

Antelope Grade Vertical Curve Correction and Truck Climbing Lane Extension

On State Route 46 in San Luis Obispo and Kern counties

05-SLO/KER-046-PM 59.8-60.9, 0.0-0.9

Project ID Number: 0524000192 (0522000141 and 0523000258)

Initial Study with Proposed Negative Declaration



Prepared by the
State of California Department of Transportation

September 2024



General Information About This Document

What's in this document:

The California Department of Transportation (Caltrans) has prepared this Initial Study, which examines the potential environmental impacts of alternatives being considered for the proposed project in San Luis Obispo and Kern counties in California. The document explains why the project is being proposed, the alternatives being considered for the project, the existing environment that could be affected by the project, potential impacts of each of the alternatives, and proposed avoidance, minimization, and/or mitigation measures.

What you should do:

- Please read the document. Additional copies of the document are available for review at the following locations: Caltrans District 5 Office at 50 Higuera Street, San Luis Obispo, California 93401, during business hours; Caltrans District 6 Office at 1352 West Olive Avenue, Fresno, California 93728, during business hours; the San Luis Obispo Library, 995 Palm Street, San Luis Obispo, California 93403, during business hours; and the Baker Branch Library, 1400 Baker Street, Bakersfield, California 93305, during business hours. This document can also be accessed and downloaded at the Caltrans District 5 Current Projects website: <https://dot.ca.gov/caltrans-near-me/district-5/district-5-current-projects>.
- Tell us what you think. If you have any comments regarding the proposed project, send your written comments to Caltrans by the deadline. Submit comments via U.S. mail to: Shane Gunn, District 6 Environmental Division, California Department of Transportation, 2015 East Shields Avenue, Suite 100, Fresno, California 93726. Submit comments via email to: shane.gunn@dot.ca.gov.
- Submit comments by the deadline: November 1, 2024.

What happens next:

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

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For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please write to or call Caltrans, Attention: Shane Gunn, District 6 Environmental Division, California Department of Transportation, 2015 East Shields Avenue, Suite 100, Fresno, California 93726; phone number 559-832-0051 (Voice), or use the California Relay Service 1-800-735-2929 (Teletype to Voice), 1-800-735-2922 (Voice to Teletype), 1-800-855-3000 (Spanish Teletype to Voice and Voice to Teletype), 1-800-854-7784 (Spanish and English Speech-to-Speech), or 711.

Extend the existing westbound truck climbing lane and correct a vertical curve
on Antelope Grade on State Route 46 from post miles 59.8 to 60.9 in San
Luis Obispo County and post miles 0.0 to 0.9 in Kern County

**INITIAL STUDY
with Proposed Negative Declaration**

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

THE STATE OF CALIFORNIA
Department of Transportation
and
Kern Council of Governments

Responsible Agencies: California Transportation Commission, U.S. Fish and
Wildlife Service, U.S. Army Corps of Engineers, California Department of Fish
and Wildlife, Central Coast Regional Water Quality Control Board



Javier Almaguer
Office Chief, District 6 Environmental
California Department of Transportation
CEQA Lead Agency

9/20/24

Date

The following individual can be contacted for more information about this document:

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Proposed Negative Declaration

Pursuant to: Division 13, Public Resources Code

State Clearinghouse Number: pending

District-County-Route-Post Mile: 05-SLO/KER-046-59.8-60.9, 0.0-0.9

EA/Project Number: EA 05-1Q03U (05-1Q030 and 05-1Q031) and Project ID Number 0524000192 (0522000141 and 0523000258)

Project Description

The California Department of Transportation (Caltrans) proposes to extend the existing westbound truck climbing lane and correct a vertical curve along State Route 46 from post miles 59.8 to 60.9 in San Luis Obispo County and post miles 0.0 to 0.9 in Kern County.

Determination

Caltrans District 6 has prepared this Initial Study with Proposed Negative Declaration to give notice to interested agencies and the public that Caltrans intends to adopt a Negative Declaration for this project. This does not mean that Caltrans' decision regarding this project is final. The Initial Study with Proposed Negative Declaration is subject to change based on comments received from interested agencies and the public.

On the basis of this study, it is determined that the proposed action would have no effect on agriculture and forestry resources, air quality, cultural resources, energy, geology and soils, land use and planning, noise, mineral resources, hydrology and water quality, population and housing, public services, recreation, transportation, tribal cultural resources, utilities and service systems, and wildfire.

The project would have less than significant effects to aesthetics/visual resources, biological resources, greenhouse gas emissions, and hazards and hazardous materials with the implementation of Caltrans' Standard Specifications, Standard Special Provisions, and avoidance and minimization measures described in the Initial Study and associated documents.

Javier Almaguer
Office Chief, District 6 Environmental
California Department of Transportation

Date

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Chapter 1 Proposed Project

1.1 Introduction

The Antelope Grade Vertical Curve Correction and Truck Climbing Lane Extension Project is located along State Route 46 from post miles 59.8 to 60.9 in San Luis Obispo County and post miles 0.0 to 0.9 in Kern County. State Route 46 serves as a major east-west corridor for heavy trucks and recreational traffic traveling from the San Joaquin Valley and Interstate 5 to the Central Coast and U.S. Route 101. The route supports the annual movement of \$7 billion of goods shipments between the two regions, accounting for an estimated 575,000 jobs, as well as \$5 billion in tourism within the Central Coast region.

State Route 46 was constructed as a two-lane highway in the 1920s and has since been widened to a three-lane and four-lane expressway in many sections. Several sections of the highway are two lanes and are either currently under construction or are in Caltrans' Project Approval and Environmental Document Phase to be widened to four lanes. The State Route 46 4-Lane Widening project—Antelope Grade Section is currently in the Plans, Specifications, and Estimates phase—overlaps this project.

Truck climbing lanes have been built on the eastbound and westbound approaches to Antelope Grade (also known as Polonio Pass) due to a combination of the high volume of truck traffic with the steep 6 percent grade and the 55-mile-per-hour speed limit. This project would extend the existing westbound truck climbing lane that starts at post mile 60.3 in San Luis Obispo County and connect it to the east with the four-lane section of State Route 46 at post mile 0.4 in Kern County. See Figure 1-1 for the project vicinity map and Figure 1-2 for the project location map.

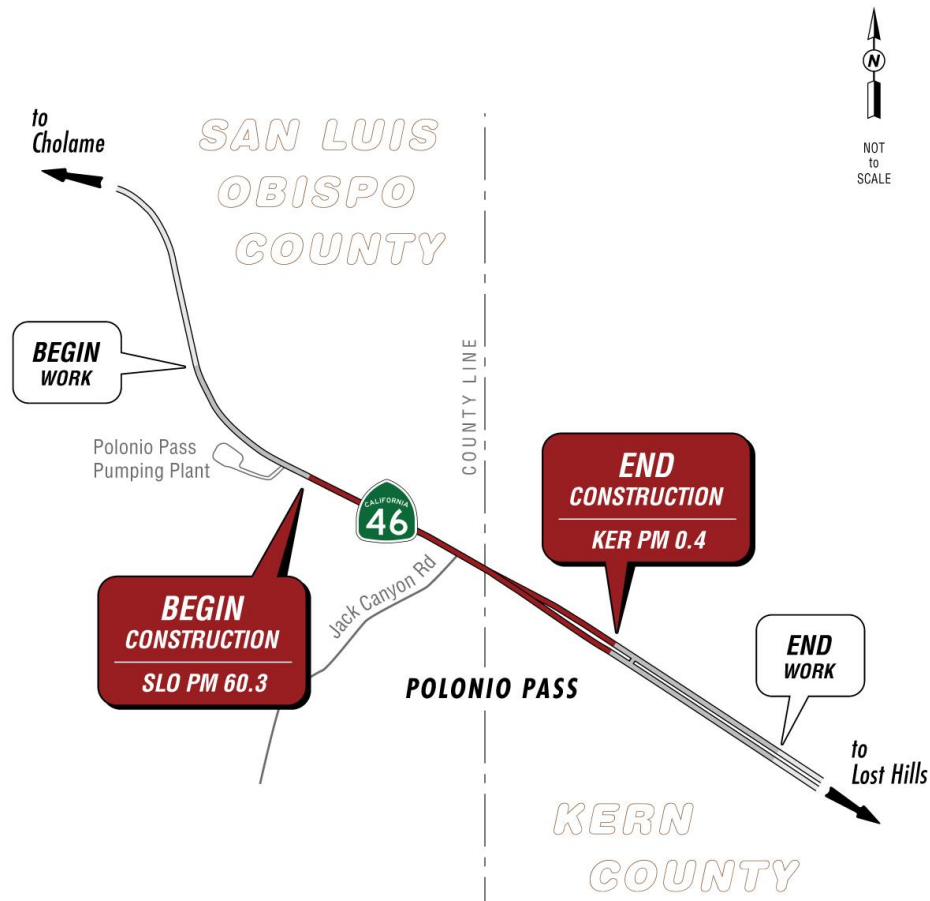
The proposed project is programmed in the 2024/2025 State Highway Operational Protection Program under the Asset Management guidelines to meet mobility goals. The State Highway Operational Protection Program is the State Highway System's "fix it first" program that funds the repair and preservation, emergency repairs, safety improvements, and some highway operational improvements on the State Highway System. The project is designated as a Minor A project, which means Caltrans' contribution is limited to \$1,250,000 in programmed costs. Caltrans is partnering with the Kern Council of Governments to assist with funding for this project. The Kern Council of Governments has committed to contributing \$3,867,000 toward the construction costs. Project construction is expected to start in 2025 and span approximately 125 days to complete. The current programmed cost for the construction of the Build Alternative is approximately \$5,117,000.

Caltrans, as assigned by the Federal Highway Administration, is the lead agency under the National Environmental Policy Act (known as NEPA). Caltrans is also the lead agency under the California Environmental Quality Act (known as CEQA). As the NEPA lead, Caltrans has prepared a separate Categorical Exclusion document for the project. As the CEQA lead, Caltrans has prepared this document—an Initial Study with Proposed Negative Declaration—for the project.

Figure 1-1 Project Vicinity Map



Figure 1-2 Project Location Map



1.2 Purpose and Need

1.2.1 Purpose

The purpose of this project is to improve traffic flow and corridor operations between the four-lane section of State Route 46 in Kern County and the three-lane section of State Route 46 in San Luis Obispo County.

1.2.2 Need

The existing State Route 46 configuration causes operational issues as westbound traffic climbs over the Polonio Pass in the project area. The project is needed for the following reasons:

- The existing lane configuration requires slow-moving trucks to merge with other vehicles as two lanes merge into one lane at post mile 0.4 in Kern County. The existing lane configuration returns to two lanes less than 1 mile later at post mile 60.3 in San Luis Obispo County.
- Operational issues occur as trucks traveling at slower speeds merge with traffic traveling at faster speeds at the merge point.
- There is a deficient vertical curve in the road, providing insufficient sight distance along the highway.
- Truck climbing and passing lanes have been constructed on sections of the westbound lanes (post miles 59.1 to 60.3) and the eastbound lanes (post miles 57.3 to 57.5 and 58.8 to 59.0). The existing corridor has limited facilities for passing slow-moving vehicles, and, for much of the day, there are insufficient gaps in oncoming traffic to pass slower traffic in the passing zones along the existing route.

1.3 Project Description

The Antelope Grade Vertical Curve Correction and Truck Climbing Lane Extension Project is located along State Route 46 from post miles 59.8 to 60.9 in San Luis Obispo County and post miles 0.0 to 0.9 in Kern County. Two alternatives are being considered: a Build Alternative and a No-Build Alternative.

1.4 Project Alternatives

1.4.1 Build Alternative

The project would extend the existing truck climbing lane in the westbound direction approximately 5,000 feet (0.95 mile) from post mile 60.3 in San Luis Obispo County to post mile 0.4 in Kern County. The existing westbound traveled way is approximately 12 feet wide, and the shoulder width varies from 8 to 12 feet. The traveled way would be expanded to approximately 24 feet wide to accommodate the truck climbing lane with a 10-foot-wide shoulder. The existing 6-foot square concrete box culvert crossing under State Route 46 at post mile 60.57 would be extended approximately 30 feet to accommodate the wider roadway. The associated guardrail at the culvert location needs to be removed and replaced.

Two trees at post mile 0.0 (Kern County line) would be removed, and other vegetation removal would be required. About 1,200 feet of roadway has a vertical curve that needs to be corrected by lowering the roadway as well. Roadway restriping and installing temporary traffic control devices would be

required. Construction is expected to take 125 days to complete and would occur primarily during the day, with about two weeks of construction occurring at night. The project would occur within the existing Caltrans right-of-way and would not require the purchase of additional right-of-way.

1.4.2 No-Build Alternative

Under the No-Build Alternative, the truck climbing lane would not be extended, the vertical curve would not be corrected, and westbound traffic would continue to merge from two lanes to one lane until the existing truck climbing lane begins. Operational issues would continue to occur until the Antelope Grade Section of the State Route 46 4-Lane Widening Project is approved and constructed.

1.5 Standard Measures and Best Management Practices Included in All Build Alternatives

This project contains several standardized project measures that are used on most, if not all, Caltrans projects and were not developed in response to any specific environmental impact resulting from the proposed project. The contractor will be required to adhere to standard measures and best management practices used on all Caltrans projects during construction. Some of these include, but are not limited to, the following:

- The project would include a Transportation Management Plan that would reduce delays and related short-term increases in greenhouse gas emissions from disruptions in traffic flow during construction.
- Caltrans Standard Specifications Section 14-9, Air Quality, and Section 10-5, Dust Control, are a part of all construction contracts and require contractors to comply with all federal, state, regional, and local rules, regulations, and ordinances related to air quality. Requirements that reduce vehicle emissions, such as limits on idling time, may help reduce greenhouse gas emissions.
- All construction contracts include Caltrans Standard Specifications Sections 7-1.02A and 7-1.02C, Emissions Reduction, which require contractors to comply with all laws applicable to the project and to certify they are aware of and will comply with all the California Air Resources Board emissions reduction regulations.
- Caltrans Standard Specifications Section 14-7.03 provides procedures to follow if unanticipated paleontological resources are discovered at the project site.

- Caltrans Standard Specifications Section 14-8.02 requires the contractor to control and monitor noise resulting from work activities and not to exceed 86 A-weighted decibels (dBA) at 50 feet from the job site from 9:00 p.m. to 6:00 a.m. The contractor shall consult the District Noise Specialist if complaints are received during the construction process.
- Caltrans Standard Specifications Section 13-1 requires the contractor to abide by Caltrans' Best Management Practices at a minimum and address all potential water quality impacts that may occur when performing these activities.
- If the project disturbs 1 acre or more of soil, a Notice of Intent is to be submitted to the appropriate Regional Water Quality Control Board at least 30 days before the start of construction. Also, a Stormwater Pollution Prevention Plan is to be prepared and implemented during construction to the satisfaction of the resident engineer, and a Notice of Termination shall be submitted to the Regional Water Quality Control Board upon completion of construction and site stabilization. A project would be considered complete when the criteria for final stabilization in the Construction General Permit are met.

1.6 Discussion of the NEPA Categorical Exclusion

This document contains information regarding compliance with the California Environmental Quality Act (CEQA) and other state laws and regulations. Separate environmental documentation supporting a Categorical Exclusion determination has been prepared in accordance with the National Environmental Policy Act. When needed for clarity, or as required by CEQA, this document may contain references to federal laws and/or regulations (CEQA, for example, requires consideration of adverse effects on species identified as a candidate, sensitive, or special-status species by the U.S. National Marine Fisheries Service and the U.S. Fish and Wildlife Service—that is, species protected by the Federal Endangered Species Act).

1.7 Permits and Approvals Needed

The following permits, licenses, agreements, and certifications are required for project construction:

Agency	Permit/Approval	Status
U.S. Fish and Wildlife Service	Letter of Concurrence	Received November 6, 2023
U.S. Army Corps of Engineers	Clean Water Act Section 404 Nationwide Permit	Received March 13, 2024
California Department of Fish and Wildlife	1600 Lake and Streambed Alteration Agreement	Received August 8, 2024
California Department of Fish and Wildlife	2081 Incidental Take Permit	To be obtained before construction
Regional Water Quality Control Board	Clean Water Act Section 401 Water Quality Certification	Received March 13, 2024

Chapter 2 CEQA Evaluation

2.1 CEQA Environmental Checklist

This checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. Potential impact determinations include Significant and Unavoidable Impact, Less Than Significant Impact With Mitigation Incorporated, Less Than Significant Impact, and No Impact. In many cases, background studies performed in connection with a project will indicate that there are no impacts to a particular resource. A “No Impact” answer reflects this determination. The questions in this checklist are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

Project features, which can include both design elements of the project and standardized measures that are applied to all or most Caltrans projects, such as Best Management Practices and measures included in the Standard Plans and Specifications or as Standard Special Provisions, are considered to be an integral part of the project and have been considered prior to any significance determinations documented below.

“No Impact” determinations in each section are based on the scope, description, and location of the proposed project as well as the appropriate technical report (available upon request), and no further discussion is included in this document.

2.1.1 Aesthetics

Considering the information in the Visual Impact Assessment dated June 2023, the following significance determinations have been made:

Except as provided in Public Resources Code Section 21099:

Question—Would the project:	CEQA Significance Determinations for Aesthetics
a) Have a substantial adverse effect on a scenic vista?	No Impact
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	No Impact

Question—Would the project:	CEQA Significance Determinations for Aesthetics
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	Less Than Significant Impact
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	No Impact

Affected Environment

Existing Facility and Environment

State Route 46 is a main east-west route from Kern County to San Luis Obispo County and the central coast. The area is characterized by rolling to moderately steep topography, with sparse oak savanna visible on the distant hillsides. The land cover of the nearby roadside consists primarily of grasses and forbs with few shrubs and trees. While the section of the highway in the project limits is somewhat straight, the highway in the general area is slightly curvilinear, and the elevated and curved alignment allows increased long-distance views from the roadway. The roadway is the most visible built development through this section, along with overhead utility lines and fencing.

Viewer Sensitivity

For viewers traveling along State Route 46 through the project area, distant views are common, with the surrounding low hills on the horizon. The viewers along this segment of State Route 46 are almost exclusively in motor vehicles. The awareness of visual resources by these highway users is expected to vary. Tourists, who make up a substantial number of viewers on State Route 46, generally have a high awareness of the visual resources around them yet are anticipated to be less sensitive to specific changes in that environment. Residents and business owners, who are not situated at the project site, are the most sensitive to aesthetic changes due to their familiarity and personal investment in the area. The number of people viewing the road from off-site locations is less than those who will see the project while on the highway.

State Route 46 is defined in the state scenic highway system as an eligible State Scenic Highway. Identification as such means that the highway has

been recognized by the state of California as having the potential to become an Officially Designated State Scenic Highway if nominated by the local jurisdiction and approved by the state. This eligibility affords no protections or restrictions on highway projects or nearby development; however, it is an indicator of the scenic value of the route and possible viewer sensitivity to changes in the visual environment.

Environmental Consequences

The project area along State Route 46 is of moderately high visual quality. It is expected that many viewers of the project changes will have moderate sensitivity regarding the scenic quality of the route due to long-distance travel through a continuous type of landscape.

As a result of the project, changes in visual resources would occur within the project limits. Proposed project elements, such as structures related to culvert improvements, upgraded guardrails, and additional paving, would be readily visible from the roadway. By themselves, these types of elements are not uncommon and would not be seen as unexpected visual elements in a highway setting.

The project proposes the removal of two non-native Robinia tree species. While the removal may be noticed by local users or commuters due to their memorability, the removal will likely be unnoticed by the casual observer because they are subordinate to the overall rural landscape character. Additionally, the guardrail currently protecting the trees would be removed, slightly reducing the engineered character.

The regional landscape can accommodate the proposed lane extension, pavement width, and tree removal associated with this project without losing a substantial degree of noticeable visual quality. The appearance of the new highway facility will still be within the viewer's expectations for the route, and, with the measures listed below, most of the proposed changes will be visually absorbed into the viewshed.

Avoidance, Minimization, and/or Mitigation Measures

With the implementation of the following minimization measures, the project would be consistent with the aesthetic and visual resource protection goals along State Route 46, and potential visual impacts would be reduced. No mitigation is required.

- Preserve as much existing vegetation as possible. Prescriptive clearing and grubbing and grading techniques that save the most existing vegetation possible should be used.
- Revegetate all disturbed areas with permanent erosion control that includes native plant species appropriate to each specific work location.

The seed mix shall be determined by the District 5 Landscape Architectural Department.

- Incorporate contour grading on all slopes.
- If vegetation control under guardrails is deemed necessary, a natural material, such as shale, shall be used. If concrete vegetation control is selected, then it should be colored to blend with the natural surroundings and reduce reflectivity. The selection of the vegetation control material and/or color shall be determined and approved by the District 5 Landscape Architectural Department.

2.1.2 Agriculture and Forestry Resources

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

The project spans from post miles 59.8 to 60.9 in San Luis Obispo County, where the area is designated as Farmland of Local Potential and Grazing Land, and from post miles 0.0 to 0.9 in Kern County, where the area is designated as Grazing Land and Nonagricultural and Natural Vegetation, according to the California Department of Conservation. Construction of the proposed project would occur entirely within the existing Caltrans right-of-way, and no additional land acquisitions would be required. Extending the existing truck climbing lane and the vertical curve correction would not impact agriculture and surrounding farmland. Considering this information, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Agriculture and Forestry Resources
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	No Impact
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	No Impact
c) Conflict with existing zoning, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	No Impact
d) Result in the loss of forest land or conversion of forest land to non-forest use?	No Impact
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use?	No Impact

2.1.3 Air Quality

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.

Considering the information in the Air Quality Compliance Study dated May 2023, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Air Quality
a) Conflict with or obstruct implementation of the applicable air quality plan?	No Impact

Question—Would the project:	CEQA Significance Determinations for Air Quality
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	No Impact
c) Expose sensitive receptors to substantial pollutant concentrations?	No Impact
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	No Impact

2.1.4 Biological Resources

Considering the information in the Natural Environment Study dated September 2023, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Biological Resources
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or National Oceanic and Atmospheric Administration Fisheries?	Less Than Significant Impact
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	Less Than Significant Impact
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	No Impact

Question—Would the project:	CEQA Significance Determinations for Biological Resources
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	No Impact

Affected Environment

The Biological Study Area is defined as the action area. The action area encompasses all areas that could be directly or indirectly affected by the project. This includes the project footprint, nearby areas subject to indirect effects, and any additional staging areas not included in the project footprint.

Lists of state and federally endangered species and critical habitats that may be affected by the project were obtained from the U.S. Fish and Wildlife Service on April 25, 2023, the California Native Plant Society on April 25, 2023, the California Natural Diversity Database on April 25, 2023, and the National Marine Fisheries Service on June 14, 2023.

Botanical surveys, jurisdictional delineations, and reconnaissance-level wildlife and plant surveys were conducted for the State Route 46 Corridor Improvement Project's Antelope Grade Section between April 8 and July 31, 2019, which overlaps the project area of the Antelope Grade Vertical Curve Correction and Truck Climbing Lane Extension Project. All federally listed wildlife species seen were documented and included in the Natural Environment Study since the Antelope Grade Section of the State Route 46 Corridor Improvement Project overlaps the project area of the Antelope Grade Vertical Curve Correction and Truck Climbing Lane Extension Project.

A reconnaissance-level wildlife and botanical survey was also conducted exclusively on the segment of the project area of the Antelope Grade Vertical Curve Correction and Truck Climbing Lane Extension Project in April 2023.

A letter of concurrence from the U.S. Fish and Wildlife Service (Appendix B) was received on November 6, 2023.

Wetlands and Other Waters

In 2005, following the 2003 Antelope Grade Section Natural Environment Study, Caltrans District 6 prepared a wetland delineation report. The U.S. Army Corps of Engineers issued an approved jurisdictional determination for parts of the Biological Study Area for the Antelope Grade Section of the State Route 46 Corridor Improvement Project on January 13 and March 5, 2009.

The action area of the Antelope Grade Vertical Curve Correction and Truck Climbing Lane Extension Project includes one unnamed ephemeral drainage that lacks woody riparian cover, does not have wetland features, and is mostly vegetated with upland grasses and forbs. These features are delineated as the waters of the state.

Because other channels close to the Antelope Grade project were determined to be jurisdictional by the U.S. Army Corps of Engineers, the Regional Water Quality Control Board, and the California Department of Fish and Wildlife, it is assumed that the ephemeral drainage within the project footprint will be jurisdictional by all three agencies as well.

Plant Species

Nine of the 17 special-status plant species identified in species queries were found to have suitable habitats within the action area. The nine species include oval-leaved snapdragon, California jewelflower, Lemmon's jewelflower, Hall's tarplant, recurved larkspur, Kern mallow, temblor buckwheat, pale-yellow layia, and showy golden madia. However, none of these federally or state-listed plant species were seen within the action area during surveys, and none of the species had recently documented occurrences in the action area.

Animal Species

Eight of the 18 special-status animal species identified in species queries were found to have suitable habitat within the action area. This does not include state or federally endangered or threatened species, which are discussed separately under the Threatened and Endangered Species section below. The eight special-status species include the monarch butterfly, western spadefoot toad, California glossy snake, San Joaquin coachwhip, coast horned lizard, grasshopper sparrow, burrowing owl, and the American badger. These species are discussed below. The remaining 10 species do not have suitable habitat in the action area, and therefore the species are expected to be absent, and no impacts are anticipated.

Monarch Butterfly

The monarch butterfly is a candidate for listing under the Federal Endangered Species Act. Monarch butterflies seek out very specific microclimate conditions, most of which are within 1.5 miles of the Pacific Ocean or San Francisco Bay. The tree species most commonly used for roosting are the

non-native blue gum eucalyptus, the native Monterey pine, and the Monterey cypress. Adult females lay eggs on milkweed species, but occasionally on other closely related species, which the caterpillars rely on for energy and protective toxins.

The nearest known monarch overwintering sites are about 40 miles west of the action area and over 70 miles east of the action area. Individual monarch butterflies were seen within the Antelope Grade Section action area and the action area of the Antelope Grade Vertical Curve Correction and Truck Climbing Lane Extension Project within the grassland habitat outside the Caltrans right-of-way. Habitat outside the right-of-way may support sparse amounts of narrow-leaf milkweed.

Western Spadefoot Toad

The western spadefoot toad is a California species of special concern. Much like California tiger salamanders (discussed under the Threatened and Endangered Species section), western spadefoot toads only use ponds for breeding in the winter and spring and spend most of their lifetimes in terrestrial habitats and underground.

Two adult spadefoots were unearthed during preparation of the California Flats Solar Project site (4 miles northwest of the action area) in 2016. Spadefoots were also found in several ponds along the San Andreas Fault, about 4 miles south of the action area, in 2017. However, there are no recent western spadefoot toad occurrences recorded within 1 mile of the action area of the Antelope Grade Vertical Curve Correction and Truck Climbing Lane Extension Project.

Surveys specific to western spadefoot toads were not conducted. Rather, it is assumed that all ponds with the potential to support breeding California tiger salamanders are also suitable for western spadefoot toad breeding. The only ponds that could provide potential breeding habitat for western spadefoot toads are about 1.86 miles away, far beyond the 1,200-foot radius that western spadefoot toads might travel from aquatic habitat.

California Glossy Snake

The California glossy snake is a California species of special concern. The California glossy snake is adapted for several habitat types, including open desert, grasslands, shrublands, chaparral, and woodlands, but is typically found in microhabitats that are open and have less dense vegetation than the surrounding habitat.

There was one occurrence of the California glossy snake in 1950, about 4.8 miles southwest of the action area. All other records of the species are more than 5 miles away.

Surveys for California glossy snakes were not conducted, and the species was not seen during any surveys within the action area. However, the annual grassland habitat outside the Caltrans right-of-way is suitable for the species. Given their low densities and unusual patchy use of the habitat, California glossy snakes could be present within the action area.

San Joaquin Coachwhip

The San Joaquin coachwhip is a California species of special concern. As a result of their tendency to travel longer distances, the coachwhip can be more vulnerable to changes in population that may occur due to a fragmented habitat or dispersed and patchy food resources.

Caltrans biologists saw the San Joaquin coachwhip on two occasions during the 2017 protocol surveys for blunt-nosed leopard lizards for another project about 5.6 miles west of the action area. Caltrans staff saw another coachwhip during the spring of 2017 about 5.3 miles west of the action area. Surveys for the San Joaquin coachwhip were not conducted, and no coachwhips were seen within the Antelope Grade Section action area during opportunistic surveys. Additionally, no coachwhips were seen within the action area of the Antelope Grade Vertical Curve Correction and Truck Climbing Lane Extension Project during the April 2023 reconnaissance-level wildlife survey. However, the annual grassland habitat within the action area may be suitable for the species. Given their low densities and unusual patchy use of the habitat, San Joaquin coachwhips could be present within the action area.

Coast Horned Lizard

The coast horned lizard is a California Species of Special Concern. They are found in a variety of habitat types, including sage scrub, dunes, alluvial scrub, annual grassland, chaparral, oak woodland, riparian woodland, Joshua Tree woodland, coniferous forest, and saltbush scrub. However, they require fine-scale microhabitat elements such as loose, fine soils for burrowing, open areas for thermoregulation, and shrub cover for refugia.

There is a 1993 occurrence of a coast horned lizard within 1.28 miles of the action area of the Antelope Grade Vertical Curve Correction and Truck Climbing Lane Extension Project. Three other occurrences are within 4.3, 6.3, and 7.8 miles of the action area in the Cholame Valley. All four of these coast horned lizard occurrences are in areas with soils classified as sandy loam or fine sandy loam.

Surveys specific to the coast horned lizard were not conducted. No coast horned lizards were found within the action area during reconnaissance-level wildlife surveys. The annual grassland habitat within the action area may be potentially suitable coast horned lizard habitat. However, the soils within the project area are hard, compacted clay soils. Dry sandy washes are not present within the action area, which is the preferred soil type for the species.

Therefore, the soil types in the project area are not conducive to the coast horned lizard.

Grasshopper Sparrow

The grasshopper sparrow is a California Species of Special Concern. It occurs only in grasslands and is often absent from areas with trees or extensive shrub cover.

There was one occurrence of the grasshopper sparrow in 2022, about 3 miles east of the action area. Based on observations in eBird.org, an online database of bird observations, grasshopper sparrows are common year-round in the region.

Grasshopper sparrows were seen or heard numerous times throughout the year during surveys within and next to the Antelope Grade Section action area. However, none were seen or heard during the April 2023 reconnaissance-level wildlife survey conducted within the action area of the Antelope Grade Vertical Curve Correction and Truck Climbing Lane Extension Project.

Burrowing Owl

The burrowing owl is a California Species of Special Concern. This species breeds from Baja California up to Canada's southern prairies.

The most recent occurrences of burrowing owls were reported in 2013 in the Cholame Valley, about 4.5 miles from the project. Avian surveys detected several burrowing owls about 2.2 miles west of the Antelope Grade Section action area. The nearest occurrence of a burrowing owl to the action area of the Antelope Grade Vertical Curve Correction and Truck Climbing Lane Extension Project is a 1993 occurrence, about 1.2 miles outside the action area.

Protocol-level surveys for burrowing owls were not conducted, and burrowing owls were not seen in the action area of the Antelope Grade Vertical Curve Correction and Truck Climbing Lane Extension Project during the April 2023 reconnaissance-level wildlife survey. However, the habitat within the action area is suitable for burrowing owls, and they could be within or next to the action area.

American Badger

The American badger is a member of the weasel family and is a California species of special concern. They are found throughout California, except for the northern North Coast area.

There are many American badger occurrences about 11 miles southwest of the action area of the Antelope Grade Vertical Curve Correction and Truck Climbing Lane Extension Project, and in the northern Cholame Valley, about

7 miles outside the action area. There is also a 1999 record of a roadkilled badger about 6 miles outside the action area.

No surveys specific to American badgers were conducted for this project, and no badgers were seen during field surveys of the action area. However, two wildlife cameras about 6 miles outside the project action area captured American badgers on three separate nights in October and November. The species is assumed to be present in the project action area.

Threatened and Endangered Species

Three of the 15 threatened or endangered species identified in species queries were found to have suitable habitats within the action area. This does not include the special-status species discussed under the Animal Species section above. The three species include the California tiger salamander, tricolored blackbird, and San Joaquin kit fox. These species are discussed below. The remaining 12 species do not have suitable habitats in the action area, and therefore the species are expected to be absent from the action area.

California Tiger Salamander

The California tiger salamander is a large salamander endemic to California that is both a federal and state-listed species. State Route 46 is located within the range of the Central California tiger salamander population, which is one of three distinct California tiger salamander populations, and is found along the foothills of the Central Valley and Inner Coast Range from San Luis Obispo, Kern, and Tulare counties in the south, up to Sacramento and Yolo counties in the north. California tiger salamanders require pools for breeding and upland habitats for shelter, foraging, and dispersal.

The U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife require upland habitat analysis at a distance of 1.24 miles from potential breeding habitat (pools or ponds), which is the dispersal distance Caltrans used to analyze the Antelope Grade Vertical Curve Correction and Truck Climbing Lane Extension Project. No potential breeding habitat is within 1.24 miles of this project.

Within a 10-mile radius of the action area, several California tiger salamander occurrences are recorded along the San Andreas Fault line, including the nearest and most recent occurrence about 4 miles south of the action area. There are also numerous ponds within the Cholame Valley and surrounding area that could support California tiger salamanders; however, there are no records of California tiger salamanders occurring in these ponds. The closest pond is 1.9 miles from the project action area.

The California Flats Solar Project, northwest of the project, is the most extensive and recent development near the action area. In the spring of 2013, surveys for the California tiger salamander were conducted in 17 ponds within

the Solar Project action area in accordance with guidance from the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife. These surveys did not find evidence of California tiger salamanders breeding in pools within a 1.3-mile dispersal distance of the Solar Project action area. Additionally, the 2016 Habitat Conservation Plan for the Operation and Maintenance Activities of the California Flats Solar Project states that no occurrences of California tiger salamanders had been documented within the plan area as of late 2016.

As required in the Incidental Take Permit Amendment for the State Route 46 Corridor Improvement Project in June 2021, California tiger salamander refugia excavations were conducted on approximately 50 acres of potential upland California tiger salamander habitat next to the action area for that project. All small mammal burrows and potential refugia were excavated by hand or with a mini excavator under the supervision of designated biologists with the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife. No California tiger salamander individuals were found during the excavations or during the weekly compliance checks of the project area that have been ongoing since March 2022.

The Antelope Grade Vertical Curve Correction and Truck Climbing Lane Extension Project did not include protocol-level surveys targeting California tiger salamanders. Instead, potential breeding habitat within the 1.24-mile dispersal buffer was searched using aerial imagery during wet years. It was found that the only ponds that could provide potential breeding habitat for California tiger salamanders are located about 1.86 miles away, outside the limits of the California tiger salamander dispersal range.

After the Natural Environment Study was completed for the Antelope Grade Vertical Curve Correction and Truck Climbing Lane Extension Project, further consultation occurred with the California Department of Fish and Wildlife to obtain a 1600 permit between February 2024 and July 2024. The California Department of Fish and Wildlife then suggested a small pond 0.27 mile north of the project area that could provide breeding habitat for California tiger salamanders. It is unlikely that the small pond identified by CDFW contains the hydraulic function necessary to support California tiger salamander breeding habitat.

There have been no recorded occurrences of California tiger salamanders within a 10-mile radius of the Biological Study Area. Additionally, extensive surveys and habitat analyses in nearby developments, projects, and within the project area have found no evidence of the species. Conditions in the immediate vicinity suggest that the habitat is unsuitable for California tiger salamanders; therefore, it is highly unlikely that they will be impacted by the Antelope Grade Vertical Curve Correction and Truck Climbing Lane Extension Project.

San Joaquin Kit Fox

The San Joaquin kit fox is a small canid endemic to California and is federally listed as endangered and state listed as threatened. Historically, their range stretched from Contra Costa County in the north down through the Central Valley to eastern Santa Barbara County and southern Kern County.

Recent information about the local San Joaquin kit fox population comes from studies related to the California Flats Solar Project. At least three San Joaquin kit foxes, including one pup, were seen with camera traps and in-person observations in August 2017 along the California Solar Flats Project entrance road. These San Joaquin kit fox observations are about 6 miles northwest of the action area of the Antelope Grade Vertical Curve Correction and Truck Climbing Lane Extension Project. There were several additional observations of San Joaquin kit foxes along the California Solar Flats Project entrance road in February and March 2017. Also, in 2016, there were various sightings of two San Joaquin kit fox family groups over several days, about 7 miles outside the action area. The Cholame Valley population is small but present, and there also appears to be an extant or transitory population of San Joaquin kit foxes near Shandon.

No protocol surveys or surveys specific to the San Joaquin kit fox were conducted. Opportunistic surveys for the San Joaquin kit fox within the State Route 46 Corridor have been ongoing since 2000. The most recent field surveys were done simultaneously during 2021–2022 in the Antelope Grade Section. Preconstruction surveys were completed for the Wye Geotechnical Studies in 2020; botanical surveys were completed in the Antelope Grade and Wye Sections in 2019; and surveys in the Cholame Section were completed in 2017. No San Joaquin kit foxes or signs of their presence were seen during these field reviews, nor during the April 2023 reconnaissance-level wildlife survey conducted within the action area of the Antelope Grade Vertical Curve Correction and Truck Climbing Lane Extension Project.

The ruderal grassland habitat within the Caltrans right-of-way provides potential denning and foraging habitat for San Joaquin kit foxes. There is a low potential for the San Joaquin kit fox to den within the Caltrans right-of-way; this area is disturbed by annual maintenance activities and constant traffic. There are also limited foraging opportunities, and very few ground squirrel burrows were seen within the project area.

Tricolored Blackbird

The tricolored blackbird is a passerine that was listed as a state-threatened species in 2018 due to its dramatic population decline.

There is a record of a tricolored blackbird nesting in stock ponds next to the Antelope Grade Section action area along State Route 46 on the Antelope Grade, about 1.9 miles from the Antelope Grade Vertical Curve Correction and Truck Climbing Lane Extension Project. About 400 tricolored blackbirds

exhibiting nesting behavior were seen in these ponds in April 2008. Subsequent surveys in April 2011 did not find any tricolored blackbirds at the ponds, but in April 2014, 15 tricolored blackbirds were seen; however, they were not exhibiting nesting behavior. Tricolored blackbirds were also seen within the Antelope Grade Section action area during surveys in March 2021. About 100 to 150 adult male and female tricolored blackbirds were seen, suggesting the pond may be a potential nesting site. Additional observations of tricolored blackbirds were made at the stock ponds during three survey dates in March and April 2022; however, fewer individuals were seen at those times (five, twelve, and seven individuals).

No potential breeding habitat is located within the action area of the Antelope Grade Vertical Curve Correction and Truck Climbing Lane Extension Project. However, tricolored blackbirds may forage within the action area.

Environmental Consequences

Wetlands and Other Waters

About 0.012 acre of permanent impacts to an ephemeral drainage system are expected due to the extension of the existing box culvert. However, with the use of avoidance and minimization measures and best management practices, these impacts are expected to be minimal. A 1600 Lake and Streambed Alteration Agreement from the California Department of Fish and Wildlife for project impacts will be required. Additionally, this drainage is expected to be jurisdictional by the Regional Water Quality Control Board and would require a 401 Water Quality Certification in addition to a 404 Nationwide Permit from the U.S. Army Corps of Engineers.

Plant Species

Despite suitable habitat being present, no California Rare Plants or federally or state-listed plant species were seen within the action area during surveys, and none of the species had recently documented occurrences in the action area. Therefore, no effects on special-status plant species are expected.

Animal Species

Monarch Butterfly

The Antelope Grade Vertical Curve Correction and Truck Climbing Lane Extension Project could impact the monarch butterfly indirectly through various project activities.

Although the Antelope Grade Vertical Curve Correction and Truck Climbing Lane Extension Project is not expected to impact potential monarch butterfly habitat directly, this species could be indirectly impacted by construction equipment during construction. However, the indirect impacts are not expected to be greater than what the baseline conditions presently pose for this species because construction equipment will be moving slower than vehicles traveling in the project area. Also, the planned night work during

construction could result in light pollution, which may disrupt the natural behaviors of the monarch butterfly.

Western Spadefoot Toad

The proposed project involves extending the existing truck climbing lane, which will require the removal of two trees at post mile 0.0 and vegetation trimming and clearing within the project impact area. This would result in 7.94 acres of temporary impacts and 1.85 acres of permanent impacts to ruderal grassland habitat within the Caltrans right-of-way. While the removal of vegetation may result in localized potential habitat loss, the overall extent of this impact is minimal due to the limited scale of the project and because all work would only be conducted within the existing Caltrans right-of-way in low-quality habitat. Furthermore, the only aquatic feature within the action area is an ephemeral drainage system. This drainage channel only receives water during heavy precipitation events, meaning it does not provide a consistent and reliable aquatic habitat for the western spadefoot toad.

Lastly, noise and nightwork disturbances during construction could temporarily affect the behavior of the western spadefoot toad. However, avoidance and minimization measures will help reduce the potential of these temporary impacts.

California Glossy Snake and San Joaquin Coachwhip

The proposed project will require the removal of two trees at post mile 0.0 and vegetation trimming and clearing within the project impact area. This would result in 7.94 acres of temporary impacts and 1.85 acres of permanent impacts to ruderal grassland habitat within the Caltrans right-of-way. While removing vegetation may cause localized habitat loss for both the California glossy snake and the San Joaquin Valley coachwhip, the overall extent of this impact is relatively limited due to the limited scale of the project and the fact that all work would only be conducted within the existing Caltrans right-of-way.

Construction activities alone could pose direct threats to both species. Heavy machinery and equipment used during construction may inadvertently harm the snakes if they are present in the construction area. Night work could lead to light pollution, which may disrupt the natural behaviors of the snakes. However, the limited duration of the project (125 days) and the implementation of minimization measures can help limit the potential temporary impacts on the California glossy snake and San Joaquin Valley coachwhip.

Coast Horned Lizard

The coast horned lizard is known to live in diverse habitats, including grasslands, shrublands, and open areas, which could be impacted by construction activities. The proposed project involves extending the existing

truck climbing lane, which will require the removal of two trees at post mile 0.0 and vegetation trimming and clearing within the project impact area. This would result in 7.94 acres of temporary impacts and 1.85 acres of permanent impacts to ruderal grassland habitat within the Caltrans right-of-way. The overall extent of this impact is relatively limited due to the limited scale of the project and the fact that all work would only be conducted within the existing Caltrans right-of-way. Implementing minimization measures can help limit the potential temporary impacts on the coast horned lizard.

Grasshopper Sparrow

The proposed project involves extending the existing truck climbing lane, which will require the removal of two trees at post mile 0.0 and vegetation trimming and clearing within the project impact area. This would result in 7.94 acres of temporary impacts and 1.85 acres of permanent impacts to ruderal grassland habitat within the Caltrans right-of-way. The permanent and temporary disturbance to this ruderal grassland habitat required for the project could temporarily impact potential grasshopper sparrow nesting habitat. Any disturbance to their nesting areas during the breeding season could lead to nest abandonment, reduced reproductive success, and a decline in the local grasshopper sparrow population.

Heavy machinery and earth-moving activities could inadvertently harm the grasshopper sparrows or destroy their nests if they are present within the project's ruderal habitat. However, grasshopper sparrows are highly mobile creatures and are likely to avoid areas where there is intense human activity or machinery in operation. Therefore, the likelihood of actual injury or nest destruction is reduced because these birds are apt to vacate the area temporarily to avoid direct harm, thus minimizing the impact on the local population. Additionally, the planned night work during construction could result in light and noise pollution, which may disrupt the natural behaviors of the grasshopper sparrow. Implementing minimization measures can help limit the potential temporary impacts on the grasshopper sparrow.

Burrowing Owl

The proposed project involves extending the existing truck climbing lane, which will require the removal of two trees at post mile 0.0 and vegetation trimming and clearing within the project impact area. This would result in 7.94 acres of temporary impacts and 1.85 acres of permanent impacts to ruderal grassland habitat within the Caltrans right-of-way. The permanent and temporary impacts on this ruderal grassland habitat required for the project may result in the disturbance of nesting habitat for the burrowing owl. Any disturbance to their nesting areas during the breeding season could lead to nest abandonment, reduced reproductive success, and a decline in the local burrowing owl population.

Removing trees and vegetation required for the project could temporarily impact the burrowing owl's foraging areas. However, Caltrans expects to affect only a small portion of the available habitat in the immediate project vicinity. As a result, sufficient alternative foraging habitat exists in the area to ensure that the local population is unlikely to be adversely affected.

Construction activities alone could pose direct threats to burrowing owls. Heavy machinery and equipment used during construction may inadvertently harm burrowing owls if they are present in the construction area. Excavation and earth-moving activities could destroy burrows or injure adult burrowing owls, leading to significant impacts on the local burrowing owl population. The planned night work during construction could result in light and noise pollution, which may disrupt the natural behaviors of burrowing owls. Implementing minimization measures can help limit the potential temporary impacts on burrowing owls.

American Badger

The proposed project involves extending the existing truck climbing lane, which will require the removal of two trees at post mile 0.0 and vegetation trimming and clearing within the project impact area. This would result in 7.94 acres of temporary impacts and 1.85 acres of permanent impacts on ruderal grassland habitat within the Caltrans right-of-way. The permanent and temporary impacts on this ruderal grassland habitat required for the project may result in disturbance of foraging, hunting, and denning habitat for the American badger.

Heavy machinery and equipment used during construction may inadvertently harm American badgers if they are present in the construction area. Excavation and earth-moving activities could destroy burrows or disturb American badgers, leading to potential injuries or mortality. The planned night work during construction could result in light and noise pollution, which may disrupt the natural behaviors of American badgers. Implementing minimization measures can help limit the potential temporary impacts on American badgers.

Threatened and Endangered Species

California Tiger Salamander

The proposed project involves extending the existing truck climbing lane, which will require the removal of two trees at post mile 0.0 and vegetation trimming and clearing within the project impact area. This would result in 7.94 acres of temporary impacts and 1.85 acres of permanent impacts on ruderal grassland habitat within the Caltrans right-of-way. This ruderal grassland is not suitable for California tiger salamanders because it lies beyond the 1.24-mile dispersal range from potentially suitable breeding habitat. Furthermore, the only aquatic feature within the action area is an ephemeral drainage system. Because this drainage channel only receives water during heavy

precipitation events, it does not provide a consistent and reliable aquatic habitat for the California tiger salamander.

Lastly, noise and night work disturbances during construction could temporarily affect the behavior of the California tiger salamander. However, avoidance and minimization measures will help reduce the potential of these temporary impacts.

With avoidance and minimization measures in place, the project may affect but is not likely to adversely affect the California tiger salamander.

San Joaquin Kit Fox

The proposed project involves extending the existing truck climbing lane, which will require the removal of two trees at post mile 0.0 and vegetation trimming and clearing within the project impact area. This would result in 7.94 acres of temporary impacts and 1.85 acres of permanent impacts on ruderal grassland habitat within the Caltrans right-of-way.

While habitat within the right-of-way may be unavailable to potential San Joaquin kit foxes in the area during construction, there is plenty of available habitat present next to the project site for any potential San Joaquin kit foxes in the area to use. Construction activities alone could pose direct threats to the San Joaquin kit fox. Heavy machinery and equipment used during construction may inadvertently harm San Joaquin kit foxes if they are present in the construction area. The planned night work during construction could result in light and noise pollution, which may disrupt the natural behaviors of San Joaquin kit foxes.

With avoidance and minimization measures in place, the project may affect but is not likely to adversely affect the San Joaquin kit fox.

Tricolored Blackbird

The proposed project involves extending the existing truck climbing lane, which will require the removal of two trees at post mile 0.0 and vegetation trimming and clearing within the project impact area. This would result in 7.94 acres of temporary impacts and 1.85 acres of permanent impacts on ruderal grassland habitat within the Caltrans right-of-way. Tricolored blackbirds rely on grasslands and agricultural fields to feed on seeds and insects. Construction activities may disrupt their access to these food sources, potentially leading to food scarcity and affecting their health and survival. The overall extent of this impact is relatively limited due to the limited scale of the project. Additionally, heavy machinery and equipment used during construction may inadvertently harm the tricolored blackbirds if they are present in the construction area. Excavation and earth-moving activities could injure adult tricolored blackbirds, leading to impacts on the local tricolored blackbird population. Implementing avoidance and minimization measures can help limit the potential impacts on tricolored blackbirds.

Avoidance, Minimization, and/or Mitigation Measures

The following protection measures will be implemented within the jurisdictional water area:

- Best Management Practices will be in place during construction to minimize impacts on the ephemeral channel on-site.
- A Stormwater Pollution Prevention Plan will be prepared specifically for the proposed project and will include measures to reduce impacts on aquatic resources.
- An Emergency Spill Prevention Plan will be prepared and include measures to minimize the risk of fluids or other materials (oils, transmission and hydraulic fluids, cement, and fuel) from entering waterways.
- Once construction is complete, all areas disturbed within the jurisdictional waterway will be reseeded with compost and native hydroseed mix. Native vegetation suitable for the local climate and soil conditions would be selected.

The following measures will be implemented to avoid and minimize impacts on the monarch butterfly, California tiger salamander, San Joaquin kit fox, California glossy snake, San Joaquin coachwhip, coast horned lizard, American badger, and tricolored blackbird:

- A Caltrans biologist would conduct preconstruction meetings and environmental awareness training with the construction contractor and crew on the potential presence of species in the project area. The Caltrans biologist would also educate on-site workers in the identification and habitat requirements of the listed species, as well as the ramifications of take of listed species.
- Staging and storage areas will be surveyed and approved for use by a qualified biologist before construction starts. Such areas would be clearly delineated with stakes or flagging.
- Preconstruction surveys shall be conducted no less than 14 days and no more than 30 days before the beginning of ground disturbance and/or construction activities or any project activity likely to impact the listed species. Surveys should identify habitat features on the project site and evaluate use if species are present.
- To facilitate wildlife crossings at the box culvert at post mile 60.57, Caltrans will install permanent directional fencing that extends outwards from either side of the culvert openings on both the westbound and eastbound sides. Caltrans will coordinate with the U.S. Fish and Wildlife

Service to determine what type of fencing material, dimensions, and configuration will be most appropriate and effective for guiding wildlife to cross safely under the highway using the culvert.

- California native species (local stock preferred and approved by a Caltrans District 5 Landscape Architect) will be used in revegetation and habitat enhancement efforts associated with the project.
- Strict protocols for pesticide use during construction will be implemented, including the avoidance of pesticide use within 500 feet of water courses.
- Project-related vehicles should observe a 10-mile-per-hour speed limit in all project areas, except on county roads and state and federal highways. Off-road traffic outside designated project areas should be prohibited.
- Caltrans must ensure that project-related vehicles do not leak antifreeze or other hazardous materials.
- All food-related trash items, such as wrappers, cans, bottles, and food scraps, should be disposed of in closed containers and removed daily from the construction or project site.
- No firearms shall be allowed on the project site.
- To prevent harassment, mortality of species, or destruction of dens by dogs or cats, no pets should be permitted on project sites.
- A qualified biologist will be present on-site during the initial ground disturbance. The biologist will be available on call thereafter.
- Upon completion of the project, all areas subject to temporary ground disturbances, including storage and staging areas, temporary roads, pipeline corridors, etc., should be recontoured if necessary and revegetated to promote restoration of the area to pre-project conditions.

The following species-specific measures will also be implemented as avoidance and minimization:

Monarch Butterfly

- If a monarch butterfly, a federally listed species, is found on-site and work is required where monarch caterpillars or chrysalises are present, no work would occur in the immediate area. In the meantime, Caltrans will coordinate with the U.S. Fish and Wildlife Service to determine appropriate protective measures.
- The project will use lighting strategies during night work that minimize impacts on monarch butterflies, such as shielding lights and directing them away from areas frequented by the butterflies during nighttime roosting.

California Tiger Salamander

- A qualified biologist will be present on-site to monitor for the California tiger salamander during initial ground-disturbing activities in suitable habitat or in areas next to suitable upland habitat. When not on-site, a biologist will be available on-call if the species is seen on-site or near the project footprint.
- At least 30 days before the start of project activities, the project proponent must submit the name(s) and credentials of the biologist(s) who would conduct activities for the California tiger salamander. Project activities must not begin until Caltrans has received written approval from the U.S. Fish and Wildlife Service of the biologist(s) they intend to use.
- No construction activities will be conducted in upland areas where migrating California tiger salamanders may occur if: (1) it is raining; (2) there is a greater than 70 percent chance of rain based on the National Oceanic and Atmospheric Administration's National Weather Service forecast on any given workday; or (3) a rain event greater than 0.25 inch has occurred within the past 48 hours. Before resuming work following a rain event, a qualified biologist will conduct a new preconstruction visual encounter survey of the work area to confirm that no California tiger salamanders are present.
- The Incidental Take Permit issued by the California Department of Fish and Wildlife will include additional avoidance, minimization, and/or mitigation measures required by the permit. These will be included in the final Environmental Commitments Record prepared for the project.

Tricolored Blackbird, Grasshopper Sparrow, and Burrowing Owl

- If found on-site, an active tricolored blackbird, grasshopper sparrow, or burrowing owl nest will be avoided during construction activities, and an appropriate no-disturbance buffer will be established within the work area until a qualified biologist has determined that the young have fledged. A qualified biologist will monitor the nest to evaluate if the level of disturbance may interfere with the bird's breeding activities.
- If construction occurs during the nesting season, February 15 through August 31, focused nesting surveys will be completed before construction to determine if any tricolored blackbirds, grasshopper sparrows, or burrowing owls are nesting in the project area. If the construction area is inactive for more than 14 days, surveys will be repeated.
- If possible, vegetation removal will be completed outside the nesting season, February 15 through August 31.

American Badger

If a potential den is seen on-site, a trail camera will be placed at the potential den location to confirm that the den is being used.

- If an American badger is confirmed to be present in the project footprint, an appropriate no-disturbance buffer will be established around the occupied den.

San Joaquin Kit Fox

- The status of all dens for the San Joaquin kit fox should be determined, mapped, and provided to the U.S. Fish and Wildlife Service within five days after survey completion and before the start of construction activities.
- The following buffers shall be used if San Joaquin kit fox dens are found: potential den (50-foot buffer), known den (100-foot buffer), atypical den (50-foot buffer), potential natal den (250-foot buffer), and known natal den (500-foot buffer) with consultation with the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife.
- A qualified biologist will be present on-site to monitor for the San Joaquin kit fox during initial ground-disturbing activities in suitable habitat or in areas adjacent to suitable upland habitat. When not on-site, a biologist will be available on-call if the species is observed either on-site or in proximity to the project footprint.
- To prevent unintentionally trapping San Joaquin kit foxes or other animals during the construction phase of a project, all excavated, steep-walled holes or trenches more than 2 feet deep should be covered at the close of each working day by plywood or similar materials or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals.
- San Joaquin kit foxes are attracted to den-like structures such as pipes and may enter stored pipes, becoming trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4 inches or greater that are stored at a construction site for one or more overnight periods should be thoroughly inspected for San Joaquin kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a San Joaquin kit fox is discovered inside a pipe, that section of pipe should not be moved until the U.S. Fish and Wildlife Service has been consulted.
- The use of rodenticides and herbicides in project areas should be restricted. This is necessary to prevent primary or secondary poisoning of species and the depletion of prey populations. All uses of such compounds should comply with labels and other restrictions mandated by

the U.S. Environmental Protection Agency, the California Department of Food and Agriculture, and other state and federal legislation, as well as additional project-related restrictions deemed necessary by the U.S. Fish and Wildlife Service. If rodent control must be conducted, zinc phosphide should be used because of its proven lower risk to San Joaquin kit foxes.

2.1.5 Cultural Resources

Considering the information in the Historic Property Survey Report dated August 2023 and the Archaeology Survey Report dated August 2023, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Cultural Resources
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	No Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	No Impact
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	No Impact

2.1.6 Energy

Project implementation would result in the short-term use of fossil fuels, electricity, and natural gas by construction vehicles and equipment to construct the climbing lane extension. The use of these resources would be temporary and would not result in a significant demand on resources.

No direct or indirect effects related to wasteful, inefficient, or unnecessary energy consumption will occur. The project will not conflict with or obstruct any state or local plans for renewable energy or energy efficiency. Considering the information included in the Energy Memorandum dated June 2023, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Energy
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?	No Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	No Impact

2.1.7 Geology and Soils

Considering the information in the California Department of Conservation Map Data Viewer webpage accessed June 2023 and a Paleontological Identification Report dated June 2023, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Geology and Soils
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	No Impact
ii) Strong seismic ground shaking?	No Impact
iii) Seismic-related ground failure, including liquefaction?	No Impact
iv) Landslides?	No Impact
b) Result in substantial soil erosion or the loss of topsoil?	No Impact
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	No Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	No Impact

2.1.8 Greenhouse Gas Emissions

Considering the information in the Air Quality Memorandum dated May 2023 and the Climate Change Technical Memorandum dated May 2023, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Greenhouse Gas Emissions
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less Than Significant Impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Less Than Significant Impact

Affected Environment

The proposed project is in a rural area at the eastern edge of San Luis Obispo County and the western edge of Kern County, where the State Route 46 Corridor connects the Central Valley with the Central Coast. The project spans from post miles 60.3 to 60.85 in San Luis Obispo County and from post miles 0.0 to 0.4 in Kern County. State Route 46 is a rural, two-lane highway with a truck climbing lane on a portion of the eastbound side. Agriculture and open space dominate the landscape.

State Route 46 is the main transportation route to and through the area for passenger and commercial vehicles. The nearest alternate route is State Route 41 to the north, State Route 58 to the south, and State Route 166 to the south. State Routes 58 and 166 are not as frequently traveled due to steep topography and more curves.

Traffic is primarily interregional, serving a substantial number of recreational visitors and a high level of goods movement to and from the Central Valley. Peak hour traffic congestion has diminished substantially within the other widened sections along State Route 46 since improvements were constructed. “Peak hour” is defined as the interval of time during which the average daily traffic is heaviest. The remaining two-lane section of the corridor at Antelope Grade continues to experience peak hour congestion, primarily on the weekends, from late morning on Saturday to Sunday evening.

The San Luis Obispo Council of Governments guides transportation development in the area. The 2014 San Luis Obispo Council of Governments' Regional Transportation Plan/Sustainable Communities Strategy indicates that it is the most important east-west route in the region.

Environmental Consequences

Greenhouse gas emissions impacts of non-capacity-increasing projects like the Antelope Grade Vertical Curve Correction and Truck Climbing Lane Extension Project are considered less than significant under CEQA because there would be no increase in operational emissions.

However, construction equipment, traffic delays, material processing and transportation, and delivery may generate short-term greenhouse gas emissions during construction. These emissions would be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases. Carbon dioxide emissions generated from construction equipment were estimated using the Caltrans Construction Emissions Tool v1.1. The estimated emissions would be 80 tons of carbon dioxide per 250 working days.

All construction contracts include Caltrans Standard Specifications related to air quality. Sections 7-1.02A and 7-1.02C, Emissions Reduction, require contractors to comply with all laws applicable to the project and to certify they are aware of and will comply with all California Air Resources Board emissions reduction regulations. Section 14-9.02, Air Pollution Control, requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce greenhouse gas emissions.

While the proposed project will result in greenhouse gas emissions during construction, the project is not expected to increase operational greenhouse gas emissions. The proposed project does not conflict with any applicable plan, policy, or regulation adopted to reduce the emissions of greenhouse gases. With the implementation of construction greenhouse gas reduction measures, the impact would be less than significant.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans Standard Specifications Section 14.9.02, Air Pollution Control, requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. Measures that reduce construction vehicle emissions also help reduce greenhouse gas emissions.

The following minimization measures will be implemented in addition to Caltrans Standard Specifications in the project to further reduce greenhouse gas emissions and potential climate change impacts from the project:

- GHG-1: Long-Life Pavement—Minimize life-cycle costs by designing long-lasting pavement structures. This would be incorporated into the project design during the project design phase.

- **GHG-2: Fuel Efficiency**—Encourage improved fuel efficiency from construction equipment by maintaining equipment in proper working condition, using the right size equipment for the job, and using equipment with new technologies. This would be part of the project contract as Caltrans Standard Specifications Section 14-9.
- **GHG-3: Earthwork Balance**—Reduce the need to transport earthen materials by balancing cut and fill quantities. This would be addressed during the project design phase.
- **GHG-4: Provide construction personnel with the knowledge to identify environmental issues and best practice methods to minimize impacts on the human and natural environment.** Supplement existing training with information from the following link regarding methods to reduce greenhouse gas emissions related to construction:
<https://www.sustainablehighways.org/122/project-development.html>.
- **GHG-5: Reduce construction waste**—This would be a part of the project contract as Caltrans Standard Specifications Section 14-10.03 requires a Solid Waste Disposal and Recycling Report and a Recycled Materials Report demonstrating efforts to minimize landfill material.

2.1.9 Hazards and Hazardous Materials

Considering the information in the Initial Site Assessment dated May 2023, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Hazards and Hazardous Materials
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Less Than Significant Impact
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	No Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	No Impact

Question—Would the project:	CEQA Significance Determinations for Hazards and Hazardous Materials
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	No Impact
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	No Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	No Impact

Affected Environment

An Initial Site Assessment was done to identify potential sources of hazardous materials, hazardous waste, or contamination within or near the project.

Aerially Deposited Lead

The historic use of leaded gasoline in automobiles has led to soil along roadways throughout California containing elevated concentrations of lead. Soil determined to contain lead concentrations exceeding stipulated thresholds must be managed under the July 1, 2016, Aerially Deposited Lead Agreement between Caltrans and the California Department of Toxic Substances Control. This agreement outlines which soils can be safely reused within the project limits and which soils must be exported and disposed of as hazardous waste.

Naturally Occurring Asbestos and Asbestos-Containing Materials

The San Joaquin Valley Air Pollution Control District regulates human-made structures like concrete box culverts and bridges under the National Emission Standards for Hazardous Air Pollutants, which mandates a thorough inspection for asbestos-containing materials before any regulated facility is demolished or renovated. Additionally, naturally occurring asbestos is

typically found in serpentine and other ultramafic rocks. According to the California Air Resources Board, naturally occurring asbestos is an air contaminant that should be avoided. If inhaled, naturally occurring asbestos may have harmful consequences on one's health, including the development of lung cancer.

Yellow or White Paint

Yellow traffic paint purchased by Caltrans before 1997 contained high concentrations of lead. Application of yellow thermoplastic material containing high concentrations of lead continued until at least 2004 to 2006. The lead concentrations in the older yellow paint and yellow thermoplastic are high enough to make these materials hazardous wastes when they are removed.

Treated Wood Waste

Highway guardrail support posts and signposts often consist of wood treated with chemical preservatives to prevent rot or damage from insects. Treated wood waste is considered a California hazardous waste.

Environmental Consequences

Routine hazardous materials and wastes that may be encountered during the project are discussed below.

Aerially Deposited Lead

A statistical analysis was conducted using the Environmental Protection Agency's ProUCL (Upper Confidence Limit) tools. This analysis used lead data from soil samples collected to a maximum depth of 2 feet below the surface within the project boundary from a previous aerially deposited lead investigation. The analysis found a total lead 95 percent upper confidence limit of 40.58 milligrams/kilogram, which is below the California Human Health Screening Level of 80 milligrams/kilogram and the Environmental Screening Level of 80 milligrams/kilogram. Additionally, the statistical analysis for the soluble waste extraction threshold was based on five soil samples with concentrations ranging from 0.82 milligram/liter to 5.2 milligrams/liter and resulted in a predicted 95 percent upper confidence limit concentration of 4.46 milligrams/liter, which is below the regulatory soluble threshold limit concentration of 5 milligrams/liter. Based on this statistical analysis, excess soils produced within the project boundaries would be categorized as non-hazardous/non-regulated soil (Type X), which can be disposed of or used on-site without restrictions. A Lead Compliance Plan and Caltrans' Standard Special Provisions Section 7-1.02K(6)(j)(iii)—Earth Material Containing Lead will be required.

Naturally Occurring Asbestos and Asbestos-Containing Materials

For this project, the inspection for asbestos-containing materials is not required because the proposed culvert modification would attach roughly 6-by-6-foot culvert boxes to a total of 30 feet of the length extending north

without altering or demolishing the existing box culvert. Serpentine rock can be found in several locations around San Luis Obispo County and Kern County. The Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations of the California Air Resources Board must be complied with before engaging in grading activities in areas where naturally occurring asbestos potentially exists.

A portion of the proposed project footprint to the northwest falls within a naturally occurring asbestos area and would require compliance with the Naturally Occurring Asbestos Airborne Toxic Control Measures. An asbestos compliance plan will be required.

Treated Wood Waste

Treated wood waste may be generated if guardrails, barriers, or signs need to be removed or replaced. Treated wood waste would be disposed of appropriately, and Standard Special Provisions Section 14-11.14 would be included in the construction contract for proper management and disposal of treated wood waste.

Yellow or White Paint

A portion of pavement will be removed and rebuilt to straighten a vertical curve. Yellow and/or white paint and markings can contain concentrations of lead. Pavement paint and markings must be handled and disposed of appropriately. The appropriate Standard Special Provisions will be provided during the design phase of the project.

Routine hazardous waste issues may be encountered during project construction but would be appropriately handled, treated, and disposed of as required with the implementation of Caltrans Standard Specifications and Caltrans Standard Special Provisions. Adverse effects to human health and the environment would be less than significant.

Avoidance, Minimization, and/or Mitigation Measures

No avoidance, minimization, and/or mitigation measures are needed.

2.1.10 Hydrology and Water Quality

Considering the information in the Water Compliance Memorandum dated May 2023, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Hydrology and Water Quality
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water or groundwater quality?	No Impact
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	No Impact
(i) result in substantial erosion or siltation on-site or off-site;	
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-site or off-site;	No Impact
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	No Impact
(iv) impede or redirect flood flows?	No Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	No Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	No Impact

2.1.11 Land Use and Planning

The project would not change existing or future land uses within or next to the project limits on State Route 46, nor would it divide an established community. No changes to the alignment, function, or capacity of the highway are proposed. The project would not conflict with the elements of the 2015 San Luis Obispo County or 2009 Kern County General Plan or any other land

use policy or regulation intended to avoid or mitigate any effects on the environment. The project would not directly or indirectly cause changes in land uses that would conflict with planning policies and regulations.

Considering this information, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Land Use and Planning
a) Physically divide an established community?	No Impact
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	No Impact

2.1.12 Mineral Resources

There are no known mineral resources in the project vicinity, such as mine locations, mining districts, or oil and gas resources. Considering the information on the California Department of Conservation Online Mineral Land Classification Interactive Map accessed in May 2023, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Mineral Resources
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	No Impact
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	No Impact

2.1.13 Noise

Considering the information in the Noise Study Report dated May 2023, the following significance determinations have been made:

Question—Would the project result in:	CEQA Significance Determinations for Noise
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	No Impact
b) Generation of excessive groundborne vibration or groundborne noise levels?	No Impact
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	No Impact

2.1.14 Population and Housing

The project will extend a truck climbing lane and correct a vertical curve within Caltrans' right-of-way and would not directly or indirectly induce substantial unplanned population growth in the area and no person or business would be relocated or displaced. No additional housing or development is proposed, nor does the project influence or impact existing housing.

Question—Would the project:	CEQA Significance Determinations for Population and Housing
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	No Impact
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	No Impact

2.1.15 Public Services

The project will extend a truck climbing lane and correct a vertical curve in Caltrans' right-of-way. It won't require new or modified public services. Considering the scope and location of the project in a rural setting, the following significance determinations have been made:

Question:	CEQA Significance Determinations for 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?	No Impact
Police protection?	No Impact
Schools?	No Impact
Parks?	No Impact
Other public facilities?	No Impact

2.1.16 Recreation

The project will extend a truck climbing lane and correct a vertical curve within Caltrans' right-of-way. It would not increase the use of existing neighborhood or regional parks or other recreational facilities. No recreational facilities are within the vicinity of the proposed project. Considering this information, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for 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?	No Impact
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	No Impact

2.1.17 Transportation

The project would align with existing transportation planning documents for the area, including the Kern Council of Governments' 2022 Regional Transportation Plan and the San Luis Obispo Council of Governments' 2019 Regional Transportation Plan. The project would improve the mobility of people and freight. Pursuant to Caltrans' policy memorandum on transportation impact analysis dated September 10, 2020, truck climbing lanes in rural areas that do not increase overall vehicle capacity are listed as a project type that is not likely to lead to an increase in vehicle miles traveled. Existing hazards on the route would be reduced by correcting a deficient vertical crest curve at the San Luis Obispo and Kern County lines to improve sight distance along the highway. Considering this information, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Transportation
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	No Impact
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	No Impact
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	No Impact
d) Result in inadequate emergency access?	No Impact

2.1.18 Tribal Cultural Resources

Considering the information in the Historic Property Survey Report dated August 2023 and the Archaeology Survey Report dated August 2023, the following significance determinations have been made:

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

Question:	CEQA Significance Determinations for Tribal Cultural Resources
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	No Impact
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	No Impact

2.1.19 Utilities and Service Systems

Several utilities are in the project vicinity, including belowground oil pipelines north of the existing highway, the belowground California aqueduct south of the existing highway, and aboveground electrical poles and powerlines south of the existing highway. Construction of the truck climbing lane extension will not impact the existing utilities, and relocations are not expected.

Caltrans will continue communication with the utility owners throughout the Plans, Specifications, and Estimates phase and the construction phase of the project to ensure that no conflicts occur with utility services or equipment. If utilities need to be relocated, Caltrans will review the proposed locations at that time to ensure no significant environmental effects are caused. The project does not include new wastewater, stormwater, power, telecommunications, or natural gas lines. Considering this information, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Utilities and Service Systems
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	No Impact

Question—Would the project:	CEQA Significance Determinations for Utilities and Service Systems
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	No Impact
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	No Impact
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	No Impact
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	No Impact

2.1.20 Wildfire

According to the 2022 California Department of Forestry and Fire Protection's Fire Hazard Severity Zone Mapping, accessed in May 2023, the project is in an area designated as a high fire hazard severity zone. Considering this and the Climate Change Memorandum dated May 2023, the following significance determinations have been made:

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones:

Question—Would the project:	CEQA Significance Determinations for Wildfire
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	No Impact
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	No Impact

Question—Would the project:	CEQA Significance Determinations for Wildfire
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	No Impact
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	No Impact

2.1.21 Mandatory Findings of Significance

Question:	CEQA Significance Determinations for Mandatory Findings of Significance
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	No Impact
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	No Impact
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	No Impact

Appendix A Title VI Policy Statement

CALIFORNIA STATE TRANSPORTATION AGENCY

GAVIN NEWSOM, GOVERNOR

California Department of Transportation

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September 2023

NON-DISCRIMINATION POLICY STATEMENT

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964, ensures *"No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance."*

Caltrans will make every effort to ensure nondiscrimination in all of its services, programs and activities, whether they are federally funded or not, and that services and benefits are fairly distributed to all people, regardless of race, color, or national origin. In addition, Caltrans will facilitate meaningful participation in the transportation planning process in a non-discriminatory manner.

Related federal statutes, remedies, and state law further those protections to include sex, disability, religion, sexual orientation, and age.

For information or guidance on how to file a complaint, or obtain more information regarding Title VI, please contact the Title VI Branch Manager at (916) 639-6392 or visit the following web page: <https://dot.ca.gov/programs/civil-rights/title-vi>.

To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Civil Rights, at PO Box 942874, MS-79, Sacramento, CA 94274-0001; (916) 879-6768 (TTY 711); or at Title.VI@dot.ca.gov.

A handwritten signature in black ink, appearing to read 'Tony Tavares'.

TONY TAVARES
Director

"Provide a safe and reliable transportation network that serves all people and respects the environment"

Appendix B Letter of Concurrence

The Letter of Concurrence received from the U.S. Fish and Wildlife Service on November 6, 2023.



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
SFWO_mail@fws.gov



In Reply Refer to:
2023-0073904-S7-001

November 6, 2023
Sent Electronically

Dena Gonzalez
Chief, Central Region Biology Branch
California Department of Transportation, District 6
2015 East Shields Avenue, Suite 200
Fresno, California 93726
dena.gonzalez@dot.ca.gov

Subject: Informal Consultation for the Antelope Grade Truck Climbing Lane Extension Project in San Luis Obispo and Kern Counties, California (California Department of Transportation 5-SLO-46-PM 60.3/60.85; 5-KER-46-PM 0.0/0.4; EA 05-1Q030)

Dear Dena Gonzalez:

This is the U.S. Fish and Wildlife Service's (Service) response to the California Department of Transportation's (Caltrans) July 18, 2023, letter requesting the initiation of consultation on its action to construct the proposed Antelope Grade Truck Climbing Lane Extension Project (project) in San Luis Obispo and Kern Counties, California. 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* (signed on October 1, 2012; renewed on December 23, 2016 for a term of five years and finalized effectively on March 30, 2017; and signed for a new term of 10 years on May 27, 2022).

Pursuant to 50 CFR 402.12(j), Caltrans submitted a biological assessment for our review of the findings presented therein. These findings concluded that the project may affect but is not likely to adversely affect the federally endangered San Joaquin kit fox (kit fox) (*Vulpes macrotis mutica*) and the federally threatened Central California distinct population segment of the California tiger salamander (tiger salamander) (*Ambystoma californiense*). In considering Caltrans' request, we based our evaluation on the following: 1) Caltrans' July 18, 2023, consultation request letter and its July 2023 *Antelope Grade Truck Climbing Lane Extension*

Dena Gonzalez

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Biological Assessment; 2) Caltrans' revised September 2023 biological assessment; 3) email correspondence between the Service and Caltrans, including additional project information provided by Caltrans on September 19 and 27, 2023, and on October 18, 2023; and 4) other information available to the Service.

Description of the Proposed Action

Caltrans proposes to extend the existing westbound truck climbing lane on State Route (SR) 46 along an approximately 5,000 feet segment, from postmiles 60.3 to 60.85 in San Luis Obispo County and from postmiles 0.0 to 0.4 in Kern County. Caltrans will widen the westbound lane by 12 feet to produce a standard 12 feet wide lane plus 10 feet wide outside shoulder (the existing shoulder is mostly 10 feet wide along the alignment). Work will involve clearing and grubbing (i.e., removing vegetation), and cutting and regrading the slopes within the right-of-way to facilitate the lane widening.

In Kern County, SR 46 is a four-lane expressway that ends in San Luis Obispo County, where it continues as a two-lane conventional highway for approximately one mile before connecting to the truck climbing lane for safe passing. The purpose of the project is to improve traffic flow and provide safe passing opportunities for passenger and freight vehicles along this one-mile segment of SR 46.

Caltrans also proposes to correct the deficient vertical crest curve around the Kern/San Luis Obispo County line to improve stopping sight distance along the highway (approximately between postmile 60.7 in San Luis Obispo County and postmile 0.07 in Kern County). To smooth out the vertical profile, this will involve replacing the existing pavement in both westbound and eastbound directions and increasing and lowering the height of the road in different areas.

Caltrans also will extend an existing six by six feet concrete box culvert, which passes under SR 46 at postmile 60.57, by an additional 22 feet to the north of SR 46 to accommodate the lane extension and to move the headwall outside of the clear recovery zone. This will eliminate the need for guardrail on the westbound side. Caltrans will drill and bond rebar to the existing inlet. Work will occur in the ephemeral drainage area, but only when dry. Caltrans will remove the guardrail along the westbound shoulder at the box culvert site and replace it with new guardrail. Caltrans also will remove two trees along the outside eastbound shoulder at postmile 0.0 (Kern County line).

Construction will occur across three stages. In stage 1, Caltrans will redirect traffic to the eastbound shoulder. In stage 2, Caltrans will saw-cut and remove the existing asphalt concrete pavement and underlying base materials from the SR 46 westbound shoulder. In stage 3, Caltrans will shift traffic to the westbound side once construction there has finished in order to construct the lower profile form on the eastbound lanes and shoulders.

Caltrans will not require new right-of-way for the project; all work and access will occur within and from the existing right-of-way. No road closures or detours will be necessary as Caltrans will use reversing traffic control. No utility relocations will be required. Caltrans expects that construction will begin in May 2026 and will take 125 workdays (including a maximum of 10 nights) across 6 to 12 months. Nighttime work will be necessary for activities such as setting up/removing temporary k-rail, installing temporary traffic control devices, and restriping for staged construction. Staging and storage areas have not been identified at this time; specific

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locations will depend on Caltrans' decisions during the final phases of project design and on the construction contractor but likely will include paved areas and previously disturbed areas within the right-of-way.

The 53.36-acre action area includes: (1) the project footprint, which is the area that will be affected by construction activities, equipment, and personnel- this area consists of a 0.95-mile segment of SR 46 (including the travel lanes, truck passing lane, and shoulders), four culverts, and Caltrans' existing right-of-way; and (2) land and hydrological features up to approximately 200 feet out from the centerline of SR 46 where the farther-reaching effects of construction activities such as temporary noise, vibrations, and visual disturbance have the potential to extend.

Conservation Measures

Caltrans and its contractor will implement the following measures to avoid adverse effects to the kit fox and tiger salamander. For 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 kit fox and tiger salamander.

General/Multi-Species:

- 1) *Environmental Awareness Training.* Prior to the start of work/ground disturbance, a qualified biologist will provide environmental awareness training for all construction personnel, including contractors, subcontractors, and contractors' representatives, covering the status of the tiger salamander; how to identify the species and its habitat; the importance of avoiding impacts to the species; the laws that protect it; and what to do if an individual is encountered during construction. New construction personnel who are added to the project after the training is first conducted also will be required to take the training. Caltrans will keep documentation of the training on-file, including sign-in sheets, and will make these available to the Service upon request.
- 2) *Staging.* Staging and storage areas will be surveyed and approved for use by a qualified biologist prior to the start of construction and will be delineated clearly with stakes or flagging. These will be selected within Caltrans' right-of-way to avoid small mammal burrows and aquatic features.
- 3) *Equipment Cleaning and Invasive Species Control.* To avoid introducing and spreading non-native, invasive plant species into the action area, all earthmoving equipment will be cleaned thoroughly before arriving on-site and all seeding equipment (e.g., hydroseed trucks) will be cleaned prior to beginning re-seeding work. Also, to avoid transferring any invasive species already present on-site to off-site areas, all equipment will be cleaned thoroughly before leaving the action area.
 - a) *Equipment Maintenance.* Caltrans will ensure that project-related vehicles and equipment do not leak oil, anti-freeze, transmission fluids, or other hazardous materials.
- 4) *Crossing Structure Fencing.* To facilitate wildlife crossings at the box culvert at postmile 60.57, Caltrans will install permanent directional fencing that extends outwards from either side of the culvert openings on both the westbound and eastbound sides.

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Caltrans will coordinate with the Service to determine what type of fencing material, dimensions, and configuration will be most appropriate and effective for guiding wildlife to cross safely under the highway using the culvert.

- 5) *Monitoring.* A qualified biologist will be present on-site to monitor for both the kit fox and tiger salamander during initial ground disturbing activities in suitable habitat or in areas adjacent to suitable upland habitat. When not on-site, a biologist will be available on-call if the species is observed either on-site or in proximity to the project footprint.
- 6) *Inspection of Structures, Cover Objects, and Equipment.* All construction pipes or similar structures with openings that are stored overnight on the construction site will be inspected thoroughly for both the kit fox and tiger salamander before capping, installing, burying, moving, or using the structures to ensure that animals have not taken refuge inside. The same applies to all cover objects stored on-site. Prior to being moved or used, vehicles and equipment that could provide shade, shelter, or cover also will be checked for animal presence. If an individual is discovered during these inspections, work in the immediate area will stop; the qualified biologist will be notified; and the structure, object, or vehicle will not be disturbed until the individual leaves the area of its own accord.
- 7) *Escape Ramps.* To prevent the inadvertent entrapment of the kit fox, tiger salamander, or other wildlife during construction of the project, all excavated, steep-walled openings (e.g., holes, basins, trenches) more than six inches deep will be covered at the close of each working day by plywood or similar materials, or else provided with one or more escape ramps constructed of earth fill or planks if the openings cannot be fully covered. Before any such openings are filled, they will be inspected thoroughly for trapped wildlife. If at any time a trapped or injured species is discovered, Caltrans will stop work immediately and contact the qualified biologist and the Service.
- 8) *Limit Artificial Lighting.* The use of temporary artificial lighting at night will be limited, except when necessary for construction, or for driver and pedestrian safety. Any artificial lighting used during construction will be confined to areas within the construction footprint and directed away from surrounding sensitive habitat. Caltrans will limit non-target casting of stationary lights by using shielding around the light source to further confine the illumination.
- 9) *Trash Disposal.* All food-related trash items such as wrappers, cans, bottles, and food scraps will be disposed of in closed, secured containers, and removed daily from the project site to preclude attracting predator species.
- 10) *Prohibition of Pets, Firearms, and Pesticides.* To eliminate the potential for disturbance or injury to, or death of, any species resulting from the presence of pets and firearms, neither (except for firearms carried, or working animals handled, by authorized law enforcement officials) will be allowed on the project site. No rodenticides or herbicides will be used on the project site during construction.
- 11) *Vehicle Speed Limits.* All project-related vehicles will observe a daytime speed of no more than 20 miles per hour and a nighttime speed of no more than 10 miles per hour in all project areas, except on the highway. Off-road travel outside of designated project areas will be prohibited. Project personnel will be provided with guidance on vehicle use and speed limits.

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- 12) *Revegetation*. Following project completion, Caltrans will recontour, if necessary, all temporarily disturbed areas and will revegetate these areas using a native seed mix.

Kit fox:

- 1) *Preconstruction Survey*. A qualified biologist will conduct a preconstruction survey no more than 30 days prior to the beginning of ground disturbance and/or construction activities. The survey for the kit fox will be performed throughout the project footprint, as well as in areas 200 feet out from the edge of the footprint that are accessible and/or visible with binoculars. Caltrans will provide the Service with written notification of the survey results.
- 2) *Den Avoidance*. Disturbance to any known or natal dens identified during preconstruction surveys and/or construction will be avoided. Caltrans will implement the following for any potential, known, or natal dens discovered within, or outside of, the project footprint:
 - a) *Potential Dens*. Prior to the start of work, all potential dens detected within the project footprint will be monitored by a qualified biologist for kit fox presence for four consecutive nights using a remote sensor camera. If there is no detection of the kit fox or other animal activity, these potential dens will be either 1) protected by 50-foot exclusion zones, or 2) plugged temporarily or collapsed to discourage the kit fox from denning during construction and re-checked immediately prior to groundbreaking to ensure they remain plugged or collapsed and do not show evidence of animal entry or use. If the species is detected using any dens, sub-measure b) below will apply.
 - b) *Known and Natal Dens*. Any known dens will be protected by 100-foot exclusion zones and natal dens will be protected by 200-foot exclusion zones. The exclusion zones will be demarcated by types of fencing or flagging that do not entangle the kit fox or prevent ingress/egress. If either den type is detected on-site, Caltrans will contact the Service to discuss how to proceed, including possible initiation of formal consultation if known and/or natal dens cannot be avoided by construction.

Tiger salamander:

- 1) *Preconstruction Survey*. A qualified biologist will conduct a preconstruction visual encounter survey of the entire project site no more than 14 days prior to the beginning of ground disturbance and/or construction activities. In the unlikely event that the species is detected, Caltrans will contact the Service to discuss how to proceed as well as potential initiation of formal consultation.
- 2) *Work Restrictions During Rain Events*. No construction activities will be conducted in upland areas where migrating tiger salamanders may occur if: (1) it is raining, (2) there is a greater than 70 percent chance of rain based on the National Oceanic and Atmospheric Administration's National Weather Service forecast on any given workday, or (3) a rain event greater than 0.25 inch has occurred within the past 48 hours. Prior to resuming work following a rain event, a qualified biologist will conduct a new preconstruction visual encounter survey of the work area to confirm that no tiger salamanders are present.

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Determination

The 53.36-acre action area is composed of 15.95 acres of ruderal habitat, 28.3 acres of dense annual/perennial non-native grasslands, and 9.12 acres of paved roadway. The right-of-way contains ruderal habitat, while the adjacent rural, relatively undeveloped lands beyond the right-of-way consist of grasslands. Within the action area, construction associated with widening the truck lane and the box culvert, and correcting the vertical curve profile is expected to permanently remove 1.85 acres of ruderal habitat (suitable for the kit fox). Additionally, clearing/grubbing, staging, and moving equipment/personnel foot traffic will temporarily disturb 7.95 acres of ruderal habitat.

All the surrounding lands are non-native grasslands. Nearly all are private property, except for the Polonio Pass Pumping Plant/Water Treatment Plant, which is owned and operated by the California Department of Water Resources. Livestock grazing is the principal land use in the vicinity of the project.

Habitat in the action area is already highly fragmented due to the presence of SR 46. Even though the highway will be extended out, the project is unlikely to contribute to further fragmentation, reduce existing habitat connectivity, or hinder species movement in the area given that it will be widened by a relatively short 12 feet over less than a mile segment.

Much of the habitat within Caltrans' right-of-way experiences ongoing disturbance from vehicle traffic and routine roadside maintenance activities, both of which impair its quality; these activities compact the soil along the shoulders of SR 46. The ground is also gravelly, likely due to soil disturbance caused by prior road development activities. Within the right-of-way at the eastern end of the alignment, Caltrans identified a 0.20-acre patch of grassland with abundant native shrubs during a visit to the site in April 2023 to assess habitats and conduct reconnaissance-level wildlife and botanical surveys. However, this habitat patch has since been destroyed due to a roadside fire and subsequent mowing and clearing activities. Accordingly, the project footprint is unlikely to provide consistently usable upland habitat for the kit fox or tiger salamander; the anticipated small-scale, relatively short-duration construction impacts to this habitat therefore are unlikely to result in adverse effects to either species.

Kit fox

Adverse effects to the kit fox from interactions with project equipment, crews, and daytime and nighttime construction activities (e.g., vehicle strikes, movement barriers, and disturbances due to noise and lighting) are unlikely to occur because:

- Consultant and Caltrans' biologists conducted numerous surveys (e.g., general reconnaissance wildlife, botanical, wetland delineations) both within and around the action area from 2019 to April 2023 and detected no potential dens, kit foxes, or other sign of the species' presence (i.e., scat, tracks, prey items) during these efforts.
- Even though the ruderal habitat within the right-of-way provides suitable foraging habitat for the species, Caltrans' biologists observed very few California ground squirrel (*Otospermophilus beecheyi*) or other small mammal burrows to indicate the presence of a reliable prey source for the kit fox. The compacted, gravelly soils within the right-of-way also are less conducive to denning activity. Accordingly, the species is less likely to use the right-of-way for these purposes.

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- The action area is not located in any of the core or satellite recovery units for the kit fox, which are identified as the distinct geographic units supporting kit fox populations throughout its historical range (Service, 2020). Therefore, the likelihood is low that the kit fox occurs in the project footprint. Even in the unlikely event the species does occur, it is far more likely to move through the work area than inhabit or use the area to den/forage, so any occurrence is likely to be transitory.
- Caltrans will implement its proposed conservation measures, which will avoid potential effects to the kit fox.

Based on the reasons described above, the Service concurs with Caltrans' conclusion that the action may affect but is not likely to adversely affect the kit fox because the potential for the action to affect this species is discountable.

Tiger salamander

Adverse effects to the tiger salamander from interactions with project equipment, crews, and daytime and nighttime construction activities (e.g., vehicle strikes, entombment in burrows, movement barriers, and disturbances due to noise and lighting) are unlikely to occur because:

- Although there is upland habitat for the species present within the action area in the form of the grasslands outside of the right-of-way, none of this habitat will be impacted by construction. Work will be limited to ruderal areas within the right-of-way, which are less likely to provide suitable upland refugial habitat for the tiger salamander given the dense vegetation growth, scarcity of small mammal burrows, and regular disturbances, so the species is less likely to inhabit or use the right-of-way.
- There is no suitable breeding habitat for the species within the action area. The lone water feature present is an ephemeral drainage system, which receives water only during heavy precipitation events. Therefore, it remains dry most of the year (or even year-round in below-average rain years or drought years) and does not hold water long enough to support tiger salamander breeding and metamorphosis.
- While there is potential aquatic breeding habitat present farther west and northwest of the action area within the species' 1.3-mile maximum known dispersal distance (Orloff, 2011, as cited in Service, 2017) in the form of several large water retention ponds associated with the Polonio Pass Pumping Plant/Water Treatment Plant, these are permanent water features that are heavily treated and disturbed. Even if individuals do use these features, they are unlikely to migrate into the right-of-way from these locations.
- There are no historical or recent records of the species within the action area. There are four recent records located within approximately five miles of the action area, but these are all at the outer limits of this range (California Natural Diversity Database, 2023).
- Caltrans will implement its proposed conservation measures, which will avoid potential effects to the tiger salamander.

Based on the reasons described above, the Service concurs with Caltrans' conclusion that the action may affect but is not likely to adversely affect the tiger salamander because the potential for the action to affect this species is discountable.

Closing Statement

This concludes the Service's review of Caltrans' action to construct the Antelope Grade Truck Climbing Lane Extension Project and the Service's consideration of the project's effects on the

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kit fox and tiger salamander. No further coordination with the Service under the Act is necessary at this time. If 1) 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, 2) if the action is subsequently modified in a manner that causes an effect to listed species or critical habitat that was not considered in this written concurrence, or 3) if a new species is listed or critical habitat is designated that may be affected by the identified action, then reinitiation of consultation will occur. Note that take of listed species is not exempted from the prohibitions described under section 9 of the Act. If conditions change so that the project may adversely affect listed species, initiation of formal consultation, as provided in 50 CFR 402.14, is required.

If you have questions regarding this letter, please contact Jen Schofield (jen_schofield@fws.gov) or me (patricia_cole@fws.gov) by email or at (916) 414-6621.

Sincerely,

**PATRICIA
COLE**

Digitally signed by PATRICIA COLE
Date: 2023.11.06 09:52:16 -0800

Patricia Cole
Supervisor, San Joaquin Valley Division

cc:

Mary Trask, California Department of Fish and Wildlife Region 4, Fresno, California

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Literature Cited

California Natural Diversity Database. 2023. RareFind 5 [Internet]. California Department of Fish and Wildlife. Version 5.3.0. Accessed October 12, 2023.

[Service] U.S. Fish and Wildlife Service. 2017. Recovery Plan for the Central California Distinct Population Segment of the California Tiger Salamander (*Ambystoma californiense*). U.S. Fish and Wildlife Service, Pacific Southwest Region, Sacramento, California.

[Service] U.S. Fish and Wildlife Service. 2020. Species Status Assessment Report for the San Joaquin kit fox (*Vulpes macrotis mutica*). Version 1.0. August 2020.

List of Technical Studies

- Air Quality Compliance Study, May 2023
- Noise Study Report, May 2023
- Water Compliance Memorandum, May 2023
- Climate Change Technical Memorandum, May 2023
- Initial Site Assessment, May 2023
- Energy Memorandum, May 2023
- Historic Property Survey Report, August 2023
- Archaeology Survey Report, August 2023
- Natural Environment Study, September 2023
- Paleontological Identification Report, June 2023
- Visual Impact Assessment, June 2023

To obtain a copy of one or more of these technical studies/reports or the Initial Study, please send your request to:

Shane Gunn
District 6 Environmental Division
California Department of Transportation
2015 East Shields Avenue, Suite 100, Fresno, California 93726

Or send your request via email to: shane.gunn@dot.ca.gov
Or call: 559-832-0051

Please provide the following information in your request:

Project title: Antelope Grade Truck Climbing Lane Extension

General location information: On State Route 46 in San Luis Obispo and Kern counties

District number-county code-route-post mile: 05-SLO/KER-046-PM 59.8-60.9, 0.0-0.9

Project ID number: 0522000141