

Fresno 168 Culvert Rehabilitation

On State Route 168 from the Fowler Avenue Overcrossing to 0.10 mile
east of Warbler Lane in Fresno County

06-FRE-168-PM R8.28-45.80

Project ID Number 0618000041

Initial Study with Proposed Mitigated Negative Declaration

Volume 1 of 2



Prepared by the
State of California Department of Transportation

October 2022



General Information About This Document

What's in this document:

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

What you should do:

- Please read the document. Additional copies of the document and the related technical studies are available for review at the Caltrans District 6 office at 1352 West Olive Avenue, Fresno, California 93728, and the Shaver Lake Library at 41344 Tollhouse Road, Shaver Lake, California 93664. The document can also be accessed electronically at <http://dot.ca.gov/caltrans-near-me/district-6>. If you would like a printed version or compact disk of this document to be sent to your home address, please contact Shane Gunn, District 6 Environmental Division.
- Tell us what you think. If you have any comments regarding the proposed project, send your written comments to Caltrans by the deadline. Submit comments via U.S. mail to: Shane Gunn, District 6 Environmental Division, California Department of Transportation, 2015 East Shields Avenue, Suite 100, Fresno, California 93726. Submit comments via email to: shane.gunn@dot.ca.gov.
- Submit comments by the deadline: March 6, 2023.

What happens next:

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

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

Drainage rehabilitation on State Route 168 from post miles R8.28 to 45.80 in
Fresno County

**INITIAL STUDY
with Proposed Mitigated Negative Declaration**

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

THE STATE OF CALIFORNIA
Department of Transportation
and
Responsible Agency: California Transportation Commission



Jennifer H. Taylor
Environmental Office Chief, District 6
California Department of Transportation
CEQA Lead Agency

09/28/2022

Date

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DRAFT

Proposed Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

State Clearinghouse Number: pending

District-County-Route-Post Mile: 06-FRE-168-R8.28-45.80

EA/Project Number: EA 06-0X220 and Project ID Number 0618000041

Project Description

The California Department of Transportation (Caltrans) proposes to repair or replace 158 culverts and associated elements at various locations on State Route 168 in Fresno County from post mile R8.28 to post mile 45.80 from the Fowler Avenue Overcrossing to 0.10 mile east of Warbler Lane.

Determination

An Initial Study has been prepared by Caltrans, District 6. On the basis of this study, it is determined that the proposed action with the incorporation of the identified mitigation measures will not have a significant effect on the environment for the following reasons:

- A Section 2081 Incidental Take Permit from the California Department of Fish and Wildlife would be obtained for the tree anemone (*Carpenteria californica*). Caltrans would mitigate with a replanting plan for any removed trees.
- A Section 2081 Incidental Take Permit from the California Department of Fish and Wildlife would be obtained for the Central California Distinct Population Segment of the California tiger salamander (*Ambystoma californiense*). Compensatory mitigation for 0.18 acre of temporary impacts for the Central California Distinct Population Segment of the California tiger salamander is proposed. The proposed mitigation will involve purchasing mitigation credits from the upcoming Sand Creek Mitigation bank in Fresno County.
- Temporary and permanent impacts to 0.487 acre of potential Waters of the U.S./State may be impacted and require mitigation via in-lieu fees.

Jennifer H. Taylor
Environmental Office Chief, District 6
California Department of Transportation

Date

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Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans) proposes to repair or replace 158 culverts and associated elements at various locations on State Route 168 in Fresno County between post mile R8.28 and post mile 45.80 from the Fowler Avenue Overcrossing in the City of Clovis to 0.10 mile east of Warbler Lane in Shaver Lake.

The project begins on State Route 168 at the Fowler Avenue Overcrossing in the City of Clovis and extends 65.9 miles to Warbler Lane in Shaver Lake. The route serves as a major route for commuting in the Fresno-Clovis Metropolitan Area and for recreation travel to Shaver Lake, Huntington Lake, and other destinations in the Sierra Nevada. The project section on State Route 168 is a freeway from post mile R8.28 to post mile 11.8, then a two-lane conventional highway until the end of the project at post mile 45.80.

The project's construction cost is estimated to be \$12,100,000. The project was programmed in the 2020 State Highway Operation and Protection Program with funding from the Drainage system restoration program.

Temporary lane and shoulder closures would be implemented during construction using one-way reversing traffic control on two-lane segments of State Route 168. Flaggers and a pilot car would be used to direct traffic through active construction sites. Construction area signs and other traffic control signs would also be installed. Detours are not expected. Figure 1-1 shows the project vicinity map for the project and Figure 1-2 shows the project location map for the project.

1.2 Purpose and Need

The purpose and need sections discuss the reason(s) for the project and provide structure for the development of alternatives.

1.2.1 Purpose

The purpose of this project is to maximize the service life of drainage elements by rehabilitating and upgrading or replacing existing culverts at various locations within the project limits.

1.2.2 Need

The project is needed to maintain proper drainage and extend the life of the culverts on State Route 168 for the following reasons:

- The culverts are perforated and heavily rusted.
- The culverts have damaged end treatments and joint separations.
- The culverts have reached or exceeded their design life.

1.3 Project Description

The project proposes to repair or replace 158 culverts and associated elements on State Route 168 in Fresno County from the Fowler Avenue Overcrossing in the City of Clovis to 0.10 mile east of Warbler Lane in Shaver Lake. The project includes a Build Alternative and a No-Build Alternative.

Figure 1-1 Project Vicinity Map

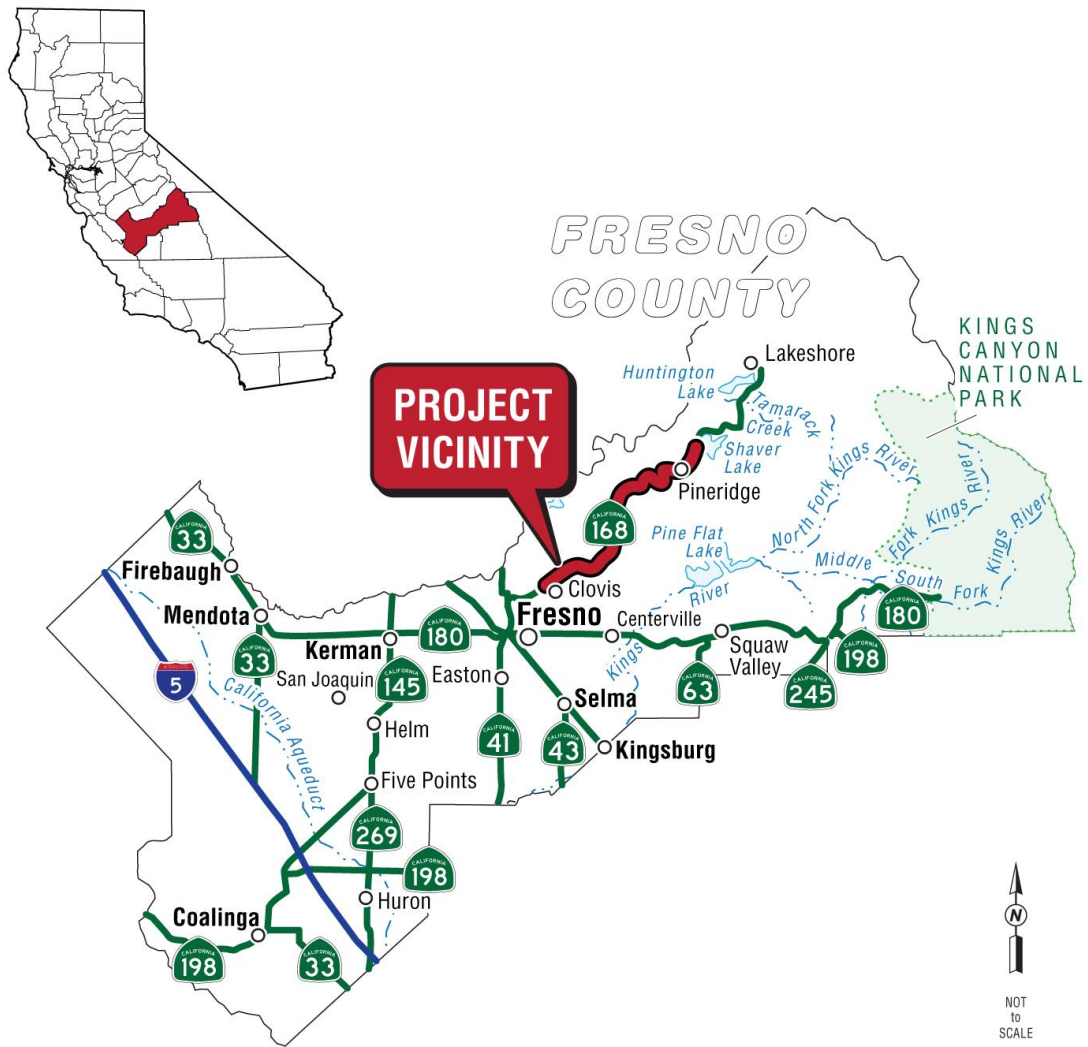
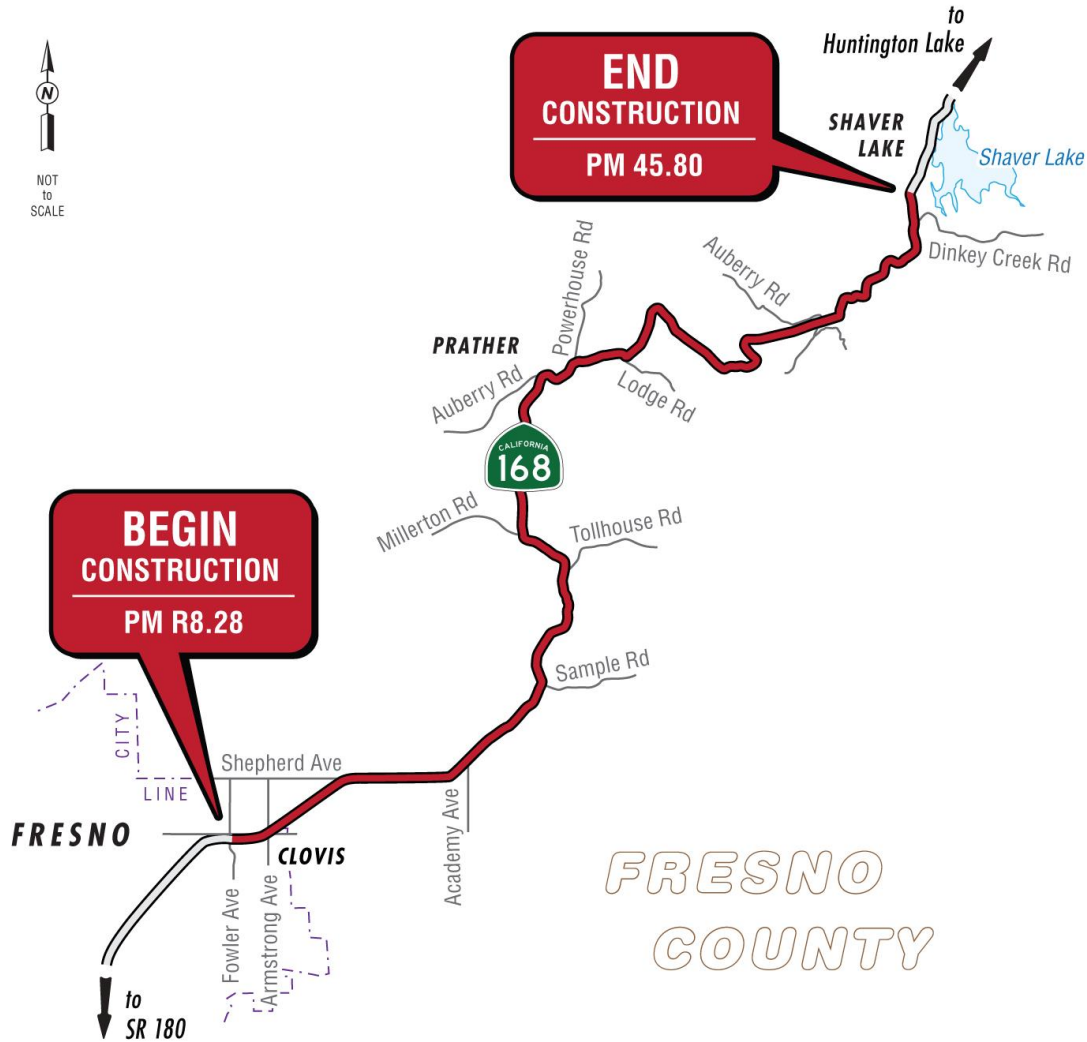


Figure 1-2 Project Location Map



1.4 Project Alternatives

A Build Alternative and a No-Build Alternative are being considered for the project.

1.4.1 Build Alternatives

The Build Alternative proposes to repair or replace 158 culverts and associated elements on State Route 168 in Fresno County. Construction would occur on State Route 168 at various locations, starting at post mile R8.28 and ending at post mile 45.8. The project would require repairing eroded embankments at five locations. The roadbed and embankment would be rebuilt at the following culvert locations.

- Location 55 (Post Mile T32.59)
- Location 137 (Post Mile 42.13)
- Location 142 (Post Mile 42.55)
- Location 144 (Post Mile R42.90)
- Location 148 (Post Mile R43.30)

Temporary construction easements and permanent right-of-way easements would be required and identified during the design phase of the project. Table 1.1 shows the proposed work at culvert locations.

Table 1.1 Culvert Locations and Proposed Work

Location Number	Post Mile	Proposed Work
1	R8.13	Replace section
2	R9.00	Replace
3	R11.98	Replace section
4	15.40	Replace and encase
5	15.76	Replace
6	15.91	Replace
7	16.01	Replace and encase
8	16.21	Replace
9	16.35	Replace
10	17.15	Replace
11	17.21	Replace
12	17.30	Replace and encase
13	17.49	Replace and encase
14	17.67	Replace and encase
15	17.72	Replace at lower flow line
16	17.85	Replace and encase
17	T25.68	Replace
18	T25.81	Replace
19	R26.00	Replace
20	R26.06	Replace
21	T26.48	Replace section
22	T26.62	Replace
23	T26.66	Replace
24	T26.77	Replace
25	26.86	Replace and encase
26	T26.94	Replace
27	T26.94	Replace
28	T27.08	Culvert lining
29	T27.34	Replace
30	T27.43	Replace
31	T27.53	Replace
32	T27.63	Replace
33	T27.79	Replace
34	T27.85	Culvert lining (box culvert)
35	T28.11	Abandon existing pipe and install a new culvert
36	T28.11	Replace

Location Number	Post Mile	Proposed Work
37	T28.29	Replace
38	T28.40	Replace
39	R28.87	Line a deep culvert and add a shallow culvert
40	R28.94	Line a deep culvert and add a shallow culvert
41	R28.98	Replace
42	T29.07	Replace
43	T29.12	Replace
44	T29.36	Replace
45	R30.08	Culvert lining
46	T30.66	Replace
47	T31.04	Replace
48	T31.38	Replace
49	T31.67	Replace
50	T31.74	Replace
51	T31.81	Replace
52	T31.89	Replace
53	T32.07	Replace
54	T32.17	Replace section
55	T32.59	Repair and stabilize the embankment
56	L28.52	Culvert lining
57	L28.63	Replace flared end section
58	L28.75	Replace
59	L28.83	Culvert lining, repave flow line
60	L29.03	Culvert lining
61	L29.69	Culvert lining
62	L29.69	Culvert lining
63	L29.69	Culvert lining
64	L30.56	Replace
65	L30.56	Replace
66	L30.63	Replace
67	L30.77	Culvert lining
68	L30.79	Culvert lining
69	L30.82	Culvert lining
70	L31.04	Culvert lining
71	L31.09	Culvert lining
72	L31.23	Culvert lining
73	L31.35	Culvert lining
74	L31.38	Culvert lining
75	L31.50	Culvert lining
76	L31.60	Culvert lining
77	L32.72	Culvert lining
78	L32.78	Culvert lining
79	L32.82	Culvert lining
80	R32.96	Culvert lining
81	R33.00	Culvert lining
82	R33.12	Culvert lining
83	R33.12	Culvert lining
84	R33.26	Replace
85	R33.32	Culvert lining
86	R33.34	Culvert lining
87	R33.50	Culvert lining
88	R33.65	Pave invert

Location Number	Post Mile	Proposed Work
89	R33.79	Culvert lining
90	R33.83	Culvert lining
91	R33.88	Replace, line a deep culvert, and add a shallow culvert
92	R33.99	Replace
93	R34.09	Culvert lining
94	R34.14	Replace
95	R34.23	Replace
96	R34.32	Replace
97	R34.37	Line a deep culvert and add a shallow culvert
98	R34.37	Replace
99	R34.40	Culvert lining
100	R34.40	Culvert lining
101	R34.58	Culvert lining
102	R34.74	Culvert lining
103	R34.92	Culvert lining
104	R34.99	Culvert lining
105	R35.05	Culvert lining
106	R35.12	Culvert lining
107	R35.18	Culvert lining
108	R35.46	Culvert lining
109	R35.54	Culvert lining
110	R35.60	Culvert lining
111	R35.84	Culvert lining
112	R35.89	Culvert lining
113	R35.95	Culvert lining
114	R35.98	Culvert lining
115	R36.05	Culvert lining
116	R36.16	Culvert lining
117	R36.25	Culvert lining
118	R36.25	Culvert lining
119	39.51	Culvert lining
120	39.58	Replace a slotted pipe under the paved ditch and side gutter
121	39.58	Replace
122	39.63	Culvert lining
123	39.88	Culvert lining
124	40.03	Culvert lining, replace
125	40.23	Replace
126	40.30	Replace
127	40.45	Culvert lining
128	40.65	Culvert lining
129	40.73	Culvert lining
130	41.25	Replace
131	41.47	Culvert lining
132	41.55	Culvert lining
133	41.73	Culvert lining
134	41.86	Replace
135	41.86	Replace
136	42.04	Replace
137	42.13	Stabilize embankment
138	42.42	Culvert lining
139	42.42	Replace, line a deep culvert, and add a shallow culvert
140	42.42	Repave

Location Number	Post Mile	Proposed Work
141	42.44	Replace
142	42.55	Stabilize embankment
143	42.81	Culvert lining
144	R42.90	Culvert lining, stabilize the embankment
145	R42.90	Line culvert
146	R42.96	Replace
147	R43.10	Remove tree and regrade
148	R43.30	Culvert lining, stabilize the embankment
149	43.71	Culvert lining
150	44.02	Replace
151	44.45	Replace
152	44.85	Replace
153	45.14	Replace
154	45.44	Replace
155	45.50	Replace
156	45.50	Replace
157	45.50	Culvert lining
158	45.80	Culvert lining

This project contains a number of standardized project measures that are used on most, if not all, Caltrans projects and were not developed in response to any specific environmental impact resulting from the proposed project. These measures are listed later in this chapter under “Standard Measures and Best Management Practices Included in All Build Alternatives.”

1.4.2 No-Build (No-Action) Alternative

The No-Build Alternative would not address the current concerns of culvert deterioration; this would lead to drainage issues, flooding, and pavement failure.

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

The project may include, but will not be limited to, the following Standard Special Provisions:

Air Quality—To effectively reduce and control emission impacts during construction, Caltrans Standard Specifications Section 14-9.02 “Air Pollution Control” and Section 10-5 “Dust Control” would be included in the bid package.

Biology—Preconstruction field surveys will be required to determine which special-status species or other resources of concern are within the action area and/or project footprint. Before ground disturbance, the contractor, all employees of the contractor, subcontractors, and subcontractors’ employees

will attend a Worker Environmental Awareness Training conducted by a Caltrans-approved biologist.

Hazardous Waste—Applicable Standard Special Provisions that would be included in the bid package may include, but are not limited to, Standard Special Provisions Section 7-1.02K(6)(j)(ii) Lead Compliance Plan; Standard Special Provisions Section 7-1.02K (6)(j)(iii)—ground disturbance of unregulated materials; Standard Special Provisions Section 14-11.08—ground disturbance of regulated Aerially Deposited Lead materials; Non-Standard Special Provisions Section 14-11.14—disposal and handling of treated wood waste.

Noise Quality—Caltrans Standard Specifications Section 14-8.02 Noise Control, which pertains to controlling and monitoring noise resulting from work activities, would be included in the bid package. Noise levels must not exceed 86 A-weighted decibels at 50 feet from the job site from 9:00 p.m. to 6:00 a.m.

Paleontological—If unanticipated fossil discovery occurs during construction activities, Caltrans Standard Specifications Section 14-7.03 identifies the procedure to be implemented to protect the paleontological resource(s); this would be included in the bid package.

1.6 Discussion of the NEPA Categorical Exclusion

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

1.7 Permits and Approvals Needed

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

Agency	Permit/Approval	Status
California Department of Fish and Wildlife	1600 Lake and Streambed Alteration Agreement	The 1600 permit would be obtained before construction starts.
California Department of Fish and Wildlife	Incidental Take Permit 2081 for the tree anemone	Would be obtained during the design phase of the project.
Central Valley Regional Water Quality Control Board	Clean Water Act Section 401 Water Quality Certification	The 401 certification (permit) would be obtained before construction starts.
U.S. Army Corps of Engineers	404 Clean Water Act	The 404 permit would be obtained before construction starts.
U.S. Fish and Wildlife Service	Biological Opinion	A Biological Opinion would be obtained during the Project Approval and Environmental Document phase.

Chapter 2 CEQA Evaluation

2.1 CEQA Environmental Checklist

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

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

“No Impact” determinations in each section are based on the scope, description, and location of the proposed project as well as the appropriate technical report (bound separately in Volume 2), and no further discussion is included in this document.

2.1.1 Aesthetics

Considering the information in the Scenic Resource Evaluation/Visual Assessment dated July 2022, the following significance determinations have been made:

Except as provided in Public Resources Code Section 21099:

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

Question—Would the project:	CEQA Significance Determinations for Aesthetics
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	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.

Considering the information in the California Department of Conservation’s California Important Farmland Finder visited in May 2022, 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

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

2.1.3 Air Quality

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

Considering the information in the Air Quality Memorandum dated May 2022, 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
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

Question—Would the project:	CEQA Significance Determinations for Air Quality
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	No Impact

2.1.4 Biological Resources

Considering the information in the Biological Assessment dated September 2022 and the Natural Environment Study dated September 2022, 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 with Mitigation Incorporated
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?	Less Than Significant Impact with Mitigation Incorporated
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

Question—Would the project:	CEQA Significance Determinations for Biological Resources
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

For details of biological studies, please refer to the Natural Environment Study and the Biological Assessment in Volume 2.

The project limits extend between post miles R8.28 and 45.80 on State Route 168 in Fresno County. The elevation of the project ranges between 408 feet and 5,600 feet above mean sea level, consisting of the valley floor, foothills, and the Sierra Nevada. The Biological Study Area is defined as the action area. The action area is the area that would be directly affected by the project, plus the nearby areas to be indirectly affected by the project. The action area is about 18.14 acres of State Route 168, which includes the area within a 50-foot radius of each culvert inlet and/or outlet. Surrounding land uses include livestock grazing, recreational use, and residential and commercial property owners. Habitats within the project limits consist of mostly native and invasive grasslands, oak woodlands, foothill pine habitats, and lower montane habitats.

Wetlands and Other Waters

About 67 culverts are within the Upper San Joaquin River watershed, 10 culverts are within the Upper Kings River watershed, 27 culverts are within the Middle San Joaquin-Lower Chowchilla watershed, and 54 culverts are within the Upper Dry Creek watershed.

The National Wetlands Inventory classifies most of the proposed culverts as R4SB “blue line” waterways. R4SB describes a waterway as a streambed, intermittent riverine (temporary or seasonal rivers or streams that do not flow throughout the year). The proposed culverts mainly receive water from nearby runoff, road drainage, or during heavy precipitation events. The culverts within the project limits help funnel runoff into Musick Creek, Jose Creek, Sycamore Creek, Tollhouse Creek, Dry Creek, Big Sandy Creek, Little Dry Creek, Sales Creek, and Dog Creek. The smaller tributaries eventually lead to Dog Creek or Dry Creek, which gets funneled into canals, ditches, or sloughs and transported to agricultural fields in dead ends.

Special-Status Plant Species

Five plant species of special concern identified in species queries were found to have historical records of occurrence or potentially suitable habitats near the action area. No observations were made during botanical surveys. Given

the age and distance of historical observations in the project vicinity, the five species of special concern—Abrams' onion (*Allium abramsii*), Brassy bryum (*Bryum chryseum*), Ewan's larkspur (*Delphinium hansenii* ssp. *ewanianum*), Fresno County bird's beak (*Cordylanthus tenuis* ssp. *barbatus*) and Spiny-Sepaled button-celery (*Eryngium spinosepalum*)—have a very low potential to occur within the project footprint and be impacted by project activities. With the implementation of avoidance and minimization measures, no habitat impacts are expected, and compensatory mitigation is not proposed.

Special-Status Animal Species

Twelve animal species of special concern identified in species queries were found to have historical records of occurrence or potentially suitable habitats within the action area. No special-status animals were seen within the action area during surveys. Given the age and distance of historical observations in the project vicinity, eight species of special concern—American badger (*Taxidea taxus*), bald eagle (*Haliaeetus leucocephalus*), Crotch's bumblebee (*Bombus crotchii*), golden eagle (*Aquila chrysaetos*), great grey owl (*Strix nebulosa*), Northern California legless lizard (*Anniella pulchra*), western mastiff bat (*Eumops perotis californicus*) and western spadefoot toad (*Spea hammondi*)—are not expected to be present within the action area or have a low potential to be present within the action area. With the implementation of avoidance and minimization measures, no habitat impacts are expected, and compensatory mitigation is not proposed.

Threatened and Endangered Species

Tree anemone (Carpenteria californica)

The tree anemone is a shrub that is endemic to California's chaparral and oak woodlands along streambanks between 1,115 and 4,400 feet in elevation. The plant species is typically shorter than 10 feet and has grayish bark with narrow, one-veined leaves. White flowers, a few inches wide, can be seen between May and July. The tree anemone has a 1B.2 California Rare Plant Rank, meaning the plant is rare, threatened, or endangered in California and elsewhere, and is state listed as a threatened species.

About 26 plants were seen along State Route 168 between post mile 29 and post mile 33 at the proposed culvert locations. Based on botanical surveys, it is estimated that roughly 976 square feet of the tree anemone would need to be trimmed to allow access to the culvert inlets and outlets.

San Joaquin adobe sunburst (Pseudobahia peirsonii)

The San Joaquin adobe sunburst is endemic to California and has a California Rare Plant Rank of 1B.1, meaning the plant is state endangered and federally threatened. The sunburst can stand between 7 and 27 inches tall with 2-inch-long woolly leaves. Yellow flowers grow on stems between March and May in grasslands or on bare dark clay soils. The nearest

observation of a population was about 1.4 miles from the nearest proposed culvert location in 2010.

The species was not seen in the action area during botanical surveys, and there is low potential for the San Joaquin adobe sunburst to be present in the project footprint.

Swainson's hawk (*Buteo swainsoni*)

The Swainson's hawk is listed as threatened by the State of California. Most of the California population of Swainson's hawk is found in the Great Valley. During the summer months, this species eats mostly insects, smaller birds, and small mammals while occasionally eating reptiles, amphibians, and other invertebrates. Swainson's hawks prefer open habitats for foraging, such as in fallow or alfalfa fields and rangeland habitats. Although much of their native grassland habitat has been converted to agricultural land, this species has adapted to the changing environment. These hawks roost in scattered tree stands near suitable foraging areas and are often seen following field tractors that stir up small mammals in the field. Due to habitat conversion and the introduction of non-native grasses, perennial grasslands were replaced with annual grasslands (with low prey populations), as well as with agricultural crops.

Breeding habitat for this species is commonly associated with riparian areas in California. Nesting usually begins in late March, and the young usually leave the nest by July. Nests are typically made from sticks, bark, and fresh leaves and are usually placed near the top of a tree, which may be solitary or in a small grove along a stream. If a preferred nesting site is not available, Swainson's hawks occasionally nest on power poles or transmission towers or even in orchard trees. Nesting Swainson's hawks are somewhat tolerant of human activity. Nest sites are often near roads and houses and frequently near the edge of cultivated fields.

On March 23, 2021, a potential Swainson's hawk nest was seen near post mile 17.67 on the north side of State Route 168. Past Caltrans projects on State Route 168 have identified active nests between Thompson Avenue and Academy Avenue but are more than 500 feet away from the nearest culvert. Potential nesting trees are present within the action area and surrounding areas of 42 culverts.

Swainson's hawks are likely to nest in suitable trees within or next to the action area of 42 culverts during the breeding season.

Central California Distinct Population Segment of the California tiger salamander (*Ambystoma californiense*)

The California tiger salamander is listed as federally threatened and state threatened and is on the California Department of Fish and Wildlife watch list.

The distribution in population in the Central Valley ranges from low-elevation grassland to oak woodland plant communities of the valley and foothills. They can also range from the Central Valley floor to the coast ranges to the Sierra Nevada foothills.

The California tiger salamander's diet depends on its life stage and can range from invertebrates to water fleas, frog tadpoles, and even other California tiger salamander larvae. Mature salamanders can even consume spiders, earthworms, moths, and other insects.

California tiger salamanders live in annual grasslands and open woodlands with burrows, typically created by ground squirrels or gophers, and vernal pools or ponds for breeding. California tiger salamanders use these burrow systems year-round, especially during the dry months. During rainy months, California tiger salamanders leave their summer burrows to migrate to nearby pools or ponds to breed. They breed only once or twice in their lifetime, and their success rate is very low.

No California tiger salamanders were seen during surveys; however, surveys were conducted during the summer dormancy period, making the probability of observation low. Although no salamanders were seen, burrows suitable for the species were noted within Caltrans' right-of-way. There is suitable upland habitat at 39 culvert locations (0.18 acre).

Due to highway maintenance of the Caltrans right-of-way, it is unlikely for any California tiger salamanders to spend summers in burrows in the right-of-way.

Southern Sierra Nevada Evolutionarily Significant Unit of the Pacific fisher (Pekania pennanti pop. 2)

The Pacific fisher is listed as federally endangered and state threatened.

Fishers prefer large patches of mixed conifer forests between 3,500 feet and 8,000 feet in elevation with high canopy cover and larger trees, rock piles, and downed logs for denning, resting, and hunting on the forest floor. Their home range varies from three to five square miles. They are solitary, but males' home range typically overlaps with the home ranges of several females.

Mating occurs between late March and early April, but implantation is delayed until the February of the following year. One to four kits are born in late April and are weaned after four to five months.

Fishers are omnivores and would feed on a variety of small animals, insects, berries, fruits, mushrooms, and even porcupines.

There have been numerous observations of fisher dens within several miles from the project's post miles. In 2020, the Creek fire burned 17,281 acres of

61,023 acres of proposed critical habitat. Only 0.46 acre of proposed critical habitat overlaps the project area and encompasses four culverts (post miles 40.23, 40.30, 40.45, and 41.25). Suitable large trees, downed trees, and snags are no longer present around the action area, and the likelihood of fishers using the area is low.

During site visits, no signs of fishers or potential dens were seen. Due to human disturbance, recent fires, and the lack of old-growth forests surrounding the action area, the likelihood of directly impacting a fisher is low.

Vernal pool fairy shrimp (Branchinecta lynchi)

The vernal pool fairy shrimp is listed as federally threatened. This species can be found in vernal pools or vernal pool-like habitats within California. Their habitat includes a range of pool types, from small clear sandstone rock to large turbid alkaline grassland valley pools.

The vernal pool fairy shrimp feeds on algae and various bacteria. Since it has no antipredator defenses, it is a vital food source for various animals and migrating birds.

Several observations of fairy shrimp have been made in the last 20 years along State Route 168 between Academy Avenue and Thompson Avenue, which only overlaps one culvert. On January 20, 2022, three vernal pool fairy shrimp adult males were collected from a pool 0.75 mile from one of the proposed culvert locations.

No critical habitat has been designated for the vernal pool fairy shrimp within the action area. The closest designated habitat is 4.23 miles north of the action area.

Environmental Consequences

Wetlands and Other Waters

The National Wetlands Inventory classifies most of the culverts as R4SB “blue line” waterways. These waterways are described as a streambed, intermittent riverine. The culverts mainly receive water from nearby runoff, road drainage, or during heavy rain events. The culverts help funnel runoff into a network of surrounding creeks, which in some cases get funneled into canals, ditches, or sloughs and transported to agricultural fields.

It is expected that impacts may occur to waterways that may be considered jurisdictional under the authority of the U.S. Army Corps of Engineers, the Regional Water Quality Control Board, and the California Department of Fish and Wildlife. As a result of potential impacts to Waters of the U.S., the following permits would be obtained:

- 404 Nationwide Permit from the U.S. Army Corps of Engineers

- 401 Waste Discharge Requirement permit from the Regional Water Quality Control Board
- 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife

An Aquatic Resources Delineation Report has been prepared and would be submitted to the U.S. Army Corps of Engineers for a jurisdictional determination.

Any impacts on other waters would be temporary, and there would be no net loss. No compensatory mitigation is proposed.

Special-Status Plant Species

Culvert maintenance and replacement work are expected to cause minor impacts to natural vegetation communities. Impacts in these locations would be limited to clearing minor amounts of plant materials, light pruning of shrubs, and limited tree removal, where necessary, to access culvert inlets and outlets. Barrel lining and joint sealing will require minor vegetation trimming, and resprouting is expected for all plant species. Soil disturbance would be limited to foot traffic around the culverts. Replacing culverts would impact an area of 100 square feet, depending on topography and culvert condition. Excavating culvert trenches would remove all vegetation from the trench line; however, most work would occur on the already paved travel way. No permanent loss of habitat is expected from the proposed work activities. With the implementation of avoidance and minimization measures, any impacts would be temporary.

Special-Status Animal Species

Temporary indirect impacts on special-status animal species may occur over two to three days per culvert location. Work would occur only during the day, which would make direct impacts on the species unlikely. Potential impacts are expected to be minor and include collapsing potential dens, removing potential prey that may deter species from the area, and impacting potential foraging and nesting habitat. Because no permanent impacts are expected, these special-status animal species are not expected to be significantly impacted by the proposed project with the implementation of standard avoidance and minimization measures.

Threatened and Endangered Species

Tree anemone

About 26 individuals were seen during botanical surveys along State Route 168 between post mile 29 and post mile 33 at several culvert locations. Tree removal would occur, and the number of trees proposed to be removed would be determined in the design phase of the project. Trimming of 0.02 acre of the state-listed tree anemone (threatened) is proposed, and a replanting

mitigation plan is being discussed with the California Department of Fish and Wildlife.

San Joaquin adobe sunburst

Although no San Joaquin adobe sunbursts were found during botanical surveys, low precipitation levels may have limited the germination rate for the year. Potential growing habitat is still present within the action area that could support the sunburst.

Temporary impacts to 0.06 acre across 13 culvert locations are expected because of construction traffic, foot traffic, and vegetation clearing and grubbing. With the implementation of avoidance and minimization measures, no permanent impacts are expected. Caltrans has determined that the project may affect but is not likely to adversely affect the San Joaquin adobe sunburst.

Swainson's hawk

Vegetation clearing and grubbing to access culvert inlets and outlets is expected to temporarily impact 0.19 acre of Swainson's hawk foraging habitat. However, impacts at each of the 42 culverts are expected to last two to three days, and vegetation is expected to recover within one to two seasons after construction. Given the relatively low intensity of the proposed work, the short duration of work at each culvert site, and the high baseline level of disturbance, no permanent impacts to Swainson's hawks are expected with the implementation of avoidance and minimization measures.

Central California Distinct Population Segment of the California tiger salamander

Temporary and minor permanent impacts to potential California tiger salamander habitat are expected. A total of 0.18 acre of temporary impacts across 39 culvert locations to upland habitats, such as burrows, leaf litter cover, and foraging habitat, are expected due to off-pavement equipment use, foot traffic, and the clearing and grubbing of vegetation.

Installing larger culverts is expected to permanently impact less than 0.009 acre of foraging habitat and ground cover. A Biological Opinion from the U.S. Fish and Wildlife Service would be obtained for the Californian tiger salamander and would cover 39 culvert locations. Caltrans has determined that the project is not likely to adversely affect the California tiger salamander.

Southern Sierra Nevada Evolutionarily Significant Unit of the fisher

Due to human disturbance, recent fires, and the lack of old-growth forests surrounding the action area, the likelihood of directly impacting a fisher is low. Negligible impacts to potential habitat may occur but would be temporary. Conservation measures to avoid and minimize impacts to the fisher would be implemented. Caltrans has determined that the project may affect but is not

likely to adversely affect the Southern Sierra Nevada Evolutionarily Significant Unit of the fisher.

Vernal pool fairy shrimp

Direct project impacts on habitat are expected to be temporary and exclude vernal pools. Temporary impacts are expected to be 0.013 acre and span across three culvert locations. These impacts would be caused by construction traffic, foot traffic, and vegetation clearing and grubbing to roadside depressions. These impacts would occur at each culvert location for only two to three days and will apply only to culverts at the lower elevations near Academy Avenue.

Due to temporary impacts being limited to two to three days at each culvert location and the implementation of avoidance and minimization measures, it has been determined that the project may affect but is not likely to adversely affect the vernal pool fairy shrimp.

Avoidance, Minimization, and/or Mitigation Measures

Wetlands and Other Waters

The following avoidance, minimization, and/or mitigation measures are proposed for wetlands and other waters:

- It is expected that a total of 0.487 acre of potential Waters of the U.S. and Waters of the State may be temporarily and permanently impacted and may require mitigation via in-lieu fees.
- An Emergency Spill Prevention Plan and a Water Pollution Control Program would be prepared and include measures to minimize the risk of fluids or other materials (oils, transmission and hydraulic fluids, cement, and fuel) from entering waterways or sensitive upland habitats. The plans would be kept at the project site throughout construction.

Special-Status Plant Species

The following avoidance and minimization measures are proposed for the San Joaquin adobe sunburst, Abrams' onion, Brassy bryum, Ewan's larkspur, Fresno County bird's beak, and spiny-sepaled button-celery:

- A Worker Environmental Awareness Training would be conducted by qualified biologists for all work personnel to inform them of the special-status species potentially within the work area, protective measures, reporting procedures, and consequences of violating environmental laws and permit requirements.
- Focused botanical preconstruction surveys would be performed during the flowering season before work at all worksites where ground disturbance is expected and suitable habitat for listed species exists.

- If populations of special-status plants are discovered near worksites, populations would be delineated and protected by an environmentally sensitive area buffer clearly designated by high visibility fencing or flagging.
- For worksites where construction would begin after the flowering period, if special-status plant populations are discovered in the worksite, the topsoil would be removed, where feasible, and stored safely near the work area and replaced after construction is finished to maintain the existing seed bank and ensure the continued growth of that population.

Special-Status Animal Species

The following avoidance and minimization measures are proposed for the American badger, bald eagle, Crotch's bumblebee, golden eagle, great grey owl, Northern California legless lizard, western mastiff bat, and western spadefoot toad:

- A qualified biologist would conduct preconstruction surveys 30 days before any ground disturbance.
- A qualified biologist would conduct the surveys within 50 feet of the proposed culvert locations.
- A Worker Environmental Awareness Training would be presented to all contract workers, describing special-status species with the potential to occur in the area.
- Burrows within the right-of-way will be avoided when possible.
- Construction equipment staging areas should be surveyed and cleared by a qualified biologist before use and occur within pre-disturbed areas.
- A qualified biologist would conduct preconstruction surveys for the great grey owl two years before construction, which is estimated to begin in 2025. This would allow the full protocol survey to be completed before work starts.
- No work should occur if there is a 70 percent or greater chance of rain, if it is currently raining, or if it has rained greater than 0.25 inch within the last 48 hours.

Threatened and Endangered Species

The following avoidance, minimization, and/or mitigation measures are proposed for the tree anemone:

- A mitigation plan involving replacement planting for tree anemone would be finalized before construction starts. The exact number of plants to be replaced is unknown at this time.
- Caltrans would apply for a Section 2081 Incidental Take Permit from the California Department of Fish and Wildlife.
- If populations of tree anemone or other special-status plants are discovered near worksites, populations would be delineated and protected by an environmentally sensitive area buffer and would be clearly designated by high visibility fencing or flagging.

The following avoidance and minimization measures are proposed for Swainson's hawk:

- Protocol nesting surveys in accordance with the Recommended Timing and Methodology for Swainson's Hawk in California's Central Valley would be completed the season before construction to determine if any Swainson's hawks are nesting in the action area.
- If nesting pairs are identified within 500 feet of the project footprint, additional avoidance and minimization measures would be implemented to avoid direct impacts, such as Environmentally Sensitive Area fencing enclosing the nest tree, a 500-foot buffer surrounding the nest, and a biological monitor present during activities that occur within this buffer. In addition, a special provision for migratory birds and nesting raptors (including Swainson's hawk) would be included in the construction contract to ensure that no potential nesting migratory birds are affected during construction.

The following mitigation and avoidance and minimization measures are proposed for Central California Distinct Population Segment of the California tiger salamander:

- Compensatory mitigation for 0.18 acre of temporary impacts is proposed. The proposed mitigation will involve purchasing mitigation credits from the upcoming Sand Creek mitigation bank in Fresno County. If purchasing credits from Sand Creek is not feasible, mitigation credits may be purchased from another mitigation bank that is approved by the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife.
- Caltrans will apply for a Section 2081 Incidental Take Permit from the California Department of Fish and Wildlife for the California tiger salamander.
- A Biological Opinion will be obtained from the U.S. Fish and Wildlife Service.

- A qualified biologist would conduct preconstruction surveys 30 days before any ground disturbance.
- Surveys would be conducted within 50 feet of proposed culvert locations.
- Staging areas for construction equipment would be surveyed and cleared by a qualified biologist prior to use and occur within pre-disturbed areas.
- No work would occur if there were a 70 percent or greater chance of rain, if it is currently raining, or if it has rained greater than 0.15 inch within the last 48 hours.
- All small rodent burrows would be avoided by 50 feet. If avoidance is not possible, Caltrans would receive confirmation from the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service to excavate burrows.
- Exclusionary fencing would be installed around the work area at the 39 locations with suitable upland habitats.
- Additional measures may be outlined in the Biological Opinion from the U.S. Fish and Wildlife Service and the Incidental Take Permit from the California Department of Fish and Wildlife.

The following avoidance and minimization measures are proposed for the Southern Sierra Nevada Evolutionarily Significant Unit of the Pacific fisher:

- A qualified biologist would conduct Worker Environmental Awareness Training for all contract workers. The training would describe special-status species with the potential to occur in the area.
- A qualified biologist would conduct preconstruction surveys 30 days before any ground disturbance.
- Surveys would be conducted within 50 feet of proposed culvert locations.
- Staging areas for construction equipment would be surveyed and cleared by a qualified biologist prior to use and occur within pre-disturbed areas.

Additional measures may be outlined in the Biological Opinion from the U.S. Fish and Wildlife Service.

The following avoidance and minimization measures are proposed for the vernal pool fairy shrimp:

- A qualified biologist would conduct preconstruction surveys 30 days before any ground disturbance.

- A Worker Environmental Awareness Training will be presented to all contract workers describing special-status species with potential to occur in the area.
- Surveys would be conducted within 50 feet of proposed culvert locations.
- Staging areas for construction equipment would be surveyed and cleared by a qualified biologist prior to use and occur within pre-disturbed areas.
- No work would occur if there is a 70 percent or greater chance of rain, if it is currently raining, or if it has rained greater than 0.15 inch within the last 48 hours.
- Work in vernal pools next to State Route 168 would be prohibited.
- For culvert locations between Sample Road and Thompson Avenue (13 locations), topsoil would be collected to help preserve any vernal pool fairy shrimp cysts. The topsoil would be stored onsite and returned upon completion of culvert construction.
- Additional measures may be outlined in the Biological Opinion from the U.S. Fish and Wildlife Service.

2.1.5 Cultural Resources

Considering the information in the Historic Property Survey Report dated May 2022 and the Archaeological Survey Report dated April 2021, 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
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

This project begins in the San Joaquin Valley Cities of Clovis and Fresno and continues to Shaver Lake and Huntington Lake. The elevation within the project limits ranges from 375 feet to 5,600 feet above sea level. The project

area lies within mixed agricultural parcels, private residences, and multiple-use lands administered by the U.S. Forest Service.

The archaeological survey area for this project focuses on culvert work locations, extends 50 feet beyond and to either side of each culvert end section, and lies in private and publicly owned lands. The archaeological survey area consists of the existing paved surface, the Caltrans right-of-way, and potential easements on State Route 168 at specific locations from post mile R8.28 to post mile 45.8. The area of potential effect for this project is discontinuous through the project's post miles and focuses mainly on culvert work. Caltrans personnel conducted archaeological field surveys of the project area between October 2020 and April 2021.

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 resources database. The records search revealed that 118 studies were conducted within 0.25 mile of the 158 culvert locations. Of those studies, 115 were conducted within the archaeological survey areas of the project. A total of 160 archaeological sites have been recorded within 0.25 mile of the culvert locations. No sites have been recorded within any of the archaeological survey areas at the culvert locations. Three archaeological sites were identified between 82 feet and 114 feet from two culvert locations, which lead to the need for field surveys.

No new archaeological sites were recorded during pedestrian surveys at any of the 158 culvert locations. Field surveys resulted in the finding of cultural materials at one location that suggests that at least a portion of the area of potential effect is next to a known pre-contact archaeological site. Boundaries for this known site have since been updated.

Environmental Consequences

There are three known prehistoric archaeological sites within 82 feet to 114 feet of two culvert locations. Shovel Test Unit investigations were conducted at each culvert location. The investigations at one culvert location resulted in the finding of cultural materials from a nearby known archaeological site. As a result, work at this culvert location changed from a replacement to a lining job to avoid potential impacts to these cultural resources.

Redeposited soil from a fourth prehistoric site was reported to have been spread along the shoulders of State Route 168 near Shaver Lake, according to official records. Under NEPA, the soil is valued by local Native American communities and is protected as a cultural resource. The area where the soil was redeposited would be monitored during construction by Caltrans archaeological monitors and a Native American monitor.

Because known archaeological sites were next to proposed construction, an extended phase one program of work was completed to determine if

subsurface deposits from these sites were present within the area of direct impact.

Due to the extended phase one study being negative for buried archaeological resources within the project's area of direct impact, which is also the area of potential effect, there would not be an adverse impact on archaeological resources. The implementation of an Environmentally Sensitive Area Action Plan would be required to protect the resources outside of the project's area of direct impact. The Environmentally Sensitive Area Action Plan consists of delineating an Environmentally Sensitive Area on construction plans and implementing archeological combined with Native American monitoring during construction.

One archaeological site is considered eligible for inclusion in the National Register of Historic Places for the purpose of this project only because it would be protected in its entirety from any potential effects through the establishment of an Environmentally Sensitive Area.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans would 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 would not change and result in an adverse effect on archaeological sites, Environmentally Sensitive Areas would 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 would be present during construction.

- The contractor should notify the resident engineer 10 days before working in areas that are to be monitored.
- The Caltrans archaeologist should be notified at least five days before the start of ground-disturbing activities.
- If the archaeological or Native American monitor identifies a resource considered potentially significant, the monitor should 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

Considering the information in the Energy Memorandum dated August 2022, the following significance determinations have been made:

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

2.1.7 Geology and Soils

Considering the information in the California Department of Conservation Earthquake Zone Map visited May 2022, California Department of Conservation Landslide Map visited May 2022, Alquist-Priolo Earthquake Fault Zoning Map visited May 2022, and Caltrans Paleontological Identification/Evaluation Report dated November 2020, the following significance determinations have been made:

Question—Would the project:	CEQA Significance Determinations for Geology and Soils
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	No Impact
ii) Strong seismic ground shaking?	No Impact
iii) Seismic-related ground failure, including liquefaction?	No Impact
iv) Landslides?	No Impact
b) Result in substantial soil erosion or the loss of topsoil?	No Impact

Question—Would the project:	CEQA Significance Determinations for Geology and Soils
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 waste water disposal systems where sewers are not available for the disposal of waste water?	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	No Impact

2.1.8 Greenhouse Gas Emissions

Considering the information in the Climate Change and Greenhouse Gas Emissions Memorandum dated July 2022, 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 proposes to repair or replace 158 culverts and associated elements along State Route 168. State Route 168 is an urban freeway throughout Fresno and Clovis and a conventional highway east of Clovis. Land use along State Route 168 varies widely, ranging from residential, commercial, and vacant land. The state route is heavily used during peak hours as it stretches near Auberry, Prather, Tollhouse, and Shaver Lake.

The Fresno Council of Governments guides transportation and housing development in the project area. Chapter 3 of the 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 truck travel by better coordinating expenditures with forecasted development patterns and helping to meet greenhouse gas targets for the region.

Environmental Consequences

Greenhouse gas emissions for non-capacity-increasing projects like the Fresno 168 Culvert Rehabilitation project are considered less than significant under CEQA because there would be no increase in operational emissions. However, construction equipment, traffic delays, and material processing and delivery may generate short-term greenhouse gas emissions during construction. Greenhouse gas emissions for the project were calculated using the Caltrans Construction Emissions Tool (CAL-CET) v1.1. The estimated emissions would be 1,372 pounds of carbon dioxide over 180 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

The following measures would be implemented in the project to reduce greenhouse gas emissions and potential climate change impacts from the project:

- Alternative fuels, such as renewable diesel, to be used for construction equipment.
- Recycled water is to be used where possible to reduce the amount of potable water used by construction activities.
- Improving the fuel efficiency of construction equipment would be achieved by maintaining equipment in proper working condition, using the right sized equipment for the job, and using equipment with new technologies when possible.
- A Caltrans environmental construction liaison would conduct preconstruction training for contractors. The training would include information regarding methods to reduce greenhouse gas emissions related to construction.
- Schedule truck trips outside of peak morning and evening commute hours.

- Limit idling to five minutes for delivery and dump trucks and other diesel-powered equipment.

2.1.9 Hazards and Hazardous Materials

Considering the information in the Hazardous Waste Initial Site Assessment dated March 2022, 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 0.25 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
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 in the Water Quality Memorandum dated March 2022 and the Location Hydraulic Study dated August 2022, the following significance determinations have been made:

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

2.1.11 Land Use and Planning

Considering the information in the Fresno County 2021 General Plan Annual Progress Report dated April 2022, Shaver Lake Community Plan dated 1978, and the County of Fresno Zoning Map, the following significance determinations have been made:

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

2.1.12 Mineral Resources

Considering the information in the Fresno County 2021 General Plan Annual Progress Report dated April 2022, the following significance determinations have been made:

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

2.1.13 Noise

Considering the information in the Noise Compliance Study dated March 2021, the following significance determinations have been made:

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

2.1.14 Population and Housing

The project would replace or rehabilitate 158 culverts along State Route 168. The project would require partial right-of-way acquisitions, but no residents or businesses would be relocated or displaced. Considering the scope and location of the project within a mostly rural setting, 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 affect any government facilities or trigger the need for new facilities or government 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

Considering that the project would not affect parks or recreational facilities or trigger the need for more recreational facilities to be built, 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

Considering the information in the Fresno Council of Governments’ Regional Transportation Plan/Sustainable Communities Strategy 2018-2042 dated July

2017 and the Caltrans Transportation Management Plan Data Sheet dated May 2022, the following significance determinations have been made:

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

2.1.18 Tribal Cultural Resources

Considering the information in the Historic Property Survey Report dated May 2022 and the Archaeological Survey Report dated April 2021, 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

Question:	CEQA Significance Determinations for Tribal Cultural Resources
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	No Impact

2.1.19 Utilities and Service Systems

Considering that the project is a culvert rehabilitation project and would not trigger the need for utilities and service systems, 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 in the California Department of Forestry and Fire Protection’s Fire Hazard Severity Zone mapping and Caltrans District 6 Climate Change Vulnerability Assessment mapping accessed July 2022, 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 moderate, high, and very high fire hazard severity zones. The Caltrans District 6 Climate Change Vulnerability Assessment mapping of roadways exposed to wildlife risk shows that State Route 168 in the project area runs through areas that would have a medium, high, and very high wildlife concern from 2025 to 2085.

Environmental Consequences

The project would not introduce any new structures or operations that would worsen the risk of wildlife. The potential for fire varies with the type of roadside vegetation and 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 consequences of a fire spreading to a nearby forest may be more serious than a fire spreading in a desert, chaparral, or grassland.

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 wildfire.

Avoidance, Minimization, and/or Mitigation Measures

The following Caltrans Best Management Practices would be implemented during construction activities:

- The contractor would 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 U.S. Department of the Interior Bureau of Land Management field offices. These phone numbers would be submitted to the resident engineer before the start of job site activities. The agency's names and emergency phone numbers must be posted at a prominent place at the job site.
- 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.

- Establish setbacks and/or buffers from areas identified as vulnerable to climate change stressors, such as wildfire.
- Stabilize slopes to lower chances of landslides on slopes at risk from more frequent or intense wildfire and precipitation.
- Furnish a pickup truck and drier that would be available for fire control during working hours. The truck must be equipped with the following:
 - Ten shovels, 10 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 0.75-inch hose on a reel.
- 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.
- In addition to being available at the worksite, the truck and operator must patrol the construction area from noon until at least 30 minutes 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 30 minutes after job 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 given to the resident 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 “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 allowed only 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 resident engineer may suspend work completely or in part due to hazardous fire conditions. The days during this suspension would be nonworking days. If field and weather conditions become such that the work is suspended, 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 wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	No Impact

<p style="text-align: center;">Question:</p>	<p style="text-align: center;">CEQA Significance Determinations for Mandatory Findings of Significance</p>
<p>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)?</p>	<p style="text-align: center;">No Impact</p>
<p>c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?</p>	<p style="text-align: center;">No Impact</p>

Appendix A Title VI Policy Statement

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY

Gavin Newsom, Governor

DEPARTMENT OF TRANSPORTATION

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*Making Conservation
a California Way of Life.*

September 2021

NON-DISCRIMINATION POLICY STATEMENT

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

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

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

For information or guidance on how to file a complaint, or obtain more information regarding Title VI, please contact the Title VI Branch Manager at (916) 324-8379 or visit the following web page:
<https://dot.ca.gov/programs/civil-rights/title-vi>.

To obtain this information in an alternate format such as Braille or in a language other than English, please contact the California Department of Transportation, Office of Civil Rights, at 1823 14th Street, MS-79, Sacramento, CA 95811; PO Box 942874, MS-79, Sacramento, CA 94274-0001; (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 and reliable transportation network that serves all people and respects the environment."

List of Technical Studies Bound Separately (Volume 2)

Air Quality Memorandum May 2022

Climate Change and Greenhouse Gas Emissions Memorandum July 2022

Noise Compliance Study March 2021

Water Compliance Memorandum March 2022

Biological Assessment September 2022

Location Hydraulic Study August 2022

Natural Environment Study September 2022

Energy Memorandum August 2022

Historical Property Survey Report

- Historic Property Survey Report May 2022
- Archaeological Survey Report April 2021

Hazardous Waste Initial Site Assessment March 2022

Scenic Resource Evaluation/Visual Assessment July 2022

Paleontological Identification/Evaluation Report November 2020

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

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

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

Please provide the following information in your request:

Project title: Fresno 168 Culvert Rehabilitation

General location information: On State Route 168 in Fresno County

District number-county code-route-post mile: 06-FRE-168-PM R8.28-45.80

Project ID number: 0618000041