28.4, EA 06-0Q280; 06-KER-99-PM 23.6/23.7, EA 06-0S450; and 06-KER-99-PM 23.6/28.4, EA 06-0Q281)

Dear Dena Gonzalez:

This is the U.S. Fish and Wildlife Service's (Service) response to the California Department of Transportation's (Caltrans) April 8, 2021 request to reinitiate formal consultation again for the combined Bakersfield State Route (SR) 99 Rehabilitation Project (rehab project) and the Bakersfield Highway Lighting Project (lighting project) in Kern County, California. At issue are the proposed projects' effects on the federally-endangered San Joaquin kit fox (*Vulpes macrotis mutica*). 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).

Caltrans has assumed the Federal Highway Administration's responsibilities for section 7 consultation per the Act, in accordance with 23 U.S.C. 327, and as described in the *Memorandum of Understanding between the Federal Highway Administration and Caltrans concerning the State of California's participation in the Surface Transportation Project Delivery Program pursuant to 23 U.S.C. 327* (Memo) (renewed on December 23, 2016 for a term of five years, and finalized effectively on March 30, 2017). The Memo allows Caltrans to assume the Federal Highway Administration's environmental responsibilities for highway projects in California under the National Environmental Policy Act and other federal laws.

The federal action on which we are consulting is Caltrans' proposed rehabilitation of a segment of SR 99 between the Brundage Lane Overcrossing and the Beardsley Canal Bridge in the City of Bakersfield in Kern County. Pursuant to 50 CFR 402.12(j), you submitted a biological assessment for our review and 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-endangered San Joaquin wooly-threads (*Monolopia congdonii*), and may affect, and is likely to adversely affect the San Joaquin kit fox.

Background on Reinitiating Consultation

On June 28, 2016, the Service issued to Caltrans a biological opinion for the project (Service file number 08ESMF00-2016-F-0998), addressing effects to the San Joaquin kit fox. In the introduction to the biological opinion, the Service also concurred with Caltrans' determination that construction of the project may affect, but is not likely to adversely affect the San Joaquin wooly-threads. On January 26, 2018, the Service issued to Caltrans a reinitiated biological opinion (Service file number 08ESMF00-2016-F-0998-R001), which addressed modifications to the project design including interchange improvements, fiber optic cable installation, new drainage basin construction, environmentally sensitive area fencing placement, and revisions to night work and project scheduling/staging. These proposed modifications to the project design ultimately resulted in a small increase in the overall amount of habitat affected by construction activities and in the amount of take.

On July 17, 2018, the Service issued to Caltrans a second reinitiated biological opinion (Service file number 08ESMF00-2016-F-0998-R002), which addressed the incorporation of construction activities associated with the lighting project into the larger-scale rehab project. These activities included the installation of an additional seven luminaires (street lights) as well as several electrical service connections/stations. This work originally was proposed under, but subsequently removed from, the rehab project, and occurs within the same postmile limits as the rehab project. The integration of these two separate projects resulted in changes to the project description, the action area, and the amount of temporarily impacted habitat. On May 4, 2020, the Service issued to Caltrans a third reinitiated biological opinion (Service file number 08ESMF00-2016-F-0998-R003-1), which addressed an increase in the amount of night work required to complete construction and changes to the project schedules and project design, notably the removal of all activities associated with the construction of the proposed drainage basins (from the scope of work for the rehab project). This resulted in a decrease in the amount of habitat impacted by the combined projects, the removal of Caltrans' proposed compensatory mitigation from the conservation measures, and a decrease in the amount of take.

We received your recent letter, dated April 8, 2021, via email on April 9, 2021. In this letter, Caltrans requested to reinitiate consultation to address a significant increase in the amount of night work required to complete the rehab project, and the addition of the Bakersfield 99 Rehab Replacement Planting Project (landscaping project) to the scope of work.

In considering your request, we based our evaluation on the following: (1) Caltrans' March 2, 2016 consultation request letter and its supporting *Bakersfield 99 Rehab Project Biological Assessment* (Biological Assessment), dated March 2016; (2) Caltrans' October 11, 2017; May 14, 2018; November 15, 2019; and April 8, 2021 reinitiation request letters; (3) email and telephone correspondence between the Service and Caltrans; and (4) other information available to the Service.

Caltrans has concluded that its proposed modifications to the projects do not change its existing 'may affect, but is not likely to adversely affect' determination for the San Joaquin wooly-threads. The remainder of this document provides our concurrence with Caltrans' determination for the San Joaquin wooly-threads, an updated consultation history, and our amended biological

opinion on the effects of the proposed project on the San Joaquin kit fox. This document supersedes our previously issued May 4, 2020 reinitiated biological opinion. Changes in text from the May 4, 2020 reinitiated biological opinion are shown by a strikethrough line for removed text and an underline for new text in order to aid in their identification. All of the other changes made in the May 4, 2020 reinitiated biological opinion already have been assimilated into the text that follows and therefore are not shown by strikethrough lines or underlines.

'Not Likely to Adversely Affect' Discussion for the San Joaquin wooly-threads

Caltrans has determined that the proposed projects are not likely to adversely affect the San Joaquin wooly-threads. It has concluded that the likelihood that the species will occur within the action area is low for several reason: (1) no suitable non-native grassland or valley saltbush scrub habitat for the species was identified during Caltrans' evaluation of the action area for suitable habitat; (2) none of the plant species that typically occur with the San Joaquin wooly-threads are present; and (3) there is a high level of existing disturbance to lands contained within the action area, including to habitat along SR 99 (which is affected by maintenance practices). Marginally suitable habitat for the species does exist along the Kern River channel but since no work is proposed to take place in the channel, there are unlikely to be any adverse effects to this habitat.

According to the California Natural Diversity Database (CNDDB, 2016, 2021), there are no recorded occurrences of the species within the action area. The closest record is located approximately 3.5 miles northwest of the northern end of the action area; the record of the sighting itself is undated, but the site was last described in 1988. In April 2010, protocol-level botanical surveys were conducted along a segment of the Kern River for the 24th Street Improvement Project (EA 06-49390/06-48470), part of the Thomas Roads Improvement Program (TRIP) in the City of Bakersfield. Caltrans has noted that the area along the Kern River covered in the 2010 survey overlaps with the part of the action area for the current rehab project (segment of SR 99) that crosses the river. No San Joaquin wooly-threads were identified during these earlier efforts. On October 14, 2014 and March 4, 2015, Caltrans conducted reconnaissance-level botanical surveys of the current project site; no San Joaquin wooly-threads were observed at this time either.

Caltrans proposes to implement the following conservation measure for the San Joaquin wooly-threads:

- Caltrans will conduct protocol-level preconstruction botanical surveys in all areas of the project that may be suitable for the species. Surveys will occur during the appropriate blooming period for the species in the season prior to project groundbreaking, and in accordance with the most recent protocols/guidelines accepted by the Service.

The Service concurs that the action is not likely to adversely affect the San Joaquin wooly-threads because there is a low likelihood that the species exists within the action area and because any suitable habitat will be re-surveyed prior to construction to verify species presence; consequently, the potential for the action to affect the San Joaquin wooly-threads is discountable.

Consultation History

March 3, 2016:	The Service received hard copies of Caltrans' Biological Assessment and its March 2, 2016 letter requesting initiation of formal consultation.

April 21, 2016:	The Service emailed Caltrans to request additional information concerning the Biological Assessment.
April 22 - May 2, 2016:	Caltrans responded to the Service's questions and comments regarding the Biological Assessment.
May 11, 2016:	Caltrans and the Service exchanged emails regarding the status of the consultation and whether the additional information provided by Caltrans was sufficient.
May 25 - June 16, 2016:	The Service and Caltrans exchanged emails and telephone calls regarding follow-up questions and comments about the project.
June 28, 2016:	The Service issued to Caltrans a biological opinion for the project.
October 12, 2017:	The Service received a letter from Caltrans, dated October 11, 2017, requesting to reinitiate consultation in order to address modifications made to the project design resulting in changes in the amount of affected habitat.
November 27, 2017:	The Service emailed Caltrans to ask for additional information regarding its request to reinitiate consultation.
November 30, 2017:	Caltrans telephoned the Service to discuss several of the questions that the Service had posed several days earlier.
December 21, 2017:	Caltrans responded via email to the Service's request for additional information.
January 4 & 17, 2018:	The Service and Caltrans exchanged emails regarding follow-up questions about Caltrans' proposed changes to the project description.
January 26, 2018:	The Service issued to Caltrans a reinitiated biological opinion for the project.
May 4 & 9-10, 2018:	Caltrans emailed the Service to discuss the Bakersfield Highway Lighting Project and how to move forward with consultation on this project in relation to the existing rehabilitation project. The Service and Caltrans exchanged further emails regarding the potential for integrating the lighting project with the rehabilitation project.
May 17, 2018:	The Service received a letter from Caltrans, dated May 14, 2018, requesting to reinitiate consultation in order to address the incorporation of work associated with the lighting project into the rehabilitation project.
June 18-20, 2018:	The Service emailed Caltrans to request additional information regarding Caltrans' request to reinitiate consultation. Caltrans provided responses.

July 17, 2018:	The Service issued to Caltrans a second reinitiated biological opinion for the project.
November 21, 2019:	The Service received a letter from Caltrans requesting to reinitiate consultation due to an increase in the amount of night work required to finish construction.
January 30, 2020:	The Service emailed Caltrans to ask several questions about its reinitiation request letter.
February 26, 2020:	Caltrans emailed the Service to respond to its January 30 questions and to inquire whether it could transfer the conservation credits it had purchased for the San Joaquin kit fox to another project given that the effects from the rehab project for which Caltrans had purchased the credits no longer existed due to the removal of drainage construction from the project design.
March 2-4, 2020:	The Service discussed Caltrans' query regarding its purchased conservation credits and how best to approach the situation.
March 3, 2020:	The Service emailed Caltrans to follow-up with additional questions and comments regarding Caltrans' February 26 responses.
March 4, 5, & 11, 2020:	The Service emailed Caltrans to offer guidance regarding Caltrans' inquiry about transferring its purchased conservation credits to a different project. In order to properly track the credits, the Service suggested that the appropriate course of action would be for Caltrans to sell the credits back to the conservation bank from which it had purchased them. This ultimately would allow all parties to close out the compensatory mitigation component tied to this specific project.
March 19, 2020:	Caltrans emailed the Service to respond to its March 3 follow-up questions.
March 30 & April 6, 2020:	The Service emailed Caltrans to ask for final clarification regarding its revised assessment of impacts to habitat. Caltrans responded.
March 30-31, April 1, 2020:	Following a development with the conservation bank from which Caltrans had purchased its conservation credits, the Service continued to hold internal discussions on how best to approach the situation, now that Caltrans' credit purchase was no longer necessary for the rehab project.
April 2, 2020:	The Service emailed both Caltrans and the conservation bank from which Caltrans had purchased its credits to inform them that the Service had revised its earlier recommended approach: rather than have Caltrans sell back its credits to the bank, Caltrans and the

	bank could work together to transfer the credits to another appropriate project.
May 4, 2020:	The Service issued to Caltrans a third reinitiated biological opinion for the project.
April 9, 2021:	The Service received a letter from Caltrans via email, dated April 8, 2020, requesting to reinitiate consultation again, this time to address a significant increase in the amount of night work for the rehab project and the addition of a new landscaping project to the scope of work.
April 15 & 19, 2021:	The Service requested additional information concerning the reinitiation request and the proposed landscaping work. Caltrans responded to the Service's questions.
April 23 & 26, 2021:	The Service emailed Caltrans with an additional question about how much land would be replanted/landscaped. Caltrans replied.

BIOLOGICAL OPINION

Description of the Proposed Action

Caltrans proposes to improve a 4.8-mile segment of SR 99 within the City of Bakersfield from the Brundage Lane Overcrossing to the Beardsley Canal Bridge (postmiles 23.6 to 28.4). The condition of the pavement has severely deteriorated over time because of the frequent removal and replacement of the road slabs stemming from storm damage and heavy truck traffic; consequently, this has resulted in increased maintenance costs and the inability to maintain this section of freeway in good condition for the travelling public.

The rehab project will involve:

- Rehabilitating the #3 and #4 lanes with Continuously Reinforced Concrete Pavement (CRCP) in both northbound and southbound directions;
- Replacing failed panels in the #1 and #2 lanes with Portland Cement Concrete (PCC) in both northbound and southbound directions;
- Widening and reconstructing the existing 8-foot (ft.) outside shoulder to 10 ft. in both northbound and southbound directions;
- Constructing a 1,300 ft. long auxiliary lane south of the northbound SR 99 off-ramp at 24th Street (which will consist of a 12 ft. wide lane, a 10 ft. wide shoulder, and an 11 ft. high retaining wall at the edge of the shoulder);
- Adding one additional left-turn lane (12 ft. wide with a 4 ft. wide left shoulder) to the northbound SR 99 off-ramp at 24th Street;
- Adjusting/lowering the vertical profiles at the Airport Drive Overcrossing, SR 99/SR 204 Connector Overcrossing, Minkler Underpass, and Olive Drive Overcrossing in order to achieve the minimum 16 ft. standard vertical clearance;
- Installing 31 luminaires (street lights) at various locations to improve roadway visibility; trenching will be required for the electrical work (luminaire posts will be approximately 5 ft. deep and the foundations will be established 2-3 ft. from the edge of shoulder; conduit trench dimensions will measure 3 ft. deep and 1 ft. wide); and

- Removing an existing drainage system and establishing a new line to flow into an existing drainage basin instead of into the Kern River.

Construction also will involve adjusting the slopes, compacting soil, and removing vegetation (approximately 260 trees and shrubs) in order to accommodate the widened shoulders. A temporary single-lane traffic transition between the Palm Avenue Overcrossing and the Brundage Lane Overcrossing will be directed through the median. The existing concrete median barrier at this location will be removed and a temporary lane will be built in order to keep open three traffic lanes during construction. Following construction, this area will be returned to its original state.

Additional Project Features

Work involving construction of the auxiliary lane and left-turn lane, as mentioned in the bulleted section above, was originally addressed in Caltrans' April 2011 Biological Assessment for a separate project called the 24th Street Improvement Project, part of the TRIP (EA 06-49390), and was covered under the September 21, 2012 biological opinion for that project (Service file number 08ESMF00-2012-F-0290-1). Caltrans proposes to improve the interchange at SR 99/SR 58/24th Street (SR 178) (identified as Segment 1 in the biological opinion for the 24th Street Improvement Project), and to incorporate this work as part of the current rehab project. Construction features associated with Segment 1 include:

- Expanding the westbound Rosedale Highway (SR 58) loop on-ramp to southbound SR 99 from one lane to two lanes within the existing pavement footprint.

- Expanding the westbound 24th Street (SR 178) approach to Buck Owens Boulevard from three through-lanes and one right-turn lane, to three through-lanes and two lanes that align with the southbound SR 99 loop on-ramp (one on-ramp lane and one shared through/right-turn lane). This section of highway between the Kern River Bridge and Buck Owens Boulevard will include a 12 ft. wide travel lane, a bicycle lane, a 5 ft. wide shoulder, a 5 ft. wide sidewalk, a 10-12 ft. high visible retaining wall (necessary because of right-of-way constraints), and a 3 ft. high concrete median barrier. The three westbound through-lanes that pass Buck Owens Boulevard and continue under the SR 99 overpass structure will be separated from the on-ramp lanes by a raised median. The bicycle lane will start at the beginning of the right-turn pocket, approximately 200 ft. west of the Kern River Bridge, and extend to Buck Owens Boulevard. The bicycle lane then will align with the 8 ft. wide right shoulder of the westbound through-lanes along 24th Street (SR 178) under the SR 99 overpass structure. The three westbound through-lanes will continue westwards on 24th Street (SR 178). Caltrans proposes to construct a retaining wall under the SR 99 overpass structure to support the north abutment slope. The lanes here will be 12 ft. wide, with an 8 ft. wide shoulder, an 8 ft. wide sidewalk, and a 4-8 ft. high visible retaining wall.

- Expanding the southbound Buck Owens Boulevard approach to 24th Street (SR 178) from two left-turn lanes and one right-turn lane, to two left-turn lanes and two right-turn lanes. All lanes at the approach will be 12 ft. wide.

Caltrans also proposes to install fiber optic cable between postmiles 24.1- 27.9. The trenches for the cable will measure approximately 37 inches deep; cabinets and vaults at spot locations will

measure a maximum of 52 inches deep. The fiber optic conduits will be installed along the sides of the Kern River Bridge and Calloway Canal Bridge from the top of the bridges in order to avoid work in the channels. Additional trees likely will be removed as a result of this work.

Project Staging

The first order of work will involve replacing panels in the #1 and #2 lanes and grading the road profile on northbound and southbound SR 99 from postmiles 23.6 to 28.4. The project will be constructed in four stages:

- Stage 1: from postmiles 23.6 – 27.9: Brundage Lane to Olive Avenue.
    - Shift traffic through two median barrier openings before and after pavement construction work (each opening is approximately 400 ft. long) at postmile 23.6 and postmile 27.9. To accommodate three operational lanes of traffic in each direction during construction, an additional single lane from the opposing direction (southbound) will be utilized;
    - Reconstruct the inside shoulders of northbound and southbound SR 99 between the Palm Avenue Overcrossing (postmile 24.1) and the SR 99/SR 204 Connector Overcrossing (postmile 27.0);
    - Reconstruct the #3 and #4 lanes on northbound SR 99 from the Palm Avenue Overcrossing at postmile 24. 1 to the Olive Drive Overcrossing at postmile 27.9; widen the outside shoulder; reconstruct the ramps to the gore areas; and reconstruct and widen the bridge approach slabs;
    - Construct the auxiliary lane on northbound SR 99;
    - Construct the additional left-turn lane;
    - Lower the #1, #2, #3, and #4 lanes and reconstruct them with CRCP in order to correct the vertical clearance on northbound SR 99 at the SR 99/SR 204 Connector Overcrossing and Minkler Underpass;
    - Remove and reconstruct the concrete median barrier in order to accommodate the vertical clearance correction at the SR 99/SR 204 Connector Overcrossing and Minkler Underpass;
    - Install fiber optic system; and
    - Install lighting system (luminaires).

- Stage 2: from postmiles 23.6 – 27.9: Brundage Lane to Olive Avenue.
    - Shift traffic through the two median barrier openings constructed in Stage 1. To accommodate three operational lanes of traffic in each direction during construction, an additional single lane from the opposing direction (northbound) will be utilized;
    - Reconstruct the #3 and #4 lanes on southbound SR 99 from the Palm Avenue Overcrossing to the Olive Drive Overcrossing; widen the outside shoulder; reconstruct the ramps to gore areas; and widen and reconstruct the bridge approach slabs;
    - Lower the #1, #2, #3, and #4 lanes and reconstruct them with CRCP in order to correct the vertical clearance on southbound SR 99 at the Minkler Underpass; standard vertical clearance already exists at the SR 99/SR 204 Connector Overcrossing, so no correction work is necessary here; and

  - Remove and reconstruct the concrete median barrier in order to accommodate the vertical clearance correction at the Minkler Underpass.

- Stage 3: from postmiles 27.9 to 28.4

  - Reconstruct the #3 and #4 lanes on both northbound and southbound SR 99 from the Olive Drive Overcrossing to the Beardsley Canal; widen the outside shoulders; and reconstruct the ramps to the gore areas; and
  - Widen and reconstruct the approach slabs to the Beardsley Canal Bridge on the south side only.
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- Stage 4: to be completed concurrently with Stage 1.

  - Construct the additional lane, shoulder, bike lane, sidewalk, retaining wall, and concrete median barrier for the westbound 24th Street (SR 178) approach to Buck Owens Boulevard, and for the westbound loop on-ramp from Rosedale Highway (SR 58) to southbound SR 99; reconstruct with hot mix asphalt and cold plane;
  - Construct the additional lane at Buck Owens Boulevard and cover with hot mix asphalt; and
  - Cold plane the existing pavement at Buck Owens Boulevard and Riverside Street and cover with hot mix asphalt.

Staging Areas

Designated staging areas for equipment storage, vehicle parking, and other project-related activities may be pre-approved by a Caltrans biologist if the area is located within Caltrans' right-of-way. However, no specific staging areas currently have been identified on-site; this may change depending on Caltrans' decisions during the final phases of project design, and after the construction contractor is hired. For the purpose of this project, all staging areas will occur within the project footprint, as described 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.

K-rail

Standard temporary k-rail barriers will be installed on-site to prevent traffic from entering the work zones and to protect personnel in these areas. Caltrans expects the project to be divided into multiple stages of construction containing four or five activity phases each, so k-rail placement will depend on what stage of construction is underway (along freeway segments measuring between 0.6 mile and 2.6 miles), and on how the traffic lanes are shifted during these stages.

Dust Control, Borrow/Fill, and Utilities

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. Caltrans does not anticipate any relocation of existing utilities for the project.

Scheduling

Construction for the rehab project began on January 28, 2019, and is anticipated to be completed by ~~June~~ December 2021. Due to the heavy volume of daytime traffic throughout the project area, approximately ~~370~~ 550 nights of work are proposed in order to minimize construction-related traffic delays and to improve safety for the traveling public and construction personnel. Work activities that are expected to take place at night include widening the shoulders and reconstructing the #3 and #4 lanes, installing traffic count sensors, removing traffic markings, grinding and removing asphalt, placing asphalt, as well as other construction along 24th Street (SR 178) and Rosedale Highway (SR 58).

Bakersfield Highway Lighting Project

Construction work associated with this project includes the installation of seven additional luminaires on pile foundations between postmiles 23.7-24.1 (for a total of 38 luminaires across both projects). This work will involve trenching and directional drilling between Palm Street and Brundage Lane. Trenching will take place along the edge of the existing paved shoulder on the west side of Oak Street, and along the west side of the southbound SR 99 off-ramp to Brundage Lane (between postmiles 23.7-23.9), as well as along the western edge of SR 99 at the base of the sloped embankment (between postmiles 23.9-24.1). All of the existing vegetated and landscaped areas will be maintained, as will the existing irrigation systems in these landscaped areas. The trenched areas will be backfilled and covered with wood mulch.

Work activities also include modifications to existing electrical service connections at two locations. The first connection is situated on the southbound SR 99 off-ramp to Brundage Lane (near Verde Street/Oakdale Drive). Here, Caltrans proposes to install an underground conduit from a Pacific Gas & Electric (PG&E) pole at Oakdale Drive to a PG&E-approved pull-box within Caltrans' right-of-way, as well as an overhead line from a PG&E pole at Verde Street to a pole at Oakdale Drive; this connection will provide service to existing irrigation controllers, booster pumps, sign lighting, and luminaires. The PG&E poles are situated within the City of Bakersfield's right-of-way. The second connection is located on the southbound SR 99 on-ramp from eastbound SR 58. Here, a temporary construction easement will be required to install an underground conduit from a PG&E pole on private property to a PG&E-approved pull box within Caltrans' right-of-way. This will provide service to existing irrigation controllers, a booster pump and fan, a traffic signal, luminaires, sign lightings, and various transportation management system elements around the SR 58/SR 178 area.

Construction for the lighting project began on November 19, 2018, and finished on April 30, 2019. These construction activities required both daytime work as well as 15 nights of work to complete. Ultimately, between both the lighting project and the rehab project, there will be a total of approximately ~~385~~ 565 nights necessary to complete all work. Construction on the lighting project occurred independently from the larger-scale rehab project, i.e., under a separate construction contract.

Bakersfield 99 Rehab Replacement Planting Project

Caltrans proposes to conduct landscaping and irrigation activities within the same geographic limits as the rehab project, i.e., from the Brundage Lane Overcrossing to the Beardsley Canal Bridge (postmiles 23.6-28.4), within Caltrans' right-of-way. This work is a separate effort intended to redress areas affected by the rehab project. Caltrans will establish new highway

plantings along SR 99. The new plantings will minimize visual quality impacts resulting from the rehab project, and provide screening, permanent erosion control, and soil stabilization. The new plantings also will be compatible with the existing landscaping adjacent to this segment of SR 99 so as to provide continuity across the larger landscape. Caltrans will install a new irrigation system, which will be compatible with the existing Remote Irrigation Control System. The landscape project is expected to begin at the end of 2022 (once the rehab project has been completed) and will finish by September 2027. Work will require a total of 412 days, with 20 of those days also involving night work; nighttime activities will include trenching, installing irrigation pipes and sprinklers, pouring concrete pads for the irrigation facilities, constructing wrought iron fences, delivering and installing vegetation, and delivering and spreading wood mulch. In addition, there will be around 750 plant establishment days.

Conservation Measures

Caltrans and its contractor will implement the following measures to reduce the potential for adverse effects to the San Joaquin kit fox. 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, the San Joaquin kit fox.

1. Preconstruction surveys will be conducted 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 200 ft. out from the edge of the footprint.

    a. Prior to the start of ground disturbance and/or construction, Caltrans will submit to the Service a letter report and map showing the results of the surveys and the location of any potential and/or known dens.

2. 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.

3. A qualified biologist(s) will be present on-site during initial ground-disturbing activities occurring within 500 ft. of any potential or known dens. The biologist(s) also will be available on-call when not present on-site.

4. All San Joaquin kit fox dens identified during preconstruction surveys and/or construction that will not be affected directly by the project and can be avoided (i.e., no excavation or collapse required) will be protected by an exclusion zone:

    a. Potential and atypical dens that are located at least 50 ft. from construction will be protected by a 50 ft. zone. Known dens that are located at least 100 ft. from construction will be protected by a 100 ft. zone. The exclusion zones will be marked by fencing/flagging that does not prevent access to the den by the San Joaquin kit fox. In instances where 50 ft. or 100 ft. exclusion zones cannot be maintained, potential, atypical, and/or known dens will be monitored using tracking medium and/or a remote sensor camera; 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, for no more than one season. Den closures will take place outside of the breeding/pupping season, which extends approximately from January 1 to June 30.

b. A qualified biologist(s) will check all closed den sites every two weeks to ensure that the exclusion devices remain intact for the duration of the project. If animal activity is observed, the biologist(s) will monitor the site for a minimum of three consecutive nights, verify the den is unoccupied, and apply a new temporary exclusion device. Exclusion devices will be removed once approval is received from the Service.

5. All San Joaquin kit fox dens identified during preconstruction surveys and/or construction that will be affected directly by the project and cannot be avoided will be monitored for a minimum of three consecutive nights using tracking medium and/or a remote sensor camera, and depending on the results, will be excavated and/or collapsed:

    a. Potential dens: The entrances of dens at which there is no detection of the San Joaquin kit fox or other animal activity will be collapsed and then re-checked just prior to groundbreaking to ensure they remain collapsed and do not show evidence of animal entry or use.

    b. Known dens: Any den which is identified as having been active in the past but is inactive at present will be hand excavated and collapsed. Currently active dens will not be excavated during the breeding/pupping season, which extends approximately from January 1 to June 30. Outside of the breeding/natal season, the San Joaquin kit fox will be allowed to leave active dens without disturbance. Only when these dens are confirmed to be unoccupied, following approval by the Service, will the qualified biologist(s) oversee their hand excavation and collapse.

6. If a natal/pupping den is discovered either within the project footprint or 200 ft. out from the edge of the footprint, Caltrans will notify the Service immediately.

7. Prior to the start of ground disturbance and/or construction activities, Caltrans will submit to the Service a letter report (per measure #1.a. above; all information will be combined together in one letter) describing any measures taken to set up exclusion zones, block dens, and/or excavate dens.

8. Environmentally Sensitive Area fencing that is permeable to the San Joaquin kit fox will be installed 20 ft. away from any den opening, as well as 10 ft. beyond the edge of pavement east of the northbound SR 99 off-ramp at 24th Street/SR 178 in order to accommodate the installation of the fiber optic cable. The fencing will be checked every two weeks to ensure it remains intact for the duration of the project.

9. For work activities occurring during nighttime hours, Caltrans proposes to:

    a. Ensure that the speed limit for construction-related traffic within the work zones will be limited to a maximum of 10 miles per hour in order to prevent

equipment/vehicle strikes. Off-road traffic outside of designated areas will be prohibited;
b. Implement dust control measures to improve driver visibility at night;
c. Provide monthly San Joaquin kit fox awareness training reminders to night crew personnel (per measure #2 above); and
d. Have a qualified biologist(s) conduct at least one worksite spot check per night for the San Joaquin kit fox between the hours of dusk and dawn.

10. 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.

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

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

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 includes the project footprint (otherwise referred to by Caltrans as the project impact area, or the area to be directly affected), which encompasses 1) the approximately 4.8-mile segment of SR 99 between the Brundage Lane Overcrossing and the Beardsley Canal Bridge that will be rehabilitated, including the travel lanes, median, shoulders, and on- and off-ramps; plus short segments of SR 58, 24th Street (SR 178), and Buck Owens Boulevard that also will be reconstructed; 2) portions of bare ground and ruderal areas with ornamental plantings located within Caltrans' right-of-way in which roadway improvements will be carried out (including the installation of fiber optic cable and luminaires) and staging areas will be established; ~~and~~ 3) landscaped areas within both Caltrans' right-of-way and the City of Bakersfield's right-of-way in which electrical service connections will be modified; <u>and 4) areas within Caltrans' right-of-way that will be subject to landscaping and irrigation activities</u>. The action area further includes the right-of-way along both sides of SR 99, which has the potential to experience further-reaching effects of construction activities such as noise and visual disturbance.

Analytical Framework for the Jeopardy Determination

Section 7(a)(2) of the Act requires that federal agencies ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of listed species. "Jeopardize the continued existence of" means to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species (50 CFR 402.02).

The jeopardy analysis in this biological opinion considers the effects of the proposed federal action, and any cumulative effects, on the range-wide survival and recovery of the listed species. It relies on four components: (1) the *Status of the Species*, which describes the current range-wide condition of the species, the factors responsible for that condition, and their survival and

recovery needs; (2) the *Environmental Baseline*, which analyzes the current condition of the species in the action area without the consequences to the listed species caused by the proposed action, the factors responsible for that condition, and the relationship of the action area to the survival and recovery of the species; (3) the *Effects of the Action*, which determines all consequences to listed species that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action; and (4) the *Cumulative Effects*, which evaluates the effects of future, non-federal activities in the action area on the species. The *Effects of the Action* and *Cumulative Effects* are added to the *Environmental Baseline*, and in light of the *Status of the Species*, the Service formulates its opinion as to whether the proposed action is likely to jeopardize the continued existence of the listed species.

Status of the Species

For the most recent comprehensive assessment of the range-wide status for the San Joaquin kit fox, please refer to the *Species Status Assessment Report for the San Joaquin kit fox (Vulpes macrotis mutica) Version 1.0* (Service, 2020a). ~~*San Joaquin Kit Fox 5-year Review* (Service, 2010).~~ No change in the species' listing status was recommended in ~~this~~ the Service's most recent 5-year review of the species (Service, 2020b). Threats evaluated during this review and discussed in the final document have continued to act on the species since the ~~February 2010 5-year~~ review was finalized, with loss and degradation of habitat being the most significant effect. There have been continued losses of San Joaquin kit fox habitat throughout the various ~~recovery~~ geographic analysis units, including the ~~Metropolitan~~ Urban Bakersfield San Joaquin kit fox satellite ~~recovery~~ geographic unit in which the proposed project is located, but to date, no project has proposed a level of effects for which the Service has issued a biological opinion of jeopardy for the species.

Environmental Baseline

Environmental baseline refers to the condition of the listed species and/or its designated critical habitat in the action area, without the consequences to the listed species or designated critical habitat caused by the proposed action. The environmental baseline includes the past and present impacts of all federal, state, or private actions and other human activities in the action area, the anticipated impacts of all proposed federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of state or private actions that are contemporaneous with the consultation in process. The consequences to listed species or designated critical habitat from ongoing agency activities or existing agency facilities that are not within the agency's discretion to modify are part of the environmental baseline.

Within the action area, it is reasonably likely that the San Joaquin kit fox has been affected by the introduction of transportation infrastructure like SR 99; the construction of a large, multi-lane freeway such as this removes and fragments habitat, while roadway- and vehicle-related risks pose ongoing threats of injury and mortality to the species. It is also reasonably likely that the species has been affected by the conversion of once natural lands through urbanization and development. The action area currently is composed of developed areas (paved roadways), bare ground, ruderal areas mixed with landscaping and ornamental plantings, and segments of man-made and modified water channels; the majority of the action area is surrounded by high density residential and commercial properties. Disturbed ruderal vegetation is typical of areas where the native vegetation has been heavily modified or removed as a result of human presence; within the action area, ruderal areas occur along the edges of the freeway, in the gore areas, and along

the waterways. Caltrans maintains the vegetation in its right-of-way through such activities as mowing and spraying herbicides; consequently, there is continual disturbance to these areas.

According to the CNDDB (2016, 2021), there is a single record, dating from 2000/2001, of the San Joaquin kit fox within the action area: it describes the observation of a pup near the SR 99/SR 204 interchange, in addition to a den and fresh tracks near the Calloway Canal. The species is known to occur throughout the City of Bakersfield and there are numerous CNDDB records for the San Joaquin kit fox located all around the city, including 34 in the vicinity of the action area. Surveys for the San Joaquin kit fox were carried out in 2008 for two TRIP projects whose action areas overlap in part with that of the current project. For the Hageman Road Extension Project (EA 06-48450), San Joaquin kit fox sign, including tracks, scat, and prey remains, was found in close proximity to the current action area for the rehab and lighting projects. And for the 24th Street Improvement Project (EA 06-49390/06-48470), San Joaquin kit fox dens and scat were observed near the current action area for the rehab and lighting projects (by SR 99 along the Kern River and at Beach Park).

Caltrans carried out reconnaissance surveys on October 2, 14 and 28, 2014, June 3, 2015, and August 28, 2015. During these surveys, Caltrans' biologists discovered two known, active San Joaquin kit fox dens. At the first den site, situated within the action area, the surveyors observed one adult at the northbound SR 99 off-ramp at Olive Drive. At the second den site, located outside of the action area, they discovered one adult and three pups at the northbound SR 204 on-ramp at Airport Drive. Additionally, Caltrans' consultants observed two adult San Joaquin kit foxes foraging along the Kern River during bat surveys conducted from September 1-3, 2015. The action area may offer some potential foraging opportunities for the San Joaquin kit fox given that during the survey efforts, Caltrans' biologists observed a ground squirrel (*Otospermophilus beecheyi)* in the right-of-way, along with several burrows near the Kern River (though they believed these burrows to be inactive).

Caltrans' biologists conducted updated reconnaissance-level surveys in 2017. On June 1, 2017, biologists surveyed areas along 24th Street (SR 178) and Rosedale Highway (SR 58). On August 31, 2017, they surveyed several of the areas where the fiber optic cable will be installed, as well as where the Environmentally Sensitive Area fencing will be set up north of the Kern River. The biologists also conducted an evaluation for the presence of San Joaquin kit fox dens; they focused on the two den sites observed originally in 2015, one at Olive Drive (located within the action area) and one at the SR 204/SR 99 on-ramp (located outside of the action area). The known, active den that was identified previously within the action area during the 2015 surveys appeared to be inactive in 2017; biologists noted a leg bone near the den entrance with fur that was partially characteristic of the San Joaquin kit fox. The second known, active den that was identified previously outside of the action area during the 2015 surveys appeared to be active in 2017 (clear entrance and evidence of soil disturbance around the den apron). Although the biologists did not confirm the San Joaquin kit fox's presence at this location, another Caltrans biologist who visited the site recently confirmed that this den was active. Caltrans' biologists did not observe any additional dens or individuals during the course of the 2017 surveys.

Caltrans' biologists performed preconstruction surveys in January 2019, focusing on areas where California ground squirrels and/or their burrows were detected. They did not observe any potential or known San Joaquin kit fox dens within the action area. However, wildlife camera stations revealed one known, active den at the northbound SR 204 on-ramp at Airport Drive (the same location identified as active in both 2015 and 2017), which is located over 1,000 ft. from the action area. Construction personnel observed a San Joaquin kit fox near the batch plant

in November 2019, but a search of the surrounding area discovered no dens. Caltrans conducted additional surveys of the project footprint in February 2020 and 2021, and detected no San Joaquin kit foxes or any potential or known dens.

There remains a high likelihood that the San Joaquin kit fox will 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 ~~Metropolitan~~ Urban Bakersfield satellite geographic unit ~~recovery area~~ for the species (Service, 2020a ~~2010~~); 2) the discovery of known, active dens both within, and in close proximity to, the action area, as well as species sightings during recent surveys; 3) a suitable prey source; and 4) the presence of suitable, though heavily disturbed, ruderal habitat.

Effects of the Action

Effects of the action refers to all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action.

Habitat Impacts

Caltrans will permanently remove a combined total of 1.208 acres (1.2 acres for the rehab project and 0.008 acre for the lighting project) of mixed ruderal/landscaped habitat along the edges of SR 99, 24th Street (SR 178), and Rosedale Highway (SR 58) in order to accommodate lane widening and associated construction activities, in addition to interchange improvements and lighting activities. Caltrans also will temporarily disturb a combined total of 14.8 acres (5.5 acres for the rehab project and 9.3 acres for the lighting project) of ruderal habitat as a result of operations, staging, access, foot traffic, k-rail installation, and work associated with the installation of the fiber optic conduits, luminaires, and electrical service connections. The permanently affected areas along the edges of SR 99 and other roadways are considerably lower-quality habitat for the San Joaquin kit fox given that they are heavily disturbed by traffic, are predominantly landscaped, and were not observed by Caltrans to contain a suitable prey base; the temporarily affected ruderal areas, which are located further away from the roadways may offer some limited denning and foraging opportunities for the species. However, both the loss of, and disturbance to this habitat are unlikely to result in adverse effects to the species for the following reasons: 1) habitat quality at these locations, and within the right-of-way in general, has been degraded over time as a result of ongoing vehicular and human disturbances; 2) the likelihood is low that suitable dens will be established and/or prey sources will occur within the small scope of impacted habitat considered here; and 3) the habitat is located in close proximity to vehicles traveling along the highway corridor, making it far less attractive to the San Joaquin kit fox.

Following the completion of the rehab project, Caltrans proposes to replant and landscape 63.7 acres within its right-of-way that will have been impacted by the rehab project. These plantings will minimize visual quality impacts stemming from the rehab project, improve screening, and provide permanent erosion control and soil stabilization. As such, the permanent replanting of this habitat is unlikely to result in adverse effects to the San Joaquin kit fox given that the habitat ultimately is being reclaimed rather than lost. However, landscaped areas typically provide considerably less suitable habitat for the San Joaquin kit fox (particularly since

increased numbers and densities of plantings will restrict available areas for denning and foraging), so these replanted areas are unlikely to provide any real benefit to the species either.

Currently, neither of the two known, active dens will be eliminated as a result of the proposed projects' activities. However, the den located within the action area at SR 99/Olive Drive will be blocked with an exclusion device and closed temporarily for one season in order to avoid the effects associated with construction. This will remove shelter and cover for the species during this period.

Construction Activities

Neither of the two known, active dens that were identified initially during the 2015 surveys and observed again during the 2017 surveys and the 2019 preconstruction surveys (which detected only the den located outside the action area) will be permanently removed as a result of project work, but it is reasonably likely that the San Joaquin kit fox could establish other dens in the area in the interim period prior to the start of, and/or during, construction. Therefore, any additional known or potential dens identified in the action area during preconstruction surveys, ~~and/or~~ construction, and/or post-construction replanting/landscaping efforts that require permanent excavation and/or collapse (following appropriate monitoring) will remove not only shelter and cover for the San Joaquin kit fox, but also a suitable environment in which to rear young. While the elimination of any dens that become established in the future is likely to cause some manner of disturbance to the species in the short-term, this is unlikely to result either in a reduction in the ability of the species to seek protection from predators and from adverse environmental conditions, or lead to a decline in the reproductive fitness of individuals in this area. This is because the San Joaquin kit fox is known to change dens often and to use numerous dens throughout a given year (Service, 1998); this is also true of natal dens, so the species is accustomed to cycling through different and various den sites. Furthermore, urban Bakersfield in general still retains an abundance of habitat in which the San Joaquin kit fox could den, so there is no shortage of availability.

Because work crews will receive environmental awareness training, and a biologist(s) will monitor the site for the species, particularly during nighttime activities, as well as verify that dens are unoccupied prior to closing or excavating them, 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 and landscaping activities, is not reasonably likely to occur. The proposed conservation measures also are designed to minimize the risk of project-related equipment/vehicle strikes, so it is unlikely that the species will be hit while occupying or moving through the action area. Although the killing of individuals is not reasonably likely to occur as a direct result of interactions with construction crews and equipment, the risk of individuals experiencing short-term annoyance and disruption to their normal activities, as well as injury, cannot be discounted.

Temporary K-rail Barriers

Caltrans proposes to install standard temporary k-rail barriers on the project site as a means of traffic control and safety. Since the San Joaquin kit fox is known to occur in, and use, the action area, those individuals traversing the action area therefore are at high risk of encountering a k-rail barrier and being hindered or obstructed in their movement. However, the presence of these structures along the extent of the project will be unlikely to adversely affect the San Joaquin kit fox for the following reasons: (1) some segments of SR 99 are situated above- and below-grade,

which limits the species' access to the freeway; (2) there are existing corridor features, including four undercrossings along roads, one undercrossing along a railroad, four canals, and the Kern River, that could provide alternative potential movement and crossing opportunities under SR 99 for the San Joaquin kit fox; and (3) the species is unlikely to cross a busy, multi-lane freeway (~~B. Cypher, personal communication, March 21-22, 2016~~) given that the large expanse of SR 99 within the action area (8-10 lanes), along with its very high traffic volume, are likely to already act as barriers (Constable *et al*., 2009) and therefore inhibit the San Joaquin kit fox from even attempting to cross the freeway directly at grade.

Night work

Caltrans proposes to conduct a total of approximately ~~385~~ 585 nights of work (across ~~both~~ the rehab project, ~~and~~ the lighting project, and the landscaping project). Night work often involves activities that are more highly disruptive to traffic, and which cannot be otherwise undertaken safely during daylight hours under normal traffic conditions. Since the San Joaquin kit fox is known to occur in, and use, the action area, night work, which typically includes the use of artificial light, is likely to be disruptive to the species' foraging and movement activities, particularly at dusk and dawn when it is most active. This could lead to a reduction in the species' foraging success and ability to move freely, which in turn is likely to reduce the fitness of the local San Joaquin kit fox population in this area. To minimize the risk to the species from activities undertaken during this sensitive period, Caltrans proposes to conduct worksite spot checks between dusk and dawn, speed limit reductions within the action area, and extra training for night crews.

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, the environmental baseline for the action area, the effects of the proposed Bakersfield SR 99 Rehabilitation, ~~and~~ Bakersfield Highway Lighting, and Bakersfield 99 Rehab Replacement Planting Projects, and the cumulative effects, it is the Service's biological opinion that the combined projects, as proposed, are not likely to jeopardize the continued existence of the San Joaquin kit fox. 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 reasons: (1) the limited extent and reach of the projects; (2) the impaired quality of the habitat within the action area; and (3) the conservation measures that Caltrans has proposed to minimize and avoid adverse effects to the San Joaquin kit fox**.**

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 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

It is infeasible for the Service to quantify the number of San Joaquin kit foxes that will be taken as a result of the proposed action because the number of individuals in the action area is unknown, and estimates of population density in the action area are unavailable. Furthermore, the Service anticipates that the species will be difficult to detect for the following reasons: when not foraging, mating or otherwise being active on the surface, the San Joaquin kit fox inhabits dens, making consistent and accurate detection problematic; it may range over a large territory; it is primarily active at night; and it is an intelligent but cautious animal that is likely to avoid human presence. So, although the Service cannot quantify the number of San Joaquin kit foxes that will be incidentally taken within the action area, the Service anticipates that this number will be low based on the fact that 1) the action area is relatively small in size and extent and so the species is not expected to be present in high numbers or densities; 2) individuals are expected to avoid active construction if possible, and are more likely to occur in non-affected habitat outside of the action area during the period in which construction is anticipated to take place; and 3) Caltrans will implement a series of conservation measures to reduce the potential for adverse effects to the species.

There is a risk of non-lethal harm, as well as injury to all San Joaquin kit foxes inhabiting, moving through, or using the action area (with particular regard to all known dens), resulting from 1) the disturbance to, and the closure, excavation, or elimination of known den sites; 2) interactions with construction crews and equipment; and 3) nighttime work activities.

The Service therefore is exempting the following take incidental to the proposed action from the prohibitions described under section 9 of the Act:

1. The non-lethal harm and injury to all San Joaquin kit foxes within the action area, inclusive of all known dens.

No take in the form of mortality of the San Joaquin kit fox is exempted. In other words, if one dead individual is detected by biological monitors or other project personnel, then lethal take has occurred and conservation measures and project implementation need to be re-evaluated and possibly modified, and Caltrans will reinitiate formal consultation.

Upon implementation of the following reasonable and prudent measure, terms and conditions, and the proposed conservation measures described herein, incidental take of the San Joaquin kit fox associated with constructing and carrying out the proposed projects will become exempt from the prohibitions described in section 9 of the Act. No other forms of take are exempted under this opinion.

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 the San Joaquin kit fox.

Reasonable and Prudent Measure

All necessary and appropriate measures to avoid and minimize effects on the San Joaquin kit fox resulting from implementation of this project have been incorporated into the project's proposed conservation measures. Therefore, the Service believes the following reasonable and prudent measure is necessary and appropriate to minimize incidental take of the San Joaquin kit fox:

1. All conservation measures, as described in the Biological Assessment and restated here in the **Description of the Proposed 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 terms and conditions, which implement the reasonable and prudent measure described above. These terms and conditions are nondiscretionary.

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

2. In order to monitor whether the amount or extent of incidental take anticipated from implementation of the projects 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 forms of non-lethal harm and injury are 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 result in the elimination of, or disturbance to known dens, whereby incidental take in the form of non-lethal harm is anticipated, Caltrans shall provide to the Service, following the completion of construction, a final accounting of the number of impacted dens.

c. In the event that fill material must 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.

d. A post-construction report detailing compliance with the project design criteria and proposed conservation measures described under the **Description of the Proposed 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 projects 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, if any; (5) observed incidents of non-lethal harm and injury to the San Joaquin kit fox, if any; (6) the number of dens lost or disturbed, if any; and, (7) any other pertinent information.

e. In the event that injured or killed individuals are found on-site (regardless of whether or not incidental take has been exceeded), Caltrans shall follow the steps outlined in the **Salvage and Disposition of Individuals** section below.

Salvage and Disposition of Individuals

Injured listed species must be cared for by a licensed veterinarian or other qualified person(s), such as the qualified biologist(s) associated with the project, or by an approved wildlife rehabilitation facility. Dead individuals must be sealed in a re-sealable plastic bag containing a paper with the date and time when the animal was found, the location where it was found, and the name of the person who found it; the bag containing the specimen must be frozen in a freezer located in a secure site, until instructions are received from the Service regarding the disposition of the dead specimen. The Service contact person is the San Joaquin Valley Division Supervisor of the Endangered Species Program at the SFWO at (916) 414-6544.

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 and/or its dens to the CNDDB. A copy of the reporting form and a topographic map clearly marked with the location in which the animal was 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 listed species or their habitats, the Service requests notification of the implementation of any conservation recommendations.

REINITIATION—CLOSING STATEMENT

This concludes formal consultation on the Bakersfield SR 99 Rehabilitation, ~~and~~ Bakersfield Highway Lighting, and Bakersfield 99 Rehab Replacement Planting Projects. As provided in 50 CFR 402.16(a), 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:

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

2) 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;

3) 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 written concurrence; or

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

If you have questions regarding this biological opinion, please contact Jen Schofield (jen_schofield@fws.gov), or Patricia Cole (patricia_cole@fws.gov) at (916) 414-6544, or by e-mail.

Sincerely,



Michael Fris
Field Supervisor

ec:
Steven Hulbert, California Department of Fish and Wildlife, Fresno, California

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