

Kern Canyon Culvert Rehabilitation

State Route 178 from 1.6 miles east of Rancheria Road to Vista Grande

Drive in Kern County

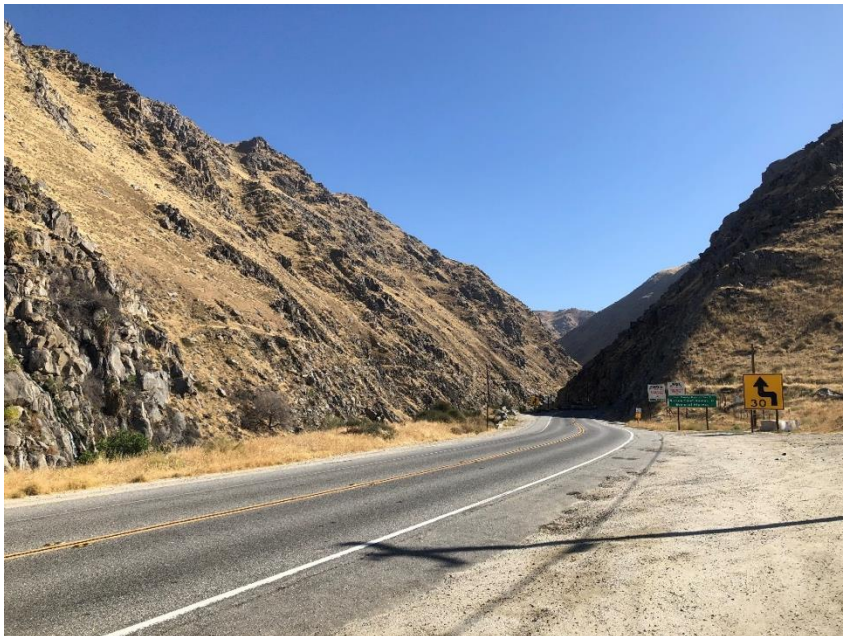
06-KER-178-12.60-55.40

Project ID 0618000017

SCH Number 2020090148

Initial Study with Negative Declaration

Volume 1 of 2



Prepared by the
State of California Department of Transportation

November 2020



General Information About This Document

Document prepared by: Rebecca Ashjian, Environmental Planner.

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: Som Phongsavanh, Central Region Environmental, 855 M Street, Suite 200, Fresno, California 93721; 559-445-6447 (Voice), or use the California Relay Service 1-800-735-2929 (TTY), 1-800-735-2929 (Voice), or 711.

SCH Number 2020090148
06-KER-178-12.60-55.40
Project ID Number 0618000017

Drainage rehabilitation on State Route 178 from post miles 12.60 to 55.40 in
Kern County

**INITIAL STUDY
with Negative Declaration**

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

THE STATE OF CALIFORNIA
Department of Transportation

Juergen Vespermann

Juergen Vespermann
Acting Office Chief
Southern San Joaquin Valley Environmental Office
California Department of Transportation
CEQA Lead Agency

12-02-2020

Date

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

Som Phongsavanh, Central Region Environmental, 855 M Street, Suite 200, Fresno,
California, 93721; 559-445-6447

Negative Declaration

Pursuant to: Division 13, Public Resources Code

State Clearinghouse Number: 2020090148

District-County-Route-Post Mile: 06-KER-178-12.60-55.40

EA/Project Identification: EA 06-0X080 and Project ID 0618000017

Project Description

The California Department of Transportation (Caltrans) proposes to repair, replace, and clean culverts on State Route 178 from 1.6 miles east of Rancheria Road to Vista Grande Drive in Kern County. Two new culverts and one overside drain will be built, 355 roadside signs will be replaced, and various Intelligent Transportation Systems will be installed at 11 locations.

Determination

An Initial Study has been prepared by the California Department of Transportation (Caltrans), District 6.

On the basis of this study, it is determined that the proposed action with the incorporation of avoidance and minimization measures will not have a significant effect on the environment.



Juergen Vespermann
Acting Office Chief
Southern San Joaquin Valley Environmental Office
California Department of Transportation
CEQA Lead Agency

12-02-2020

Date

Table of Contents

Negative Declaration	iii
Chapter 1 Proposed Project	1
1.1 Introduction.....	1
1.2 Purpose and Need.....	1
1.2.1 Purpose	1
1.2.2 Need	1
1.3 Project Description.....	1
1.4 Project Alternatives.....	4
1.4.1 Build Alternative	4
1.4.2 No-Build (No-Action) Alternative	6
1.5 Standard Measures and Best Management Practices Included in All Alternatives	6
1.6 Discussion of the NEPA Categorical Exclusion	7
1.7 Permits and Approvals Needed	7
Chapter 2 CEQA Evaluation.....	9
2.1 CEQA Environmental Checklist	9
2.1.1 Aesthetics	9
2.1.2 Agriculture and Forest Resources	10
2.1.3 Air Quality	11
2.1.4 Biological Resources	12
2.1.5 Cultural Resources	24
2.1.6 Energy	27
2.1.7 Geology and Soils.....	28
2.1.8 Greenhouse Gas Emissions	29
2.1.9 Hazards and Hazardous Materials	31
2.1.10 Hydrology and Water Quality	32
2.1.11 Land Use and Planning	34
2.1.12 Mineral Resources.....	35
2.1.13 Noise	35
2.1.14 Population and Housing	36
2.1.15 Public Services	36
2.1.16 Recreation.....	37
2.1.17 Transportation.....	38
2.1.18 Tribal Cultural Resources.....	38
2.1.19 Utilities and Service Systems.....	41
2.1.20 Wildfire	42
2.1.21 Mandatory Findings of Significance.....	46
Appendix A Title VI Policy Statement.....	47
Appendix B Comment Letters and Responses.....	49

List of Figures

Figure 1-1 Project Vicinity Map	2
Figure 1-2 Project Location Map	3

List of Tables

Table 1.1 Culvert Locations and Proposed Work	4
Table 1.2 Permits and Approvals	7

Chapter 1 Proposed Project

1.1 Introduction

1.2 Purpose and Need

1.2.1 Purpose

The purpose of this project is to repair, replace, and clean culverts on State Route 178 from 1.6 miles east of Rancheria Road to Vista Grande Drive in Kern County.

1.2.2 Need

Culverts on State Route 178 are perforated and heavily rusted. They have damaged end treatments, joint separations, and need sediment/debris removal. These culverts have reached or exceeded their design life. The project is needed to maintain proper drainage and extend the life of the culverts.

1.3 Project Description

The project would require drainage work and alterations to drainage systems. There are 65 existing culvert locations that are proposed for cleaning, repairing, or replacing. Three new culvert locations are proposed to be added, for a total of 68 locations. Project construction would take place on State Route 178 at various locations starting at post mile 12.60 and ending at post mile 55.40. A project vicinity map and location map are shown in Figures 1-1 and 1-2.

The existing culverts are so damaged that they need to be cleaned, repaired, or replaced. Two new culverts and one overside drain would be built. An overside drain is made up of various pipes, flumes, and lined ditches installed to remove surface waters from highways. Intelligent Transportation Systems would be installed at 11 locations, which include the installation of loop detectors and pull boxes. One loop detector would be protected in place.

All existing roadside signs (about 355) on wood posts will be replaced with new metal beams except for seven, which are in a cultural site. These seven wood posts will remain in place, and only the sign panels will be replaced. The new metal beams are needed to meet current Caltrans standards.

Project work would require trenching, grading, and other ground-disturbing activities. Some work would take place off the paved roadway on U.S. Forest Service and Bureau of Land Management lands. Temporary construction easements would be required.

State Route 178 in the project limits has segments of a two-lane conventional highway, four-lane expressway, and four-lane freeway. The roadway consists of 12-foot lanes and outside shoulders ranging from 2 inches to 8 inches in width. The project area is rural, and most of it runs through the Kern River Canyon to Lake Isabella. Project construction is scheduled to start in summer 2022 and be completed in summer 2023.

Figure 1-1 Project Vicinity Map

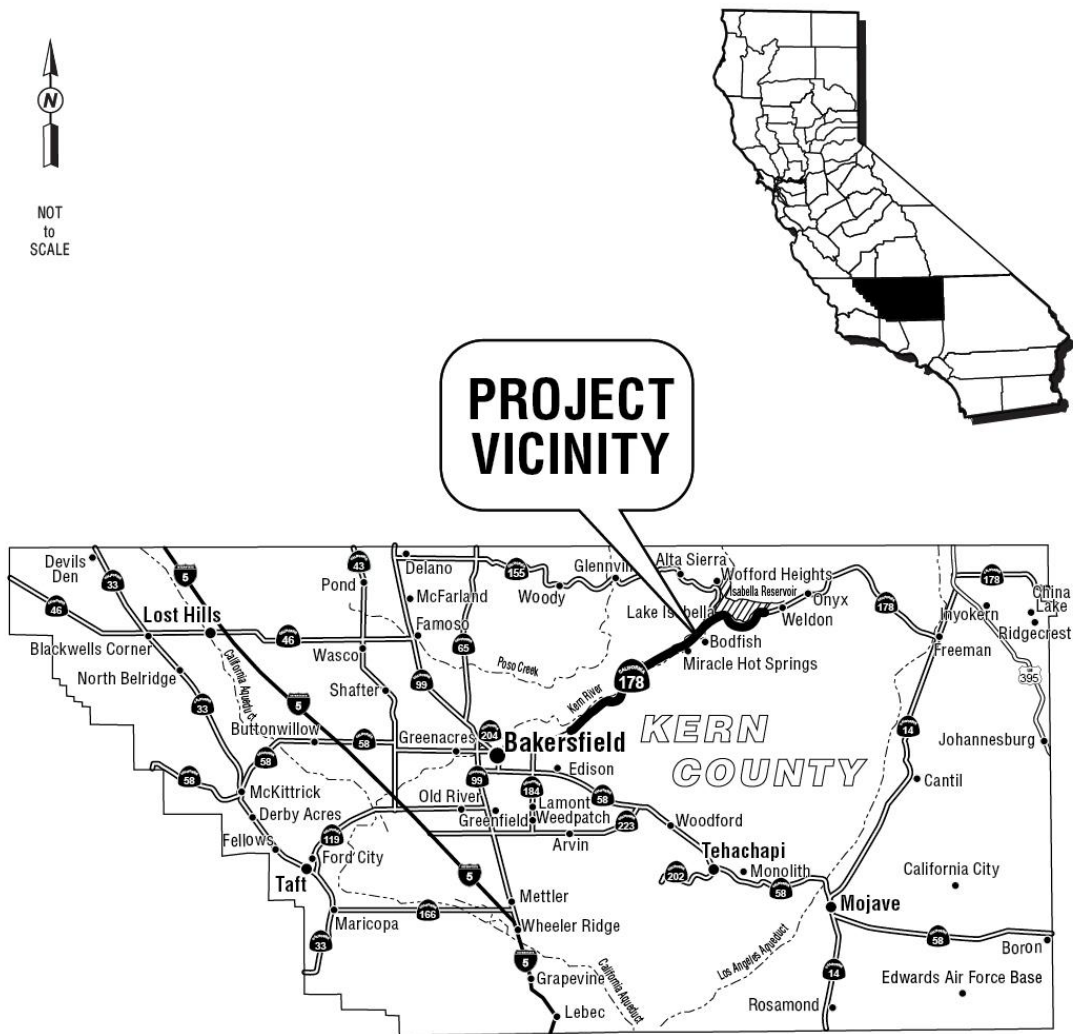
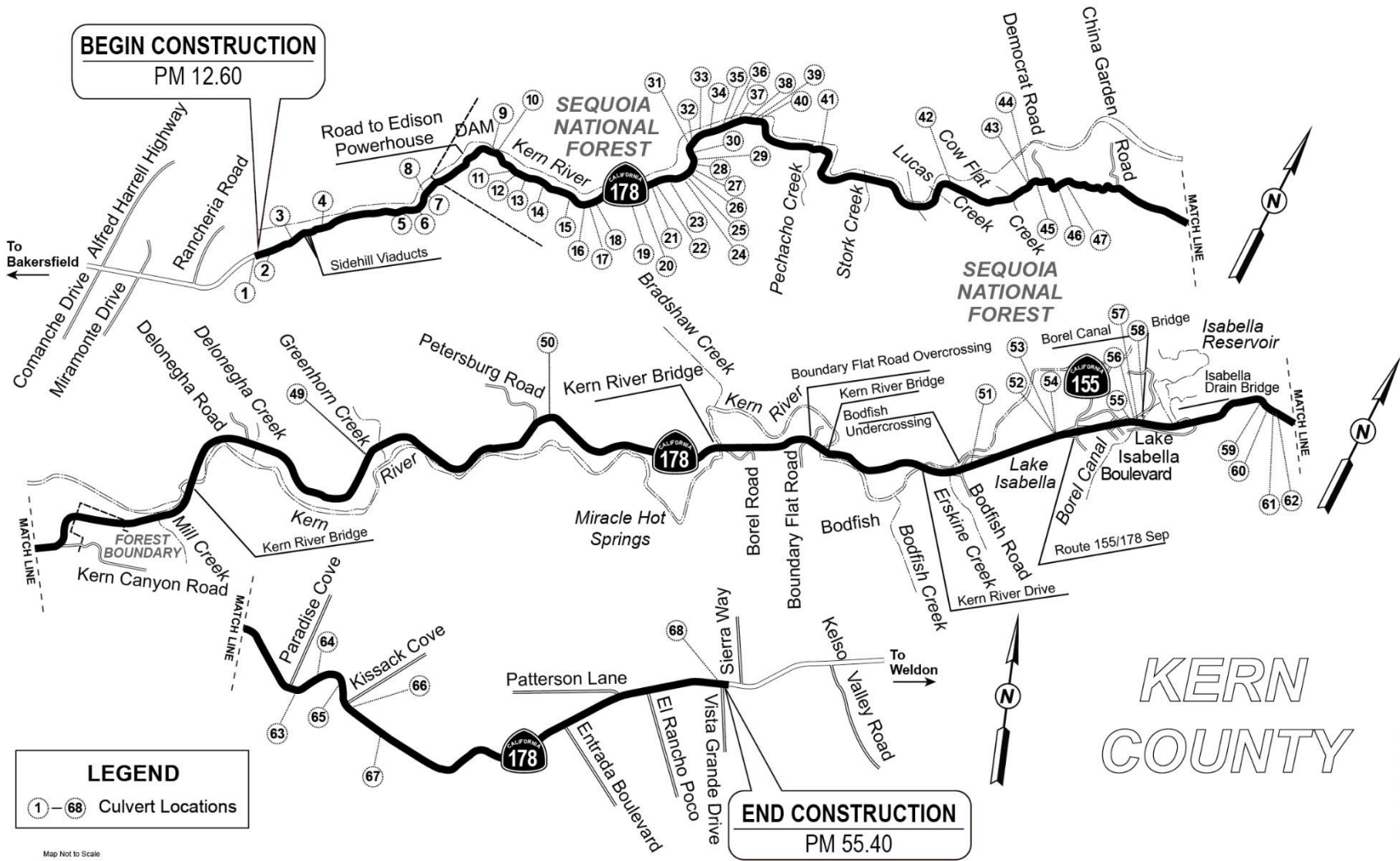


Figure 1-2 Project Location Map



1.4 Project Alternatives

A Build Alternative and a No-Build (No-Action) Alternative were considered for this project.

1.4.1 Build Alternative

The Build Alternative proposes drainage work and alterations to drainage systems. The existing drainage systems are typically corrugated steel pipe culverts with a diameter that varies from 18 inches to 30 inches. Project construction would take place on State Route 178 at various locations starting at post mile 12.60 and ending at post mile 55.40. The project would require trenching, grading, and other ground-disturbing activities. Some work would take place off the paved roadway on U.S. Forest Service and Bureau of Land Management lands. Temporary construction easements would be required.

Table 1.1 lists all 68 culvert locations according to post mile and the proposed work at each location. Each location number corresponds to the circled numbers in the project location map in Figure 1-2.

Table 1.1 Culvert Locations and Proposed Work

Location Number	Post Mile	Proposed Work
1	12.60	Culvert lining
2	12.65	Culvert lining
3	13.67	Culvert lining, replace outlet section
4	13.95	Replace drainage inlet with side opening
5	14.53	Culvert lining
6	14.67	Culvert lining
7	14.92	Replace with 2 feet reinforced concrete pipe
8	14.94	Replace with 2 feet reinforced concrete pipe
9	15.22	Place new 2 feet diameter reinforced concrete pipe culvert
10	15.70	Culvert lining
11	15.96	Culvert lining
12	16.12	Culvert lining
13	16.17	Replace midsection
14	16.35	Replace with 2 feet reinforced concrete pipe
15	16.67	Culvert lining
16	16.76	Replace with 2 feet reinforced concrete pipe
17	16.81 to 16.94	Install new overside drain
18	16.83 to 16.95	Replace existing flume with 30-foot-long downdrain pipe
19	17.31	Culvert lining
20	17.56	Culvert lining
21	17.80	Culvert lining
22	17.83	Culvert lining
23	18.32	Culvert lining
24	18.63	Culvert lining
25	18.70	Replace with 2.5 feet reinforced concrete pipe

Location Number	Post Mile	Proposed Work
26	18.84	Culvert lining
27	18.99	Culvert lining
28	19.23	Culvert lining
29	19.28	Culvert lining
30	19.70	Culvert lining
31	20.08	Replace with 2.5 feet reinforced concrete pipe
32	20.62	Replace with 2.5 feet reinforced concrete pipe
33	20.75	Culvert lining
34	21.24	Replace with 2.5 feet reinforced concrete pipe
35	21.85	Culvert lining
36	22.02	Replace with 2 feet reinforced concrete pipe
37	22.11	Culvert lining
38	22.75	Replace with 2.5 feet reinforced concrete pipe
39	22.97	Replace with 3 feet reinforced concrete pipe
40	23.04	Replace outlet section with 10 feet corrugated steel pipe
41	24.36	Culvert lining
42	25.83	Culvert lining
43	26.19	Culvert lining
44	26.21	Culvert lining
45	26.33	Replace culvert with 1.5 feet reinforced concrete pipe, add drainage inlet with side opening
46	26.94	Replace outlet section with 20 feet of corrugated steel pipe
47	27.01	Replace culvert with 1.5 feet reinforced concrete pipe plus rock slope protection
48	29.43	Stabilize slope, extend outlet, add 0.25 ton of reinforced concrete pipe
49	R34.29	Culvert lining
50	R37.49	Culvert lining
51	R41.65	Replace culvert at the eastbound onramp
52	R42.89	Culvert lining
53	R42.89	Culvert lining
54	R42.89	Culvert lining
55	R43.28	Culvert lining
56	R43.39	Culvert lining
57	R43.70	Culvert lining
58	R43.70	Culvert lining
59	47.13	Culvert lining
60	47.20	Culvert lining
61	47.49	Culvert lining
62	47.82	Culvert lining
63	48.95	Joint sealing and repair, culvert lining
64	49.13	Culvert lining
65	49.21	Culvert lining
66	49.49	Culvert lining
67	49.97	Rock slope protection outlet
68	55.33	Place a new 2 feet diameter reinforced concrete pipe culvert

This project contains standardized project measures that are used on most, if not all, Caltrans projects and were not developed in response to any specific

environmental impact that could result from the proposed project. These measures are listed later in this chapter under “Standard Measures and Best Management Practices Included in All Alternatives.”

1.4.2 No-Build (No-Action) Alternative

The No-Build (No-Action) Alternative would not address the current concerns of culvert deterioration. Doing nothing would lead to further drainage issues, flooding, and pavement failure.

1.5 Standard Measures and Best Management Practices Included in All Alternatives

13-1 General Water Pollution Control: The contractor must abide by this section.

14-1.01 Environmental Stewardship: Including environmentally sensitive areas.

14-6.03 Species Protection: Pertains to protecting regulated species and their habitat that occur within or near the job site. Upon discovery of a regulated species, immediately stop all work as directed by a biologist and notify an engineer.

14-6.03B Bird Protection: Pertains to protecting migratory and nongame birds, their occupied nests, and their eggs. Upon discovery of an injured or dead bird or a migratory or nongame bird nest that may be adversely affected by construction activities, immediately stop all work as directed by the biologist and notify an engineer. Exclusion devices, nesting prevention measures, and removing built and unoccupied nests may be applied.

14-7.03 Discovery of Unanticipated Paleontological Resources: If paleontological resources are discovered at the job site, do not disturb the resources and immediately stop all work within a 60-foot radius of the discovery, secure the area, and notify an engineer. Do not move paleontological resources or take them from the job site.

14-8.02 Noise Control: Pertains to controlling and monitoring noise resulting from work activities. Noise levels are not to exceed 86 A-weighted decibels at 50 feet from the job site from 9:00 p.m. to 6:00 a.m.

14-9.02 Air Pollution Control: Comply with air pollution control rules, regulations, ordinances, and statutes that apply to work performed under the construction contract.

Standard Special Provision 7-1.02K(6)(j)(iii) Earth Material Containing Lead

Portions of State Route 178 for this project pass through the U.S. Forest Service. Therefore, temporary construction easements may be necessary at some locations on the culvert outlets.

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 (NEPA). 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—in other words, 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:

Table 1.2 Permits and Approvals

Agency	Permit/Approval	Status
California Department of Fish and Wildlife	1600 Lake and Streambed Alteration Agreement	The 1600 permit would be obtained before construction starts.

Chapter 2 CEQA Evaluation

2.1 CEQA Environmental Checklist

This checklist identifies physical, biological, social, and economic factors that might be affected by the project. Potential impact determinations include Potentially Significant Impact, Less Than Significant 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 project as well as the appropriate technical report (bound separately in Volume 2), and no further discussion is included in this document.

2.1.1 Aesthetics

This project is mainly a culvert rehabilitation project and would have no effect on scenic vistas and would not damage scenic resources. In this mostly non-urbanized area, the visual character or quality of public views would not be affected by culvert work. Furthermore, the project would not create a new source of substantial light or glare. 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

Question—Would the project:	CEQA Significance Determinations for Aesthetics
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	No Impact
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?	No Impact
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	No Impact

2.1.2 Agriculture and Forest Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project 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 would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use or conflict with existing zoning for agricultural use or Williamson Act contracts. The project would not result in the loss of forest land or convert forest land to non-forest use. Considering the information in the Kern County General Plan dated September 22, 2009, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Agriculture and Forest 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 included in the Air Quality Memorandum dated April 22, 2020, 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 included in the Biological Assessment dated May 11, 2020, and Natural Environment Study dated June 22, 2020, 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 action area was defined to assess the impacts of the project on biological resources. The action area consists of 65 culverts spread across about 43 miles on State Route 178. The action area includes the project footprint and a 50-foot buffer. The Kern River flows along the north side of most of the project area on State Route 178, from post mile 13.60 to post mile 41.65.

The action area is made up of grassland, ruderal disturbed weedy habitat, and the Kern River along State Route 178, all of which may be suitable habitat for sensitive species. Other vegetation communities within the action area that may be considered lower quality habitat for some sensitive species include undeveloped residential and commercial lots, orchards, and fields.

Caltrans biologists have consulted the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife. On July 2, 2019, Caltrans performed an onsite evaluation of culvert locations that would be considered jurisdictional under the California Department of Fish and Wildlife 1600 Streambed Alteration Agreement. On July 11, 2019, email correspondence from the California Department of Fish and Wildlife confirmed that the agency would not claim jurisdiction over certain culverts that do not convey streams. The California Department of Fish and Wildlife would not consider the culverts at the following post miles to be jurisdictional: 12.60, 12.65, 26.33, 26.94, 27.01, R41.65, R42.89, R43.39, R43.70, 49.97, and 55.33. R means first realignment.

There are federal and state-listed species either listed as endangered and/or threatened with the potential to occur in the action area. These species include San Joaquin kit foxes (*Vulpes macrotis mutica*), California condors (*Gymnogyps californianus*), Kern mallows (*Eremalche kernensis ssp. kernensis*), and Swainson’s hawks (*Buteo swainsoni*). Other animal species

designated as California Species of Special Concern by the California Department of Fish and Wildlife and migratory birds that have the potential to occur within the action area, as well as other waters, are discussed here. A Biological Assessment has been submitted to the U.S. Fish and Wildlife Service, seeking concurrence on the determination that the project may affect, but is not likely to adversely affect the San Joaquin kit fox, California condor, and Kern mallow. A letter of concurrence was received on July 24, 2020.

San Joaquin Kit Fox

The San Joaquin kit fox is designated as a federal endangered species and state threatened species. San Joaquin kit foxes are primarily nocturnal and stay active throughout the year. They use dens for shelter, reproduction, protection from predators, and temperature regulation. Their dens typically have a distinct keyhole-shaped entrance. San Joaquin kit foxes occupy valley and foothill grasslands, or grassy open-stage habitats with scattered shrubs, in areas of loose-textured soils.

Protocol-level surveys were not conducted for the San Joaquin kit fox. The closest occurrence occurred in and around the project area at the mouth of the Kern River Canyon in 1975. There have been several more occurrences within a 5-mile radius, with the most recent sighting in 2006.

California Condor

The California condor is designated as a federal and state endangered species and is one of the largest flying birds in the world. Its wings spread more than 9 feet from tip to tip when it soars. California condors can soar and glide for hours without beating their wings. After rising thousands of feet overhead on air currents, California condors can glide long distances, sometimes at more than 55 miles per hour.

California condors are known to rest on large trees or snags or isolated rocky outcrops and cliffs. Throughout the project area and at the mouth of the Kern River Canyon, there is a potentially suitable nesting habitat for the California condor. However, there is poor foraging habitat in the action area and areas nearby. Nesting bird surveys were conducted for the project during the nesting bird season. No nests were seen during multiple site visits at any of the project locations. However, consultation with the U.S. Fish and Wildlife Service revealed that a pair of California condors had been nesting in Kern River Canyon. However, the male of the pair was likely dead, and the female had moved on to nest elsewhere, which confirmed that there were no known California condors in the area.

Kern Mallow

The Kern mallow is listed as a rare plant species by the California Native Plant Society; its current ranking is 1B.2, which means it is rare, threatened, or endangered in California and elsewhere. The Kern mallow meets the definition of the California Endangered Species Act and is eligible for state listing; it is also moderately threatened in California. The Kern mallow is an annual herb that is native and restricted to California. The Kern mallow blooms from March to May and is typically found in shadscale scrub and valley grasslands.

Protocol-level surveys for the Kern mallow were not conducted. However, a habitat assessment and reconnaissance survey were completed. Kern mallows were not seen during surveys. According to the California Natural Diversity Database, Kern mallows were seen within 4 miles of the project area in 1988.

Swainson's Hawk

The California Department of Fish and Wildlife designates the Swainson's hawk as a state threatened species. Swainson's hawks breed or migrate in California within the Central Valley, Owens Valley, and the Mojave Desert. Swainson's hawks breed and nest in areas with few trees in juniper-sage flats, riparian areas, oak savanna habitats, or other sparsely treed areas next to agricultural fields and pastures. Swainson's hawks forage over open grasslands, shrublands, and alfalfa fields and pastures, where rodents are abundant.

Protocol surveys for the Swainson's hawk were not conducted. The closest documented occurrence of this species was 4 miles from the north end of the action area in 1992.

Kern Canyon Slender Salamander

The Kern Canyon slender salamander (*Batrachoseps simatus*) is a lungless salamander species with a distribution restricted to the lower Kern River Canyon at the southern end of the Sierra Nevada. (Jockusch and Wake, 2003) The Kern Canyon slender salamander ranges from 1.6 inches to 2.2 inches long from snout to vent. Short limbs, a narrow head, a long slender body, and a long tail give this species a distinct worm-like appearance.

The Kern Canyon slender salamander prefers north-facing slopes containing valley-foothill hardwood, valley-foothill hardwood-conifer, and mixed chaparral habitats. During moist periods (November to May), the Kern Canyon slender salamander displays nocturnal surface activity where it forages under or close to the surface of objects such as pieces of bark, decaying logs, and flat talus rocks or moist leaf litter. The Kern Canyon slender salamander may also enter termite tunnels and earthworm burrows. During the day, the Kern Canyon slender salamander seeks refuge under objects like foraging cover.

This species retreats to moist underground niches or seepage areas during drier periods.

The Kern Canyon slender salamander is listed as threatened under the California Endangered Species Act and is uncommon within its restricted range. This additional information was not included in the draft environmental document during the circulation period.

Pallid Bat

The California Department of Fish and Wildlife designates the pallid bat (*Antrozous pallidus*) as a California Species of Special Concern. The pallid bat is a large bat species with a range from Mexico and the southwestern U.S. north through Oregon and Washington. Pallid bats have woolly fur and vary in color from cream to light brown. Adults are about 2.5 to 3.5 inches long. Pallid bats are typically found in rocky, arid, and semi-arid locations; they have also been found in more open, sparsely vegetated grasslands. Pallid bats use rock crevices, caves, buildings, and bridges to rest during the day and more open sites at night for foraging. Trees may also provide habitat for pallid bats to rest, though less likely. Pallid bats are known to rest in groups of 20 or more and may rest with other bat species. Pallid bats forage in open areas almost entirely on the ground but occasionally in flight close to the ground. They feed on a variety of spiders and insects, including beetles, moths, grasshoppers, and crickets.

Pallid bats are highly sensitive to disturbance of resting sites. Any site disturbance can cause them to abandon a resting area completely. Threats to pallid bats include human disturbance of foraging habitat, decreased prey availability, and the use of pesticides. No pallid bats were seen in the action area during surveys on State Route 178.

Migratory Birds

The Federal Migratory Bird Treaty Act (15 U.S. Code 703-711), 50 Code of Federal Regulations Part 21, and 50 Code of Federal Regulations Part 10 prohibits the killing, possessing, or trading of migratory birds. Executive Order 13186 requires any project with federal involvement to address the impacts of federal actions on migratory birds. Although these species are not protected under federal or state endangered species acts, the California Fish and Game Code Sections 3503, 3513, and 3800 does protect them from harassment or harm and protects their eggs and nestlings. A disturbance that causes nest abandonment or loss of reproductive effort or both is considered “take” by the California Department of Fish and Wildlife.

Other Waters

The action area contains two features next to State Route 178, the Kern River, and Lake Isabella. Lake Isabella, which provides a potential freshwater source for species, is at the end of the project limits along State Route 178

and empties into the Kern River. The Kern River drains an area of the southern Sierra Nevada mountains northeast of Bakersfield. The Kern River is fed mostly by snowmelt from Mount Whitney. The Kern River used to empty into Buena Vista Lake and Kern Lake, but today is almost entirely diverted for irrigation, recharging aquifers, and the California Aqueduct. Some water eventually ends up in Lake Webb and Lake Evans.

There is no work in the actual channel of the Kern River or the lakebed of Lake Isabella. However, both features are subject to the jurisdiction of the Regional Water Quality Control Board, U.S. Army Corps of Engineers, and California Department of Fish and Wildlife.

Environmental Consequences

San Joaquin Kit Fox

An evaluation of the potential habitat for this species was conducted during a reconnaissance survey. It was determined that the section of State Route 178 before entering the Kern River Canyon would be suitable dispersal habitat. There were no small animals or burrows seen within the action area or potential denning areas in the Caltrans right-of-way or a nearby habitat. Furthermore, there is a potential wildlife corridor under a bridge at about post mile 11.70R (R means first realignment) that would be a safe undisturbed crossing for any San Joaquin kit foxes in the area.

Camera stations were set up at this bridge, and while no San Joaquin kit foxes were captured, other animals were seen using this corridor, including a black bear. Although no San Joaquin kit foxes were seen on the trail cameras, this corridor would provide San Joaquin kit foxes that may be in the area a suitable means to travel under Caltrans facilities.

The project is not expected to result in permanent or temporary impacts to the San Joaquin kit fox and its denning, foraging, or dispersal habitat. Although night work would occur, construction activities are not expected to negatively affect the San Joaquin kit fox due to the potential wildlife crossing corridor. Additionally, measures would be in place to help minimize potential impacts to San Joaquin kit foxes if the species were to occur in the area. With the implementation of avoidance and minimization efforts, Caltrans has determined that the project may affect, not likely to adversely affect the San Joaquin kit fox.

California Condor

Caltrans consulted a biologist with the U.S. Fish and Wildlife Service's California Condor Recovery Program to inquire about any known California condors in the area. The biologist confirmed that a pair of California condors had been nesting in Kern River Canyon. However, the biologist said the male of the pair was likely dead, and the female had moved on to nest elsewhere, which confirmed that there were no known California condors in the area.

The proposed action of this project is expected to have only temporary indirect impacts to the California condor because the project would not directly affect its habitat. With maintenance activities and the Southern California Edison power plant in the area, construction activities and disturbances related to construction would be less than what is already existing. Conservation measures to avoid and minimize impacts to the California condor would be implemented. Caltrans has determined that the project may affect, not likely to adversely affect the California condor.

Kern Mallow

Although there is a potential for the Kern mallow to occur within the action area before and past the Kern River Canyon on State Route 178 within valley grassland, it is unlikely. There are no suitable soils for the Kern mallow to occur in the action area, so direct effects are not expected. The proposed action of this project is expected to have temporary indirect impacts on the Kern mallow since potential habitat for the plant occurs outside the action area. With the implementation of avoidance and minimization efforts, Caltrans has determined that the project may affect, not likely to adversely affect the Kern mallow.

Swainson's Hawk

Caltrans conducted multiple site visits to the project area, and no Swainson's hawk nests were seen. However, there are trees within the project vicinity that could provide potential nesting habitat, along with suitable foraging locations nearby in the areas before entering the Kern River Canyon along State Route 178. No trees would be removed, and therefore, no potential foraging habitat is expected to be impacted during construction. The actions proposed in this project should have no impact on the Swainson's hawk.

Kern Canyon Slender Salamander

Protocol-level surveys were not performed. A habitat assessment and reconnaissance survey were completed. While there is potential for this species to occur within the action area on State Route 178, there were no observations during surveys. It is unlikely that this species will occur onsite because most recorded observations of Kern Canyon slender salamanders have been documented on or at the base of slopes within a few feet of various lower Kern River tributaries. Additionally, due to physiological requirements, this species requires a moist habitat, which would likely be found in areas next to but not within the action area. Habitat at culvert locations where work is to be completed was seen to be dry and not suitable for this species.

The closest Kern Canyon slender salamander occurrence in the California Natural Diversity Database occurred on the canyon slopes of a nearby creek, just upstream from State Route 178 in 1991. There were several more occurrences within 0.5 mile of State Route 178, with the most recent being in

2007; however, none of these occurred within the action area. This additional information was not included in the draft environmental document during the circulation period.

Pallid Bat

Kern River Canyon provides a potentially suitable resting habitat for the pallid bat; however, due to the high levels of traffic and the resulting high sound levels in this area, the potential habitat along this portion of the canyon is considered poor. Any bats in the area would likely rest in neighboring habitat across the Kern River in a more quiet and secure location. No impacts are expected because pallid bats are unlikely to rest close to construction in this disturbed area.

Migratory Birds

There are mature trees and shrubs in the project area that may provide suitable nesting habitat for a variety of birds and raptor species. However, project-related activities may disturb birds nesting near the work area.

Other Waters

Caltrans consulted the U.S. Army Corps of Engineers and determined a 401 Water Quality Certification and 404 Nationwide Permit would not be needed due to the proposed work being considered maintenance activities. No work would occur below the ordinary high-water mark. However, a Lake and Streambed Alteration Agreement 1602 permit from the California Department of Fish and Wildlife would be required for some locations. Any impacts on other waters would be temporary, and there would be no net loss. No compensatory mitigation is proposed.

Avoidance, Minimization, and/or Mitigation Measures

San Joaquin Kit Fox

The following avoidance and minimization measures would be implemented for San Joaquin kit foxes:

- A qualified biologist will be available on-call throughout construction in the event that the species are observed either on-site or in proximity to the action area. This additional information was not included in the draft environmental document during the circulation period.
- Project-related vehicles should observe a daytime speed limit of 20 miles per hour throughout the site in all project areas, except on county roads and state and federal highways. Nighttime construction should be minimized to the extent possible. However, if nighttime construction does occur, the speed limit should be reduced to 10 miles per hour. Off-road traffic outside of designated project areas should be prohibited.
- Disturbance to any potential, known, or natal dens identified during preconstruction surveys and/or construction will be avoided. If any dens

are discovered either within the project footprint or outside of the footprint, Caltrans will implement the following:

- Potential dens that are located at least 50 feet from construction will be protected by a 50 foot exclusion zone. Known dens that are located at least 100 feet from construction will be protected by a 100 foot exclusion zone. In instances where 50 feet or 100 foot exclusion zones cannot be maintained, potential and/or known dens will be monitored for three consecutive nights using tracking medium and/or a remote sensor camera, and once they are verified to be unoccupied, reduced exclusion zones (determined in coordination with the Service) will be established. The exclusion zones will be demarcated by types of fencing or flagging that will not entangle the San Joaquin kit fox or prevent ingress/egress. This additional information was not included in the draft environmental document during the circulation period.
- To prevent inadvertent entrapment of San Joaquin kit foxes or other animals during project construction, 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. If the trenches cannot be closed, one or more escape ramps built out of earthen fill or wooden planks shall be installed. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals. If at any time a trapped or injured San Joaquin kit fox is discovered, the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife shall be contacted immediately.
- San Joaquin kit foxes are attracted to den-like structures such as pipes and may enter stored pipes and become 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 they are 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 the pipe should not be moved until the U.S. Fish and Wildlife Service has been consulted.
- The use of temporary artificial lighting on-site will be limited, except when necessary for construction, or for driver and pedestrian safety. Any artificial lighting used during construction, particularly at night, will be restricted to areas within the construction footprint and directed away from surrounding habitat. In order to minimize the effects on the species, Caltrans will limit non-target casting of light by installing shielding to the light source to confine the illumination further. This additional information was not included in the draft environmental document during the circulation period.

- All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in securely closed containers and removed at least once a week from a construction or project site.
- No firearms shall be allowed on the project site.
- No pets, such as dogs or cats, should be allowed on the project site to prevent harassment, the mortality of San Joaquin kit foxes, or the destruction of dens.
- The use of rodenticides and herbicides in project areas should be restricted.
- Pre-construction surveys would be conducted for the San Joaquin kit fox no less than 14 days and no more than 30 days before ground-disturbing activities start. Qualified biologists with demonstrated experience in identifying San Joaquin kit foxes and their dens shall conduct the surveys. Written results of these surveys would be submitted to the U.S. Fish and Wildlife Service within five days after survey completion and before ground-disturbing activities start.
- An employee education program should be conducted before construction activities start. The program should consist of a brief presentation by persons knowledgeable in San Joaquin kit fox biology and legislative protection to explain endangered species concerns to contractors and their employees. The program should include the following: a description of the San Joaquin kit fox and its habitat needs; a report of the occurrence of San Joaquin kit foxes in the project area; an explanation of the status of the species and its protection under the Endangered Species Act; and a list of measures being taken to reduce impacts to the species during project construction and implementation. A fact sheet communicating this information should be prepared for distribution to the previously referenced people and anyone else who may enter the project site.
- A resident engineer or their designee would be responsible for implementing these conservation measures, and a Caltrans biologist would represent the point of contact for the project.
- A Caltrans biologist would approve all staging areas.

California Condor

- Caltrans would coordinate with the U.S. Fish and Wildlife Service's California Condor Recovery Program to determine appropriate measures to see if California condors are present. Pre-construction nesting bird surveys would be performed in the Kern River Canyon.
- A qualified biologist will be available on-call throughout construction in the event that the species are observed either on-site or in proximity to the action area. This additional information was not included in the draft environmental document during the circulation period.

- The use of temporary artificial lighting on-site will be limited, except when necessary for construction, or for driver and pedestrian safety. Any artificial lighting used during construction, particularly at night, will be restricted to areas within the construction footprint and directed away from surrounding habitat. In order to minimize the effects on the species, Caltrans will limit non-target casting of light by installing shielding to the light source to confine the illumination further. This additional information was not included in the draft environmental document during the circulation period.

Kern Mallow

- Pre-construction botanical surveys within suitable habitat for the Kern mallow would be conducted in the project area by a qualified biologist, no more than one year prior to construction.
- A qualified biologist will be available on-call throughout construction in the event that the species are observed either on-site or in proximity to the action area.
- The use of temporary artificial lighting on-site will be limited, except when necessary for construction, or for driver and pedestrian safety. Any artificial lighting used during construction, particularly at night, will be restricted to areas within the construction footprint and directed away from surrounding habitat. In order to minimize the effects on the species, Caltrans will limit non-target casting of light by installing shielding to the light source to confine the illumination further.

This additional information was not included in the draft environmental document during the circulation period.

Swainson's Hawk

The following avoidance and minimization measures would be implemented for Swainson's hawks:

- A worker environmental awareness training would be provided to all workers who enter the project site before they perform any project-related work or activities. A qualified biologist would provide the training, which would discuss listed species with the potential to occur on the project, as well as areas of designated critical habitat, the laws that protect them, and measures implemented on the project to protect species and their habitat from impacts.
- The contractor would follow Best Management Practices developed for the project and its location.
- The stockpiling of materials, equipment (including portable equipment), vehicles, and supplies (including chemicals) would be restricted to designated construction staging areas.

- Pre-construction nesting surveys would be completed in the project area if construction occurs during the nesting season—February 1 to September 30. Surveys would follow general guidelines identified in the “*Recommended Timing and Methodology for Swainson’s Hawk Nesting Surveys in California’s Central Valley.*”
- Pre-construction would be conducted no more than 10 days prior to the start of construction.
- If Swainson’s hawks are seen nesting within 0.5 mile of the project, a 500-foot radius no-work buffer would be designated. Environmentally sensitive area fencing would go around nest trees wherever the no-work buffer may overlap with construction activities.
- Nest trees would be monitored until a qualified biologist has determined that the birds have fledged.
- If work would need to occur within the 500-foot buffer, some construction activities may be allowed if a biological monitor is present and determines that they are not disrupting nesting Swainson’s hawks.

Kern Canyon Slender Salamander

- Road construction or other human activities within the vicinity of a known or probable habitat has been designed to minimize impacts.
- A worker environmental awareness training will be provided to all workers who enter the project site before they perform any project-related work or activities. A qualified biologist will provide the training.
- A qualified biologist will conduct pre-construction surveys for the Kern Canyon slender salamander before work starts in the Kern River Canyon.

This additional information was not included in the draft environmental document during the circulation period.

Pallid Bat

- A qualified biologist would provide worker environmental awareness training to all workers who enter the project site before they perform any project-related work or activities. Lights would be directed only at work areas to avoid impacts to potential roosting habitat.
- The use of temporary artificial lighting on-site will be limited, except when necessary for construction, or for driver and pedestrian safety. Any artificial lighting used during construction, particularly at night, will be restricted to areas within the construction footprint and directed away from surrounding habitat. In order to minimize the effects on the species, Caltrans will limit non-target casting of light by installing shielding to the light source to confine the illumination further. This additional information was not included in the draft environmental document during the circulation period.

Migratory Birds

Avoidance and minimization measures for migratory birds may include one or more of the following actions, as appropriate:

- Pre-construction surveys no more than 10 days before construction starts. This additional information was not included in the draft environmental document during the circulation period.
- Biological monitoring during initial ground-disturbing activities.
- Seasonal restrictions on the removal of suitable nest trees or brush.
- Placement of environmentally sensitive area buffers around nests or burrows, as required.
- Implement a 500-foot buffer if any raptors are found nesting within the project limits. Implement a 100-foot buffer for all other non-listed passerine bird species. This additional information was not included in the draft environmental document during the circulation period.

Other Waters

The following avoidance and minimization measures would be implemented for other waters:

- A spill prevention plan would be prepared and would describe measures to be taken to minimize the risk of fluids or other materials used during construction such as oils, transmission and hydraulic fluids, cement, and fuel from entering streams or contaminating nearby riparian areas. A cleanup protocol would be developed before construction starts and would be implemented in case of a spill.
- Stockpiling of materials, including portable equipment, vehicles, and supplies such as chemicals, would be restricted to the designated construction staging areas, exclusive of any riparian and wetland areas.

2.1.5 Cultural Resources

Considering the information included in the Historic Property Survey Report dated September 2020, 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?	Less Than Significant Impact

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

Affected Environment

The archaeological survey area for this project focuses on culverts, replacing existing roadside signs, and Intelligent Transportation System work locations. The archaeological survey area consists of the existing paved surface and the Caltrans right-of-way on State Route 178 at specific locations from post mile 12.60 to post mile 55.40. The area of potential effect for this project is discontinuous through the project post miles and focuses on culvert work, existing signpost replacement, and Intelligent Transportation System element work. Caltrans personnel conducted archaeological field surveys of the project area between June 10, 2019, through November 14, 2019. The area surveyed included temporary construction easement locations, Intelligent Transportation System locations, and roadside signs locations.

A records search was conducted using the Southern San Joaquin Valley Information Center, a background literature search, a topographic and historical map review, and a Caltrans cultural resource database. The records search revealed that 55 studies were conducted within the project areas and 112 studies within 0.5 mile of the project area.

Four new cultural resources were identified during the pedestrian survey. Fourteen resources were found along sporadic sections of the Caltrans right-of-way on State Route 178 and 180 resources within 0.5 mile from the project archaeological survey area.

Two of the 14 resources found through the record searches are at proposed culvert repair locations. Both culvert locations are within site boundaries considered to be sensitive Native American resources. The culvert wall at the first location appears to be of old concrete material that was not affected by the realignment and widening of the State Route 178 project at the mouth of the Kern River Canyon in 1998. Because of the construction from the previous project in 1998 and the use of the area as a vehicle pullout, the soil is heavily disturbed. A portion of the prehistoric Native American resource at the second culvert was mitigated in 1978 through excavation and recovery during the construction of State Route 178. No artifacts were found around the culvert inlet and outlet during the pedestrian survey.

In December 2019 and January 2020, an extended phase one study was conducted. The extended phase one study was conducted to determine if any subsurface cultural material or layer would be found undisturbed up to 6 feet deep.

The Bureau of Land Management, Sequoia National Forest-Kern River Ranger District, the Tübatulabal of Kern Valley, and the Tejon Indian Tribe have shown interest and have been kept updated throughout the study. Record searches for the project were also conducted for the Bureau of Land Management, the U.S. Army Corps of Engineers, and the Sequoia National Forest sections of the project area.

A Historic Property Survey Report was completed in July 2020 and updated in September 2020 that summarized the Archaeological Survey Report. The Finding of No Adverse Effect was received from the Office of Historic Preservation on November 2020. This additional information was not included in the draft environmental document during the circulation period.

Environmental Consequences

Out of the 14 resources found within the project archaeological survey areas, two culvert work areas of direct impact are within archaeological site boundaries. The remaining 12 resources are within the archaeological survey areas but are far enough from the areas of direct impact and temporary construction easements to not be impacted by the project. The area of direct impact for the culvert work is, on average, 8,610 square feet and incorporates the required 24-foot radius work area needed at the culvert inlet and outlet. Culvert work at one location includes two ditches to be built, one on each side of the road, which increases the area of direct impact by 2,400 square feet at that location.

The first culvert location is within the site boundary of P-15-005095. The State Historic Preservation Office concurred with Caltrans' site eligibility determination for the National Register of Historic Places under criterion "d" (FHWA980316A) because one section of the site retains integrity. The area of direct impact for the first culvert—despite being within the site boundary—is outside of the area of integrity responsible for State Historic Preservation Office concurrence. The second culvert location is within the site boundary of site CA-KER-574/260.

No surface or buried cultural materials were encountered during the extended phase one study for the project's area of potential effects. Due to the extended phase one study being negative for buried archaeological resources within the project area of direct impact—which is also the area of potential effect—there would not be an adverse impact on the archaeological resources. The implementation of an Environmentally Sensitive Area Action Plan is required to protect the resources outside of the project area of direct impact. The Environmentally Sensitive Area Action Plan consists of

delineating an environmentally sensitive area on construction plans and implementing archaeological combined with Native American monitoring during construction.

Seven of the 355 proposed roadside sign replacements were found to be within a cultural site. The wood posts for these seven roadside sign replacements will remain in place, and only the sign panels will be replaced. All the roadside sign to be replaced are within a Caltrans right-of-way and would be replaced within the same existing location.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans will follow all measures in the Environmentally Sensitive Area Action Plan. Before starting any ground-disturbing activities within the area of potential effects, the resident engineer or a representative, the construction contractor, and a Caltrans Archaeologist would meet at site locations in and near the project area to discuss all the environmentally sensitive area boundaries. They would also review the monitoring requirements for each of the environmentally sensitive areas during construction.

To ensure project activities will not change and result in an adverse effect on archaeological sites, environmentally sensitive areas shall be mapped in the construction contract plans, and these areas should be protected and avoided with high visibility fencing during construction. Both archaeological and Native American monitors shall be present during construction.

- The contractor should notify the resident engineer 10 days before working in areas that are to be monitored.
- The Caltrans archeologist shall be notified at least five days in advance of the initiation of ground-disturbing activities.
- If the archaeological or Native American monitor identifies a resource considered potentially significant, the monitor shall immediately inform the responsible Caltrans Professionally Qualified Staff and the resident engineer. The resident engineer, or his or her representative, would stop all construction activities temporarily within 60 feet of the archaeological find. The find would then be assessed to determine if it is a significant cultural resource that was exposed or adversely affected by construction operations.

2.1.6 Energy

Construction activities would cause a temporary increase in energy consumption, but not significant. The increase may be offset over time by the improvements proposed in the project area. The project is a culvert rehabilitation project that would not increase capacity. The project would not result in wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation. The project would not conflict with

or obstruct a state or local plan for renewable energy or energy efficiency. Considering the reasons provided and guidance from the Caltrans Standard Environmental Reference Chapter 13-Energy, 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 included in the California Geological Survey webpage, Faulting in California, the California Department of Conservation Map Data Viewer webpage, and Paleontological Identification Report dated December 22, 2017, 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
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: ii) Strong seismic ground shaking?	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: iii) Seismic-related ground failure, including liquefaction?	No Impact

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: 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 onsite or offsite 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 included in the Air Quality Memorandum dated April 22, 2020, and the Climate Change Report dated May 28, 2020, 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?	No Impact

Affected Environment

The project is along State Route 178 in Kern County. The land use next to State Route 178 is mostly open space in a mountainous setting. State Route 178 within the project limits is a two-lane conventional highway, four-lane expressway, four-lane freeway, and the main transportation route to and through the area for both passenger and commercial vehicles.

The purpose of the project is to repair, replace, and clean culverts on State Route 178 from 1.6 miles east of Rancheria Road to Vista Grande Drive in Kern County.

The Kern Council of Governments' 2018 Regional Transportation Plan and Sustainable Communities Strategy guides transportation in the project area. Chapter 4 of the plan (Sustainable Communities Strategy) discusses the emission reduction strategy for the region. The Sustainable Communities Strategy strives to reduce air emissions from passenger vehicles and light-duty trucks by better coordinating transportation expenditures with forecasted development patterns.

Environmental Consequences

Greenhouse gas emissions impacts of non-capacity increasing projects like the Kern River Canyon Culvert Rehabilitation project are considered less than significant under CEQA because there would be no increase in operational emissions.

However, construction equipment, material process, and delivery may generate short-term greenhouse gas emissions during construction. Carbon dioxide emissions generated from construction equipment were estimated using the Caltrans Construction Emissions Tool. The estimated emissions would be 382 tons of carbon dioxide over 120 working days.

While some construction greenhouse gas emissions would be unavoidable, implementing standard conditions or Best Management Practices designed to reduce or eliminate emissions as part of the project would reduce impacts to less than significant.

Avoidance, Minimization, and/or Mitigation Measures

Measures to reduce project-level greenhouse gas emissions may include:

- Caltrans Standard Specifications Sections 7-1.02A and 7-1.02C, Emissions Reduction, which requires contractors to comply with all laws applicable to the project and to certify they are aware of and would comply with all California Air Resources Board emission reduction regulations.
- Caltrans Standard Specifications Sections 14-9.02, Air Pollution Control, and 10-5 Dust Control require contractors to comply with all air pollution control rules, regulations, ordinances, and statutes.

- A Dust Control Plan is needed if at least 2,500 cubic yards of material are moved in a day for at least three days of the project or 5 or more acres of land would be disturbed during construction.
- Implement Intelligent Transportation Systems and Transportation Demand Management elements to smooth traffic flow and increase system efficiency.
- Use corrosion-resistant materials.
- Retrofit components to reinforce structures to become more resistant and resilient to the forces of natural hazards and other environmental factors such as aging and weathering.
- Improve drainage.
- Improve drainage systems to adapt to localized flooding risks.
- Stabilize slopes to lower chances of a landslide on slopes at-risk from more frequent or intense wildfire and precipitation.

2.1.9 Hazards and Hazardous Materials

Considering the information included in the Hazardous Waste Compliance Memorandum dated April 10, 2020, 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?	No Impact
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	No Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	No Impact
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

Question—Would the project:	CEQA Significance Determinations for Hazards and Hazardous Materials
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

2.1.10 Hydrology and Water Quality

Considering the information included in the Noise and Water Compliance Memorandum dated April 23, 2020, and the Hydraulic Recommendation Memorandum dated May 18, 2020, 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?	Less Than Significant 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: (i) result in substantial erosion or siltation onsite or offsite;	Less Than Significant Impact

Question—Would the project:	CEQA Significance Determinations for Hydrology and Water Quality
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite;	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	Less Than Significant 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

Affected Environment

The project is within the Kern River Hydrologic Unit and Hydrologic subarea number 554.10. Lake Isabella is near post mile 55.40 and is listed as a sensitive water body.

The Kern River runs within the project limits. The Kern River, originally Rio de San Felipe, later La Porciuncula, is a river in California that is about 165 miles long. It drains an area of the southern Sierra Nevada mountains northeast of Bakersfield. Fed by snowmelt near Mount Whitney, the river passes through scenic canyons in the mountains and is a popular destination for whitewater rafting and kayaking. It is the southernmost major river system in the Sierra Nevada and is the only major river in the Sierra that drains in a southerly direction.

Environmental Consequences

The project has the potential to cause short-term water quality impacts in the area because it is a maintenance project that involves minor ground-disturbing activities. No long-term water quality impacts are expected for this project. All short-term water quality impacts need to be addressed in the design and construction phase of the project.

Avoidance, Minimization, and/or Mitigation Measures

To identify the appropriate management practices for all stormwater concerns, the Caltrans Stormwater Unit should be consulted before project

initiation. The project is expected to disturb less than 1 acre of soil. The contractor would need to prepare a Water Pollution Control Program in accordance with Caltrans Standard Specifications Section 13.1 Water Pollution.

The following avoidance and minimization measures should be incorporated into the appropriate project phases:

- WQ-1: The project would comply with the provisions of the Caltrans Statewide National Pollutant Discharge Elimination System Permit, which became effective July 1, 2013, and, if applicable, the Construction General Permit.
- WQ-2: Before any ground-disturbing activities start, the contractor would be required to prepare a Water Pollution Control Program or Stormwater Pollution Prevention Plan (per the Construction General Permit Order 2009-0009-DWQ) that includes erosion control measures and construction waste containment measures so that waters of the State are protected during and after project construction.
- WQ-3: Environmentally sensitive areas would be designated and delineated on the contract plans during the design phase to avoid potential discharges and unauthorized disturbances to the creeks, streams, channels, and protected riparian areas.
- The following temporary Construction Site Best Management Practices would be expected:
 - Fiber rolls and/or silt fencing for perimeter control.
 - Water that has been in contact with wet concrete would not be discharged to land until it has been tested and treated (if required).
 - Any proposed discharge to receiving waters would require a permit from the Central Valley Regional Water Quality Control Board.

2.1.11 Land Use and Planning

The project would not physically divide an established community or conflict with the Kern County General Plan dated September 22, 2009, or any other policy or regulation meant to avoid or mitigate an environmental effect. 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

Question—Would the project:	CEQA Significance Determinations for Land Use and Planning
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

Mineral and petroleum resources are basic to Kern County’s economy. Kern County has the distinction of producing more oil than any other county in California. The project would not impact these resources because work would be limited to rehabilitating culverts. Considering the information included in the Kern County General Plan dated September 22, 2009, 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 included in the Noise and Water Compliance Memorandum dated April 23, 2020, 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

Question—Would the project result in:	CEQA Significance Determinations for Noise
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 would not directly or indirectly induce substantial unplanned population growth in the area or displace a substantial number of people or housing that would require replacement housing elsewhere. Considering this information, the following significance determinations have been made:

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

Considering the project would not trigger the need for new or changed public services, 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

No park or recreational facility is near the project area. Furthermore, the project would not include recreational facilities or require the expansion or construction of recreational facilities. 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 not conflict with any transportation program, plan, ordinance, or policy and would have no impact on vehicle miles traveled. The project would not increase hazards due to a geometric design feature or incompatible uses and would not result in inadequate emergency access. 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 based on Native American consultation with the Native American Heritage Commission and information included in the Historic Property Survey Report dated July 2020, 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.	Less Than Significant Impact

Affected Environment

Native American consultation began on January 22, 2019, with a letter sent to the Native American Heritage Commission requesting a search of its files to determine if any sacred sites or traditional cultural properties were known to exist within or near the project area. The letter also requested the names of Native American individuals and group representatives who may be interested in or able to supply information relevant to the proposed project.

The Native American Heritage Commission responded to Caltrans on January 29, 2019, stating that its sacred land files failed to indicate the presence of known Native American cultural resources in the immediate project area.

The Native American Heritage Commission provided a list of 14 contacts who may be interested in the project and recommendations for further tribal consultation. The 14 contacts were included in the Native American consultation efforts for the undertaking. The only Native American contact to respond to the initial notification was Colin Rambo, a cultural resource management technician for the Tejon Indian Tribe. On May 24, 2019, follow-up letters and emails that included updated project information were sent to 18 individuals.

Colin Rambo replied to Caltrans by email on January 31, 2019, requesting that the Tejon Indian Tribe be given formal Section 106 consulting party status for the undertaking. According to the Tejon Indian Tribe’s records, portions of the project area may be moderately or highly sensitive for cultural resources. Colin Rambo also requested copies of any archaeological investigations that have occurred for this project. Colin Rambo has been informed of the progress of archaeological investigations through email and

was provided digital and physical copies of the draft Archaeological Survey Report for comments, as required by Section 106.

In July 2019, Mandy Macias, the Native American Coordinator for Caltrans District 6, attended a U.S. Forest Service tribal forum meeting and reached out to the tribes that attended about the project, including the associated road sign replacements. Robert L. Gomez, Jr., the Chairman of the Tubatulabal Tribe of Kern River Valley, engaged in discussions with Mandy Macias during the tribal forum.

An attempt by Caltrans was made to consult with the local historical society and historic preservation groups within Kern County. Letters to Kern County Historical Society and Kern River Valley Historical Society were sent on January 24, 2019. As of July 6, 2020, no response from either historical society has been received.

In December 2019 and January 2020, an extended phase one investigation with Native American monitoring was conducted on State Route 178 at post miles 13.67, R41.65, and 55.33.

Environmental Consequences

No surface or buried cultural materials were encountered during the extended phase one study for the project's area of potential effect. Due to the extended phase one study being negative for buried archaeological resources within the project area of direct impact, which is also the area of potential effect, Caltrans does not have an adverse impact on the archaeological resources.

Avoidance, Minimization, and/or Mitigation Measures

Follow all measures in the Environmentally Sensitive Area Action Plan. Before any ground disturbance activities within the area of potential effects, the resident engineer, or his or her representative, the construction contractor, and Caltrans archaeologists will meet at site locations in and near the project area to discuss all the environmentally sensitive areas boundaries and review the monitoring requirements for each of the environmentally sensitive areas during construction.

To ensure project activities will not change and result in an adverse effect on archaeological sites, environmentally sensitive areas shall be mapped in the construction contract plans, and these areas should be avoided with high visibility fencing during construction. Both archaeological and Native American monitors shall be present during construction at the following post mile locations on State Route 178:

- The contractor should notify the resident engineer 10 days before working in areas that are to be monitored.

- The Caltrans archeologist shall be notified at least 5 days in advance of the start of ground-disturbing activities.
- If the Archaeological or Native American Monitor identifies a resource considered potentially significant, then the monitor shall immediately inform the responsible Caltrans Professionally Qualified Staff and the resident engineer. The resident engineer, or his or her representative, will stop construction temporarily. All construction activities will stop within 60 feet of the archaeological find. The find will then be assessed to determine if a significant cultural resource was exposed or adversely affected by construction operations.

2.1.19 Utilities and Service Systems

Considering the project would not create a demand for new or expanded utilities and service systems and would have no impact on a utility or service system supply or generate solid waste in excess as described in “d” below, 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
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

Question—Would the project:	CEQA Significance Determinations for Utilities and Service Systems
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	No Impact

2.1.20 Wildfire

Considering the information included in the California Department of Forestry and Fire Protection’s Fire Hazard Severity Zone mapping and the Caltrans District 6 Climate Change Vulnerability Assessment mapping, 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?	Less Than Significant Impact
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?	Less Than Significant 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

Affected Environment

Wildfires can directly burn facilities and indirectly cause damage when rain falls on denuded slopes that landslide after a fire. Effects would vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. Accordingly, Caltrans must consider these types of

climate stressors in how highways are planned, designed, built, operated, and maintained.

The California Department of Forestry and Fire Protection's Fire Hazard Severity Zone mapping tool shows that the project limits run through high fire hazard severity zones, and portions are next to very high fire hazard severity zones. The Caltrans District 6 Climate Change Vulnerability Assessment mapping of roadways exposed to wildfire risk shows that State Route 178 in the project area runs through areas that would have a medium, high, and very high wildfire concern from the years 2025 to 2085.

Environmental Consequences

The project would not introduce any new structures or operations that would worsen the risk of wildfire. The potential for fire varies with the type of roadside vegetation and the configuration of the pavement edge. For example, grasses on a cut slope with a dike at the base are less likely to be ignited by a cigarette or spark than grasses on a flat traversable roadside. Similarly, perennial, or low growing annual grasses, present fewer fire risks than tall annual grasses. The chance and consequence of a fire escaping vary widely with conditions. The consequences of a fire spreading to a nearby forest may be more serious than a fire spreading to a desert, chaparral, or grassland. Likewise, the consequences of a roadside fire where there is a containment barrier such as a frontage road or soundwall are less than if the fire can spread unconstrained into nearby terrain.

Fire-resistant culvert materials would be selected to ensure that drainage facilities are as fire-resistant as possible. The project would not impair emergency response vehicles or emergency evacuation plans. Operationally, the project is not expected to increase the risk of wildfires or worsen the impacts of wildfires.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans Standard Specifications Section 7-1.02M(2) mandates fire prevention procedures during construction, including a fire prevention plan. The following Caltrans Standard Specifications Section 7-1.02M(2) would be implemented for this project:

- The contractor shall obtain the emergency phone numbers of the California Department of Forestry and Fire Protection unit headquarters, the U.S. Forest Service ranger district office, and the Bureau of Land Management field offices. These phone numbers shall be submitted to the engineer before the start of the job site activities. The agency's names and emergency phone numbers must be posted at a prominent place at the job site.

- Hydrocarbon-fueled engines, both stationary and mobile, must be equipped with spark arresters per Public Resources Code Section 4442 except for either of the following:
 - Motor trucks, truck tractors, buses, or passenger vehicles.
 - Equipment powered by properly maintained exhaust-driven turbocharged engines or equipped with scrubbers with properly maintained water levels.
- Each toilet must have a metal ashtray at least 6 inches in diameter and 8 inches deep, half-filled with sand, and within easy reach of anyone accessing the facility.
- Locate flammable materials at least 50 feet away from equipment service, parking, and gas or oil storage areas. Each small mobile or stationary engine site must be cleared of flammable material for a radius of at least 15 feet from the engine.
- Before clearing and grubbing, clear a firebreak at the outer limits of the areas to be cleared and grubbed. Where clearing and grubbing limits allow, use a minimum firebreak width of 20 feet. Each area to be cleared and grubbed must be cleared and kept clear of flammable material such as dry grass, weeds, brush, downed trees, oily rags and waste, paper, cartons, and plastic waste.
- Furnish the following fire tools:
 - One shovel and one fully charged fire extinguisher Underwriters Laboratories rated at 4B:C or more on each truck, personnel vehicle, tractor, grader, or other heavy equipment.
 - One shovel and one 5-gallon water-filled backpack fire pump for each welder.
 - One shovel or one chemical pressurized fire extinguisher, fully charged, for each gasoline-powered tool, including chain saws, soil augers, and rock drills. The fire tools must always be within 25 feet from the point of operation of the power tool. Each fire extinguisher must be of the type and size required by Public Resources Code Section 4431 and 14 California Code of Regulations Section 1234.
- Each shovel must be size O or larger and at least 46 inches long.
- Furnish a pickup truck and driver that would be available for fire control during working hours.
- The pickup truck and operator must patrol the construction area for at least a half-hour after job site activities have ended.
- Furnish a pickup truck and driver for the sole purpose of fire control during working hours. The truck must be equipped with the following:

- Ten shovels, five axes, and two 5-gallon water-filled backpack fire pumps.
- A 100-gallon tank of water with a gasoline-powered pump and 100 feet of a 3/4-inch hose on a reel.
- In addition to being available at the site of the work, the truck and operator must patrol the area of construction from noon until at least a half-hour after job site activities have ended. If the fire danger rating is “very high” or “extreme” or if a “fire weather watch” or “red flag warning” is issued, the truck and operator must patrol the construction area while work is being done and for at least a half-hour after job site activities have ended.
- The California Department of Forestry and Fire Protection, the U.S. Forest Service, and the Bureau of Land Management have established the following adjective class ratings for five levels of fire danger for use in public information releases and fire protection signing: “low,” “moderate,” “high,” “very high,” and “extreme.” Obtain the fire danger rating daily for the project area from the nearest California Department of Forestry and Fire Protection unit headquarters, U.S. Forest Service ranger district office, or Bureau of Land Management field office. Monitor the National Weather Service’s daily forecasts for “fire weather watches” and “red flag warnings” covering the project’s locations.
- Arrangements have been made with the California Department of Forestry and Fire Protection, the U.S. Forest Service, and the Bureau of Land Management to notify Caltrans when the fire danger rating is “very high” or “extreme.” This information would be furnished to the engineer, who would notify the contractor for dissemination and action in the area affected. If a discrepancy between this notice and the fire danger rating obtained from the nearest office of the California Department of Forestry and Fire Protection or the U.S. Forest Service exists, the contractor must conduct operations according to the higher of the two fire danger ratings.
- If the fire danger rating is “very high” or a “fire weather watch” is issued, then:
 - Falling of dead trees or snags must be discontinued.
 - No open burning would be allowed, and fires must be put out.
 - Welding must be discontinued except in an enclosed building or within an area cleared of flammable material for a radius of 25 feet.
 - Blasting must be discontinued.
 - Smoking is allowed only in automobiles and cabs of trucks equipped with an ashtray or in cleared areas immediately surrounded by a firebreak unless prohibited by other authorities.
 - Vehicular travel is restricted to cleared areas except in the case of an emergency.

- If the fire danger rating is “extreme” or a “red flag warning” is issued, take the precautions specified for a “very high” fire danger rating or a “fire weather watch” issuance, except:
 - Smoking is only allowed in automobiles and cabs of trucks equipped with an ashtray.
 - Work that could start a fire requires that properly equipped fire guards be assigned to such operation for the duration of the work.
- The engineer may suspend work wholly or in part due to hazardous fire conditions. The days during this suspension would be non-working days. If field and weather conditions become such that the work is suspended, Caltrans Standard Specifications Section 7-1.02M(2) would not be enforced for the period of the suspension.

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 wild life 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

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY

Gavin Newsom, Governor

DEPARTMENT OF TRANSPORTATION

OFFICE OF THE DIRECTOR
P.O. BOX 942873, MS-49
SACRAMENTO, CA 94273-0001
PHONE (916) 654-6130
FAX (916) 653-5776
TTY 711
www.dot.ca.gov



Making Conservation
a California Way of Life.

November 2019

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."*

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) 324-8379 or visit the following web page:
<https://dot.ca.gov/programs/business-and-economic-opportunity/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 Business and Economic Opportunity, at 1823 14th Street, MS-79, Sacramento, CA 95811; (916) 324-8379 (TTY 711); or at Title.VI@dot.ca.gov.

A handwritten signature in blue ink, appearing to read "Toks Omishakin".

Toks Omishakin
Director

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

Appendix B Comment Letters and Responses

This appendix contains the comments received during the public circulation and comment period from September 9, 2020, to October 9, 2020, retyped for readability. A Caltrans response, shown within double slashes (two slashes start the Caltrans response and two slashes come at the end of the response), follows each comment presented. Related information is incorporated, where appropriate, into the body of this final environmental document. Copies of the original comment letters and documents can be found in Volume 2 of this document.

Note: The comment letters are stated verbatim, with acronyms, abbreviations, and any original grammatical or typographical errors. Be aware that some passages may also include internet paths (addresses) that contain a double slash; do not confuse that structure with the Caltrans responses that are set apart by double slashes.

Comment from: Jackson Hurst

Comment 1:

From: Jackson Hurst <gaslightmater@yahoo.com>

Sent: Wednesday, September 16, 2020 3:39 PM

To: Phongsavanh, Som@DOT<som.phongsavanh@dot.ca.gov>

Subject: Kern Canyon Culvert Rehabilitation Initial Study with Proposed Negative Declaration – September 2020

I have reviewed the environmental document for the Kern Canyon Culvert Rehabilitation Project. I agree with the build alternative for the following 2 reasons: 1. repairing culverts along SR 178 will prevent flooding from snowmelt runoff and 2. Repairing culverts along SR 178 will prevent the roadway from being washed out from erosion.

//Caltrans Response to Comment 1: Thank you for submitting your comment to us. Caltrans acknowledges your preference of the build alternative.//

Comment from: California Department of Fish and Wildlife

Comment 1:

October 15, 2020

Som Phongsavanh

California Department of Transportation, District 6

855 M Street, Suite 200

Fresno, California 93721

Subject: Kern County Culvert Rehabilitation (Project)

**Initial Study with proposed Negative Declaration State Clearinghouse
No.: 2020090148**

Dear Mr. Phongsavanh:

The California Department of Fish and Wildlife (CDFW) received a proposed Negative Declaration (ND) and its supporting Initial Study (IS) prepared by the California Department of Transportation (Caltrans) for the above-referenced Project pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.¹

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, CDFW appreciates the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under Fish and Game Code.

While the comment period may have ended, CDFW would appreciate if you will still consider our comments.

CDFW ROLE

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386,

subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Id., § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to

provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a Responsible Agency under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), related authorization as provided by the Fish and Game Code will be required.

PROJECT DESCRIPTION SUMMARY

Proponent: Caltrans

Objective: Caltrans proposes to rehabilitate drainage infrastructure along an approximately 43-mile segment of State Route 178 (SR 178) between Post Mile 12.60 and Post Mile 55.40 (Project site). All Project-related activities will occur within the existing right-of-way within the paved travel lanes, the unpaved but compacted and engineered shoulder backing, or within the ruderal areas beyond the travel lanes and shoulder backing. Work would include the replacement or repair of 65 existing culvert locations, the installation of two new culverts and one new overside drain for a total of 68 locations where work would be conducted. Activities include trenching, grading, the lining of existing culvert pipes, and the installation of RSP.

Location: The Project site exists between Post Mile 12.60 and Post Mile 55.40 and is generally northeast of the City of Bakersfield in Kern County.

Timeframe: Summer 2022-Summer 2023.

COMMENTS AND RECOMMENDATIONS

CDFW offers the following comments to assist Caltrans in adequately identifying and sufficiently reducing to less-than-significant the potentially significant, direct and indirect Project-related impacts to fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the document.

Currently, the proposed IS/ND indicates that the Project-related impacts to Biological Resources would be less-than-significant with implementation of specific avoidance and minimization efforts. In particular, Caltrans concludes there will be: 1) less-than-significant impacts to migratory birds in general with implementation of proposed avoidance and minimization measures, and 2) no

Project-related impacts to the State threatened Swainson's hawk (*Buteo swainsoni*).

However, as currently drafted, it is unclear: 1) whether the general migratory bird measures proposed in the IS/ND sufficiently reduce, to less-than-significant, the potential Project-related impacts to those species, and 2) how Caltrans came to the conclusion that there will be no impacts to one State-listed species CDFW considers potentially present in the vicinity of the Project. Therefore, CDFW does not agree with these conclusions and will herein suggest measures to survey for and avoid Project-related impacts to these species, thereby reducing to less-than-significant the Project-related impacts. Further, CDFW considers the Kern Canyon slender Salamander (*Batrachoseps simatus*) potentially present in the vicinity of the Project and will herein suggest measures to survey for and avoid Project-related impacts to the species, thereby reducing to less-than-significant the Project-related impacts. CDFW also recommends that Caltrans identify a path forward in the event that avoidance of the two species is not feasible.

I. Environmental Setting and Related Impact

Would the Project have a substantial adverse impact, 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 CDFW or the United States Fish and Wildlife Service (USFWS)?

COMMENT 1: Migratory Birds including Swainson's Hawk (SWHA)

Issue: Migratory birds, including SWHA, have the potential to nest in the vicinity of the Project. The Project activities will involve varying degrees of ground disturbance within the right-of-way and CDFW considers it possible that the Project-related activities would represent a novel stimulus which could result in nest abandonment to migratory birds and to SWHA specifically if they occur within ½-mile of an active SWHA nest. This nest failure of the State threatened SWHA would represent a significant impact to SWHA and possibly take as it is defined in section 86 of Fish and Game Code.

Specific Impacts: In the IS, Caltrans addresses migratory birds in general, and further indicates it will maintain a 500-foot no disturbance buffer from active SWHA nests during Project implementation. However, CDFW considers this 500-foot no disturbance buffer insufficient to avoid take of SWHA. Therefore, CDFW does not agree that the proposed 500-foot no-disturbance buffer reduces to less-than-significant the potential Project-related impacts to the species.

Evidence impact would be significant: SWHA exhibit high nest-site fidelity year after year and lack of suitable nesting habitat in the San Joaquin Valley limits their local distribution and abundance (CDFW 2016). Adoption of the

ND as it is written will allow Project-related activities that will involve ground disturbance, grading, and excavation employing heavy equipment and work crews outside within ½-mile of active SWHA nests. These activities occurring within ½-mile of active SWHA nests have the potential to result in nest abandonment, significantly impacting nesting SWHA.

Recommended Potentially Feasible Avoidance and Mitigation

Measure(s) Because the Project-related activities represent novel stimuli and threaten nest abandonment, CDFW recommends Caltrans propose a ½-mile no-disturbance buffer around active SWHA nests in order to reduce to less-than-significant the Project-related impacts to the species. CDFW recommends edits to the Migratory Bird avoidance and minimization measures in the IS. Further, CDFW recommends these edited measures be made quantifiable and enforceable conditions of Project approval.

Recommended Edits to Migratory Bird Avoidance and Minimization Measures to specifically address SWHA on page 16 of the IS.

Currently, under the Migratory Bird avoidance and minimization measures section of the IS, Caltrans proposes a “no-work buffer around” active migratory bird nests detected during preconstruction surveys. CDFW recommends Caltrans edit this measure to propose numeric no-work buffers for unlisted passerine, raptors, and listed raptors (including SWHA). Alternatively, the species-specific measures for SWHA could be focused and discussed outside the Migratory Bird section.

CDFW recommends Caltrans edit the Migratory Bird avoidance and minimization measure section of the IS to require pre-activity surveys for active nests no more than 10 days prior to the start of ground disturbance to maximize the probability that nests that could potentially be impacted are detected. CDFW then recommends Caltrans propose a minimum no-disturbance buffer of 250 feet around active nests of non-listed passerine bird species and a 500-foot no-disturbance buffer around active nests of non-listed raptors. These buffers are advised to remain in place until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival. Variance from these no-disturbance buffers is possible when there is compelling biological or ecological reason to do so, such as when the construction area would be concealed from a nest site by topography. CDFW recommends that a qualified biologist advise and support any variance from these buffers and notify CDFW in advance of implementing a variance.

For SWHA specifically, CDFW recommends Caltrans require focused surveys for active nests and ½-mile no-disturbance buffers around any active nests until the young have fledged and are no longer reliant upon the nest or parental care for survival. If the ½-mile no-disturbance buffer is not feasible, CDFW recommends Caltrans propose obtaining take authorization through

the acquisition of an Incidental Take Permit pursuant to section 2081 subdivision (b) of Fish and Game Code in the revised IS, and that the revised IS support a Mitigated Negative Declaration. In summary, if the edited avoidance measure is not feasible, mitigation (take authorization) would be warranted to reduce to less-than-significant the unavoidable Project-related impacts to SWHA.

//Caltrans Response to Comment 1: Caltrans does not prescribe to established thresholds such as 0.5-mile buffers since Swainson's hawks have varying tolerances for human activity. Analysis of surrounding land use, typical background noise, and baseline activity, as well as the level of expected construction activity near the nest, is used to predict how a Swainson's hawk nesting pair may respond to construction activities. Tolerance of novel activity is generally higher for locations with heavy traffic conditions and other baseline activities that produce movement, noise, and light.

Currently, there are no nests within 0.5 mile of the action area. The closest California Natural Diversity Database documented occurrence of Swainson's hawk is 4 miles from the north end of the project area. Since there are no active Swainson's hawks in the area, no impacts are expected. Caltrans has documented several occurrences of Swainson's hawk nesting next to the roadway within 0.5 mile of well-disturbed areas such as active agricultural fields (almond orchards), rest stops, mining facilities, and numerous Caltrans construction job sites. Caltrans has also documented successful nesting activities of Swainson's hawks within 50 to 800 feet of construction activities; therefore, it is Caltrans' opinion that a 500-foot buffer is sufficient to potentially reduce any impacts to Swainson's hawk to less than significant.

Caltrans has successfully implemented Swainson's hawk avoidance and minimization measures, which include buffers, seasonal work windows, monitoring, attenuation, and stopping construction. Since there are no known Swainson's hawk nests within 4 miles of the project area and avoidance and minimization measures would be implemented to avoid take, Caltrans is not proposing to obtain a 2081 incidental take authorization.

Regarding migratory birds, Caltrans is already proposing to implement a 500-foot buffer if any raptors are found nesting within the project limits. Additionally, Caltrans would propose to implement a 100-foot buffer for all other non-listed passerine bird species. Based on recent Caltrans construction jobs, a 100-foot buffer has been successful in not disturbing nesting birds in the vicinity and allowing construction activities to proceed.

Caltrans proposes to conduct pre-construction surveys for migratory birds, including Swainson's hawk, no more than 10 days before construction activities.//

Comment 2:

COMMENT 2: Kern Canyon Slender Salamander (KCSS)

Issue: KCSS are known to occur in the vicinity of the Project site. Project-related ground disturbance, equipment staging, or materials laydown, and nightwork in areas where they are known to occur would have to be completely avoided by a minimum of 50 feet in order to reduce to less than significant the Project-related impacts to this species, and possible take of the species.

Specific Impacts: In the IS, Caltrans does not specifically address the potential presence and/or Project-related impacts to KCSS. Without appropriate avoidance and minimization measures for KCSS potential significant impacts associated with the Project activities could include inadvertent entrapment, reduced reproductive success, reduction in health and vigor of eggs and/or young, and direct mortality of individuals.

Evidence impact would be significant: The Project area is within the range of KCSS and may contain suitable habitat. Decline in KCSS populations is attributed to the construction of State Route 178 (CDFW, 1987). KCSS could occupy north-facing habitat areas within and adjoining these portions of the Project right-of-way and Project-related ground disturbance in these areas could result in significant impacts to the species.

Recommended Potentially Feasible Avoidance and Mitigation

Measure(s) Because suitable KCSS habitat may be present in the vicinity of at least portions of the Project, CDFW recommends the following measures be added to ensure that impacts to the species will be less-than-significant and completely avoided. Further, CDFW recommends these measures be made conditions of Project approval.

Recommended Edits to include Avoidance and Minimization Measures for KCSS in the IS.

In order to determine if KCSS occupy portions of the Project site or adjoining lands, CDFW recommends Caltrans revise the initial study to include plans to assess whether habitat within or adjoining (within 50 feet) the Project site constitute suitable habitat for KCSS. If not, this should be addressed in the IS and no further measures would be needed. But if suitable habitat is present at or within 50 feet of the Project site, and suitable burrows or areas of suitable salamander habitat cannot be avoided by a minimum no-disturbance buffer of 50 feet, CDFW recommends the IS include a measure involving focused surveys in advance of commencing Project activities. If no individuals are detected during these surveys, Caltrans may in fact be able to accomplish the Project avoiding significant impacts to the species. However, if KCSS are found to occupy areas at or within 50 feet of the Project site, the Project

would have the potential to result in significant impacts to the species unless burrow openings and suitable salamander habitat could be avoided by 50 feet. If this avoidance is not feasible, CDFW recommends Caltrans propose obtaining incidental take coverage pursuant to section 2081 subdivision (b) of Fish and Game Code in the revised IS, and that the revised IS support a Mitigated Negative Declaration. In summary, if the added avoidance measures for KCSS are not feasible, acquisition of an ITP may be warranted to reduce to less-than-significant the unavoidable Project-related impacts to KCSS.

//Caltrans Response to Comment 2: The Kern River Canyon does contain some areas of suitable habitat for the Kern Canyon slender salamander. There are several occurrences of the Kern Canyon slender salamander within a mile of this section of the Kern River Canyon adjacent to the proposed project, ranging from 1970 to 2008. However, most of proposed Caltrans culvert locations were seen to be dry, and habitat to be directly impacted was considered unlikely to be suitable for the Kern Canyon slender salamander. Some of the lower locations close to the south end of the project sites do have some habitat next to the work area that may be suitable for this species. Therefore, Caltrans will conduct pre-construction surveys for the Kern Canyon slender salamander immediately before work is conducted at these locations.

Since work will be completed directly next to the roadways in areas that have been seen to be dry and unsuitable for the Kern Canyon slender salamander, Caltrans does not expect the need to apply for a 2081 incidental take authorization.

The section has been revised to add a discussion under Affected Environment, Environmental Consequences, and Avoidance, Minimization Mitigation for the Kern Canyon Slender Salamander.//

Comment 3:

II. Editorial Comments and/or Suggestions

Appropriateness of ND: The above recommended revisions to the IS pertain to avoidance of nesting SWHA, suitable salamander habitat and burrows which may harbor KCSS at and within specified buffers from the Project site to completely avoid significant impacts to these State-listed species under this Negative Declaration. If surveys confirm the presence of any of the aforementioned species at or within the species-specific buffers, Caltrans may not be able to accomplish the Project avoiding significant impacts to these species without first obtaining incidental take authorization pursuant to section subdivision 2081(b) of Fish and Game Code. Incidental take authorization would involve minimization of, and mitigation for, take of the permitted species. Considering this, CDFW recommends Caltrans incorporate the recommended revisions to the IS and propose a Mitigated Negative

Declaration for the Project, in lieu of the currently proposed ND. This will ensure that the CDFW recommended avoidance, minimization, and mitigation measures will be quantifiable and enforceable.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code,

§ 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to CNDDDB. The CNDDDB field survey form can be found at the following link:

<https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The completed form can be mailed electronically to CNDDDB at the following email address: CNDDDB@wildlife.ca.gov. The types of information reported to CNDDDB can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

//Caltrans Response to Comment 3: Caltrans did not submit the California Natural Diversity Database form because there were no special status species found onsite.//

Comment 4:

FILING FEES

If it is determined that the Project has the potential to impact biological resources, an assessment of filing fees will be necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089).

//Caltrans Response to Comment 4: Caltrans, upon filing a Notice of Determination for this project, will pay the California Department of Fish and Wildlife a filing fee of \$2,406.75.//

Comment 5:

CDFW appreciates the opportunity to comment on the Project to assist Caltrans in identifying and avoiding the Project's impacts on biological resources.

More information on survey and monitoring protocols for sensitive species can be found at CDFW's website

(<https://www.wildlife.ca.gov/Conservation/Survey-Protocols>). If you have any questions, please contact Javier Mendez, Environmental Scientist, at the address provided on this letterhead, or by electronic mail at javier.mendez@wildlife.ca.gov.

Sincerely,

Julie A. Vance

Regional Manager

Attachment 1: Recommended Mitigation Monitoring and Reporting Program

//Caltrans Response to Comment 5: Thank you for your support of the project, and for taking the time to comment.//

List of Technical Studies Bound Separately (Volume 2)

Air Quality Memorandum: April 22, 2020

Climate Change Report: May 28, 2020

Paleontological Identification Report: December 22, 2017

Noise and Water Compliance Memorandum: April 23, 2020

Hydraulic Recommendation Memorandum: May 18, 2020

Biological Assessment: May 11, 2020

Natural Environment Study: June 22, 2020

Historical Property Survey Report: September 4, 2020

- Extended Phase One Study
- Archaeological Survey Report

Hazardous Waste Compliance Memorandum: April 10, 2020

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

Som Phongsavanh, Senior Environmental Planner
Central Region Environmental, California Department of Transportation
855 M Street, Suite 200, Fresno, California, 93721

Or send your request via email to: som.phongsavanh@dot.ca.gov or call 559-445-6447

Please provide the following information in your request:

Project title

General location information

District number-county code-route-post mile

Project ID number