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CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

Kern River Hatchery
Siphon Replacement Project



Draft Initial Study/Mitigated Negative Declaration

July 2024

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CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

Kern River Hatchery Siphon Replacement Project

Draft Initial Study/Mitigated Negative Declaration

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July 2024

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Acronyms and Abbreviations

°F	degrees Fahrenheit
µg/m^3	micrograms per cubic meter
2022 Scoping Plan	2022 Scoping Plan for Achieving Carbon Neutrality
A	
A	attainment
AB	Assembly Bill
AIDS	acquired immunodeficiency syndrome
AST	aboveground storage tank
ATCM	Airborne Toxic Control Measure
APE	area of potential effects
B	
BERD	Built Environment Resources Directory
BIA	Bureau of Indian Affairs
BMP	best management practice
BRM	bedrock mortar milling station
C	
CAFE	Corporate Average Fuel Economy
CalARP	California Accidental Release Prevention
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
CALGreen	California Building Standards Code
Cal OES	California Governor's Office of Emergency Services
Cal/OSHA	California Department of Industrial Relations, Division of Occupational Safety and Health
Caltrans	California Department of Transportation
Cal Water	California American Water Service
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
CDC	U.S. Centers for Disease Control
CDFW	California Department of Fish and Wildlife
CDOC	California Department of Conservation
CDPH	California Department of Public Health

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CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CGS	California Geological Survey
CI	*Coccidioides immitis*
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalents
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
CWPP	Community Wildfire Protection Plan
D	
DPM	diesel particulate matter
DTSC	California Department of Toxic Substances Control
E	
EIA	U.S. Energy Information Administration
EKAPCD	Eastern Kern Air Pollution Control District
EO	Executive Order
F	
F&G Code	California Fish and Game Code
FCAA	Federal Clean Air Act
FESA	federal Endangered Species Act
FHSZ	Fire Hazard Severity Zone
FMMP	Farmland Mapping and Monitoring Program
FRA	Federal Responsibility Area
G	
GHG	greenhouse gas
H	
H_2S	hydrogen sulfide

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HAP	hazardous air pollutant
HEPA	high-efficiency particulate air
HIV	human immunodeficiency virus
I	
IPaC	Information for Planning and Consultation
K	
KCFD	Kern County Fire Department
KR-3	Kern River No. 3 Hydroelectric Power Station
KUSD	Kernville Union School District
L	
LACPH	Los Angeles County Public Health
LSA	LSA Associates, Inc.
M	
MBTA	Migratory Bird Treaty Act
MDAB	Mojave Desert Air Basin
MESA	MESA Biological, LLC
MLD	Most Likely Descendant
$MTCO_2e$	metric tons of carbon dioxide equivalents
$MMTCO_2e$	million metric tonnes carbon dioxide equivalent
MRDS	Mineral Resources Data System
N	
N	non-attainment
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration
NMFS	National Marine Fisheries Service
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
O	
O_3	ozone

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OEHHA	California Office of Environmental Health Hazard Assessment
OHP	Office of Historic Preservation
OSHA	U.S. Department of Labor, Occupational Safety and Health Administration
P	
PM2.5	particulate matter less than 2.5 microns in diameter
PM10	particulate matter less than 10 microns in diameter
ppm	parts per million
PST	Pacific Standard Time
Pub. Res. Code	
R	
RCRA	Resource Conservation and Recovery Act of 1976
RMP	risk management plan
ROG	reactive organic gases
RPS	Renewables Portfolio Standard
RWQCB	Regional Water Quality Control Board
S	
SAFE	Safer Affordable Fuel Efficient
SB	Senate Bill
SCE	Southern California Edison
SHMA	Seismic Hazards Mapping Act of 1990
SO_2	sulfur dioxide
SRA	State Responsibility Area
SSJVIC	Southern San Joaquin Valley Information Center
SVP	Society for Vertebrate Paleontology
SWHA TAC	Swainson's Hawk Technical Advisory Committee
SWPPP	stormwater pollution prevention plan
SWRCB	State Water Resources Control Board
T	
TAC	toxic air contaminant
TCP	traditional cultural properties
TCR	tribal cultural resources
U	
U	unclassified
UCMP	University of California Museum of Paleontology
U.C.R.	Uniform Crime Reporting

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USACE	U.S. Army Corps of Engineers
USC	U.S. Code
U.S. DOT	U.S. Department of Transportation
USEPA	U.S. Environmental Protection Agency
USFS	U.S. Forest Service
UST	underground storage tank
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
V	
VFMP	Valley Fever Management Plan
W	
WDR	waste discharge requirement
Z	
ZEV	zero-emission vehicle

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Chapter 1
INTRODUCTION

The California Department of Fish and Wildlife (CDFW), with assistance from the Department of General Services – Real Estate Services Division (DGS), has prepared this Initial Study/Mitigated Negative Declaration (IS/MND) to provide the public, responsible agencies, and trustee agencies with information about the potential environmental effects of construction and operation of the proposed CDFW Kern River Hatchery Siphon Replacement Project (Proposed Project). The Proposed Project and its location are described in depth in Chapter 2, *Project Description*. This document was prepared in accordance with the requirements of the California Environmental Quality Act (CEQA) of 1970 (as amended) and the CEQA Guidelines (14 California Code of Regulations [CCR] Section [§] 15000 *et seq.*).

CDFW, as the lead agency under CEQA, will consider the Proposed Project's potential environmental impacts when considering whether to approve the Proposed Project. This IS/MND is an informational document to be used in the planning and decision-making process for the Proposed Project and does not recommend approval or denial of the Proposed Project.

The site plans for the Proposed Project included in this IS/MND are conceptual. CDFW anticipates that the final design for the Proposed Project would include some modifications to these conceptual plans, and the environmental analysis has been developed with conservative assumptions to accommodate some level of modification.

This IS/MND describes the Proposed Project; its environmental setting, including existing conditions and regulatory settings, and the potential environmental impacts of the Proposed Project on or with regard to the following topics:

- Aesthetics
- Agriculture/Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology, Soils, and Seismicity
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology/Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

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1.1 Public Involvement Process

Public disclosure and dialogue are priorities under CEQA. CEQA Guidelines § 15073 and § 15105(b) require that the lead agency designate a period during the IS/MND process when the public and other agencies can provide comments on the potential impacts of the Proposed Project. CDFW has prepared a Notice of Intent to Adopt a Mitigated Negative Declaration for the Proposed Project. Accordingly, CDFW is now circulating this document for a 30-day public and agency review period.

To provide input on this project, please send comments to the following contact:

Jennifer Parson, Senior Environmental Planner
State of California Department of General Services
Real Estate Services Division, Project Management and Development Branch
707 Third Street, 4th Floor
West Sacramento, CA 95605
Email: Environmental@dgs.ca.gov

All comments received via email, drop-off, or delivery before 5:00 p.m. on the date of the close of the review period will be considered by CDFW. Comments submitted via U.S. Postal Service will be considered if they are postmarked by 5:00 p.m. on the date of the close of the review period.

During its deliberations on whether to approve the Proposed Project, CDFW will consider all comments received before 5:00 p.m. on the date identified in the Notice of Intent for closure of the public comment period.

1.2 Organization of this Document

This IS/MND contains the following components:

Chapter 1, *Introduction*, provides a brief description of the intent and scope of this IS/MND, the public involvement process under CEQA, and the organization of and terminology used in this IS/MND.

Chapter 2, *Project Description*, describes the Proposed Project and discusses its location; background and need for the project; objectives; existing facilities; project components, construction, and operation; responsible and trustee agencies; and anticipated permits and approvals.

Chapter 3, *Environmental Checklist*, presents the checklist used to assess the Proposed Project's potential environmental effects, which is based on the model provided in Appendix G of the CEQA Guidelines. This chapter also includes a brief regulatory setting summary and environmental setting description for each resource topic and identifies the Proposed Project's anticipated environmental impacts, as well as any mitigation measures that would be required to reduce potentially significant impacts to a less-than-significant level.

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Chapter 4, *References*, provides a bibliography of printed references, websites, and personal communications used in preparing this IS/MND.

Appendices:

Appendix A, *Air Quality/Greenhouse Gas Modeling Results and Energy Use Calculations*

Appendix B, *Biological Resources Evaluation, Kern River Fish Hatchery Siphon Replacement Project, Kernville, Kern County, California*

Appendix C, *Native American Correspondence*

Appendix D, *Mitigation Monitoring and Reporting Plan*

1.3 Impact Terminology and Use of Language in CEQA

This IS/MND uses the following terminology to describe the environmental effects of the Proposed Project:

- A finding of *no impact* is made when the analysis concludes that the Proposed Project would not affect a particular environmental resource or issue.
- An impact is considered *less than significant* if the analysis concludes that no substantial adverse change in the environment would result and that no mitigation is needed.
- An impact is considered *less than significant with mitigation* if the analysis concludes that no substantial adverse change in the environment would result with the inclusion of the mitigation measures described.
- An impact is considered *significant or potentially significant* if the analysis concludes that a substantial adverse effect on the environment could result.
- *Mitigation* refers to specific measures or activities that would be adopted by the lead agency to avoid, minimize, rectify, reduce, eliminate, or compensate for an otherwise significant impact.
- A *cumulative impact* refers to one that can result when a change in the environment results from the incremental impacts of a project along with other related past, present, or reasonably foreseeable future projects. Significant cumulative impacts might result from impacts that are individually minor but collectively significant. The cumulative impact analysis in this IS/MND focuses on whether the Proposed Project's incremental contribution to significant cumulative impacts caused by the project in combination with past, present, or probable future projects is cumulatively considerable.
- Because the term "significant" has a specific usage in evaluating the impacts under CEQA, it is used to describe only the significance of impacts and is not used in other contexts within this document. Synonyms such as "substantial" are used when not discussing the significance of an environmental impact.

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Chapter 2
PROJECT DESCRIPTION

This chapter describes the proposed Kern River Hatchery Siphon Replacement Project (Proposed Project) and discusses its location, background, and need for the project; objectives; existing facilities; proposed project components, construction, and operation; responsible and trustee agencies; and anticipated permits and approvals.

2.1 OVERVIEW

The Proposed Project consists of removing and replacing the existing Kern River Hatchery siphon and pipeline, operated by the California Department of Fish and Wildlife (CDFW), which is failing and not able to supply water necessary for hatchery operations. The project includes demolition of the existing aboveground siphon pipeline and inlet/outlet areas, the construction of a new underground siphon pipeline and inlet/outlet in the same general alignment and locations, and the replacement of an existing open ditch with a buried pipeline connecting the outlet structure to the hatchery.

2.1.1 Location

The Proposed Project is located in Kernville, northeastern Kern County, California **(Figure 2-1)**. The current siphon pipeline alignment crosses Assessor's Parcel Numbers (APNs) 054-020-48, 054-020-07, 054-100-02, and 054-010-23 and is located within Sections 9 and 10 of Township 25 South, Range 33 East (LSA 2022). The hatchery is located at 14415 Sierra Way in Kernville, California **(Figure 2-2)** and is accessed by State Route 155.

2.1.2 Surrounding Land Uses and Ownership

The project site is bordered to the north by Southern California Edison's (SCE's) Kern River No. 3 (KR-3) Hydroelectric Power Station, to the east by an unnamed paved access road, to the south by rural residential development, and to the west by the Kern River and undeveloped land (LSA 2022). The unnamed road provides access to the KR-3 power station, an SCE maintenance facility, and a parking area used by recreational visitors, including hikers, anglers, and rafting companies that launch float trips from the riverbank.

The intake facility and the northern extent of the siphon pipeline are located on U.S. Forest Service land (Parcel 054-020-07) **(Figure 2-3)**. Southward, the siphon pipeline traverses land owned by SCE (Parcel 054-020-48). The outlet, diversion structure, and open ditch at the southern extent of the siphon pipeline are located on land owned by the County of Kern (Parcel 054-010-23).

Adjacent land uses consist primarily of rural and low-density residential development and undeveloped land. Camp Owen, a youth detention center operated by the County of Kern, is located across Sierra Way from the hatchery.

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Local access to the project area is provided by Sierra Way, also designated as County Road 521, which runs parallel to and east of the alignment of the existing siphon pipeline. Regional access to the project area is provided by State Route 155.

2.2 BACKGROUND AND NEED FOR THE PROJECT

Water has been diverted from the Kern River for beneficial uses since 1897 (BKF Engineers 2023). Originally, the water was diverted for domestic and agricultural use via a ditch. This ditch has become known as the Gilbert Ditch.

The Kern River basin is the home of three of the eleven remaining native trout species or subspecies of California trout: California golden trout (*Oncorhynchus mykiss aguabonita*), Little Kern golden trout (*O. m. whitei*), and Kern River rainbow trout (*O. m. gilberti*).

The Kern River Fish Hatchery was first established in 1928, adopted by the California Department of Fish and Game in 1929, moved from its original site somewhat north of the current location to its current location, and expanded in 1940. During this time, water was bifurcated upstream of the hatchery, with non-hatchery flow continuing to downstream properties. The hatchery water was conveyed via the Gilbert Ditch using gravity feed. However, this configuration required that hatchery grades and surrounding land be consistent with river grades and subjected the hatchery to flood flows in the Kern River.

In 1967, a levee was constructed around the hatchery to provide flood protection from river flows. The use of the levee prevented the continued use of the Gilbert Ditch, which could not pass through the levee. During this same timeframe, the existing siphon was constructed to supply a continuous flow of water to the hatchery, under pressure, and through the levee (Figure 2-2).

The existing hatchery has 12 concrete raceway-type ponds and a nursery or early rearing building with tanks, troughs, and other necessary appurtenances (CDFW 2024). When it was operational, this facility was used as a fish holding and distribution center or planting base for recreational fish distribution in the Southern Sierra and Southern San Joaquin Valley. The average number of catchable-size fish released per year was 250,000 trout for the Kern River and surrounding area.

Since its construction, the siphon has performed its function of delivering river water to the hatchery. However, its steel composition, vandalism, the mountainous environment, and its exposed above-grade alignment have caused the operational functionality of the siphon to deteriorate. The joints of the siphon have separated in some places, allowing air to enter and resulting in a loss of suction. As a result, the siphon is no longer able to reliably supply fresh water from the Kern River to the hatchery. In March 2019, the siphon was determined to be inoperable and was permanently shut off. Without a source of water, the hatchery was also closed.

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Figure 2-1
Project Vicinity

Project Location

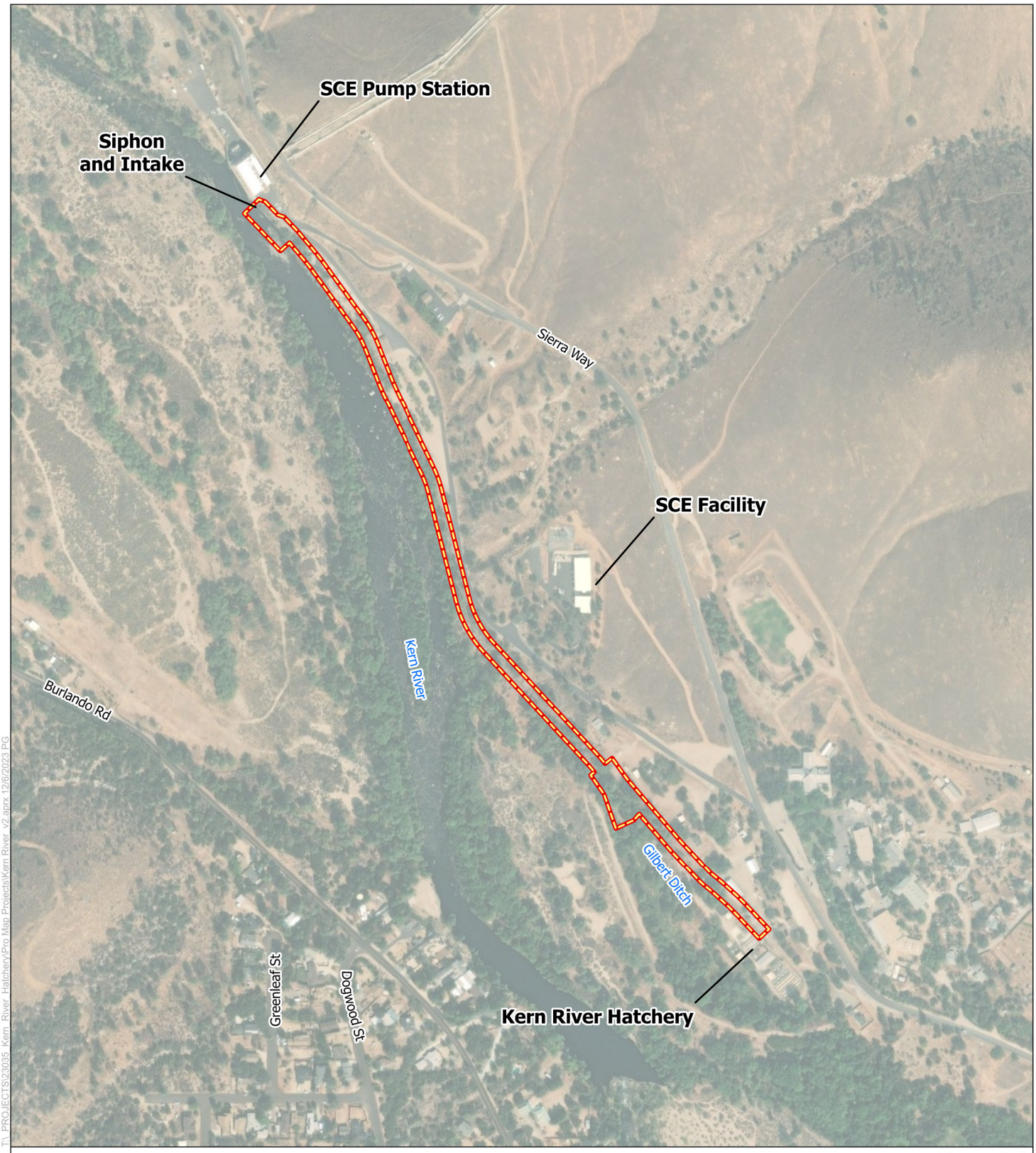
N

0 10
Miles

MONTROSE ENVIRONMENTAL

Kern River Hatchery Siphon Replacement Project

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Figure 2-2
Project Location

MONTROSE ENVIRONMENTAL

Kern River Hatchery Siphon Replacement Project

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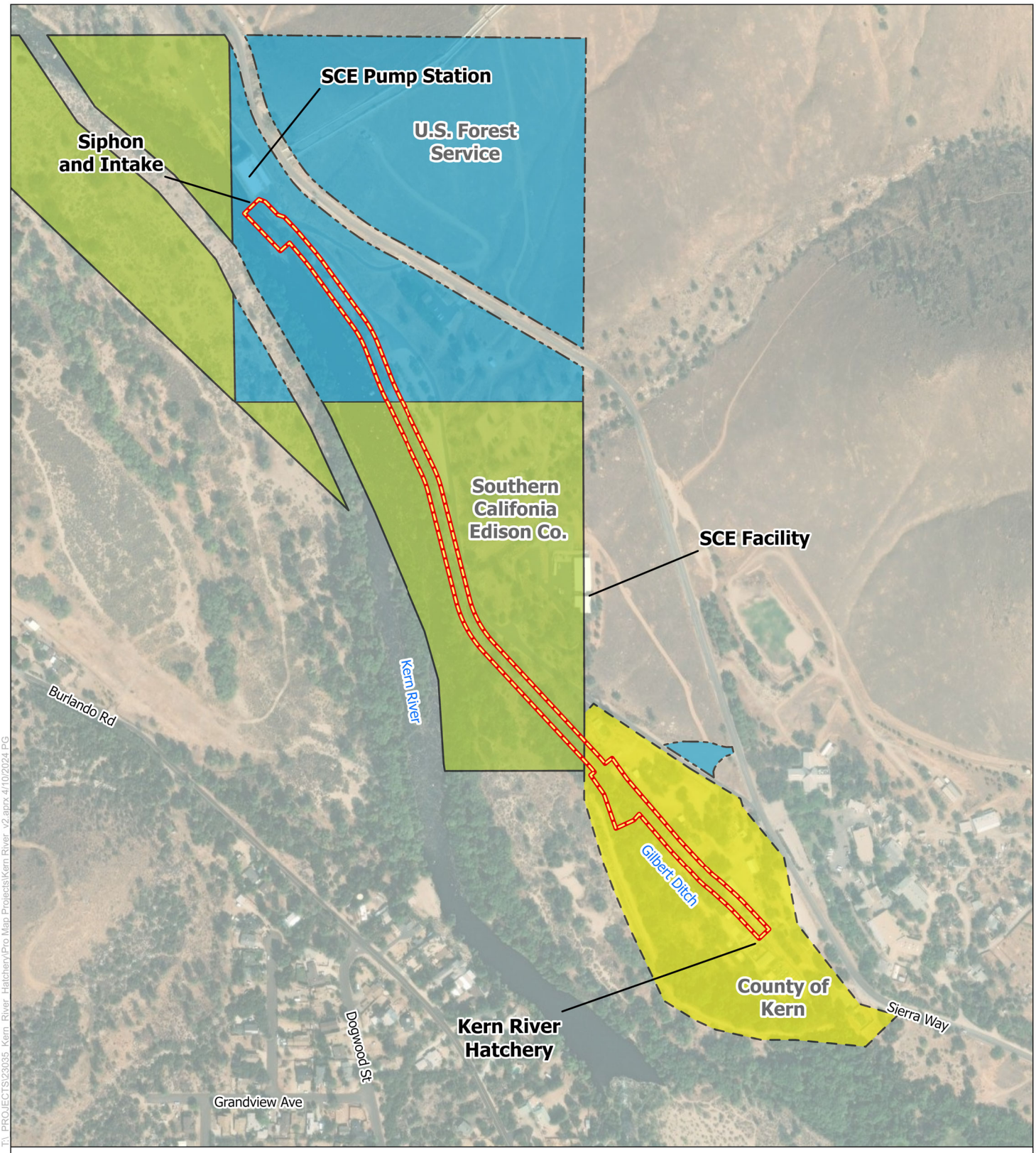


Figure 2-3
Parcel Ownership

N

0 250 500
Feet

Project Area

Parcel Ownership

County of Kern 054-010-23

U.S. Forest Service 054-020-07 & 054-010-26

Southern California Edison Co. 054-020-48

MONTROSE ENVIRONMENTAL

Kern River Hatchery Siphon Replacement Project

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2.3 PROJECT OBJECTIVES

CDFW proposes to construct and operate the Proposed Project to meet the following objectives:

- Restore functionality of the siphon so that hatchery operations can be resumed.
- Construct and operate the components of the Proposed Project in a manner that minimizes impacts on the environment.
- Construct and operate the components of the Proposed Project in a manner that maximizes ease of construction and maintenance.
- Provide a water conveyance facility that is resistant to vandalism, as well as trespass and associated environmental damage, and minimizes maintenance needs.
- Maximize the design life of the newly constructed water conveyance facility.

2.4 EXISTING FACILITIES AND OPERATIONS

2.4.1 Facilities

The siphon was designed to deliver water from the Kern River to the hatchery. The primary components of the existing facilities are the siphon and intake facility; a concrete pump vault adjacent to the pipeline at the high point containing the pump, pump intake line, and aeration equipment; a pipeline (conveyance conduit); an impeller-driven flow meter with digital readout; a valve and diversion structure allowing diversion of flow; a levee separating the siphon from an adjacent marshy area where excess water is expelled; the siphon outlet; an open ditch that conveys water from the outlet to the hatchery; and concrete piers supporting the siphon at several locations (BKF 2023).

The existing siphon is a 36-inch-diameter steel pipe that, when it was operational, would take in fresh water from the Kern River through the siphon and intake facility located just south of the SCE KR-3 Power Station (BKF, 2023). The siphon connects to the partially submerged inlet structure within the Kern River, and the pipe alignment exits the river at ground surface and follows the river edge overland. The pipe alignment travels in a southeasterly direction and gains 10 feet in elevation above the river at a point approximately 425 feet from the inlet structure. A concrete pump vault containing the pump, pump intake line, and aeration equipment is located at the high point of the alignment. From this high point, the pipeline travels above ground southeasterly approximately 2,100 feet downhill toward the hatchery. Original construction drawings and siphon operational schematics suggest that the flow rate in the siphon was between 30 and 35 cubic feet per second (cfs). Most of the pipeline is above ground and supported by reinforced concrete piers; in several isolated areas, the pipeline was buried.

To reach the existing diversion and outlet structure, the pipeline passes under a maintenance access road and enters a concrete access shaft and slide gate vault. On the south side of the maintenance access road, the existing outlet structure consists of two openings in the access shaft that divert water, using the slide gate vault, toward either the hatchery or the Gilbert Ditch through open ditches. The southernmost ditch conveys flows into the hatchery fish runs. After

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circulating through the hatchery, water exits the hatchery and is returned to the Gilbert Ditch. The second ditch conveys overflow water from the outlet structure directly to the Gilbert Ditch.

2.4.2 Operations

In 1965, CDFW received a permit from the State Water Resources Control Board (SBRCB), which was converted to a license in 1972, to use up to 40 cubic feet per second (cfs) of Kern River water at the hatchery year-round. Flows through the siphon were estimated to be 31 cfs.

When the siphon was operational, portable pumps were used to prime the siphon by pumping water from the river to the downslope side of the closed siphon, past its high point (BKF 2023). Once the pipe was filled with water, the pump was deactivated, and the siphon was opened. The resulting downslope discharge of water created a vacuum on the upslope side of the siphon, which pulled water from the river into the inlet.

At the diversion structure, a manually operated valve allowed for bifurcation of the water flow from the pipeline to control the inflow of water to the hatchery. Excess water was released at this control structure to the Gilbert Ditch and was then conveyed overland to the river side of the levee. Water also leaves the hatchery via the Gilbert Ditch.

As described above, the siphon was shut off in December 2020 because the pipeline had deteriorated, leading to a loss of suction, and the hatchery was closed until repairs could be made.

2.4.3 Post-closure Site Conditions

Following the shut-down of the siphon and the closure of the hatchery, conditions at the project site continued to degrade. In March 2023, heavy winter rains resulted in major flooding of the Kern River. Most of the hatchery facility was submerged in floodwaters for several days. The open channel that connected the diversion structure to the hatchery was eroded in some places and filled with dirt and plant debris in others. Portions of the pipeline were heavily damaged or entirely displaced; in some areas, soil was scoured away from the pipeline alignment, leaving the pipeline unsupported. CDFW and SCE staff disconnected and sealed off some sections of pipeline to prevent vandalism, trespass, and injury.

Although these conditions were present at the site at the time the initial study was being prepared, the environmental analysis for water extraction from the Kern River is based on normal operating conditions before the closure of the hatchery in December 2020. The baseline for all other analyses in this initial study is existing environmental conditions in late 2023.

2.5 PROPOSED PROJECT COMPONENTS

CDFW proposes to replace the existing siphon, pipeline, and ditch providing water to the Kern River Hatchery, with the intent of reopening the hatchery in accordance with previous operations. Project activities would involve demolishing the existing siphon, pipeline, and some appurtenant structures; installing a new siphon and inlet structure; replacing the pipeline and some concrete pier supporting structures; installing a replacement pump, pump intake line, and pipeline assembly in the existing vault at the high point of the pipeline alignment; replacing the

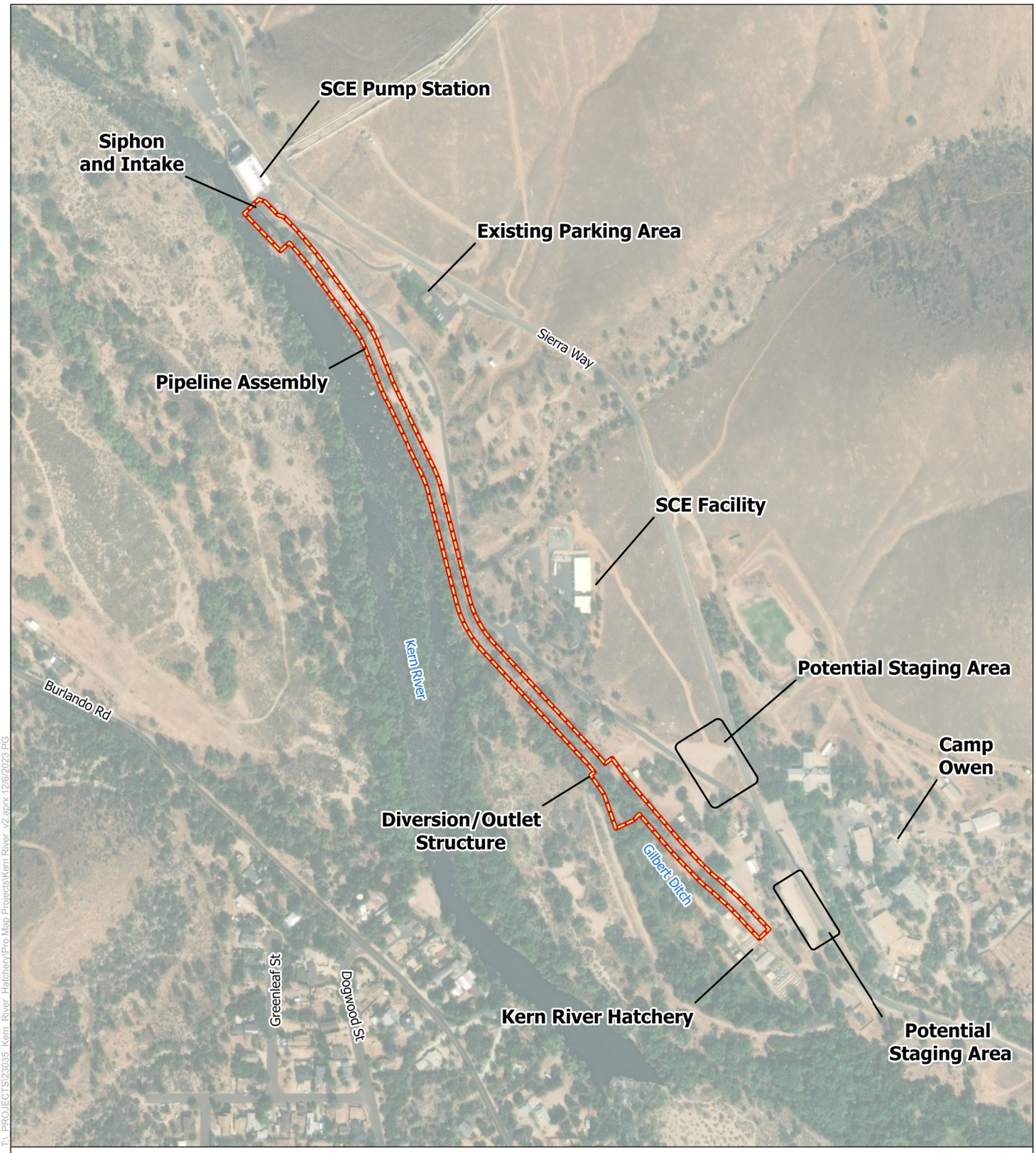
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diversion structure and outlet structure; and replacing the open channel with a buried pipeline. Section 2.5.1 and **Figure 2-4** identify the features of the Proposed Project. Section 2.5.2 describes the demolition of existing facilities and construction of new facilities.

The State of California has determined that the Proposed Project would be designed and constructed as a design/build project. As a result, the information provided in this initial study regarding the project design and construction activities is subject to change during the final design stage and in consultation with regulatory agencies. If changes are made during final design that would result in physical impacts on the environment that have not been evaluated in this initial study, additional review may be required under CEQA.

Once constructed, the siphon would be operated in a similar fashion to the existing siphon. The Proposed Project would not increase the flow rate, amount of withdrawal, purpose of use, or location of use of water withdrawn from the Kern River and conveyed through the pipeline to the hatchery. Section 2.5.3 describes operations and maintenance of the replaced facilities.

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T:_PROJECTS\23035_Kern_River_Hatchery\Pro Map Projects\Kern River_v2.aprx 12/6/2023 PG

Project Area

N

0 250 500
Feet

Figure 2-4
Proposed Project Features

MONTROSE ENVIRONMENTAL

Kern River Hatchery Siphon Replacement Project

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2.5.1 Project Features

Siphon and Inlet Structure

The new inlet structure would be a 10-foot-wide channel section connecting to the new siphon, replacing the existing structures at approximately the same location (Figure 2-4). The channel would be approximately 40 feet long, with removable weir boards at the upstream end for maintenance purposes. A 6-foot-high weir would be constructed 30 feet away from the removable weir boards. The portion of the channel upstream of the weir would act as a stilling basin, allowing sediment to drop out of the freshwater flow and accumulate against the weir. The portion of the channel downstream of the weir would be the intake chamber for the siphon.

Chain-link fencing would surround the inlet structure to prevent unauthorized access. A concrete retaining wall would be constructed on the east side of the structure, along with a staircase allowing maintenance access to the inlet structure.

The inlet structure would be connected to approximately 82 feet of a 42-inch high-density polyethylene (HDPE) pipeline that would predominantly follow the same alignment as the existing pipeline. The pipeline would be encased in concrete for approximately 56 feet, from the connection at the inlet structure into the riverbank. Once on the riverbank, the pipeline would be underground.

Construction of the inlet structure and siphon would require dewatering of an approximately 6,500-square-foot area of the riverbed for approximately 4 months. Dewatering and coffer dam construction are described in “Siphon/Inlet Construction” in Section 2.5.2, “Demolition and Construction.”

Pump Vault and Pipeline Assembly

The existing pump vault at the southwest corner of the existing parking area would continue to be used and would house a replacement pump and degassing system. A new pipeline assembly structure would be constructed adjacent to the existing pump vault (Figure 2-4).

The pipeline assembly would continue to be located at the high point of the siphon structure. The pump would activate the siphon action by filling the lower, downslope portion of the siphon with water. Releasing the water creates suction, thus pulling river water into the pipeline. The pipeline assembly is the deepest area of excavation, extending approximately 9 feet below ground surface. Anchors would be installed approximately 1 foot deep to prevent the pipeline assembly from floating during periods of flooding.

Although the design flow of the siphon would remain nearly the same as existing conditions at 29.5 cfs, the elevation of the high point (pipe assembly) would be lower, and the amount of pumping needed to pull water to the high point would be reduced compared to the existing facility.

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Pipeline and Anchors

The full pipeline would extend approximately 0.5 mile. The pipeline outer diameter would be 42 inches for most of the alignment. Two sections of pipe, totaling approximately 150 feet in length, would be above ground, and these sections would be encased in concrete. For most of the alignment, the pipeline would be buried to varying depths to achieve the desired slope, allowing gravity flow from the pipeline assembly to the outlet structure. The existing flow meter would be re-installed at or near its current location to enable accurate flow rate determination.

Concrete anchors 12 inches wide and 3 feet long would be installed every 230 feet along above-ground portions of the alignment to ensure that the pipeline would remain in place in the event of high water or flooding.

Because the depth of excavation would vary depending on the underlying soil structure and depth of ground cover, the width of trenching also would vary. Maximum width of the trench would be approximately 50 feet, including 10-12 feet on each side of the pipeline alignment for construction access and up to 20 feet for the pipeline itself.

Excavation methods for the pipeline are described in “Pipeline Construction” in Section 2.5.2, “Demolition and Construction.”

Diversion and Outlet Structure

Approximately 2,100 feet south of the inlet structure, the existing diversion and outlet structures would be replaced. At this location, the pipeline would be encased in concrete because of its exposure above ground. The pipeline would pass under the maintenance access road and enter a 5-foot-square access shaft and slide gate vault. The access shaft would be covered with metal grating to allow access to the slide gate handwheel that opens and closes the gate. The grating would also protect the water from debris as it passes through the diversion/outlet structure.

On the south side of the maintenance access road, the existing outlet structure would be replaced with a 6-foot-wide energy dissipator and distribution channel. The structure would consist of a vault with three adjustable gates to divert water toward either the hatchery or the Gilbert Ditch. Two 18-inch-diameter pipes would divert water toward the Gilbert Ditch and the river; the pipes would split into two branches and allow water to flow into the open ditch unimpeded. The disturbance corridor in this area would be approximately 12 feet wide.

The 42-inch-diameter pipeline would continue south, replacing the existing open ditch, ending at a headwall, and depositing flows into the hatchery fish runs. After circulating through the hatchery, water would exit the hatchery and be returned to the Gilbert Ditch, as under previous existing conditions.

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2.5.2 Demolition and Construction

Demolition and Removal of Existing Structures

The Proposed Project would require demolition and removal of the existing pipeline and most of the appurtenant structures. Demolition would be completed before trench excavation would take place to install the new pipeline. Screening, crushing, and on-site spreading may be considered for disposal of some removed rock and cobble, and vegetation removed from the alignment would be chipped and spread back on the site. Demolition materials not being retained on site – primarily steel, concrete, and asphalt – would be stockpiled in the construction staging areas and hauled off site by the construction contractor for disposal or recycling.

Siphon/Inlet Construction

Construction of the siphon and inlet structures would require the installation of a coffer dam and dewatering to preclude river water from entering the construction site. The area within the coffer dam, estimated to be approximately 6,500 square feet, would be disturbed by construction equipment and pumping activity. Dewatering would be ongoing during 4 months of the construction period due to seepage.

Pipeline Construction

Pipeline installation would require a disturbance area up to 50 feet wide and up to 9 feet deep to allow for equipment access on both sides of the trench. Because soils in the project area vary from alluvial deposits (ranging from moist, loose to very dense gravel with silt, silty gravel, sand, sand with silt, and silty sand) to cobbles and boulders, the excavation process is anticipated to vary in speed and types of equipment used. Pipeline trenching may proceed at a rate of 50 feet per day in difficult terrain, with progress approaching 300 feet per day in favorable conditions.

Because the project site is directly adjacent to the Kern River, the potential exists for shallow groundwater conditions or seepage that would require dewatering. During early investigations, groundwater was encountered at a depth of approximately 10 feet below the ground surface; however, groundwater conditions have been influenced by drought conditions and flooding, and actual depths to groundwater would likely vary throughout the construction period.

Temporary shoring may be required to support trench sidewalls and reduce the potential for settlement in some areas where sloped excavations are not feasible. Spoils from the trench excavation would be stockpiled within the construction area on each side of the trench. Following completion of trenching, spoils would be redistributed along the pipe alignment and would not be hauled off-site.

The construction alignment would be designed to avoid blocking access along Sierra Way to the riverside parking area.

Trenching would require the removal of vegetation to provide for construction. The site would be revegetated following installation to provide short-term erosion control. In the long term, the area is anticipated to revegetate naturally.

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Excavation of boulders would likely involve jackhammering. In some locations that are not accessible by heavy equipment, the construction contractor may elect to use a non-explosive demolition agent or expansive grout (Dexpan.com, 2024). This cement-like material is poured into holes drilled into the rock; as it dries, the substance expands and breaks, cracks, and splits large rocks apart.

Staging Areas

Construction equipment is anticipated to remain on site during demolition, excavation, and construction activities. Two possible staging areas have been identified: a property adjacent to the turnoff from Sierra Way at the access road, owned by USFS, and a property adjacent to the hatchery parking lot on Sierra Way, owned by the County (Figure 2-4). The selected area(s) would be fenced and gated.

Construction Schedule

Construction of the Proposed Project is anticipated to last for approximately 14 months, potentially beginning in 2024 and ending in 2025. Within this 14-month timeframe, construction work that involves the use of operating equipment would be performed for approximately 7 months within a 12-month period. Construction activities would typically be performed Monday through Friday between 7 a.m. and 5 p.m. After-hours work and work on Saturdays, Sundays, and State holidays would require approval from the State of California.

Construction Equipment and Personnel

The schedule, anticipated number of construction workers and construction-related trips, and main pieces of equipment for each construction phase are provided in **Table 2-1**.

2.5.3 Operations and Maintenance

As stated above, the Proposed Project would allow the Kern River Hatchery to resume normal operations consistent with conditions before shutdown of the siphon in 2019 and closure of the facility in 2020. Before closure, flows in the siphon were estimated at 31 cfs. The proposed design flows would be approximately 29.5 cfs. The hatchery typically operated with three employees: a fish hatchery manager, a CDFW technician, and a seasonal aide. No changes to operations or maintenance activities would take place as a result of the Proposed Project.

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Table 2-1. Construction Workers and Equipment by Phase

Construction Phase	Length (days)	Workers	Trips: Worker / Vendor / Haul	Total Trips	Equipment Required	
Site Preparation	30	15	450 / 0 / 30	480	track-mounted excavator – 1 end dump truck – 3 generator (temporary) – 2 mowing/weed removal equipment – 6	bulldozer – 3 water truck – 3 boom truck – 1
Grading/Excavating	75	10	750 / 15 / 75	840	track-mounted excavator – 3 end dump truck – 3 10-wheel dump truck – 1 front-end loader – 3 generator (temporary) – 2	bulldozer – 1 water truck – 3 backhoe – 3 compressor/jackhammer – 6
Construction	60	15	900 / 25 / 60	985	medium crane – 1 end dump truck – 1 concrete truck – 2 front-end loader – 2 generator (temporary) – 2	flat-bed delivery truck – 1 water truck – 3 backhoe – 2 boom truck – 1
Close Out	30	15	450 / 6 / 6	462	track-mounted excavator – 1 medium crane – 1 front-end loader – 1 generator (temporary) – 1	flat-bed delivery truck – 1 water truck – 1 boom truck – 1
Total	**195**	**–**	**2,550 / 46 / 171**	**2,767**		

Source: Villines, pers. comm., 2024

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2.6 RESPONSIBLE AND TRUSTEE AGENCIES

Under CEQA, a responsible agency is a public agency other than the lead agency that has responsibility for carrying out or approving a project (Public Resources Code [Pub. Res. Code] Section 21069). The following are responsible agencies for the Proposed Project:

- U.S. Forest Service – Permission to conduct work on USFS land
- Central Valley Regional Water Quality Control Board – Notification under NPDES General Construction Permit, Compliance with NPDES Regional Municipal Stormwater Permit
- California Department of Fish and Wildlife, Central Region – Lake and Streambed Alteration Agreement under Fish and Game Code Section 1600 et seq.
- San Joaquin Valley Air Quality Management District – Permit to Construct and Permit to Operate

CEQA defines a trustee agency as a state agency that has jurisdiction by law over natural resources affected by a project that are held in trust for the people of the State of California (Pub. Res. Code Section 21070). The State Lands Commission and CDFW are trustee agencies for the Proposed Project, for the purposes of this initial study.

In addition, **Table 2-2** identifies all agencies expected to use the initial study in their decision-making process for permits or entitlements required for implementation of the proposed project.

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2.7 ANTICIPATED PERMITS AND APPROVALS

Table 2-2 identifies potential permits and approvals that may be required for the Proposed Project.

Table 2-2. Anticipated Regulatory Permits, Approvals, and Consultations

Agency	Permit / Approval / Consultation
Federal Agencies	
U.S. Fish and Wildlife Service	Endangered Species Act compliance may be required if biological surveys reveal that the project could result in take of a covered species.
U.S. Forest Service, Sequoia National Forest	Use permit; Organic Act Permit for Archaeological Investigations may be required to obtain permission to conduct an archaeological investigation on U.S. Forest Service property
U.S. Army Corps of Engineers	Clean Water Act Section 404 permit may be required for placement of dredge or fill material in waters of the U.S.
State Agencies	
California Department of Fish and Wildlife	Lake and Streambed Alteration Agreement may be required if the Proposed Project would divert or obstruct flow of the Kern River or any other river, stream, or lake; change its bed, channel, or bank; use material from the river; or deposit material into the river.
Central Valley Regional Water Quality Control Board	Section 401: Water Quality Certification and/or Waste Discharge Requirements may be required for activities that would include the placement of fill or discharge within waters of the state or cause other effects to beneficial uses as described in the Basin Plan
Native American Heritage Commission	The Kern Valley Indian Community requested consultation, which was completed on March 5, 2024.
Regional Agencies	
San Joaquin Valley Air Pollution Control District	Consultation may be required to confirm compliance with the district's Air Quality Attainment Plan; approval of a permit to operate excavators and other equipment may be required.
Local Agencies	
Kern County	Encroachment permit may be required for construction within County property, including County right-of-way.
Southern California Edison	Encroachment permit or renewal of 1994 use permit
Gilbert Ditch Association	Permission may be required to modify the hatchery connection to Gilbert Ditch

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Chapter 3
ENVIRONMENTAL CHECKLIST

This chapter of the Initial Study/Mitigated Negative Declaration (IS/MND) assesses the environmental impacts of the Kern River Hatchery Siphon Replacement Project (Proposed Project) based on the environmental checklist provided in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. The environmental resources and potential environmental impacts of the Proposed Project are described in the individual subsections below. Each section includes a discussion of the rationale used to determine the significance level of the Proposed Project's environmental impact for each checklist question. For environmental impacts that have the potential to be significant, mitigation measures are identified that would reduce the severity of the impact to a less-than-significant level.

1.	**Project Title**	Kern River Hatchery Siphon Replacement Project
2.	**Lead Agency Name and Address**	Gerald Hatler, Program Manager California Department of Fish and Wildlife Central Region (Region 4) 1234 E. Shaw Avenue Fresno, CA 93710 Gerald.Hatler@wildlife.ca.gov
3.	**Contact Person, Phone Number, and Email**	Jennifer Parson, Senior Environmental Planner California Department of General Services (DGS) 916-376-1604 Environmental@dgs.ca.gov
4.	**Project Location and Assessor's Parcel Numbers (APNs)**	14415 Sierra Way, Kernville, California APNs 054-020-48, 054-020-07, 054-100-02, 054-010-23
5.	**Property Owner(s)**	Southern California Edison, U.S. Forest Service, Kern County
6.	**General Plan Designations**	1.1 – State or Federal Land; 2.5 – Flood Hazard; 3.3 – Other Facilities; 8.5 – Resource Management (Min 20-acre parcel size)
7.	**Zoning**	E20 – Estate 20 acres; RF – Recreation Forestry
8.	**Description of Project**	See Chapter 2, *Project Description*
9.	**Surrounding Land Uses and Setting**	The project site is bordered to the north by Southern California Edison's Kern River No. 3 Hydroelectric Power Station, to the east by an unnamed paved access road, to

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		the south by rural residential development, and to the west by the Kern River and undeveloped land. Adjacent land uses consist primarily of rural and low-density residential development and undeveloped land. Camp Owen, a youth detention center operated by the County of Kern, is located across Sierra Way.
10.	**Other Public Agencies Whose Approval or Input May Be Needed**	U.S. Fish and Wildlife Service; U.S. Forest Service, Sequoia National Forest; U.S. Army Corps of Engineers; California Department of Fish and Wildlife; Native American Heritage Commission; Central Valley Regional Water Quality Control Board; San Joaquin Valley Air Pollution Control District; Kern County; Southern California Edison; Gilbert Ditch Association
11.	**Hazards or Hazardous Materials**	The Proposed Project is not located on the Department of Toxic Substances Control lists enumerated under Section 65962.5 of the Government Code, including, but not limited to, lists of hazardous waste facilities.
12.	**Native American Consultation**	Chairperson Robinson of the Kern Valley Indian Community responded to the follow-up email on February 6, 2024, with a call to DGS that was supported by a subsequent email. Chairperson Robinson expressed concern about the potential for the inadvertent discovery of Native American resources during project construction due to the sensitivity of the location adjacent to the river and requested that a tribal monitor be present during all ground disturbing activities. On March 5, 2024, DGS emailed confirmation to Chairperson Robinson that tribal and archaeological monitoring would be included as a mitigation measure in the CEQA environmental document.

The environmental resources and potential environmental impacts of the Proposed Project are described in the individual subsections below. Each section (3.1 through 3.20) provides a brief overview of regulations and regulatory agencies that address the resource and describes the existing environmental conditions for that resource to help the reader understand the conditions that could be affected by the Proposed Project. In addition, each section includes a discussion of the rationale used to determine the significance level of the Proposed Project's environmental impact for each checklist question. For environmental impacts that have the potential to be significant, mitigation measures are identified that would reduce the severity of the impact to a less-than-significant level.

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Environmental Factors Potentially Affected

The environmental factors checked below would potentially be affected by the Proposed Project, as indicated by the checklist on the following pages.

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

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Determination

The conclusions and recommendations contained herein are professional opinions derived in accordance with current standards of professional practice. They are based on a review of sources of information cited in this document, and the comments received, conversations with knowledgeable individuals; the preparer's personal knowledge of the area; and, where necessary, a visit to the site.

On the basis of this initial evaluation:

☐ I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT (EIR) is required.

☐ I find that the Proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the Proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature DocuSigned by: Sarah Paulson E9964E60293D40A... Date 7/15/2024

for Name: Julie Vance, Regional Manager
California Department of Fish and Wildlife, Region 4

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3.1 AESTHETICS

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c. 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 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?	☐	☒	☐	☐
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

3.1.1 Regulatory Setting

Federal Laws, Regulations, and Policies

National Scenic Byway Program

The National Scenic Byway Program is administered by the Federal Highway Administration and was established to preserve scenic but less-traveled roadways. A national scenic byway is a road recognized by the U.S. Department of Transportation (U.S. DOT) for one or more of six intrinsic qualities: archeological, scenic, cultural, historic, natural, and recreational.

Wild and Scenic Rivers Act

The National Wild and Scenic Rivers System was established in 1968 to preserve free-flowing rivers, enhance water quality, and protect the outstanding remarkable values of each waterway.

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Land Management Plan for the Sequoia National Forest

The Land Management Plan for Sequoia National Forest is developed by USFS in accordance with the requirements of the National Forest Management Act of 1976. It is a strategic document that identifies long-term overall conditions and direction in how to proceed to achieve these conditions. Relevant goals include the following:

SCEN-FW-GOAL 01 The Forest Service works with other agencies and adjacent landowners to maintain shared vistas.

State Laws, Regulations, and Policies

California Scenic Highway Program

The California Scenic Highway Program was established through Senate Bill 1447 (Farr) in 1963 to preserve and enhance the natural beauty of California (California Department of Transportation [Caltrans] 2008). This bill added Sections 260 through 263 to the Streets and Highways Code, which places the Scenic Highways Program under the jurisdiction of Caltrans. The program is composed of a list of designated and eligible highways, a process by which designation may occur, a process by which designation may be withdrawn, and coordinators who review and recommend eligible highways for designation to the Caltrans Director. Scenic highways are evaluated for inclusion based on whether a landscape demonstrates natural scenic or agricultural beauty, whether existing visual intrusions significantly impact the view, whether there is strong local support, and whether the length of the highway is longer than a mile.

Local Laws, Regulations, and Policies

Kern County General Plan – Land Use, Open Space, and Conservation Element

The Kern County General Plan provides goals and policies relevant to aesthetics in the Land Use, Open Space, and Conservation Element. The following goals, policies, and implementation measures are applicable to the Proposed Project:

Implementation Measure 1.4.E Continue to establish coordinated efforts between government entities and private enterprise to identify and preserve unique scenic qualities of existing natural resources and to enhance the image of the County as a whole.

Implementation Measure 1.10.9.FF Work with Caltrans in implementation of the Scenic Highway Corridor designation for various highways as described in the Circulation Element and protect viewsheds with the use of the SC (Scenic Corridor Combining) District.

Policy 1.10.10.66 Promote the conservation of oak tree woodlands for their environmental value and scenic beauty.

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3.1.2 Environmental Setting

Visual Character and Quality of the Site

The Proposed Project is located in Kern County, and also partly within the Sequoia National Forest. The project area is primarily open space and is largely defined by its proximity to Kern River, the existing fish hatchery, and the significant vegetation growth in and around the site.

The project site is bordered to the north by SCE's KR-3 Hydroelectric Power Station, to the east by an unnamed paved access road, to the south by rural residential development, and to the west by the Kern River and undeveloped land (LSA 2022).

Light and Glare

There are few existing sources of light and glare within the project area. Sources of light may include safety lighting, and light spillage from windows and open doors. Sources of glare include reflections from glass and metal surfaces, and the fishery ponds (when the fishery is operational). Since the hatchery was closed in 2020, lighting at the project site is limited to minimal safety lighting. Camp Owen, across Sierra Way from the hatchery, is a youth detention facility and has heavy security lighting around the clock.

Scenic Classifications, Scenic Highways, Corridors, and Rivers

The parts of the project site within the Sequoia National Forest have a "high" level scenic integrity objective (USFS 2023). Kern County does not classify any areas within 2 miles of the project site as a "Scenic Corridor Combining District" (Kern County GIS 2023a); however, part of the site is classified as 8.5 "Resource Management (Min 20-acre parcel size)," which recognizes land that may have important resource values, including scenic values (Kern County 2009; Kern County GIS 2023b).

There are no designated state scenic highways or federal scenic byways in the project area (Caltrans 2018; U.S. DOT 2023). Approximately 1.75 miles north of the project site, the Kern River is classified as a Wild and Scenic River (Bureau of Land Management 2023). Bull Run Creek, approximately 0.3 mile north of the project site, is considered eligible for classification as a Wild and Scenic River (USFS 2023).

Viewer Groups and Sensitivity

The primary viewers of the site would be nearby local residents, passing motorists along Sierra Way, people boating on the Kern River, and recreational visitors using the parking lot and river access points on and adjacent to the project site.

Due to proximity and duration of time spent in the area, it is expected that users of the recreational space and local residents would be most sensitive to changes to the viewshed. It is expected that views of the project site for passing motorists from roadways and boaters from the river would be limited due to the dense vegetation in the area. When also taking into consideration the speed of travel for passing motorists, it is expected they would be the least sensitive group to changes to the viewshed.

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3.1.3 Discussion of Checklist Responses

a. Adverse effects on scenic vistas—No Impact

A scenic vista is generally considered a view of an area that has remarkable scenery or a natural or cultural resource that is indigenous to the area. Presently, there are no designated scenic vistas near the project site. Therefore, the Proposed Project would not have an adverse effect on a scenic vista. There would be **no impact**.

b. Damage to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway—No Impact

As stated above, there are no eligible or officially designated California Scenic Highways near the project site (Caltrans 2018). Therefore, the Proposed Project would have **no impact** on scenic resources within a state scenic highway.

c. Substantially degrade the existing visual character or quality of public views of the site and its surroundings—Less than Significant with Mitigation

Construction of the Proposed Project would noticeably alter the visual character of the project site by removing vegetation, including oak trees, to allow access to the pipeline alignment for construction equipment, as well as by the presence of conduction vehicles and machines. This would be visible from public viewpoints both within and outside the site. As discussed in Section 3.4, "Biological Resources," implementation of **Mitigation Measure BIO-10** would require that vegetation disturbance would be minimized and large oaks protected wherever feasible. Construction impacts would be temporary; construction vehicles would be removed once construction is complete, and it is expected that areas of cleared vegetation would regrow over time. Aside from vegetation removal, no degradation of visual character would take place during project implementation as no new buildings or other significant visible structures would be constructed as part of the Proposed Project. Furthermore, because the new pipeline would be almost entirely buried, the Proposed Project would result in the siphon and pipeline being less visible than under existing conditions. Finally, not all vegetation would be removed, and the remaining vegetation would help to screen the project site during both construction and operation. Therefore, impacts would be **less than significant with mitigation**.

> **Mitigation Measure BIO-10. Implement Revegetation in Riparian Habitat and Sensitive Natural Communities Disturbed during Construction**
>
> See Section 3.4, "Biological Resources."

d. New sources of substantial light or glare—Less than Significant

The Proposed Project consists of removing and replacing the existing Kern River Hatchery siphon and pipeline. Relocating the existing aboveground pipeline underground would remove a possible source of glare in the project area. Construction activities would typically take place between the hours of 7:00 a.m. and 5:00 p.m. during the daytime, with after-hours work being permitted at the discretion of the State of California. Therefore, minimal construction-related lighting would be required. Furthermore, it is expected that potential sources of glare from

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metal or glass construction equipment components during daylight hours would be largely screened from view by topography and existing vegetation. Therefore, impacts would be **less than significant**.

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3.2 AGRICULTURE AND FORESTRY RESOURCES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non- agricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☒	☒
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

3.2.1 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies related to agriculture or forestry resources are applicable to the Proposed Project.

State Laws, Regulations, and Policies

Farmland Mapping and Monitoring Program

The California Department of Conservation (CDOC) established the Farmland Mapping and Monitoring Program (FMMP) in 1982, as a non-regulatory program to provide a consistent and impartial analysis of agricultural land use and land use changes throughout California. FMMP

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now maps agricultural and urban land use for nearly 98 percent of the state's privately held land. FMMP rates and classifies agricultural land according to soil quality, irrigation status, and other criteria. Important Farmland categories are as follows (CDOC 2020a):

> **Prime Farmland:** Farmland with the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the 4 years prior to the mapping date.
>
> **Farmland of Statewide Importance:** Farmland similar to Prime Farmland, but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the 4 years prior to the mapping date.
>
> **Unique Farmland:** Farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated but may include non-irrigated orchards or vineyards, as found in some climatic zones in California. Land must have been cropped at some time during the 4 years prior to the mapping date.
>
> **Farmland of Local Importance:** Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.

Other FMMP categories include Grazing Land, Urban and Built-Up Land, Other Land, and Water.

California Land Conservation Act of 1965 (Williamson Act)

The California Land Conservation Act of 1965 (commonly referred to as the Williamson Act) is designed to preserve agricultural and open space land. It establishes a program of private landowner contracts that voluntarily restrict land to agricultural and open space uses. The program is a two-step process involving the establishment of an agricultural preserve by the local legislative body and then approval of a land conservation contract. In return, Williamson Act parcels receive a lower property tax rate consistent with their actual use instead of their market value. Lands under contract may also support uses that are "compatible with the agricultural, recreational, or open-space use of [the] land" subject to the contract (California Government Code Section 51201[e]).

Government Code Section 51290 states that "(a) it is the policy of the state to avoid, whenever practicable, the location of any federal, state, or local public improvements and any improvements of public utilities, and the acquisition of land therefor, in agricultural preserves," and "(b) it is further the policy of the state that whenever it is necessary to locate such an improvement within an agricultural preserve, the improvement shall, whenever practicable, be located upon land other than land under a contract pursuant to this chapter."

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Timberland and Forestland Regulations

The following definitions of timberland, timber, and forestland are provided in the Public Resources Code and Government Code as provided in Appendix G of the CEQA Guidelines:

> **Timberland** – defined as land, other than land owned by the federal government and land designated by the board as experimental forest land (privately owned land as well), which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees (Pub. Res. Code Section 4526).
>
> **Timber** – defined as trees of any species maintained for eventual harvest for forest products purposes, whether planted or of natural growth, standing or down, on privately or publicly owned land, including Christmas trees, but does not mean nursery stock (Government Code Section 51104[g]).
>
> **Forestland** – land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits (Pub. Res. Code Section 12220[g]).

No timberland or timberland zoned Timberland Production areas are located within or adjacent to the Project site.

Local Laws, Regulations, and Policies

Kern County General Plan

The Kern County General Plan (Kern County 2009) contains the following definitions related to zoning of the Proposed Project.

> *General Plan Zoning Definitions:*
>
> Map Code 1.1 (State and Federal Land) – Applied to all property under the ownership and control of the various State and federal agencies operating in Kern County (military, U.S. Forest Service, Bureau of Land Management, Department of Energy, etc.).
>
> Map Code 3.3 (Other Facilities) – Existing facilities used for public or semi-public services. Permitted uses include, but are not limited to, airports, sewer farms, treatment plants, and water spreading areas.
>
> Map Code 8.5 (Resource Management) – Primarily open space lands containing important resource values, such as wildlife habitat, scenic values, or watershed recharge areas. These areas may be characterized by physical constraints, or may constitute an important watershed recharge area or wildlife habitat or may have value as a buffer between resource areas and urban areas. Other lands with this resource attribute are undeveloped, non-urban areas that do not warrant additional planning within the foreseeable future because of current population (or anticipated increase), marginal physical development, or no subdivision activity.

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The Land Use, Open Space, and Conservation Element of the Kern County General Plan (Kern County 2009) contains the following goal and implementation measure related to agricultural resources.

Non-Jurisdictional Land (Goal 1): To promote harmonious and mutually beneficial uses of land among the various jurisdictions and land management entities present in Kern County.

> Non-Jurisdictional Land (Policy 1): Coordination and cooperation will be promoted among the County, the incorporated cities, military bases, and the various special districts where their planning decisions and actions affect more than a single jurisdiction.

Resource (Goal 1): To contain new development within an area large enough to meet generous projections of foreseeable need, but in locations which will not impair the economic strength derived from the petroleum, agriculture, rangeland, or mineral resources, or diminish the other amenities which exist in the County.

> Resource (Policy 5): Areas of low intensity agriculture use (Map Code 8.2 (Resource Reserve), Map Code 8.3 (Extensive Agriculture), Map Code 8.5 (Resource Management)) should be of an economically viable size in order to participate in the State Williamson Act Program/Farmland Security Zone Contract.

3.2.2 Environmental Setting

The Proposed Project is located near the town of Kernville in Kern County, California. Important Farmland in Kern County in 2020 totaled 868,714 acres and was composed of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland (CDOC 2020). Since 2018, Kern County has lost more Important Farmland than gained. Kern County's combined Important Farmland areas increased by approximately 6,633 acres whereas losses totaled approximately 11,946 acres, across Prime Farmland, Farmland of Statewide Importance, and Unique Farmland categories resulting in less than %1 net change (CDOC 2020). The majority of the Proposed Project site is comprised of Grazing Land with minor areas in the southern portion of the site designated as Nonagricultural and Natural Vegetation (CDOC 2020).

According to the Kern County ARC GIS Data, there are approximately 1, 638,884 acres in the county that are registered as being under Williamson Act contract. The project site is not located on enrolled or non-enrolled Williamson Act land.

The intake facility and the northern extent of the siphon pipeline are located on U.S. Forest Service land (Parcel 054-020-07) (Figure 2-3).

3.2.3 Discussion of Checklist Responses

a. Convert Important Farmland to non-agricultural use—No Impact

According to CDOC, the project site and staging areas do not occur on lands designated as Prime, Unique, or Farmland of Statewide Importance (CDOC 2023). The Proposed Project is limited to removal and replacement of an existing siphon pipeline; therefore, construction and

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operation of the Proposed Project would not result in conversion of any existing agricultural use. There would be **no impact** to agricultural lands.

b-c. Conflict with existing zoning for agricultural use, Williamson Act Contract, or forest land or timber land—No Impact

As stated above, the Proposed Project is not zoned for agricultural use (CDOC 2020). CDOC has designated the project site as Grazing Land and Nonagricultural/Natural Vegetation. According to the Kern County General Plan, the Proposed Project's zoning designations are E20 (Estate 20 acres) and RF (Recreation Forestry) (Kern County GIS, 2023a). The site has a Kern County land use designation of 1.1 "State or Federal Land", 2.5 "Flood Hazard", 3.3 "Other Facilities", and 8.5 "Resource Management (Min 20-acre parcel size)" (Kern County GIS, 2023b). Therefore, based on the current zoning designations, the Proposed Project would have **no impact** with regard to conflicts with existing zoning for agricultural or forestry uses.

The Proposed Project is not located on enrolled or non-enrolled Williamson Act land and is therefore not under Williamson Act contract. In addition, as stated above, portions of the Project site are zoned for Recreation and Forestry uses. The Proposed Project's construction and operation would not conflict with agricultural use zoning. Therefore, the Proposed Project would not conflict with Williamson Act contracts or agricultural zoning.

According to Pub. Res. Code Section 4526, "timberland" is defined as non-federal land that is available for, and capable of, growing a commercial crop of trees of a species used to produce lumber and other forest products. Although a portion of the project area is owned by USFS as part of Sequoia National Forest, no timberland or timberland zoned Timberland Production areas are located within or adjacent to the Project site. No commercial tree crops are grown on the Proposed Project site, and none are grown in the project area. **No impact** would occur with regard to conflicts with existing zoning for agricultural use, Williamson Act contract, or forest land or timber land.

d. Result in the loss of forest land or conversion of forest land to non-forest use—No Impact

A small portion of the Proposed Project will be constructed and operated on USFS land located within the southeastern boundary of the Sequoia National Park. This area encompasses the intake facility and the northern extent of the siphon pipeline. Construction of the Proposed Project would require the removal of the removal of some trees as the existing aboveground pipeline has been in place for more than 50 years and the area is somewhat densely vegetated. However, the area is not designated as forest land and would remain in the same use as under existing conditions; therefore, the Proposed Project would not result in conversion of forest land to non-forest land, and no impact would result.

Further, the Proposed Project is not located on or near land that meets the definition of timberland, as defined in Government Code Section 51104(g). Therefore, the Proposed Project would not conflict with existing zoning for timberland or result in the loss of forest land or conversion of forest land to non-forest use. There would be **no impact**.

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e. Result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest land—No Impact

As stated above, the Proposed Project would not result in the conversion of forest land to non-forest land or agricultural land to non-agricultural land. Although the intake facility and the northern extent of the siphon pipeline are located on USFS land, project area would remain in its existing use following the completion of construction. Further, the Proposed Project site is not located on agricultural land. Therefore, the Proposed Project would have **no impact** on conversion of forest and agricultural lands.

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3.3 AIR QUALITY

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
When 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. Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
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?	☐	☐	☒	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

3.3.1 Regulatory Setting

Federal Laws, Regulations, and Policies

The Clean Air Act is implemented by the U.S. Environmental Protection Agency (USEPA) and sets ambient air limits, the National Ambient Air Quality Standards (NAAQS), for six criteria pollutants: particulate matter (PM_{10} and $PM_{2.5}$), carbon monoxide (CO), nitrogen dioxide (NO_2), ground-level ozone, sulfur dioxide (SO_2), and lead. Of these criteria pollutants, particulate matter and ground-level ozone pose the greatest threats to human health.

The California Air Resources Board (CARB) sets standards for criteria pollutants in California that are more stringent than the NAAQS and include the following additional contaminants: visibility-reducing particles, hydrogen sulfide, sulfates, and vinyl chloride. The Proposed Project is located in Kern County, which is within the Mojave Desert Air Basin (MDAB). The Eastern Kern Air Pollution Control District (EKAPCD) manages air quality in the basin for attainment and permitting purposes.

Table 3.3-1 shows the current attainment status for the state and federal ambient air quality standards for Eastern Kern County.

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Table 3.3-1. Attainment Status of the State and Federal Ambient Air Quality Standards

Contaminant	Averaging Time	Concentration	State Standards Attainment Status[1]	Federal Standards Attainment Status[2]
Ozone (O_3)	1-hour	0.09 ppm	N (Severe)	A
	8-hour	0.070 ppm	N	
		0.070 ppm		N (Severe)
Carbon Monoxide (CO)	1-hour	20 ppm	U/A	
		35 ppm		U/A
	8-hour	9.0 ppm	U/A	U/A
Nitrogen Dioxide (NO_2)	1-hour	0.18 ppm	A	
		0.100 ppm[5]		U/A
	Annual arithmetic mean	0.030 ppm	A	
		0.053 ppm		U/A
Sulfur Dioxide (SO_2)	1-hour	0.25 ppm	A	
		0.075 ppm		U/A
	24-hour	0.04 ppm	A	
		0.14 ppm		U/A
	Annual arithmetic mean	0.030 ppm		U/A
Particulate Matter (PM10)	24-hour	50 µg/m^3	N	
	24-hour	150 µg/m^3		N (Serious)[7]
	Annual arithmetic mean	20 µg/m^3	N	
Fine Particulate Matter (PM2.5)	24-hour	35 µg/m^3		U/A
	Annual arithmetic mean	12 µg/m^3	U/A	U/A
Sulfates	24-hour	25 µg/m^3 See Note 8	A	
Lead (Pb)[5]	30-day average	1.5 µg/m^3	A	U/A

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Contaminant	Averaging Time	Concentration	State Standards Attainment Status[1]	Federal Standards Attainment Status[2]
Hydrogen Sulfide (H_2S)	1-hour	0.03 ppm	U	
Vinyl Chloride[6] (chloroethene)	24-hour	0.010 ppm	A	
Visibility-Reducing Particles	8-hour (10:00 to 18:00 PST)	See footnote 4	U	

A – attainment U – unclassified $\mu g/m^3$ – micrograms per cubic meter
N – non-attainment ppm – parts per million PST – Pacific Standard Time

Notes:

1. California standards for ozone, carbon monoxide, sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, suspended particulate matter - PM_{10}, and visibility-reducing particles are values that are not to be exceeded. The standards for sulfates, lead, hydrogen sulfide, and vinyl chloride are not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour, or 24-hour average (i.e., all standards except for lead and the PM_{10} annual standard), then some measurements may be excluded. In particular, measurements that are excluded include those that the CARB determines would occur less than once per year on average.
2. National standards shown are the "primary standards" designed to protect public health. National air quality standards are set by USEPA at levels determined to be protective of public health with an adequate margin of safety. National standards other than for ozone, particulates, and those based on annual averages are not to be exceeded more than once per year. The 1-hour ozone standard is attained if, during the most recent 3-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one. The 8-hour ozone standard is attained when the 3-year average of the 4th highest daily concentrations is 0.075 ppm (75 parts per billion) or less. The 24-hour PM_{10} standard is attained when the 3-year average of the 99th percentile of monitored concentrations is less than 150 $\mu g/m^3$. The 24-hour $PM_{2.5}$ standard is attained when the 3-year average of 98th percentiles is less than 35 $\mu g/m^3$. Except for the national particulate standards, annual standards are met if the annual average falls below the standard at every site. The national annual particulate standard for PM_{10} is met if the 3-year average falls below the standard at every site. The annual $PM_{2.5}$ standard is met by spatially averaging annual averages across officially designated clusters of sites and then determining if the 3-year average of these annual averages falls below the standard.
3. The national 1-hour ozone standard was revoked by USEPA on June 15, 2005. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 ppm to 0.070 ppm. An area meets the standard if the fourth-highest maximum daily 8-hour ozone concentration per year, averaged over three years, is equal to or less than 0.070 ppm. This table provides the attainment statuses for the 2015 standard of 0.070 ppm.
4. Statewide Visibility-Reducing Particle Standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70 percent. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.
5. To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average of nitrogen dioxide at each monitoring station within an area must not exceed 0.100 ppm (effective January 22, 2010).

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6. CARB has identified lead and vinyl chloride as toxic air contaminants with no threshold level of exposure below which there are no adverse health effects determined.
7. Kern River Valley, Bear Valley, and Cummings Valley were previously included in the federally designated San Joaquin Valley PM10 Serious Nonattainment Area, but were made a separate nonattainment area in 2008. Kern River Valley, Bear Valley, and Cummings Valley are included in EKAPCD for all NAAQS other than PM10.
8. On February 7, 2024, USEPA strengthened the NAAQS for the annual PM2.5 to 9.0 µg/m^3. At the time this document was written, the change has not been published in the Federal Register. New designations for this standard will be available within 2 years of issuing the revised NAAQS. Kern County is projected not to meet this new standard.

Source: CARB 2016, USEPA 2023, EKAPCD 2023a

USEPA regulate various stationary sources, area sources, and mobile sources. USEPA has regulations involving performance standards for specific sources that may release toxic air contaminants (TACs), known as hazardous air pollutants (HAPs) at the federal level. In addition, USEPA has regulations involving emission criteria for off-road sources such as emergency generators, construction equipment, and vehicles.

State Laws, Regulations, and Policies

CARB is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. CARB also establishes passenger vehicle fuel specifications. Airborne Toxic Control Measures (ATCMs), including the following relevant measures, are implemented to address sources of TACs:

- ATCM for Diesel Particulate Matter from Portable Engines Rated at 50 Horsepower and Greater
- ATCM to Limit Diesel-Fueled Commercial Motor Vehicle Idling
- ATCM to Reduce Particulate Emissions from Diesel-Fueled Engines Standards for Non-vehicular Diesel Fuel
- ATCM for Stationary Compression Ignition Engines

CARB has enacted several regulations aimed at reducing emissions from off-road and on-road vehicles this includes the following regulations:

- In-Use Off-Road
- Advanced Clean Trucks
- Advanced Clean Cars
- Advanced Clean Fleets
- Portable Equipment Registration Program
- Small Off-Road Engine (SORE) Regulation

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Valley Fever Regulations

Kern County is considered a highly endemic area for Valley fever. Enacted in 2019, Assembly Bill (AB) 203 modifies Section 6709 of the California Labor Code to require construction employers in counties where Valley fever is highly endemic (> 20 cases per 100,000 people per year) to provide training to all employees by May 1, 2020, and annually thereafter. Employers have a legal responsibility to immediately report to Cal/OSHA any serious injury or illness, or death (including any due to Valley fever) of an employee occurring in a place of employment or in connection with any employment. Employers also have responsibilities to control workers' exposure to hazardous materials. Training must include the following information:

- What Valley fever is and how it is contracted;
- Areas, environmental conditions, and types of work that pose high risk of contracting Valley fever;
- Personal factors that put employees at higher risk of infection or disease development, including pregnancy, diabetes, having a compromised immune system due to conditions such as human immunodeficiency virus (HIV) acquired immunodeficiency syndrome (AIDS), having received an organ transplant, or taking immunosuppressant drugs such as corticosteroids or tumor necrosis factor inhibitors;
- Personal and environmental exposure prevention methods such as water-based dust suppression, good hygiene practices when skin and clothing is soiled by dust, avoiding contamination of drinks and food, working upwind from dusty areas when feasible, wet cleaning dusty equipment when feasible, and wearing a respirator when exposure to dust cannot be avoided;
- The importance of early detection, diagnosis and treatment to prevent the disease from progressing, because the effectiveness of medication is greatest in the early stages of the disease;
- Recognizing common signs and symptoms of Valley fever; including cough, fatigue, fever, headache, joint pain or muscle aches, rash on upper body or legs, shortness of breath, and symptoms similar to influenza that linger longer than usual;
- The importance of reporting symptoms to the employer and seeking prompt medical attention from a physician for appropriate diagnosis and treatment; and
- Prognosis and common treatment for Valley fever.

Construction contractors are also required to comply with Cal/OSHA regulations with regard to Valley fever protection and exposure, which can be found in the following sections of the California Code of Regulation, Title 8:

- 342 (reporting Work-Connected Fatalities and Serious Injuries),
- 3203 (Injury and Illness Prevention)
- 5141 (Control of Harmful Exposures),

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- 5144 (Respiratory Protection), and
- 1433 (Employer Records-Log 300)

Dust control measures are also required to be implemented in areas where Valley Fever is endemic. As an example, when exposure to dust is unavoidable, the construction contractor is required to develop and implement a respiratory protection program in accordance with Cal/OSHA's Respiratory Protection standard (8 CCR 5144) and contractors would be required to provide National Institute for Occupational Safety and Health-approved respiratory protection with particulate filters rated as N95, N99, N100, P100, or high-efficiency particulate air (HEPA). The respiratory protection program shall be implemented prior to and throughout the duration of the proposed construction activities and shall be incorporated into project plans and specifications. The program shall contain the following information:

- Fugitive Dust Emission Sources – Identify all sources of fugitive dust and briefly describe the measures and practices employed to control fugitive emissions at each source. Consider parameters such as predominant wind direction, frequency of activity, process operating parameters, control efficiency, and fugitive dust monitoring parameters (silt loading, silt content, moisture content and other relevant physical factors).

- Operation and Maintenance Procedures – Include operation and maintenance procedures to verify the working condition of any control measures. Specify the frequency of such procedures and keep records of any maintenance conducted.

- Site Layout – Provide a drawing showing the location of each potential source of fugitive dust at the site. Include site boundaries, linear dimensions, and site entrance/exit locations.

- Training – Provide training for personnel responsible for implementing the fugitive dust control plan, specifying the training contents in the plan.
- Reporting – Deviations from the plan and/or corrective actions required to address fugitive dust emissions should be reported to the appropriate air permitting authority, where appropriate.
- Recordkeeping – Identify the name and title of the person responsible for implementation of the plan. Keep records of all monitoring, inspections, maintenance and completed work practices (including the name of the person conducting the activity), weather conditions, time of observation, area or operation observed, and corrective actions taken.

2019 OSHA regulations also require that construction contractors identify a health care provider for occupational injuries and illnesses who is knowledgeable about the diagnosis and treatment of Valley Fever. This helps to ensure proper diagnosis and treatment as well as tracking potential outbreaks that may affect the community.

Local Laws, Regulations, and Policies

The EKAPCD has established air quality plans to ensure that AAQS are attained and maintained. EKAPCD prepared and adopted an Ozone Attainment Plan on May 4, 2023, to satisfy the requirements of the Federal Clean Air Act (FCAA) pursuant to the 2008 and 2015, 8-Hour Ozone

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NAAQS. The plan presents the District's strategy, which includes mandated elements, to attain the 2008, 8-hour NAAQS by 2027 and the 2015 NAAQS by 2032. The Ozone Attainment Plan is currently being reviewed by CARB and EPA and expected to be approved and adopted by both agencies in the near future. The plan includes measures primarily to reduce emissions from motor vehicles and off-road equipment as well as to achieve best available control technology from stationary sources. The plan primarily relies on CARB's mobile source regulations as a means for reducing emissions over time.

The EKAPCD has established CEQA thresholds of significance air quality as outlined in their CEQA Guidelines (EKAPCD 1999) and codified in their Rules 201, 210 and 208. A project is determined not to have a significant air quality impact on the environment if it will:

1. Emit (from all project sources subject to EKAPCD Rule 201) less than offsets trigger levels set forth in Subsection III.B.3 of Rule 210.1 (25 tons per year of reactive organic gases [ROG], 25 tons per year of nitrogen oxides [NO_X], 15 tons per year of PM10, and 27 tons per year of SO_2);
2. Emit less than 137 pounds per day of NO_X or ROG from motor vehicle trips (indirect sources only);
3. Not cause or contribute to an exceedance of any CAAQS or NAAQS;
4. Not exceed the District health risk public notification thresholds adopted by the Board; and
5. Be consistent with adopted federal and state Air Quality Attainment Plans.

Projects below these thresholds do not have a significant impact on air quality.

The EKAPCD has identified a list of best management practices (BMPs) that shall be implemented as appropriate to reduce fugitive dust emissions during construction (EKAPCD 2023b):

- Storage Piles
  - Monitor the moisture content and size of exposed material.
  - Apply water or an approved chemical dust suppressant on a regular basis.
  - Cover and stabilize or enclose material piles if not frequently accessed.
  - Install wind breaks or barriers around the storage pile.
- Material Transfer Points
  - Limit the material drop distance between the offloading point and stockpile to no more than 3 feet and restrict the flow of material using dead boxes, socks, drop down spouts/sleeves.
  - Install and maintain dust curtains around material transfer points, such as vehicle loading stations, to reduce air movement and isolate dust forming operations.
  - Enclose conveyor belts and use belt wipers when possible.

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  - Spray water or an approved dust suppressant at the conveyor feed during material transfer.
  - Clean up spillage at conveyor transfer points
- Paved Roads
  - Wash, sweep, or vacuum streets at a frequency necessary to eliminate material that is visible within the streets surrounding the source.
  - Establish vehicle speed limits of no more than 10 mph on paved surfaces.
  - Conduct inspections using visual emissions observations, such as EPA Methods 9 or 22, at least weekly while heavy trucks are using the roadway.
- Unpaved Haul and Service Roads
  - Apply water or an approved chemical dust suppressant on a regular basis.
  - Limit vehicle speeds to 5 mph in unpaved areas.
  - Pave frequented haul roads with concrete or asphalt.
  - Conduct inspections using visual emissions observations such as EPA Method 9 or method 22 at least daily while heavy trucks are using the roadway.
- Miscellaneous Source Best Practices
  - Use good housekeeping methods to reduce the build-up of dusty materials.
  - Install hoods, fans, and fabric filters where possible to enclose and vent dusty processes.
  - Cover open-bodied trucks when the truck is carrying materials that can be released into the air.
  - Install wheel wash stations near every vehicle exit location to minimize tracked material.

Kern County General Plan

The Kern County General Plan (Kern County 2009) establishes actions that Kern County will take to enhance the air quality. Air quality policies and programs are incorporated into the Land Use, Open Space, and Conservation Element to ensure that air quality mitigation is a consideration in the location and permitting of various land uses in Kern County. The following policies are relevant to the Proposed Project:

> Policy 20. The County shall include fugitive dust control measures as a requirement for discretionary projects and as required by the adopted rules and regulations of the San Joaquin Valley Unified Air Pollution Control District and the Kern County Air Pollution Control District on ministerial permits.
>
> Policy 21. The County shall support air districts' efforts to reduce PM10 and PM2.5
>
> Policy 22. Kern County shall continue to work with the San Joaquin Valley Unified Air Pollution Control District and the Kern County Air Pollution Control District toward air quality attainment with federal, State, and local standards.

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Policy 23. The County shall continue to implement the local government control measures in coordination with the Kern Council of Governments and the San Joaquin Valley Unified Air Pollution Control District.

Implementation Measure F. All discretionary permits shall be referred to the appropriate air district for review and comment.

Implementation Measure G. Discretionary development projects involving the use of tractor-trailer rigs shall incorporate diesel exhaust reduction strategies including, but not limited to: (a) Minimizing idling time and (b) Electrical overnight plug-ins.

Implementation Measure H. Discretionary projects may use one or more of the following to reduce air quality effects:

a. Pave dirt roads within the development.

b. Pave outside storage areas.

c. Provide additional low Volatile Organic Compounds (VOC) producing trees on landscape plans.

d. Use of alternative fuel fleet vehicles or hybrid vehicles.

e. Use of emission control devices on diesel equipment.

f. Develop residential neighborhoods without fireplaces or with the use of Environmental Protection Agency certified, low emission natural gas fireplaces.

g. Provide bicycle lockers and shower facilities on site.

h. Increasing the amount of landscaping beyond what is required in the Zoning Ordinance (Chapter 19.86).

i. The use and development of park and ride facilities in outlying areas.

j. Other strategies that may be recommended by the local Air Pollution Control Districts.

Implementation Measure I. Work with transit providers to develop long-range transit strategies based on future and anticipated land use plans.

Implementation Measure J. The County should include PM10 control measures as conditions of approval for subdivision maps, site plans, and grading permits.

3.3.2 Environmental Setting

The project site is located on the northern edge of the town of Kernville in Kern County which is in the MDAB and managed by the EKAPCD. EKAPCD is located on the western edge of the Mojave Desert and comprised of unique geography, topography, and meteorology, which create

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a challenging environment for attaining the ozone NAAQS. The EKAPCD is separated from populated valleys and coastal areas to the west and south by several mountain ranges. Ozone and its precursor emissions (ROG and NO_X) are transported from these valleys and coastal areas are the major factor affecting ozone exceedances in EKAPCD. The surrounding mountain ranges contain a limited number of passes that serve as transport corridors. Passes include Tehachapi Pass, which connects the western Mojave Desert to the southern San Joaquin Valley, and the Soledad Pass and Cajon Pass that connect to the South Coast Air Basin. The EKAPCD is primarily influenced by transport through the Tehachapi Pass corridor with some potential influence through Soledad Pass. Soledad Pass and Cajon Pass mainly influence air quality in the eastern portion of the Mojave Desert due to prevailing wind directions. EKAPCD's air quality is overwhelmingly impacted from ozone and its precursor emissions being transported from San Joaquin Valley Air Pollution Control District and South Coast Air Quality Management District.

The average maximum and minimum temperatures in the Kernville area are 98 and 32 degrees Fahrenheit (°F), respectively, and the area receives an average of 12.5 inches of rain per year (Western Regional Climate Center 2023).

The portion of Kern County that contains the project site is designated as a federal and state non-attainment area for ozone and PM10, and a state non-attainment area for ozone and PM10. It is in attainment or unclassified for all other federal and state criteria air pollutants, as shown in **Table 3.3-1**. Major sources of air pollution in the Basin include on- and off-road vehicles, windblown fugitive dust, and transport of pollution from other air basins.

Sensitive Receptors

The project site is bordered to the north by SCE's KR-3 Hydroelectric Power Station, to the east by an unnamed paved access road, to the south by rural residential development, and to the west by the Kern River and undeveloped land. The unnamed road provides access to the KR-3 power station, an SCE maintenance facility, and a parking area used by recreational visitors, including anglers and rafting companies that launch float trips from the river bank.

The intake facility and the northern extent of the siphon pipeline are located on USFS land. Southward, the siphon traverses land owned by SCE. The outlet and the southern extent of the siphon pipeline are located on land owned by the County of Kern. Adjacent land uses consist primarily of rural and low-density residential developments and undeveloped land. Camp Owen, a youth detention center operated by the County of Kern, is located across Sierra Way from the hatchery.

Camp Owen, a youth detention center would be classified as the nearest residence and school age youth are present at the site. The next closest school is Kernville Elementary School located a mile from the southern portion of the site. There are no other medical facilities, nursing, or licensed care facilities near the project site. There are no other schools, daycares or other sensitive receptors near the project site.

Air Pollutants

Several air pollutants of concern would be associated with Proposed Project activities. These air pollutants are discussed briefly below. Two main categories of air pollutants are described: criteria air pollutants and TACs. Criteria air pollutants are air pollutants with national and/or

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state air quality standards that define allowable concentrations of these substances in the ambient (or background) air. TACs are air pollutants that may lead to serious illness or increased mortality, even when present in relatively low concentrations.

Carbon Monoxide

Carbon monoxide (CO) is an odorless, colorless gas that is highly toxic. CO is formed by the incomplete combustion of fuels and is emitted directly into the air. Ambient CO concentrations normally are considered a local effect and typically correspond closely to the spatial and temporal distribution of vehicular traffic. CO concentrations are also influenced by wind speed and atmospheric mixing. Under inversion conditions (when a low layer of warm air, along with its pollutants, is held in place by a higher layer of cool air), CO concentrations may be distributed more uniformly over an area to some distance from vehicular sources. CO binds with hemoglobin, the oxygen-carrying protein in blood, and thereby reduces the blood's capacity to carry oxygen to the heart, brain, and other parts of the body. At high concentrations, CO can cause heart difficulties in people with chronic diseases, impair mental abilities, and cause death.

Ozone

Ozone (O_3) is a reactive gas that, in the troposphere (the lowest region of the atmosphere), is a product of the photochemical process involving the sun's energy. It is a secondary pollutant that is formed when nitrogen oxides and reactive organic gases react in the presence of sunlight. Ozone at the Earth's surface causes numerous adverse health effects and is a criteria pollutant. It is a major component of smog. In the stratosphere, ozone exists naturally and shields the Earth from harmful incoming ultraviolet radiation. High concentrations of ground-level ozone can adversely affect the human respiratory system and aggravate cardiovascular disease and many respiratory ailments. Ozone also damages natural ecosystems such as forests and foothill natural communities, agricultural crops, and some human-made materials (e.g., rubber, paint, and plastics).

Nitrogen Oxides

Nitrogen oxides (NO_X) are a family of gaseous nitrogen compounds that are precursors to the formation of ozone and particulate matter. The major component of NO_X, nitrogen dioxide (NO_2), is a reddish-brown gas that is toxic at high concentrations. NO_X results primarily from the combustion of fossil fuels under high temperature and pressure. On-road and off-road motor vehicles and fuel combustion (use of natural gas for heating, cooking, and industrial use) are the major sources of this air pollutant.

Reactive Organic Gases

Reactive organic gases (ROG) consist of hydrocarbon compounds that exist in the ambient air. ROG contributes to the formation of smog and/or may itself be toxic. ROG emissions are a primary precursor to the formation of ozone. Sources of ROG include consumer products, paints, trees that emit ROGs, and the combustion of fossil fuels.

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Particulate Matter

Particulate matter (PM) is a complex mixture of extremely small particles and liquid droplets. PM is made up of various components, including acids, organic chemicals, metals, and soil or dust particles. The size of particles is directly linked to the potential for causing health problems. PM particles that are smaller than 10 micrometers in diameter, called PM10, are of most concern because these particles pass through the throat and nose and enter the lungs. Once inhaled, these particles can affect the heart and lungs and cause serious health effects. PM10 particles are typically found near roadways and industrial operations that generate dust. PM10 particles are deposited in the thoracic region of the lungs. Fine particles, called PM2.5, are particles less than 2.5 micrometers in diameter and are found in smoke and haze. PM2.5 particles penetrate deeply into the thoracic and alveolar regions of the lungs.

Sulfur Dioxide

Sulfur dioxide (SO_2) is a colorless, irritating gas with a “rotten egg” smell formed primarily by the combustion of sulfur-containing fossil fuels. Suspended SO_2 particles contribute to poor visibility and are a component of PM10.

Lead

Lead is a metal that is a natural constituent of air, water, and the biosphere. Lead is neither created nor destroyed in the environment, so it essentially persists forever. There is no known safe exposure level to lead. The health effects of lead poisoning include loss of appetite, weakness, apathy, and miscarriage. Lead poisoning can also cause lesions of the neuromuscular system, circulatory system, brain, and gastrointestinal tract and can reduce mental capacity.

Gasoline-powered automobile engines were a major source of airborne lead due to the use of leaded fuels. The use of leaded fuel has been mostly phased out since 1996, which has resulted in dramatic reductions in ambient concentrations of lead. Because lead persists in the environment forever, however, areas near busy highways continue to have high levels of lead in dust and soil.

Hydrogen Sulfide

Hydrogen sulfide (H_2S) is associated with geothermal activity, oil and gas production, refining, sewage treatment plant operations, and confined animal feeding operations. H2S is extremely hazardous in high concentrations and can cause death.

Sulfates

Sulfates are the fully oxidized, ionic form of sulfur. Sulfates occur in combination with metal and/or hydrogen ions. In California, emissions of sulfur compounds result primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized to SO_2 during the combustion process and subsequently converted to sulfate compounds in the atmosphere. The conversion of SO_2 to sulfates takes place comparatively rapidly and completely in urban areas of California due to regional meteorological features. CARB’s sulfate standard is designed to prevent aggravation of respiratory symptoms. Effects of sulfate exposure at levels above the standard include a decrease in ventilatory function,

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aggravation of asthmatic symptoms, and an increased risk of cardiopulmonary disease. Sulfates are particularly effective in degrading visibility, and because they are usually acidic, can harm ecosystems and damage materials and property.

Vinyl Chloride

Vinyl chloride is a colorless gas that does not occur naturally. It is formed when other substances, such as trichloroethane, trichloroethylene, and tetrachloroethylene, are broken down. Vinyl chloride is used to make polyvinyl chloride for a variety of plastic products, including pipes, wire and cable coatings, and packaging materials.

Toxic Air Contaminants

Hundreds of different types of toxic air contaminants exist, with varying degrees of toxicity. Many TACs are confirmed or suspected carcinogens, or are known or suspected to cause birth defects or neurological damage. For some chemicals, such as carcinogens, no thresholds exist below which exposure can be considered risk-free. Examples of TAC sources in the Proposed Project area include fossil fuel combustion sources, industrial processes, and gas stations.

Sources of TACs include stationary sources, area-wide sources, and mobile sources. USEPA maintains a list of 187 TACs, also known as hazardous air pollutants. These hazardous air pollutants are also included on CARB's list of TACs. According to the California Almanac of Emissions and Air Quality (CARB 2013), many researchers consider diesel particulate matter (DPM) to be a primary contributor to health risk from TACs because particles in diesel exhaust carry a mixture of many harmful organic compounds and metals, rather than being a single substance as are other TACs. Unlike many TACs, outdoor DPM is not monitored by CARB because no routine measurement method has been identified. However, using the CARB emission inventory's PM10 database, ambient PM10 monitoring data, and results from several studies, CARB has made preliminary estimates of DPM concentrations throughout the state (California Office of Environmental Health Hazard Assessment [OEHHA] 2001).

Valley Fever

Coccidioidomycosis, often referred to as San Joaquin Valley fever or Valley fever, is one of the most studied and oldest known fungal infections. Valley fever varies with the season and most commonly affects people who live in hot dry areas with alkaline soil. This disease affects both humans and animals, and is caused by inhalation of arthroconidia (spores) of the fungus *Coccidioides immitis* (CI). CI spores are found in the top few inches of soil and the existence of the fungus in most soil areas is temporary. The cocci fungus lives as a saprophyte (an organism, especially a fungus or bacterium, which grows on and derives its nourishment from dead or decaying organic matter) in dry, alkaline soil. When weather and moisture conditions are favorable, the fungus "blooms" and forms many tiny spores that lie dormant in the soil until they are stirred up by wind, vehicles, excavation, or other ground-disturbing activities and become airborne. Agricultural workers, construction workers, and other people who are outdoors and are exposed to wind, dust, and disturbed topsoil are at an elevated risk of contracting Valley fever (CDPH 2021).

Most people exposed to the CI spores will not develop the disease. Of 100 persons who are infected with Valley fever, approximately 40 will exhibit some symptoms and two to four will

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have the more serious disseminated forms of the disease. After recovery, nearly all, including the asymptomatic, develop a life-long immunity to the disease (Guevara 2014). African Americans, Asians, women in the third trimester of pregnancy, and persons whose immunity is compromised are most likely to develop the most severe form of the disease (U.S. Centers for Disease Control [CDC] 2013). In addition to humans, a total of 70 different animal species are known to be susceptible to Valley Fever infections, including dogs, cats, and horses; with dogs being the most susceptible (Los Angeles County Public Health [LACPH] 2007).

The Project is located in an area designated as "suspected endemic" for Valley fever. In 2021 the highest number of new cases were reported in Kern County for a total of 2,819 cases or a case rate of 306 cases per 100,000 people. Annual case reports for 2015 through 2021 from the CDPH indicate that Kern County has reported incident rates for Valley fever that range from a rate of 123 to 372 cases per year per 100,000 population (CDPH 2022). These incidence rates for Kern County are among one of the highest rates in the state during the time period. Given the fact that fugitive dust-causing activities associated with the Project would occur, the potential for the Project construction activities to encounter and disperse CI spores and create the potential for additional Valley fever infections is high. Mitigation measures that reduce fugitive dust will also reduce the chances of dispersing CI spores.

Odors

Odors are generally regarded as an annoyance rather than a health hazard. Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, headache). The ability to detect odors varies considerably among the population, and overall is subjective. People may have different reactions to the same odor. An odor that is offensive to one person may be acceptable to another (e.g., roasting coffee). An unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is known as odor fatigue; a person can become desensitized to almost any odor, after which recognition occurs only with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the concentration in the air. When an odor sample is progressively diluted, the odor concentration decreases. As this occurs, the odor intensity weakens, and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odor reaches a level that is no longer detectable.

3.3.3 Discussion of Checklist Responses

a. Conflict with or obstruct implementation of the applicable air quality plan—Less than Significant

A project is deemed inconsistent with air quality plans if it would result in population and/or employment growth that exceeds growth estimates included in the applicable air quality plan,

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which, in turn, would generate emissions not accounted for in the applicable air quality plan emissions budget. Therefore, projects need to be evaluated to determine whether they would generate population and employment growth and, if so, whether that growth would exceed the growth rates included in the relevant air quality plans. EKAPCD has State Implementation Plans and Air Quality Management Plans for PM10 and ozone. These plans focus on demonstrating the impact of pollution from transport of ozone from nearby air districts and emissions from mobile sources. The applicable strategies rely on regulations set by CARB for mobile sources, including off-road construction equipment. EKAPCD considers a project that would exceed any of its CEQA thresholds of significance as being inconsistent with its air quality plans. As discussed in item 3.3.3(c), the Proposed Project does not exceed any of the thresholds of significance for emissions or health impacts.

The Proposed Project would follow all federal, state, and local regulations related to stationary and area sources of air pollutants. In addition, construction contractors would follow local air district regulations and best management practices described in item 3.3.3(b) for fugitive dust. Therefore, because the Proposed Project would be consistent with the applicable general plan policies and would comply with all applicable regulations for sources of air pollutants, the Proposed Project would have a **less-than-significant impact** and would not obstruct or conflict with applicable air quality plans.

b. Cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area—Less than Significant

As shown in Table 3.3-1, the project site is in a region that is designated in non-attainment for ozone and PM10. It is assumed that projects that conform to the general plan and do not have mass emissions exceeding the screening-level significance thresholds would not create a cumulatively considerable net increase in emissions. During construction of the Proposed Project, the combustion of fossil fuels for operation of fossil-fueled construction equipment, material hauling, and worker trips would result in construction-related criteria air pollutant emissions. These emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2022.1.1.21 based on information provided in Chapter 2, *Project Description*, along with additional site-specific information. This includes a detailed list of construction equipment but using default horsepower and load factors; the number of workers for each construction phase was provided to estimate worker trips, as well as vendor and hauling trips. Vendor and hauling trips were assumed to be 20 miles each way since the Proposed Project is in a rural area. The default worker trip rate for Kern County was used.

The Proposed Project's criteria air pollutant emissions during construction are shown in **Table 3.3-2**. CalEEMod modeling results for the Proposed Project are provided in **Appendix A**. As indicated in the table, all criteria air pollutant emissions are below the applicable thresholds of significance established by EKAPCD. Implementation of fugitive dust BMPs will ensure that fugitive dust emissions are controlled. Therefore, the impact on air quality from emissions of criteria pollutants would be **less than significant**.

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Table 3.3-2. Criteria Pollutant Emissions during Construction

Year	Total Construction Emissions (tons)							
	ROG	NOx	CO	SO_2	Fugitive PM_{10}	Exhaust PM_{10}	Fugitive $PM_{2.5}$	Exhaust $PM_{2.5}$
2024	0.46	3.5	3.81	0.01	3.48	0.15	0.44	0.13
Threshold	25	25	NA	27	15		NA	NA
Above Threshold?	No	No	No	No	No		No	No
	Average Daily Emissions (pounds per day)							
Maximum Daily	7.45	62.8	59.6	0.13	49.2	2.86	8.14	2.63
Threshold	137	137	NA	NA	NA	NA	NA	NA
Above Threshold?	No	No	No	No	No		No	

Notes:

ROG = reactive organic gases

CO = carbon monoxide

NO_X = oxides of nitrogen

PM_{10} = particulate matter 10 microns or less in diameter

$PM_{2.5}$ = fine particulate matter 2.5 microns or less in diameter

SO_2 = sulfur dioxide

Source: CalEEMod modeling results are provided in Appendix A.

c. Expose sensitive receptors to substantial pollutant concentrations—Less than Significant with Mitigation

During project construction, DPM and gasoline fuel combustion emissions that are classified as TACs could be emitted from construction equipment. Due to the variable nature of construction activity, the generation of TAC emissions in most cases would be temporary, especially considering the short amount of time such equipment is typically operating within an influential distance that would result in the exposure of sensitive receptors to substantial concentrations. Chronic and cancer-related health effects estimated over short periods are uncertain. Cancer potency factors are based on animal lifetime studies or worker studies with long-term exposure to the carcinogenic agent. There is considerable uncertainty in trying to evaluate the cancer risk from exposure that would last only a small fraction of a lifetime. Some studies indicate that the dose rate may change the potency of a given dose of a carcinogenic chemical. In other words, a dose delivered over a short period may have a different potency than the same dose delivered over a lifetime (OEHHA 2015). Furthermore, construction impacts are most severe adjacent to the construction area and decrease rapidly with increasing distance. Concentrations of mobile-source DPM emissions are typically reduced by 70 percent at a distance of approximately 500 feet (CARB 2005).

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The Proposed Project is a linear project and construction activity would be advancing along the alignment over time. The amount of time that construction equipment would remain in one area would be a short amount of the overall 14 months of construction activity. If, under worst case conditions, work advances at a rate of 50 feet per day, a given sensitive receptor would be within 500 feet of the equipment for 10 days or less. Therefore, given the short duration of construction activity in any one area, the impact to sensitive receptors would be less than significant.

The potential for Valley Fever cases associated with project construction is high given that Kern County has some of the highest incidence rates in the state. Cal/OSHA regulations address worker health and safety issues related to Valley Fever. Implementation of fugitive dust control measures is required by Cal/OSHA. **Mitigation Measure AQ-1** requires that the State of California or its contractors develop and implement a construction fugitive dust control plan that complies with Cal/OSHA's Respiratory Protection standard, as well as implementing EKAPCD BMPs to reduce fugitive dust. **Mitigation Measure AQ-2** requires that, prior to the start of construction, the State of California or its contractors draft a Valley Fever Management Plan (VFMP), consult with the CDPH and the Kern County Department of Public Health regarding Valley Fever best mitigation practices, and implement all feasible measures recommended by these agencies.

The Proposed Project's activities in an area endemic to Coccidioidomycosis spores could potentially expose sensitive receptors to substantial pollutant concentrations. With implementation of Mitigation Measures AQ-1 and AQ-2, which represents the best available control measures for reducing fugitive dust and the potential exposure to Coccidioidomycosis spores, this impact would be **less than significant with mitigation.**

Mitigation Measure AQ-1: Prepare and Implement a Construction Fugitive Dust Control Plan

As required by Cal/OSHA, the State of California (DGS) shall require construction contractors to prepare and implement a Construction Fugitive Dust Control Plan that complies with Cal/OSHA's Respiratory Protection standard (8 CCR 5144). Contractors shall be required to provide National Institute for Occupational Safety and Health-approved respiratory protection with particulate filters rated as N95, N99, N100, P100, or HEPA.

The Construction Fugitive Dust Control Plan shall include, at a minimum, implementation of EKAPCD BMPs and SWPPP measures along with the following measures:

1. All soil excavated or graded should be sufficiently watered to prevent excessive dust. Watering should occur as needed with complete coverage of disturbed soil areas. Watering should be a minimum of twice daily on unpaved/untreated roads and on disturbed soil areas with active operations.

2. All clearing, grading, earth moving and excavation activities should cease a. during periods of winds greater than 20 mph (averaged over one hour), if disturbed material is easily windblown, or b. when dust plumes of 20% or

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greater opacity impact public roads, occupied structures or neighboring property.

3. All fine material transported offsite should be either sufficiently watered or securely covered to prevent excessive dust.
4. If more than 5,000 cubic yards of fill material will be imported or exported from the site, then all haul trucks should be required to exit the site via an access point where a gravel pad or grizzly has been installed.
5. Areas disturbed by clearing, earth moving or excavation activities should be minimized at all times.
6. Stockpiles of soil or other fine loose material shall be stabilized by watering or other appropriate method to prevent wind-blown fugitive dust.
7. Where acceptable to the fire department, weed control should be accomplished by mowing instead of discing, thereby, leaving the ground undisturbed and with a mulch covering.
8. Once initial leveling has ceased all inactive soil areas within the construction site should either be seeded and watered until plant growth is evident, treated with a dust palliative, or watered twice daily until soil has sufficiently crusted to prevent fugitive dust emission.
9. All active disturbed soil areas should be sufficiently watered to prevent excessive dust, but no less than twice per day.
10. Onsite vehicle speed should be limited to 15 mph.
11. All areas with vehicle traffic should be paved, treated with dust palliatives, or watered a minimum of twice daily.
12. Streets adjacent to the project site should be kept clean and accumulated silt removed.
13. Access to the site should be by means of an apron into the project from adjoining surfaced roadways. The apron should be surfaced or treated with dust palliatives. palliatives If operating on soils that cling to the wheels of the vehicles, a grizzly or other such device should be used on the road exiting the project, immediately prior to the pavement, in order to remove most of the soil material from the vehicle's tires.
14. Properly maintain and tune all internal combustion engine powered equipment.
15. Require employees and subcontractors to comply with California's idling restrictions for compression ignition engines.
16. Use low sulfur (CARB) diesel fuel and renewable diesel fuel as required by the in-use off-road regulation.

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17. Provide proof to the lead agency of compliance with CARB mobile source regulations for all equipment used during construction of the Project.

Mitigation Measure AQ-2: Prepare and Implement a Valley Fever Management Plan for Review by CDPH and Kern County Department of Public Health and Final Approval by the State.

The State of California (DGS) or its contractor(s) shall prepare and implement a Valley Fever Management Plan (VFMP). The VFMP shall be submitted to CDPH and the Kern County Department of Public Health for review consultation prior to the start of construction. The VFMP shall include, but not be limited to, the following elements as currently suggested by the California Department of Public Health:

- Adopt site plans and work practices that reduce workers' exposure and which would also help minimize primary and secondary exposure to the community through direct dispersal of spores or secondary dispersal from contaminated workers or equipment bringing spores to the community. In addition to compliance with EKAPCD BMPs and SWPPP for the project, the site plans and work practices may include protective measures such as providing air conditioned cabs for vehicles that generate heavy dust and make sure workers keep windows and vents closed.
- Take measures to reduce transporting spores offsite, such as:
  - Clean tools, equipment, and vehicles before transporting offsite.
  - If workers' clothing is likely to be heavily contaminated with dust, provide coveralls and change rooms, and showers where possible.
- Train workers and supervisors about the risk of Valley Fever, the work activities that may increase the risk, and the measures used onsite to reduce exposure. Also train on how to recognize Valley Fever symptoms. This helps to ensure proper diagnosis and treatment as well as tracking potential outbreaks that may affect community.
- Encourage workers to report Valley Fever symptoms promptly to a supervisor. Not associating these symptoms with workplace exposures can lead to a delay in appropriate diagnosis and treatment. This helps to ensure proper diagnosis and treatment as well as tracking potential outbreaks that may affect community.

f. Result in other emissions (such as those leading to odors) affecting a substantial number of people—Less than Significant

Diesel exhaust from construction activities and oxidation/decomposition of organic material in newly exposed sediment may temporarily generate odors while construction of the Proposed Project is underway. Once construction activities have been completed and exposed sediment has dried out or become vegetated, these odors would cease. Operational activities would also generate odors, mainly associated with maintenance vehicle exhaust and clearing of trash collected; these odors would be short-lived, would occur intermittently, and would not increase compared to odors emitted during pre-2020 operations. Vehicle idling at the site would be

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minimized to the extent feasible and so would not be likely to cause odor issues for nearby sensitive receptors. Impacts related to potential generation of objectionable odors are thus expected to be **less than significant**.

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3.4 BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:				
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 CDFW or USFWS?	☐	☒	☐	☐
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 CDFW or USFWS?	☐	☒	☐	☐
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state HCP?	☐	☐	☐	☒

3.4.1 Regulatory Setting

Federal Laws, Regulations, and Policies

Clean Water Act

Areas meeting the regulatory definition of "waters of the United States" (jurisdictional waters) are subject to the jurisdiction of U.S. Army Corps of Engineers (USACE) under provisions of

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Section 404 of the 1972 Clean Water Act (Federal Water Pollution Control Act) (CWA) and Section 10 of the 1899 Rivers and Harbors Act (described below). These waters may include all waters used, or potentially used, for interstate commerce, including all waters subject to the ebb and flow of the tide, all interstate waters, all other waters (e.g., intrastate lakes, rivers, streams, mudflats, sandflats, playa lakes, and natural ponds), all impoundments of waters otherwise defined as "waters of the United States," tributaries of waters otherwise defined as "waters of the United States," the territorial seas, and wetlands (termed Special Aquatic Sites) adjacent to "waters of the United States" (33 Code of Federal Regulations [CFR], Part 328, Section 328.3). Wetlands on non-agricultural lands are identified using the *Corps of Engineers Wetlands Delineation Manual* (USACE 1987).

Areas typically not considered to be jurisdictional waters include non-tidal drainage and irrigation ditches excavated on dry land, artificially irrigated areas, artificial lakes or ponds used for irrigation or stock watering, small artificial water bodies such as swimming pools, and water-filled depressions (33 CFR, Part 328).

Construction activities within jurisdictional waters are regulated by USACE. The placement of fill into such waters must comply with the CWA permit requirements of USACE. Under CWA Section 401, no USACE permit would be effective in the absence of a state water quality certification. The State Water Resources Control Board (SWRCB), together with the state's nine Regional Water Quality Control Boards (RWQCBs), are charged with implementing water quality certification in California.

Any placement of dredged or fill material within areas defined as waters of the United States (i.e., wetlands and other waters), including the Kern River, would require a Section 404 fill discharge permit from the USACE and a Section 401 Water Quality Certification from the Central Valley RWQCB.

Federal Endangered Species Act

The federal Endangered Species Act (FESA) protects listed wildlife species from harm or "take," which is broadly defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct. Take can also include habitat modification or degradation that directly results in death or injury of a listed animal species. An activity can be defined as take even if it is unintentional or accidental. Listed plant species are provided less protection than listed wildlife species. Listed plant species are legally protected from take under the FESA only if they occur on federal lands or if the project requires a federal action, such as a CWA Section 404 fill permit from USACE. If take of a federally listed animal species would occur, incidental take approval would be required through either Section 7 or Section 10 consultation with USFWS or National Marine Fisheries Service (NMFS), as applicable.

Federal Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA; 16 U.S. Code [USC] Section 703, Supp. I, 1989) prohibits killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. The trustee agency that addresses issues related to the MBTA is USFWS. Migratory birds protected under this law include all native birds and certain game birds (e.g., turkeys and pheasants), though most non-native birds are excluded from MBTA protection (USFWS 2020). This act encompasses whole birds, parts of birds, and bird nests

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and eggs. The MBTA protects active nests from destruction and all nests of species protected by the MBTA, whether active or not, cannot be possessed. An active nest under the MBTA, as described by the U.S. Department of the Interior in its April 16, 2003 Migratory Bird Permit Memorandum, is one having eggs or young. Nest starts, prior to egg laying, are not protected from destruction.

All native bird species occurring in the Project area are protected by the MBTA.

Federal Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 USC Section 668 *et seq.)* makes it unlawful to import, export, take, sell, purchase, or barter any bald eagle or golden eagle, or their parts, products, nests, or eggs. Take includes pursuing, shooting, poisoning, wounding, killing, capturing, trapping, collecting, molesting, or disturbance. Exceptions may be granted by USFWS for scientific or exhibition use, or for traditional and cultural use by Native Americans; however, no permits may be issued for import, export, or commercial activities involving eagles.

State Laws, Regulations, and Policies

Porter-Cologne Water Quality Control Act

The SWRCB works in coordination with the nine RWQCBs to preserve, protect, enhance, and restore water quality. Each RWQCB makes decisions related to water quality for its region, and may approve, with or without conditions, or deny projects that could affect waters of the state. Their authority comes from the CWA and the State's Porter-Cologne Water Quality Control Act (Porter-Cologne Act). The Porter-Cologne Act broadly defines waters of the state as "any surface water or groundwater, including saline waters, within the boundaries of the state." Because the Porter-Cologne Act applies to any water, whereas the CWA applies only to certain waters, California's jurisdictional reach overlaps and may exceed the boundaries of waters of the United States (U.S.). For example, Water Quality Order No. 2004-0004-DWQ states that *shallow w*aters of the state include headwaters, wetlands, and riparian areas. Where riparian habitat is not present, such as may be the case at headwaters, jurisdiction is taken to the top of bank.

On April 2, 2019, the SWRCB adopted the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State. In these new guidelines, riparian habitats are not specifically described as waters of the state but instead as important buffer habitats to streams that do conform to the State Wetland Definition. The Procedures describe riparian habitat buffers as important resources that may both be included in required mitigation packages for permits for impacts to waters of the state, as well as areas requiring permit authorization from the RWQCBs to impact.

Pursuant to the CWA, and as described above, projects that are regulated by the USACE must also obtain a Section 401 WQC permit from the RWQCB. This WQC ensures that the proposed project will uphold state water quality standards. Because California's jurisdiction to regulate its water resources is much broader than that of the federal government, proposed impacts on waters of the state require WQC even if the area occurs outside of USACE jurisdiction. Moreover, the RWQCB may impose mitigation requirements even if the USACE does not, for example for riparian habitats which are buffers to waters of the state. Under the Porter-Cologne Act, the SWRCB and the nine RWQCBs also have the responsibility of granting CWA National

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Pollutant Discharge Elimination System (NPDES) permits and waste discharge requirements (WDRs) for certain point-source and non-point discharges to waters.

Any activities within the Project area that affect waters of the U.S. or waters of the state would require Section 401 Water Quality Certification and/or WDRs from the RWQCB. Waters within the Project are considered both waters of the United States and waters of the state.

California Endangered Species Act

The California Endangered Species Act (CESA) (California Fish and Game Code [F&G Code], Chapter 1.5, Sections 2050-2116) prohibits the take of any plant or animal listed or proposed for listing as rare (plants only), threatened, or endangered. In accordance with the CESA, CDFW has jurisdiction over state-listed species. CDFW regulates activities that may result in "take" of individuals listed under the Act (i.e., "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill"). Habitat degradation or modification is not expressly included in the definition of "take" under the F&G Code.

California Environmental Quality Act

CEQA and CEQA Guidelines provide guidance in evaluating impacts of projects to biological resources and determining which impacts would be significant. CEQA defines "significant effect on the environment" as "a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." Under CEQA Guidelines Section 15065, a project's effects on biotic resources are deemed significant where the project would:

- 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; or
- reduce the number or restrict the range of a rare or endangered plant or animal.

In addition to the Section 15065 criteria that trigger mandatory findings of significance, Appendix G of CEQA Guidelines provides a checklist of other potential impacts to consider when analyzing the significance of project effects. The impacts listed in Appendix G may or may not be significant, depending on the level of the impact.

Section 15380(b) of CEQA Guidelines provides that a species not listed on the federal or state lists of protected species may be considered rare if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definitions in the FESA and the CESA and the section of the F&G Code dealing with rare or endangered plants or animals. This section was included in the guidelines primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on a species that has not yet been listed by either USFWS or CDFW or species that are locally or regionally rare.

CDFW has produced three lists (amphibians and reptiles, birds, and mammals) of "species of special concern" that serve as "watch lists." Species on these lists are of limited distribution or the extent of their habitats has been reduced substantially, such that threat to their populations

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may be imminent. Thus, their populations should be monitored. They may receive special attention during environmental review as potential rare species, but do not have specific statutory protection. All potentially rare or sensitive species, or habitats capable of supporting rare species, are considered for environmental review in accordance with CEQA Guidelines Section 15380(b).

The California Native Plant Society (CNPS), a non-governmental conservation organization, has developed ranked lists of plant species of concern in California using the California Rare Plant Ranks (CRPRs). Vascular plants included on these lists are defined as follows:

- CRPR 1A: Plants considered extinct
- CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere
- CRPR 2: Plants rare, threatened, or endangered in California but more common elsewhere
- CRPR 3: Plants about which more information is needed - review list
- CRPR 4: Plants of limited distribution - watch list

The CRPR listings are further described by the following threat code extensions:

- .1—seriously endangered in California
- .2—fairly endangered in California
- .3—not very endangered in California

Although CNPS is not a regulatory agency and plants on the CRPR lists have no formal regulatory protection, plants appearing on CRPR lists are, in general, considered to meet the CEQA Guidelines Section 15380 criteria and adverse effects on these species may be considered substantial.

California Fish and Game Code

The F&G Code includes regulations governing the use of, or impacts on, many of the state's fish, wildlife, and sensitive habitats. CDFW exerts jurisdiction over the bed and banks of rivers, lakes, and streams according to provisions of sections 1601–1603 of the F&G Code. The F&G Code requires a Streambed Alteration Agreement for the fill or removal of material within the bed and banks of a watercourse or water body and for the removal of riparian vegetation.

Certain sections of the F&G Code describe regulations pertaining to certain animal species. For example, F&G Code Sections 3503, 3513, and 3800 (and other sections and subsections) protect native birds, including their nests and eggs, from all forms of take. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "take" by CDFW. Raptors (i.e., eagles, falcons, hawks, and owls) and their nests are specifically protected in California under F&G Code Section 3503.5. Section 3503.5 states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Non-game mammals are protected by F&G Code Section 4150, and other sections of the code protect other taxa.

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Any work within the Kern River, including discharging drainage channels, would require a Streambed Alteration Agreement from CDFW in accordance with Section 1602 of the F&G Code. All native bird species that occur in the Project area are protected by the F&G Code. Projects may be required to take measures to avoid impacts on nesting birds under California F&G Code Sections 3503, 3513, and 3800. Native mammals and other species in the Project area are also protected by F&G Code.

Local Laws, Regulations, and Policies

Kern County General Plan (2009)

The Land Use/Conservation/Open Space Element of the Kern County General Plan contains the following policies related to biological resources that are applicable to the Proposed Project:

> **Policy 27.** Threatened or endangered plant and wildlife species should be protected in accordance with State and federal laws.
>
> **Policy 28.** County should work closely with State and federal agencies to assure that discretionary projects avoid or minimize impacts to fish, wildlife, and botanical resources.
>
> **Policy 29.** The County will seek cooperative efforts with local, State, and federal agencies to protect listed threatened and endangered plant and wildlife species through the use of conservation plans and other methods promoting management and conservation of habitat lands.
>
> **Policy 30.** The County will promote public awareness of endangered species laws to help educate property owners and the development community of local, State, and federal programs concerning endangered species conservation issues.
>
> **Policy 31.** Under the provisions of the California Environmental Quality Act (CEQA), the County, as lead agency, will solicit comments from the California Department of Fish and Game and the U.S. Fish and Wildlife Service when an environmental document (Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report) is prepared.
>
> **Policy 32.** Riparian areas will be managed in accordance with United States Army Corps of Engineers, and the California Department of Fish and Game rules and regulations to enhance the drainage, flood control, biological, recreational, and other beneficial uses while acknowledging existing land use patterns.
>
> **Policy 65.** Oak woodlands and large oak trees shall be protected where possible and incorporated into project developments.

Upper Kern Basin Fishery Management Plan (1995)

GOALS: Based on public comment, current laws and policies, and the interpretation of the fisheries data, the following fishery management goals were developed for the upper Kern basin.

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- Protect and enhance native fish populations and their habitats.
- Restore, protect, and enhance the native Kern River rainbow trout populations so that threatened or endangered listing does not become necessary.
- Provide for recreational fishing.

3.4.2 Environmental Setting

Portions of the Kern River are designated as a wild and scenic river, however within the project area, the Kern River is not designated as a wild and scenic river (USFS 2023, National Wild and Scenic System 2023). Within the project area, LSA Associates, Inc (LSA) identified a total of five vegetation communities and three land cover types (LSA 2022). The primary land cover type is developed land, such as roads and buildings, and other land cover types present are disturbed/barren and open waters. Open waters are described as the flows within the banks of the Kern River (LSA 2022). The five vegetation communities identified by LSA include: (1) Fremont cottonwood forest and woodland (*Populus fremontii – Fraxinus velutina – Salix goodingii* – Forest Woodland), (2) Chaparral/Mixed Scrub, (3) Non-native annual grasslands, (4) Buckwheat Scrub, and (5) Foothill Pine Woodlands Alliance. No wetlands were identified within the project area (Montrose 2023).

Special-Status Species

MESA Biological, LCC (MESA) conducted a biological field survey on November 15, 2023, which evaluated biological conditions and resources throughout the project site and an additional 250-foot buffer. This report is included as **Appendix B**. Additionally, MESA conducted a review of the California Natural Diversity Database (CNDDB) and CNPS Inventory of Rare and Endangered Plants (MESA 2023). Both CNDDB and CNPS reviews included a search of the Kernville USGS 7.5-minute quadrangle and the surrounding 8 quadrangles (Fairview, Sirretta Peak, Cannell Peak, Weldon, Lake Isabella North, Alta Sierra, Tobias Peak, and Johnsondale). In addition to the CNPS and CNDDB queries, MESA also conducted a review of the USFWS Information for Planning and Consultation (IPaC) website for detail on federal resources potentially occurring in the evaluation site.

For the purposes of this assessment, special-status species are those that are listed as rare, species of concern, candidate, threatened, endangered, or fully protected by USFWS, CDFW, or NMFS, as well as plants with a CRPR of 1B, 2, 3, or 4. These data sources mentioned above were reviewed to develop the list of special-status species and their potential to occur within the existing project area, including the project site, **Figure 3.4-1** shows CNDDB occurrences of special-status plant species within 1 mile of the project site. **Figure 3.4-2** shows CNDDB occurrences of special-status wildlife species within 1 mile of the project site. The potential for special-status species to occur in areas affected by the Proposed Project was evaluated according to the following criteria:

- **None**: indicates that the area contains a complete lack of suitable habitat, the local range for the species is restricted, and/or the species is extirpated in this region.
- **Not Expected**: indicates situations where suitable habitat or key habitat elements may be present but may be of poor quality or isolated from the nearest extant occurrences. Habitat suitability refers to factors such as elevation, soil chemistry and type, vegetation communities, microhabitats, and degraded/substantially altered habitats.

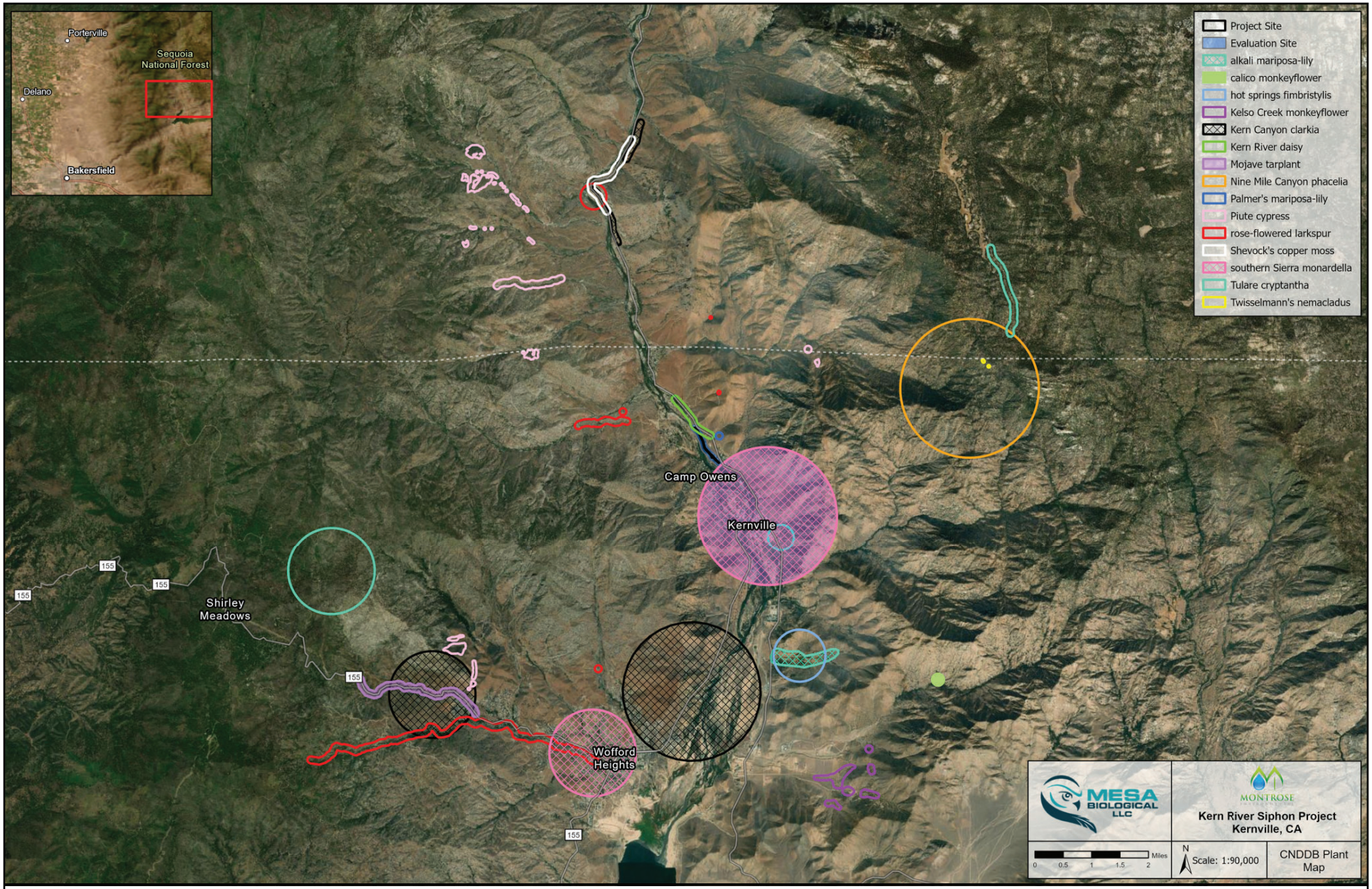
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- **Possible**: indicates the presence of suitable habitat or key habitat elements that potentially support the species.
- **Present**: indicates that either the target species was observed directly, or its presence was confirmed by diagnostic signs during field investigations or in previous studies in the area.

Resulting from database queries discussed above, a total of 28 plant and 35 wildlife species were identified as known or having the potential to occur within the region of the Proposed Project (MESA 2023). Each of these special-status plant and wildlife species were assessed to determine potential presence within the evaluation area.

Six special-status plants and eight special-status wildlife species have been evaluated as having a moderate to high potential to occur or have been identified as being present within the evaluation site (MESA 2023). These species will be further discussed below.

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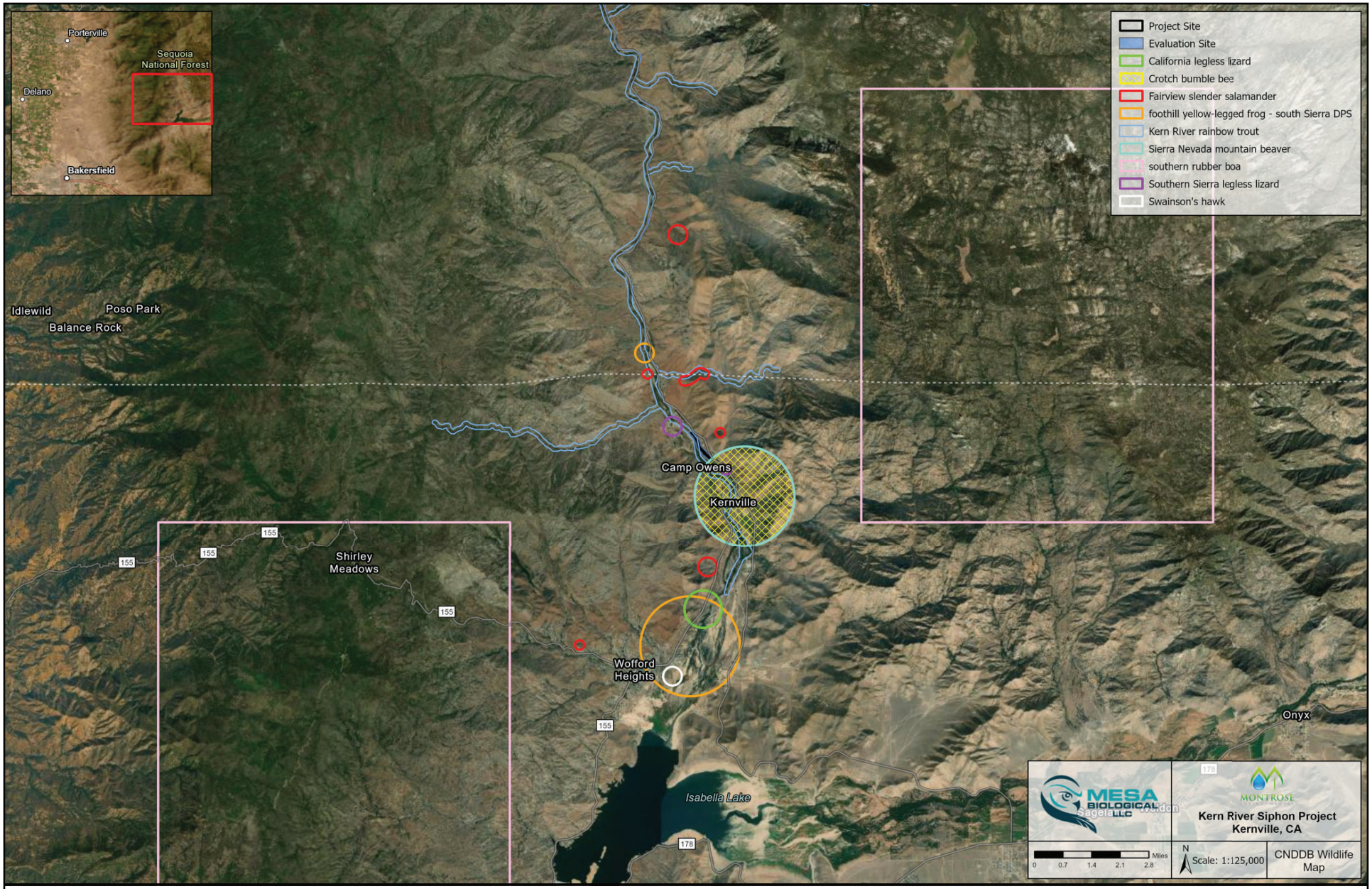
Source: MESA Biological, 2023.

Figure 3.4-1
CNDDB Plant Map

Prepared by:
MONTROSE ENVIRONMENTAL

Kern River Hatchery Siphon Replacement Project

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Source: MESA Biological, 2023.

Figure 3.4-2
CNDDB Wildlife Map

Prepared by:
MONTROSE ENVIRONMENTAL

Kern River Hatchery Siphon Replacement Project

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3.4.3 Discussion of Checklist Responses

a. Substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species—Less than Significant with Mitigation

The MESA Biological Resources Report (2023) provides lists of special status plant and wildlife species (Appendix B). The discussion below addresses species with moderate to high potential to occur within the project site.

Special-status Plant Species

MESA identified six special-status plants that have moderate to high potential to occur in the project area: including Kern River daisy (*Erigeron multiceps*), southern Sierra monardella (*Monardella linoides* ssp. *anemonoides*), Palmer's mariposa-lily (*Calochortus palmeri* var. *palmeri*), alkali mariposa-lily (*Calochortus striatus*), Mojave tarplant (*Deinandra mohavensis*), and rose-flowered larkspur (*Delphinium purpusii*) (MESA 2023). No special-status plant species were detected within the project site during the reconnaissance level survey; however, this survey was conducted outside the seasonal bloom period for many of these special-status plant species (MESA 2023). It is possible that these special-status plant species occur in the Proposed Project site but were undetected due to the timing of the reconnaissance level survey.

If any of these special-status plants were present within the Proposed Project site, Proposed Project construction could result in the removal, trampling, or crushing of individual special-status plants. **Mitigation Measures BIO-1, BIO-2a, BIO-2b, and BIO-2c** would minimize impacts to special status plants, by conducting environmental awareness training, a protocol level botanical survey, avoiding special-status plants if detected, and implementing minimization measures if full avoidance is not possible.

Mitigation Measure BIO-1: Conduct Environmental Awareness Training:

The State of California (DGS) shall require that all construction personnel involved in the Proposed Project will attend an environmental awareness training prior to the commencement of project disturbance activities. The training will be conducted by a qualified biologist and will involve the presentation of sensitive species and habitats documented or potentially occurring in the project area. The training will include handouts that describe each resource with respect to listing status, habitat preferences, distinguishing physical characteristics, causes of its decline, and potential protection and avoidance measures. The handout will be distributed among construction personnel and will include photographs of the resources to facilitate the identification by personnel.

Mitigation Measure BIO-2a: Perform Protocol-Level Botanical Survey

Prior to ground disturbance or vegetation removal, a qualified biologist shall conduct a protocol-level botanical survey for Kern River daisy, southern Sierra monardella, Palmer's mariposa-lily, alkali mariposa-lily, Mojave tarplant, and rose-flowered larkspur in accordance with the CDFW *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018), or most updated version. If special-status plants are detected within the construction zone

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or within a 50-foot radius of the construction zone, the location will be mapped with GPS and flagged in the field, and DGS or its construction contractors will implement Mitigation Measure BIO-2b.

Mitigation Measure BIO-2b: Avoid Impacts on Special-status Plant Species

If special-status plants are detected within the construction zone or within a 50-foot radius of the construction zone, DGS shall require that its construction contractors adjust the construction footprint or establish an exclusion area to avoid impacts to the plants. Locations of special-status plant populations will be clearly identified in the field by staking, flagging, or fencing prior to the commencement of activities that may cause disturbance. In addition, use collected GPS locations to prepare map(s) to show sensitive special-status plant populations. A qualified biologist will determine whether direct and/or indirect impacts would occur. If the biologist determines that impacts would not be completely avoided, Mitigation Measure BIO-2c would be implemented.

Mitigation Measure BIO-2c: Minimize Impacts on Special-status Plant Species.

If avoidance is not feasible, then DGS or its construction contractors shall implement measures to minimize the impact on the species. Minimization measures will be evaluated on a case-by-case basis for local rarity and extent of impacts. Minimization measures may include transplanting perennial species, seed collection and dispersal for annual species, and other conservation strategies that will protect the viability of the local population. If plant species listed under FESA or CESA would be adversely affected, DGS would consult the relevant agencies (CDFW or USFWS) during development of minimization measures.

With the implementation of **Mitigation Measures BIO-1, BIO-2a, BIO-2b, and BIO-2c**, impacts to special-status plant species would be **less than significant with mitigation.**

Special-status Amphibians and Reptiles

Western pond turtle (*Actinemys marmorata*), Fairview slender salamander (*Batrachoseps bramei*), southern Sierra legless lizard (*Anniella campi*), and the California legless lizard (*Anniella pulchra*) have a moderate potential to be found onsite.

Western Pond Turtle

The western pond turtle relies on permanent water sources, and the Kern River provides suitable aquatic habitat for this species. Riparian and upland areas within the Proposed Project also provide suitable foraging and breeding habitat. The Proposed Project could result in injury or mortality of western pond turtles from equipment use, vehicle traffic, or exposure to chemicals from equipment leaks. Implementation of Mitigation Measures BIO-1, BIO-3, and HAZ-1 would minimize impacts to western pond turtle by conducting environmental awareness training, a pre-construction survey for this species, biological monitoring during initial ground disturbance and vegetation removal, minimizing disturbance to vegetation, covering or ramping hole and trenches at the end of the work day, and requiring that spill containment measures be implemented for hazardous materials used during construction.

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Mitigation Measure BIO-3: Measures to Protect Special-status Amphibians, Reptiles, and Fish

A. No more than 5 days prior to the initiation of Project construction, a qualified biologist shall conduct a visual survey for western pond turtle, California legless lizard, southern Sierra legless lizard, and Fairview slender salamander in areas where suitable habitat occurs. Additionally, a biological monitor will monitor initial ground disturbance and vegetation removal within suitable habitat for these species. A biological monitor will also monitor initial dewatering within the Kern River.

B. If special-status amphibians, reptiles, or fish are found within the Proposed Project area, work within 100 feet of the special-status species will pause and the individual shall be allowed to leave the site on their own accord or shall be relocated by the qualified biologist or biological monitor out of harm's way to suitable habitat that is at least 200 feet from the active work area.

C. Vegetation disturbance will be minimized to the greatest extent possible and large oak trees will be protected in place wherever feasible.

D. All holes or trenches shall be covered at the end of each workday or ramped at a 1:1 ratio to avoid potential wildlife entrapment.

E. All trash shall be removed from the site daily to avoid attracting potential predators.

With implementation of Mitigation Measures BIO-1, BIO-3, and HAZ-1 impacts to western pond turtle would be **less than significant with mitigation.**

<u>California Legless Lizard and Southern Sierra Legless Lizard:</u>

Suitable habitat for the California legless lizard and southern Sierra legless lizard is present. The southern Sierra legless lizard and the California legless lizard are species of special concern. The Proposed Project could result in injury or mortality of individuals of these species from equipment use, vehicle traffic, or exposure to chemicals from equipment leaks. Implementation of Mitigation Measures BIO-1, BIO-3, and HAZ-1 would minimize impacts to these species by conducting an environmental awareness training before construction commences, a pre-construction survey for these species, biological monitoring during initial ground disturbance and vegetation removal, minimizing disturbance to vegetation, covering or ramping hole and trenches at the end of the work day, and requiring that spill containment measures be implemented for hazardous materials used during construction.

With implementation of Mitigation Measures BIO-1, BIO-3, and HAZ-1, impacts to these species would be **less than significant with mitigation.**

<u>Fairview Slender Salamander</u>

The Fairview slender salamander is known to occur throughout the upper Kern River Canyon area and west of Lake Isabella. It's typically found to occur in metamorphic rock outcrops in a variety of habitats and areas containing chaparral scrub would be suitable for this species (MESA

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2023). The Fairview slender salamander favors north-facing talus covered slopes in narrow canyons that are typically shaded in winter and remain moist and cool in the spring (MESA 2023). Several occurrences of this species have been documented within 5 miles of the evaluation site. The Proposed Project could result in injury or mortality of individual Fairview slender salamanders from equipment use, vehicle traffic, or exposure to chemicals from equipment leaks. Implementation of Mitigation Measures BIO-1 and BIO-3 would minimize impacts to this species by conducting an environmental awareness training before construction commences, a pre-construction survey for these species, biological monitoring during initial ground disturbance and vegetation removal, minimizing disturbance to vegetation, covering or ramping hole and trenches at the end of the work day, and requiring that spill containment measures be implemented for hazardous materials used during construction.

With implementation of Mitigation Measures BIO-1, BIO-3, and HAZ-1, impacts to this species would be **less than significant with mitigation**.

Special-status Bats

Pallid bat *(Antrozous pallidus*), Townsend's big eared bat (*Corynorhinus townsendii*), and Yuma myotis (*Myotis yumanensis*) have all been historically identified in the region (MESA 2023). Although no bat species were identified at the time of the reconnaissance-level survey, all three bat species could potentially utilize the riparian habitat within the evaluation site to forage; however, all three prefer caves, mines, rocky outcrops, bridges, tunnels, and buildings or other man-made structures for roosting and nesting. The SCE Hydroelectric Power Station, CDFW Fish Hatchery, and other man-made structures, as well as large trees in the vicinity of the Proposed Project provide potentially suitable roosting or maternal roosting sites (MESA 2023).

Disturbance of maternity roosts from construction activities that results in roost destruction or abandonment would be a significant impact to special-status bat species. Construction of the Proposed Project may result in removal of trees providing suitable roosting habitat. Although structures present in the vicinity of the Proposed Project would not be directly impacted by Proposed Project activities, indirect impacts to bat species may occur. Implementation of Mitigation Measure BIO-4 would minimize impacts to special-status bat species.

Mitigation Measure BIO-4: Protection of Roosting Bats

To minimize impacts on bat maternity colonies during the breeding season (April 15 to August 31) or non-reproductive roosting bats during the non-maternity season (September 1 – April 14), the State of California (DGS) or its construction contractors shall require a qualified biologist to conduct a pre-construction survey for roosting bats prior to the onset of ground-disturbing or tree removal activities. If tree removal or project related activities are planned for the fall, the survey shall be conducted in September to ensure tree removal or project related activities would have adequate time to occur during seasonal periods of bat activity, as described below. If tree removal or project related activities are planned for the spring, then the survey shall be conducted during the earliest possible time in March, to allow for suitable conditions for both the detection of bats and subsequent tree removal or project related activities. Trees containing potential bat roost habitat features should be clearly marked or identified.

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The biologist will inspect for evidence of bat use within suitable habitat, such as guano, urine staining, or oil staining. If evidence of use is observed, or if high-quality roost sites are present in areas where evidence of bat use might not be detectable (such as a tree cavity), an evening emergence survey and/or a nocturnal acoustic survey may be necessary to determine if a bat colony is present and to identify the specific location of the bat colony.

- If no active maternity colony or non-breeding bat roost is located, Proposed Project work can continue as planned.
- If an active maternity colony or non-breeding roost is located, the biologist should prepare a site-specific roosting bat protection plan to be implemented by DGS or its construction contractors. The plan should incorporate the following guidance as appropriate. Removal or modification of trees or structures identified as suitable roosting habitat will be conducted during seasonal periods of bat activity, including the following:
  - Between September 1 and October 15, or before evening temperatures fall below 45 degrees Fahrenheit and/or more than 0.5-inch of rainfall within 24 hours occurs.
  - Between March 1 and April 15, or after evening temperatures rise above 45 degrees Fahrenheit and/or no more than 0.5 inch of rainfall within 24 hours occurs.
- If a tree must be removed or trimmed or Proposed Project related activity occurs during the breeding season (November – February) and roost site(s) or maternity roost(s) are identified, then a qualified biologist will conduct acoustic emergence surveys or implement other appropriate methods to further evaluate if the roost is an active maternity roost. Under the biologist guidance, CDFW, DGS, or its contractor will implement the following measures:
- If it is determined that the roost is not an active maternity roost, then the roost may be removed in accordance with the other requirements of this recommendation.
- If it is found that an active maternity roost of a roosting species is present, the roost will not be disturbed during the breeding season (April 15 to August 31).
- Potential hibernation roosts should only be removed during seasonal periods of bat activity, as described above. Potential roosts that cannot be avoided should be removed on warm days in late morning to afternoon when any bats present are likely to be warm and able to fly. Appropriate methods, as described in the site-specific roosting bat protection plan, should be used to minimize the potential harm to bats during tree removal.

With implementation of Mitigation Measure BIO-4, impacts to special-status and roosting bats would be **less than significant with mitigation**.

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Special-status Birds and Birds Protected under the Migratory Bird Treaty Act

Raptors

Swainson's hawk (*Buteo swainsoni*), Cooper's hawk (*Accipiter cooperii*), and other raptors have the potential to be forage and nest in the vicinity of the Proposed Project; however, the recreational activity in this area may be a deterrent to nesting raptors. Construction activity in the vicinity of nest sites could disturb breeding through generation of noise and visual distraction. Impacts on raptor nesting sites that result in nest abandonment, nest failure, or reduced health or vigor of nestlings would be a significant impact. Swainson's hawks are listed as threatened under CESA. The Swainson's Hawk Technical Advisory Committee (SWHA TAC) has developed survey recommendations to maximize detection of nests and thereby reduce the potential for nest failures from project activities (SWHA TAC 2000). Implementation of **Mitigation Measure BIO-5** through **BIO-7** would minimize impacts to special-status and other raptors by requiring pre-construction surveys and establishment of non-disturbance buffers around active raptor nests.

Mitigation Measure BIO-5. Conduct Nesting Surveys for Swainson's Hawk and Other Raptors

If construction occurs between February 1 and August 31, DGS or its construction contractors shall require that a qualified biologist conduct surveys for Swainson's hawk in accordance with the recommended timing and methodology developed by the SWHA TAC (2000), as modified in this measure. The SWHA TAC recommends a 0.5-mile survey distance from the limits of disturbance. However, due to the potential for disturbance, for this project the survey area would be limited to the Kern River riparian area within 1,000 feet of Proposed Project activities and the area between the Proposed Project and Sonora Way. The survey protocol includes early-season surveys to assist the Project Proponent in implementing necessary avoidance and minimization measures and identifying active nest sites prior to initiating ground-disturbing activities. Surveys for other nesting raptors will occur within a 500-foot buffer. If nesting Swainson's hawk or other raptors are detected, buffers shall be established around active nests in accordance with Mitigation Measure BIO-6.

Mitigation Measure BIO-6. Establish Buffers to Avoid or Minimize Impacts on Swainson's Hawk

If ground-disturbing or vegetation removal activities are to take place during the normal bird breeding season (March 1 through September 15), additional pre-activity surveys for active nests shall be conducted by a qualified biologist no more than 10 days prior to the start of activities to ensure that no Swainson's hawks or other raptors have begun nesting activities near the site. Buffers around active Swainson's hawk nests will be 0.5 mile and buffers around active non-listed raptor nests will be 500 feet unless a qualified biologist determines, based on a site-specific evaluation, that a smaller buffer is sufficient to avoid impacts on nesting raptors. Factors to be considered when determining buffer size include the presence of natural buffers provided by vegetation or topography, nest height, locations of foraging territory, and baseline levels of noise and human activity. Buffers shall be maintained until a qualified biologist has determined that the young have fledged and are no longer reliant on the nest or parental care for survival.

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In the event that an active Swainson's hawk nest is detected during surveys and a 0.5-mile no-disturbance buffer is not feasible, DGS shall implement Mitigation Measure BIO-7.

Mitigation Measure BIO-7. Swainson's Hawk Take Authorization.

In the event that an active Swainson's hawk nest is detected during surveys and a 0.5-mile no-disturbance buffer is not feasible, consultation with CDFW shall occur to discuss how to implement the Proposed Project and avoid take.

Nesting Birds

The project site contains suitable nesting habitat for many avian species protected by the MBTA. Clearing of vegetation as a result of the Proposed Project could destroy (e.g., crush, remove) active nest sites, if present, on the site during construction. Additionally, noise and disturbance associated with construction of the Proposed Project could adversely affect nesting birds in adjacent areas to the point of nest abandonment and/or failure. Because the potential loss of an active bird nest during construction would potentially violate protections under the MBTA and F&GC, such an impact is considered significant. Implementation of Mitigation Measure BIO-8 would minimize impacts to nesting birds protected by the MBTA by requiring pre-construction surveys and establishment of non-disturbance buffers around active raptor nests.

Mitigation Measure BIO-8. Nesting Bird Survey

The State of California (DGS) and its construction contractors shall require a qualified biologist to conduct nesting bird surveys and comply with the subsequent measures, as needed, to ensure that birds protected under the MBTA are not adversely affected by Proposed Project construction activities:

- A pre-construction nesting bird survey shall be conducted by a qualified biologist, within 14 days prior to the initiation of Proposed Project related activities. If Proposed Project related activity is stopped for more than 14 days during the nesting season, a pre-construction survey shall be conducted prior to the re-start of Proposed Project activities.
- If active nests of birds protected by the MBTA are located, an appropriate avoidance buffer determined by the qualified biologist shall be established within which no work activity would be allowed which would impact these nests. The avoidance buffer will be established by the qualified biologist on a case-by-case basis based on the species and site conditions. Larger buffers may be required depending upon the status of the nest and the project related activities occurring in the vicinity of the nest. The buffer area(s) shall be closed to all construction personnel and equipment until juveniles have fledged and/or the nest is inactive. A qualified biologist will confirm that breeding/nesting is complete, and the nest is no longer active prior to removal of the buffer. If work within a buffer area cannot be avoided, then a qualified biologist will be present to monitor all Proposed Project activities that occur within the buffer. The

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biological monitor will evaluate the nesting avian species for signs of disturbance and will have the ability to stop work in the vicinity of the nest.

With implementation of **Mitigation Measures BIO-6** through **BIO-8**, impacts to special-status birds and nesting birds protected by the MBTA would be **less than significant with mitigation.**

Special-status Fish

The Kern River rainbow trout (*Onchorhynchus mykiss gilberti*) is a state species of special concern and a federal candidate species and is endemic to the Kern River and its tributaries (MESA 2023 and Stephens et al. 1995). The Kern River rainbow trout is only found in the uppermost watershed and its tributaries, and is extirpated downstream of Johnsondale Bridge, which is located approximately 13 miles upstream of the Proposed Project (Moyle et al. 2015). Therefore, this species is not anticipated within the Proposed Project area. Other species of rainbow trout have been seen within the Proposed Project area (LSA 2022) and are discussed in item 3.4.3(d) below. Impacts on special-status fish would **be less than significant**.

Special status Invertebrates

The Crotch bumble bee (*Bombus crotchii*) has been proposed for listing as an endangered species in California. This species of bumble bee occurs from Coastal California east to the Sierra Cascade crest and south to Mexico. Crotch bumble bee requires plant food genera consisting of *Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia* and *Eriogonum* (MESA 2023). There is potential for the Crotch bumble bee to be present. Use of mechanical equipment that results in ground disturbance could result in accidental destruction or crushing of Crotch bumble bee nests, resulting in the death of Crotch bumble bees. This would be a significant impact. Implementation of Mitigation Measure BIO-9 would reduce the potential for impacts on Crotch bumble bees through pre-construction surveys and implementation of non-disturbance buffers if special-status bumble bee nests are detected.

Mitigation Measure BIO-9: Avoid Crotch Bumble Bee Nests

The State of California (DGS) and its construction contractors shall implement the following measures, as needed, to ensure that Crotch bumble bees are not adversely affected by Proposed Project construction activities:

- Prior to project implementation, a qualified biologist knowledgeable in the identification of Crotch bumble bee shall conduct a pre-construction survey for nesting Crotch bumble bees. Surveys shall focus on burrows and, when feasible, shall be conducted during the period of highest detection probability (April through August) for this species.
- If no state-listed bumble bee nests are detected during the survey, Proposed Project activities may proceed.
- If state-listed bumble bee nests are detected, the qualified biologist shall establish a non-disturbance buffer around the nest (at least 10 feet) and no ground-disturbing activities shall occur within the buffer until the qualified biologist determines that the nest is no longer active.

The implementation of Mitigation Measure BIO-9 is anticipated to reduce impacts on Crotch bumble bee to **less than significant with mitigation**.

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Summary

The Proposed Project would replace an existing pipeline. Impacts are anticipated to be temporary and are not expected to substantially modify existing habitat. With the implementation of project BMPs and **Mitigation Measures BIO-1 through BIO-9**, impacts to candidate, sensitive, or special-status species are anticipated to be **less than significant with mitigation.**

b. Substantial adverse effect on any riparian habitat or other sensitive natural community—Less than Significant with Mitigation

The project plans to replace an existing pipeline which includes the inlet and outlet. One sensitive natural community (Fremont Cottonwood Forest and Woodland) is present within the Proposed Project. Because the project is replacing an existing pipeline, the impact to this sensitive natural community is expected to be minor and temporary. However, removal of trees within this habitat could result in permanent impacts. Implementation of **Mitigation Measure BIO-3** would minimize the amount of vegetation removed to the greatest extent possible and protect large oak trees wherever feasible. Implementation of **Mitigation Measure BIO-10** would minimize impacts to this sensitive natural community by requiring replacement of native trees removed by the Proposed Project.

> **Mitigation Measure BIO-10: Develop and Implement Revegetation Plan in Riparian Habitat and Sensitive Natural Communities Disturbed during Construction**
>
> Before construction begins, DGS or its contractor(s) shall retain a qualified biologist to develop a Revegetation Plan to be implemented in riparian habitat and sensitive nature communities disturbed during construction. As part of the Revegetation Plan, the biologist and/or contractor will survey, map, identify, and measure the diameter at breast height (dbh) of native woody plants 4 inches dbh or larger that would be damaged or removed during construction. During mobilization, the biologist will walk the project site with the contractor to identify locations for fencing/ flagging/staking. The Revegetation Plan will be reviewed and approved by DGS and CDFW and shall be consistent with requirements of the LSAA.
>
> Upon completion of construction, disturbed soils within areas of native vegetation shall be revegetated with site-appropriate native species to limit subsequent encroachment of non-native weeds. In accordance with the Revegetation Plan and as required by the LSAA, any native woody plant species of 4 inches dbh or greater within riparian habitat or sensitive natural communities that are damaged or removed as a result of construction activity shall be replaced at a 1:1 ratio; this ratio will increase to 3:1 for native trees of 24 inches dbh and greater. Replaced woody plant species shall be maintained and monitored to ensure a minimum of 65 percent survival of woody plantings after 3 years.

With the implementation of **Mitigation Measures BIO-3 and BIO-10**, impacts to riparian habitat or other sensitive natural communities would be **less than significant with mitigation**.

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c. Substantial adverse effects on state or federally protected wetlands—Less than Significant with Mitigation

A wetland delineation was conducted for the Proposed Project site, and no wetlands were identified (Montrose 2023). However, approximately 0.47 acre of non-wetland waters of the U.S. and state were identified, including the Kern River and other riverine features. Construction of the inlet structure and siphon would require dewatering of an approximately 6,500-square-foot area of the Kern River for approximately 4 months. Dewatering would be ongoing during construction activity due to seepage. The area within the coffer dam would be temporarily disturbed by construction equipment and pumping activity. During pipeline replacement, dewatering would be necessary due to the proximity to Kern River and high-water table. These activities could increase water turbidity, soil compaction and discharge of pollutants without the implementation of appropriate minimization measures. The project would replace the existing siphon, inlet structure, and diversion structure, and permanent structures within non-wetland waters would be similar to existing conditions.

During Project construction activities, impacts to the non-wetland waters could occur due to heavy equipment operation and earth movement within or adjacent to the mapped features. These types of activities could cause erosion and/or soil compaction, as well as discharges of pollutants to the features. The Proposed Project would be subject to an NPDES General Construction Permit and implementation of a SWPPP to prevent significant adverse effects on water quality or violation of water quality objectives during project construction. Mitigation Measure HAZ-1, described in Section 3.9, “Hazards and Hazardous Materials,” would require implementation of hazardous materials spill prevention and containment measures, respectively, which would reduce potential for indirect impacts to the non-wetland water features during construction.

In conclusion, as no wetlands are present within the Proposed Project work areas, no impacts to wetlands would occur. Temporary and permanent impacts to other waters would occur, which would be minimized through implementation of Mitigation Measure HAZ-1. Impacts to wetlands and other waters would be **less than significant with mitigation**.

d. Substantial interference with wildlife movement, established wildlife corridors, or the use of native wildlife nursery sites—Less than Significant with Mitigation

The Project will replace an existing 0.5-mile-long aboveground pipeline that runs parallel to Kern River. For most of the alignment, the replacement pipeline would be buried, and would therefore not be a barrier. Two sections of pipe, totaling approximately 150 feet in length, would be above ground. Although the aboveground portions of the pipeline may be a barrier to smaller creatures such as salamanders or turtles, it is not expected to substantially interfere with wildlife movement. Furthermore, the project itself would be replacing the aboveground pipeline and would not be introducing a new barrier.

The Kern River provides important habitat for fish, including breeding habitat. Native non-special-status fish present in the Upper Kern River include Sacramento sucker (*Catostomus occidentalis occidentalis*) and hardhead (*Mylopharodon conocephalus*) (Stevens et al. 1995). Several rainbow trout (*Oncorhynchus mykiss*) were observed swimming in the vicinity of the

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intake structure during reconnaissance surveys (LSA 2022). Construction of the siphon and inlet structure would require the installation of a coffer dam and dewatering to preclude river water from entering the construction site. Individual non-special status fish may be present within the dewatering area and could be harmed during dewatering. Implementation of Mitigation Measure BIO-3 would minimize impacts on special-status fish by requiring biological monitoring during initial dewatering in the Kern River, allowing fish to move out of the Proposed Project area of their own volition, or relocating them outside of the work area.

Construction of the Proposed Project would require the use of heavy equipment that would disturb soil and could cause erosion. Ground-disturbing activities during project construction would loosen soil that could be washed into the Kern River during a precipitation event, resulting in adverse water quality effects that could impair habitat quality for fish. Additionally, construction would involve storage and use of fuel and other materials in equipment that could leak or spill, causing water quality impacts that could impact fish breeding or rearing. As described in Impact HYD/WQ-1 in Section 3.10, "Hydrology and Water Quality," the Proposed Project would be subject to an NPDES General Construction Permit and implementation of a stormwater pollution prevention plan (SWPPP) to prevent significant adverse effects on water quality or violation of water quality objectives during project construction. Among other things, the SWPPP would include a list of best management practices (BMPs) that would be implemented during project construction to prevent soil erosion and protect the topsoil. These BMPs would be implemented to ensure effective erosion control during construction. Exposed soils within the work area would be stabilized or landscaped following completion of construction activities. **Mitigation Measure HAZ-1** would require that spill containment measures be implemented for hazardous materials used during construction, and that spill clean-up materials be kept on-site. Implementation of Mitigation Measure HAZ-1 would ensure that hazardous materials releases during construction are avoided/minimized to the extent feasible, and that impacts to fish are minimized in the event such releases do occur. Additionally, the siphon intake would be screened, which would prevent fish from entering the siphon. As a result, this impact would **be less than significant with mitigation**.

e. Conflict with local policies or ordinances protecting biological resources—Less than Significant with Mitigation

The hatchery supports the conservation and management of the California's Golden Trout, which is a hatchery goal set forth under the Upper Kern Basin Fishery Management Plan, and is a joint cooperative effort between CDFW, National Park Service and USFS. Furthermore, all appropriate permits will be obtained for working in waters of the United States, waters of the State, and working on bed and banks of rivers or streams.

The Kern County General Plan requires protection of riparian vegetation and large oak trees. Implementation of Mitigation Measures BIO-3 and BIO-10 would minimize the amount of vegetation removed to the greatest extent possible and protect large oak trees wherever feasible. Implementation of Mitigation Measure BIO-10 would minimize impacts to riparian habitat by requiring replacement of native trees removed by the Proposed Project. With implementation of these measures, the Proposed Project would not conflict with local plans or policies protecting biological resources, and the impact would be **less than significant with mitigation.**

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f. Conflict with the provisions of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state HCP—No Impact

The Proposed Project is not located within the boundaries of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state HCP. Therefore, there would be **no impact**.

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3.5 CULTURAL RESOURCES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☒	☐	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c. Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

3.5.1 Regulatory Setting

Federal Laws, Regulations, and Policies

Projects that require federal permits, receive federal funding, or are located on federal lands must comply with 54 USC 306108, formally and more commonly known as Section 106 of the National Historic Preservation Act (NHPA). To comply with Section 106, a federal agency must "take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register of Historic Places." The implementing regulations for Section 106 are found in 36 CFR Part 800, as amended (2004). Portions of the Proposed Project are on USFS lands; therefore, the project is a federal undertaking pursuant to 36 CFR 800.16(y), and federal historic preservation laws and regulations apply.

National Historic Preservation Act

Title 54 United States Code Section 306108, commonly known as Section 106 of the NHPA (or Section 106), requires that federal agencies assess the effects of projects (undertakings) under their jurisdiction on historic properties (i.e., cultural resources that meet the criteria for listing on the NRHP). The implementing regulations of the NHPA, found at 36 CFR Part 800, require that cultural resources be evaluated for NRHP eligibility if they cannot be avoided by an undertaking. To determine site significance through application of NRHP criteria, several levels of potential significance that reflect different (although not necessarily mutually exclusive) values must be considered. As provided in Title 36 CFR Part 60.4, "the quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association" and must be considered within the historic context.

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Resources must also be at least 50 years old, except in rare cases, and, to meet eligibility criteria of the NRHP, must:

(A) Be associated with events that have made a significant contribution to the broad patterns of our history; or

(B) Be associated with the lives of persons significant in our past; or

(C) Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

(D) Have yielded, or may be likely to yield, information important in prehistory or history.

Although archaeological sites must be evaluated according to all of the criteria listed above, they are most often found eligible for listing in the NRHP under criterion (D). For sites found eligible under criterion (d), integrity requires that the site remain sufficiently intact to convey the expected information to address specific important research questions.

Archaeological Resources Protection Act

The Archaeological Resources Protection Act, which applies to projects located on federal public lands and Native American lands, was developed to govern archaeological site excavations and the removal of archaeological resources from public and tribal lands. The fieldwork for this project was conducted under a permit for archaeological investigations issued by the USFS, Sierra National Forest, Kern River Ranger District.

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (NAGPRA) provides for the repatriation of items of cultural patrimony found on federal lands. Should such items be identified on the project site during construction, the provisions of the NAGPRA would be implemented.

State Laws, Regulations, and Policies

CEQA and State CEQA Guidelines

The Proposed Project must comply with CEQA (Public Resources Code [Pub. Res. Code] 21000 et seq.) and the CEQA Guidelines (California Code of Regulations [CCR], Title 14, Chapter 3), which determine, in part, whether the project has a significant effect on a unique archaeological resource (per Pub. Res. Code 21083.2) or a historical resource (per Pub. Res. Code 21084.1).

CEQA Guidelines Section 15064.5 notes that “a project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment.” Lead agencies are required to identify potentially feasible measures or alternatives to avoid or mitigate significant adverse changes in the significance of a historical resource before such projects are approved. According to the CEQA Guidelines, historical resources are:

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- Listed in, or determined to be eligible for listing in, the California Register of Historical Resources (per Pub. Res. Code 5024.1(e));
- Included in a local register of historical resources (per Pub. Res. Code 5020.1(k)) or identified as significant in a historical resource survey meeting the requirements of Pub. Res. Code 5024.1(g); or
- Determined by a lead state agency to be historically significant.

California Register of Historical Resources

Pub. Res. Code Section 5024.1 establishes the California Register of Historical Resources (CRHR). This register lists all California properties considered to be significant historical resources. The CRHR includes all properties listed, or determined to be eligible for listing, in the National Register of Historic Places (NRHP), including properties evaluated under Section 106 of the NHPA. The criteria for listing are similar to those of the NRHP. Criteria for listing in the CRHR include resources that:

(1) Are associated with the events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

(2) Are associated with the lives of persons important in our past;

(3) Embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possess high artistic values; or

(4) Have yielded, or may be likely to yield, information important in prehistory or history.

The regulations set forth the criteria for eligibility as well as guidelines for assessing historical integrity and resources that have special considerations.

Unique Archaeological Resources

CEQA Guidelines Section 15064.5 also applies to unique archaeological resources pursuant to Pub. Res. Code 21084.1. As defined in Pub. Res. Code Section 21083.2, a unique archaeological resource is an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information;
- Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

CEQA Guidelines Section 15064.5(c)(4) notes that, if an archaeological resource is not a unique archaeological resource, historical resource, or tribal cultural resource, the effects of the project on those cultural resources shall not be considered a significant effect on the environment.

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Local Laws, Regulations, and Policies

Kern County General Plan (2009)

The Kern County General Plan contains one goal pertaining to cultural resources, followed by one policy and five mitigation measures, as listed below.

Goal 1.10.3 Archaeological, Paleontological, Cultural, and Historical Preservation

Policy 25. The County will promote the preservation of cultural and historic resources which provide ties with the past and constitute a heritage value to residents and visitors.

Implementation Measures

K. Coordinate with the California State University, Bakersfield's Archaeology Inventory Center.

L. The County shall address archaeological and historical resources for discretionary projects in accordance with the California Environmental Quality Act (CEQA).

M. In areas of known paleontological resources, the County should address the preservation of these resources where feasible.

N. The County shall develop a list of Native American organizations and individuals who desire to be notified of proposed discretionary projects. This notification will be accomplished through the established procedures for discretionary projects and CEQA documents.

O. On a project specific basis, the County Planning Department shall evaluate the necessity for the involvement of a qualified Native American monitor for grading or other construction activities on discretionary projects that are subject to a CEQA document.

3.5.2 Environmental Setting

The information in this section is derived from the *Cultural Resources Assessment Report, Kern River Hatchery Siphon Replacement Project Kernville, Kern County, California* (Montrose Environmental 2024; provided as **Appendix C** of this initial study).

Native American Pre-colonial History

The Native American pre-colonial history (also referred to as prehistory) of the project area reflects information known about the indigenous population from the time the region was first populated with humans until the arrival of the first Europeans who visited and recorded their journeys through the written record. The pre-colonial record is derived from over a century of archaeological research throughout California; while much has been gleaned from these studies, large gaps in the data record remain. Work in the Kern River watershed has focused on the area of Lake Isabella (before and after its construction) and work conducted by the USFS. The studies indicate that the Tubatulabals have occupied the area for at least 3,000 years. **Table 3.5-1**

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depicts the pre-colonial archaeological sequence that has been developed for the project area (Millington et al. 2017; Moratto 2004):

Table 3.5-1. Native American Pre-colonial Periods of the Kern River Region

Archaeological Period	Age	Characteristics
Initial Occupation	pre-4000 B.C.	Nomadic opportunistic hunters and foragers; possibly hunted Pleistocene megafauna. Low population. Flake and core tools such as scrapers and choppers, long-stemmed dart points, flaked stone crescents.
Lamont Phase	4000–1200 B.C.	Hunters and foragers. Low population. Pinto style projectile points of basalt; limited gathering of pine nuts
Canebrake Phase	1200 B.C.–A.D. 600	Increased exploitation and occupation of high elevation areas as base camps. Extensive use of pine nuts, seeds and bulbs, along with hunting. Millingstones are present, as are a variety of dart projectile point styles.
Sawtooth Phase	A.D. 600–1300	Intensified use of the uplands for gathering pine nuts. Increased use of obsidian. Bedrock mortars and cobble pestles accompany manos and millingstones. Rose Spring and Eastgate series arrow points, and steatite or serpentine disk beads are also present.
Chimney Phase	A.D. 1300–contact	Occupation intensified overall in both upland and river valleys, witnessed by an increased number of villages and camps. Desert side-notched and Cottonwood Triangular arrow points are present, along with pottery, and stone beads.

Sources: After Millington et al. 2017 and Moratto 2004.

Ethnography and Modern Tribal History

The Kern River watershed is the ancestral home of the Tubatulabal Tribe, which is comprised of three distinct bands: the Pahka'anil, Palegewan, and Bankalachi. The project area is in the homeland of the Palegewan band. The bands spoke mutually intelligible dialects of the Tubatulabal language. The language is an isolated language of the Uto-Aztecan stalk, which indicates a significant time separation between the Tubatulabals and their neighbors who also

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spoke Uto-Aztecan languages that were more similar in nature (Shipley 1978:88; Smith 1978:437; Tubatulabal Tribe 2023). These neighbors included the Monache to the north and the Kawiisu to the south. Other tribes that bordered Tubatulabal territory included the Yokuts to the west and the Owens Valley Paiute and Koso to the east (Smith 1978; Voegelin 1938).

The Tubatulabals thrived within the valleys of the Kern and South Fork Kern Rivers. While their primary winter villages were in the lower elevations in the vicinity of present-day Lake Isabella, Kernville, Weldon, and Onyx, the population regularly travelled into the highest elevations of the Sierra Nevada during the summer and fall to hunt and gather the resources available to them at those locations. Given the diversity of their environment, which is a transition area between the Sierra Nevada and the Great Basin, the Tubatulabal had access to two important staples, both acorns and pine nuts. Other important subsistence foods were the abundant fish from the rivers, along with ducks and birds, deer, antelope, and small game such as rabbits. A variety of seeds, bulbs, tubers, and seasonal greens were also readily available. Furthermore, the Tubatulabals were friendly with their neighbors, who provided them passage through their lands to access resources that were not available in their homelands in places as diverse as Tulare Lake in the San Joaquin Valley, the Mojave Desert, and as far as the Pacific Ocean (Smith 1978; Voegelin 1938).

The Tubatulabals first encountered the Spanish when Francisco Garcés explored the lower reaches of the Kern Valley in 1776. After that, their interactions with colonists were infrequent until Anglo-American settlers moved into the Kern Valley in the mid-1800s. The discovery of gold in the Kern River in 1857, however, was the beginning of an era of displacement and genocide for the Tubatulabals. Surviving members of the Pahka'anil and Palegewan bands were allotted small parcels of land in the Kern and South Fork Kern valleys in 1893 by the Dawes Act, but by the early 1900s, many Tubatulabals had moved out of the area, mainly north to the nearby Tule River Reservation (Indian Country Today 2023; Smith 1978). Nevertheless, the 280 members of the modern-day Tubatulabal Tribe work to maintain and revive their culture and language (Tubatulabal Tribe 2023). In fall 2023, the Tribe was deeded 1,240 homeland acres of the 2,240-acre Fay Creek Ranch in the South Kern River Valley, and they have access to the remaining 1,000 acres of the ranch, which was deeded to the Kern County Heritage Foundation, through a conservation easement. The acquisition was made in partnership with the Wildlife Conservation Board and the Sierra Nevada Conservancy. Although the Tribal members have allotments held in trust by the Bureau of Indian Affairs (BIA) and they have received BIA Indian Health Services funding for water and wastewater improvements on some of the land, the Tribe has not yet achieved federal recognition. The Tribe plans to apply for federal recognition to the BIA by the end of 2024, with the hope that the new acquisition will confirm their qualifications for recognition (Indian Country Today 2023).

Post-colonial History

The Spanish arrived in present-day California in 1769 and quickly established missions near the coast in the ensuing years. Pedro Fages led the first company over Tejon Pass and into the southwestern margins of the San Joaquin Valley to the Buena Vista Hills and Lake, while pursuing Spanish army deserters, in 1772. Fages spent little time in what would become known as Kern County and crossed over the Coast Ranges to the vicinity of San Luis Obispo before returning to San Diego. The Spanish focused on populating the coastal plain and did not return to the San Joaquin Valley until 1776 when Padre Francisco Garcés entered the valley 15 miles

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east of Fages' previous route. Passing through the area of present-day Arvin, he travelled north and westerly to the White River 16 miles west of Delano before turning east and south. He eventually visited the area of Bakersfield, including the Kern River valley, before once again passing through Arvin and heading toward the Mojave Desert (Kyle et al. 2002:126-127).

The southern end of the San Joaquin Valley was largely ignored by the Spanish, who focused their settlements along the Pacific coast. The area continued to be unknown to colonists after the Mexican revolution in 1822. American and European fur traders began to venture through the region on occasion in the 1830s but did not settle (Kyle et al. 2002).

Kern County was divided into five Mexican land grants in 1842, and in the 1850s four of the land grants were combined to form the Tejon Ranch. In 1851, gold was discovered in the Kern River, and the gold rush came to the area in 1853. Mining followed with the establishment of the Big Blue Mine in 1861. Many miners settled in Whiskey Flat, near the present town of Kernville. Agricultural production in Kern County also started during the 1850s. Durham cattle were introduced in 1859, and alfalfa, cotton, grapes, walnuts, and apples were planted. In 1864, Whiskey Flat was officially renamed Kernville, and in 1866, Kern County was incorporated with the county seat at Havilah. In 1874, the county seat was changed to Bakersfield (Bakersfield Californian 2016).

In 1898, the San Francisco–San Joaquin Valley Railroad arrived in Kern County, allowing agricultural producers to have easier shipping access. In subsequent years, the Kern River, Midway, and Belridge Oilfields were discovered, and Kern County soon became the leading oil producer for the state. At the start of the twentieth century, a highway system was established in Kern County. In the early 1900s, hydroelectric power plants were established along the Kern River. In 1910, the southern portion of the Sequoia National Forest was separated and renamed the Kern National Forest. The newly established U.S. Forest Service brought a staff of rangers to regulate logging and livestock in the county. In 1954, uranium was discovered along the Kern River and two mines were established (Brewer 2001; Dodd 2008:7).

After World War II, Congress authorized the construction of the Isabella Dam, built by the U.S. Army Corps of Engineers between 1948 and 1953. It provided increased water storage for irrigation of agriculture in the San Joaquin Valley. The dam also created Lake Isabella, a large reservoir that flooded the original towns of Kernville and Isabella. The new Kernville was relocated farther upstream of the Kern River to a location previously known as the Burlando Ranch.

Kern County remained a huge agricultural area and was known for cotton, potatoes, grapes, citrus, pistachios, carrots, and other crops in the 1960s. In 1965, Kern County was the home of the farmworker labor movement started by Cesar Chavez, which led to the formation of the United Farm Workers union. By 1999, agriculture provided 16 percent of employment in the county. In 2016, Kern County was the second richest farming county in California and the producer of half the renewable electricity in the state (Gaspar 2016). In 2020, Kern County had a population of approximately 900,000 (U.S. Census Bureau 2023).

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Kern River Hatchery

The Kern River Hatchery at 14415 Sierra Way was established about 1928 by the Kern County Fish and Protective Game Association. The goal of the hatchery was to plant the Kern River with sizeable trout to attract fishing and hunting to the area. In 1929, the California Department of Fish and Game took over operation of the hatchery. In the 1940s, the hatchery was expanded by the Wildlife Conservation Board, making it the third largest in the state at the time. During the expansion, two new dwelling units were built, and the water distribution system was improved. Many of the buildings and concrete structures were constructed by the Kern County Juvenile Forestry Camp. By 1945, Kern River Hatchery totaled around 122,000 rainbow trout. In 1949, the State of California formally invested in the Kern River Hatchery.

In 1966, flooding of the Kern River destroyed much of the hatchery, which was rebuilt. In 1969, a new water supply pipeline and intake structure – the structures present on the project site currently – were added, along with concrete nursery tanks, ponds, and cross dams. In 1971, the pipeline was remodeled. Budget cuts led to the downgrading of the hatchery in 1979. Between 1985 and 1994, the hatchery spawned, raised, and re-introduced the endangered California golden trout to the Kern River. Additional budget cuts led to the temporary closure of the Kern River Hatchery in 1994. The hatchery reopened in the 2000s and became the oldest state-run fish hatchery in the Central Valley, raising pure-bred native Kern River rainbow trout. In 2020, it was closed again for repairs. The building is also home to the Fishing and Natural History Museum (Cox 2020; CDFW 2023; California Fish and Game 1948-1950; Dodd 2008; Friends of the Hatchery 2023; Bakersfield Californian 1941).

Area of Potential Effects

For the purposes of the cultural resources impact assessment, the area of potential effects (APE) for the Proposed Project consists of approximately 5.2 acres and contains the length of the siphon, the intake structure, and the diversion/outlet structure, as well as the two potential staging areas. Existing access roads that would be used to access the construction site would not need improvement and, therefore, are not included in the APE. The maximum depth of the APE is 10 feet below the ground surface to accommodate pipeline assembly and trenching for the pipeline. The maximum height of the APE is 10 feet above the ground surface for the new structure that would contain the pump vault and pipeline assembly. The APE covers the entire CEQA project area.

Cultural Resources Studies

Archival Search

A record search request was submitted to the Southern San Joaquin Valley Information Center (SSJVIC) of the California Historical Resources Information System at California State University, Bakersfield on October 6, 2023, and a response (Records Search File No. 23-425) was received on October 16, 2023. The purpose of the record search was to identify the presence of any previously recorded cultural resources at the project site, as well as within a 0.25-mile buffer, and to determine whether any portions of the project site had been surveyed for cultural resources. The record search revealed that three cultural resources studies, which covered the entire APE, have been conducted within the project area, and an additional 15 studies have taken place within the 0.25-mile record search area. Nearly all of these other studies consisted

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of small, targeted locations for power pole replacement projects along the adjacent SCE power line. The three studies in the APE are listed in **Table 3.5-2.**

Table 3.5-2. Studies within the Area of Potential Effects

SSJVIC Number	Author(s)	Date	Title
KE-01622	M. Q. Sutton and C. L. Pruett	1989	An Archaeological Inventory and Assessment of Southern California Edison Company's Kern River No. 3 Hydroelectric Project, Kern and Tulare Counties, California
KE-03650	Cal Heritage	2008	Archaeological Inventory of the Kern River Fish Hatchery on the Kern River Ranger District, Sequoia National Forest Kern County, California
KE-03879	J. Howard, E. N. Chandler, and M. Knysptra	2009	Cultural Resources Assessment of the Kern River 3 Fiber Optic Line Kernville and Wofford Heights, Kern County, California

The record search did not identify any previously recorded cultural resources within the APE; however, five resources had been recorded within the 0.25-mile search buffer (**Table 3.5-3**). One site (P-15-002517) is directly adjacent to one of the proposed staging areas. A second site (P-15-014890) is near the southeast terminus of the proposed siphon. Neither of the resources have been evaluated for NRHP/CRHR eligibility.

Table 3.5-3. Resources Recorded within the 0.25-Mile Search Area

Primary Number (P-15-XXXX)	Trinomial	Name	Type/Attributes	NRHP/CRHR Eligibility
002517	CA-KER-002517		Native American pre-contact/ Large bedrock milling feature (BRM); ground stone implements; obsidian debitage	Unevaluated
013772 (008456 in BERD)	CA-KER-007729H	Kern River No. 3 Hydroelectric System	Hydroelectric power historic district (1910-1920)/ Flowline tunnel	NRHP Eligible/ CRHR listed
014890	CA-KER-008315	FH-1	Native American pre-contact/ Isolated bedrock mortar	Unevaluated

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Primary Number (P-15-XXXX)	Trinomial	Name	Type/Attributes	NRHP/CRHR Eligibility
002517	CA-KER-002517		Native American pre-contact/ Large bedrock milling feature (BRM); ground stone implements; obsidian debitage	Unevaluated
015173	__	Camp Erwin W. Owen	Kern County Juvenile Probation Camp (1938)/ 41 buildings and structures	Recommended not eligible
019929	__	SWCAISO-002	Historic-era refuse/ Two glass bottles	Unevaluated
__	__	Kern River Fish Hatchery*	CDFW fish hatchery	Recommended not eligible

Source: SSJVIC Record Search File No. 23-425
*Information derived from archival research, not from the SSJVIC Record Search

Archival research included a review of the Built Environment Resources Directory (BERD) for Kern County, which is maintained by the Office of Historic Preservation (OHP). Although not reported by the SSJVIC, the BERD indicated that the Kern River Hatchery had previously been recorded and evaluated for the NRHP and was determined ineligible, with a status code of 6Y (OHP 2023). A letter from the State Historic Preservation Officer, dated July 31, 2008, concurred with this determination, stating that the resource did not retain sufficient integrity to meet the eligibility criteria for listing in the NRHP (OHP 2008).

Geoarchaeological Context

To assess the potential for buried archaeological sites within a project area's components, an investigation will often account for factors that either encouraged or discouraged human use or occupation of certain landforms (e.g., geomorphic setting and distance to water), combined with those that affected the subsequent preservation (i.e., erosion or burial) of those landforms. It is well known, for instance, that prehistoric archaeological sites in California are most often found on relatively level landforms near natural water sources (e.g., spring, stream, river, or estuary), which is often where two or more environmental zones (ecotones) are present. Landforms with this combination of variables are frequently found at or near the contact between a floodplain and a higher and older geomorphic surface, such as an alluvial fan or stream terrace (Hansen 2004:5).

In general, most Pleistocene-age landforms have little potential for harboring buried archaeological resources, as they developed before the first evidence of human migration into North America (ca. 13,000 years ago). However, Pleistocene or older surfaces buried below

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younger Holocene[1] deposits do have a potential for containing archaeological deposits because of the long-term viability of the platform (or Pleistocene-age surface) from which occupation can occur. Holocene alluvial deposits may contain buried soils (paleosols) that represent periods of landform stability before renewed deposition. The identification of paleosols within Holocene-age landforms is of particular interest because they represent formerly stable surfaces that have a potential for preserving archaeological deposits.

The potential for the project area to contain buried archaeological resources was investigated using a model formulated by Meyer, Young, and Rosenthal (2010) for predicting a location's sensitivity for buried Native American archaeological sites based on the age of the landform, slope, and proximity to water. A location is considered to have the highest sensitivity if the landform dates to the Holocene, has a slope of 5 percent or less, is within 150 meters (500 feet) of fresh water and 150 meters (500 feet) of a confluence. A basic premise of the model is that Native American archaeological deposits will not be buried within landforms that predate human colonization of the area. Calculating these factors using the buried site model (Meyer, Young, and Rosenthal 2010:Table 22), a location's sensitivity was scored on a scale of 1 through 10 and classed as follows: very low (<1); low (1-2); moderate (3-4); high (4-5); highest (=>6).

Based on landform age and the other factors described above, the model determined that the sensitivity for buried sites in the upslope areas above the project is considered very low. This is primarily due to the age (Pleistocene and older) and slope percentage of landforms in the area being high. However, the terraces along the Kern River adjacent to the project site have historically flooded and deposited Holocene-age alluvium over the centuries, giving them a moderate potential for buried sites. Given the high levels of water events over time in this location, it is unlikely that buried deposits are intact in this area; however, deeply buried deposits, more than 20 feet in depth, may be present. The project actions are not anticipated to require excavation at depths greater than 10 feet.

Native American Outreach

An email request was made to the Native American Heritage Commission (NAHC) on November 10, 2023, to review its files for the presence of recorded sacred sites on the project site. The NAHC responded on December 13, 2023, stating that no significant resources were identified in the project area as a result of a search of their files. The NAHC also provided a list of four tribes with a traditional and cultural affiliation with the project area for notification pursuant to Pub. Res. Code Section 21080.3.1 (also known as Assembly Bill 52). One tribe, the Kern Valley Indian Community, responded to the outreach. Coordination with tribes is further described in Section 3.18, "Tribal Cultural Resources."

[1] The Holocene Epoch is the current period of geologic time, which began about 11,700 years ago, and coincides with the emergence of human occupation of the area.

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Cultural Resources Survey and Results

Archaeological Resources

A pedestrian archaeological survey was conducted of the APE on November 28, 2023, by a qualified archaeologist who meets the U.S. Secretary of Interior's professional standards in archaeology. The project area was investigated in transects spaced approximately 20 meters (60 feet) apart, where feasible given the visibility and vegetation. Most of the APE is densely vegetated with willows, bay trees, and grasses along the banks of the Kern River. The hatchery grounds have been graded and the access road to the pump station has multiple parking areas along the river used for recreation. The bank of the river throughout the extent of the siphon structure, which is on the ground in stages of disrepair, has undergone impacts due to the recreation access and the installation of the original siphon pipeline. The two proposed staging areas have been previously graded for parking and are currently gravel lots. Two shovel probes were dug to better inspect the mineral soils, which were highly sandy and silty. All outcrops of rock along the section of river adjacent to the siphon were closely inspected for bedrock mortar milling stations (BRMs) or associated artifactual deposits. The previously identified BRMs, P-15-014890 and P-15-002517, were re-identified during the survey. Both BRM locations are as described in their original recordation; however, no associated archaeological deposits were identified surrounding the BRMs.

A total of approximately 14 acres of area was surveyed, including the entire siphon footprint, all portions of the hatchery, and the proposed staging areas, from Sierra Way west to the river. No newly identified archaeological resources were observed in the APE during the survey.

Built Environment Resources

Although the Kern River Hatchery had previously been recorded and evaluated as ineligible for the NRHP, it had not been evaluated for the CRHR or for its potential as a California Historical Landmark (CHL). However, because it was determined ineligible for the NRHP due to lack of integrity, it also does not meet the eligibility criteria as a CRHR or a CHL. Nevertheless, a brief description of the hatchery characteristics is described below.

The 15-acre Kern River Fish Hatchery consists of spawning beds and fish raceways, four hatchery operations buildings, two visitor-oriented buildings, four residences, two water tanks, a siphon (pipeline) that supplies water, and small support and storage buildings. Located in a narrow ravine with mountains on both sides, the expansive rural property slopes downward from the road toward the river and is characterized by wide spaces between buildings and naturalistic landscaping with large boulders. There are mature decorative trees of a variety of species as well as landscape plantings such as succulents. Some areas are overgrown with weeds and tall grasses, and the area near the river is heavily forested. Circulation includes dirt paths bordered by stone walls, accessible sidewalks, and asphalt roads near garage and shop buildings. Buildings and structures are utilitarian in character with simple rectangular plans and low-pitch gabled roofs. Built features of the site were developed between the 1940s and 2016 and the facility does not strongly express the character of any historic period. The museum building, with accessible toilets building to its north and a large water tank behind it to the west, all of which are below street grade, are visible from the gravel parking lot adjacent to the street; the remaining structures of the hatchery are dispersed downslope from the road toward the Kern River. The buildings and appurtenant hatchery facilities, along with their build dates are listed in

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Table 3.5-4 and depicted in **Figure 3.5-1**. Note that none of the existing structures or features appear to date from the earliest days of the hatchery in the late 1920s.

Table 3.5-4. Construction History of the Kern Fish Hatchery

Buildings and Features	Date
Original development of natural rearing ponds	1928
Concrete rearing ponds sheltered by buildings and three houses built	1940 – 1941
Two new houses, food storage (shop) building, and garage built; main hatchery building expanded; water distribution system improved	1948 – 1950
Intake structure, siphon (pipeline), and levee built	1963 – 1964
Ditch diversion structure built	1967
Spawning beds/raceways built	1960s/2016
Siphon intake structure rebuilt and support columns added; nursery tanks, additional ponds, and cross dams built	c. 1969
Siphon (pipeline) remodeled	c. 1971
Golden trout shed (hatchery building) built	1993
Residence near raceways demolished	1994 – 2002
Toilet building near shop built	1990s
Museum and accessible toilet near road built	2000 – 2003
Redwood tanks, 1940s hatchery building demolished; some earth ponds lined with concrete	unknown dates

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State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
SKETCH MAP

Primary #
HRI#
Trinomial

Page of *Resource Name or # Kern River Fish Hatchery

*Drawn By: D. Martorana *Date: March 14, 2024



DPR 523K (1/95) *Required information

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3.5.3 Discussion of Checklist Responses

a. Adverse change in the significance of a historical resource—Less than Significant with Mitigation

One built environment resource, the Kern River Hatchery, including the siphon, is located within the project area. As noted above the hatchery is not eligible for listing in the CRHR and it does not qualify as a CHL. As a result, the proposed project would have no impact to built environment historical resources.

However, historical resources that are archaeological in nature may be accidentally discovered during project construction, and these are discussed further in item 3.5.3(b). Implementation of **Mitigation Measure CR-1** would ensure that impacts on CRHR/NRHP-eligible archaeological sites accidentally uncovered during construction are reduced to a less-than-significant level by immediately halting work if materials are discovered (and notifying the USFS Kern River District archaeologist if such materials are discovered on USFS land); evaluating the finds for CRHR/NRHP eligibility, and implementing appropriate mitigation measures, as necessary. Preconstruction cultural resources sensitivity training for construction workers would, furthermore, enhance the ability to recognize discovered cultural materials during excavations. As a result, this impact would be **less than significant with mitigation.**

Mitigation Measure CR-1: Conduct Cultural Resources Awareness Training, Provide Tribal and Archaeological Monitors during All Ground-Disturbing Activities, and Immediately Halt Construction if Cultural Resources Are Discovered, Evaluate All Identified Cultural Resources for Eligibility for Inclusion in the CRHR/NRHP, and Implement Appropriate Mitigation Measures for Eligible Resources.

Locations along river banks are generally considered sensitive for the presence of buried archaeological sites, and the two previously recorded BRM sites attest to the use of the area by indigenous communities. As a result, it is important that project construction workers be aware of the potential to discover buried cultural resources, know what kinds of items could be unearthed, and be prepared to stop work and follow established protocols for reporting the finds. To this end, the State shall require of construction contractors that preconstruction cultural resources awareness training will be provided to construction workers and their supervisors prior to ground-disturbing activities. The training will be developed and conducted in coordination with a qualified archaeologist meeting the U.S. Secretary of the Interior's guidelines for professional archaeologists; a representative from a culturally affiliated Native American tribe may also be invited to participate in the training. The program will include relevant information regarding sensitive cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The preconstruction cultural resources awareness program will also describe appropriate avoidance and minimization measures for resources that have the potential to be located on the project site and will outline what to do and whom to contact if any potential archaeological resources or artifacts are encountered. The program will underscore the requirement for confidentiality and culturally appropriate treatment of any finds of significance to Native Americans, consistent with Native American tribal values.

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Because of the sensitivity of the project area for buried Native American resources, tribal and archaeological monitors shall be present for all ground disturbing activities during construction. The State, or its representatives, will work directly with the Kern Valley Indian Community to provide a tribal monitor, who will be given at least seven days' notice prior to the initiation of ground disturbing activities. The archaeological monitor will record activities daily and a weekly summary will be provided to DGS.

If any cultural resources, such as structural features, unusual amounts of bone or shell, flaked or ground stone artifacts, historic-era artifacts, human remains, or architectural remains, are encountered during any project-related construction activities, work shall be suspended immediately at the location of the find and within a radius of at least 50 feet, and the State will be contacted. If materials are discovered on USFS lands, the Kern River Ranger District archaeologist shall be notified. Work will not resume until a qualified archaeologist and a Native American representative from a traditionally and culturally affiliated tribe, as appropriate, can assess the significance of the find and make recommendations for further evaluation and treatment as necessary.

All cultural resources accidentally uncovered during construction within the project site that cannot be avoided shall be evaluated for eligibility for inclusion in the CRHR/NRHP. Resource evaluations will be conducted by individuals who meet the U.S. Secretary of the Interior's professional standards in archaeology, history, or architectural history, as appropriate. For finds that are of Native American concern, local Native American tribes will be notified, if they have requested notification. If any of the resources meet the eligibility criteria identified in Pub. Res. Code Section 5024.1 or Section 21083.2(g), mitigation measures will be developed and implemented in accordance with CEQA Guidelines Section 15126.4(b) before construction resumes. Similar actions will be taken for resources that meet the NRHP eligibility criteria pursuant to 36 CFR 60.4 discovered on USFS lands.

Mitigation measures for archaeological resources may include (but are not limited to) avoidance; incorporation of sites within parks, green space, or other open space; capping the site; deeding the site into a permanent conservation easement; or data recovery excavation. Mitigation measures for archaeological resources shall be developed in consultation with responsible agencies and, as appropriate, interested parties such as Native American tribes. Native American consultation is required if an archaeological site is determined to be a tribal cultural resource (TCR). Implementation of the approved mitigation would be required before resuming any construction activities with potential to affect identified eligible resources at the site.

b. Adverse change in the significance of an archaeological resource—Less than Significant with Mitigation

As described in item 3.5.3(a), pedestrian archaeological survey was conducted of the APE. Although two previously recorded Native American bedrock mortar sites (P-15-002517, P-15-014890) outside of the APE were located during the survey, no new archaeological resources that could be adversely affected by the Proposed Project were discovered. Given the proximity of proposed construction activities to the previously recorded sites, these resources could inadvertently be affected if they are not protected. **Mitigation Measure CR-2** would require

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exclusionary fencing to protect these resources during construction, resulting in a less-than-significant impact with mitigation.

The project location is generally considered sensitive for potentially buried archaeological resources; this determination is supported by the presence of the two Native American sites nearby, although regular scouring of the area from flooding has likely reduced the possibility of near-surface buried resources. No archaeological resources that are historical resources have been identified within the APE. However, it is possible that archaeological remains may be buried with no surface manifestation within the project footprint. Given the nature of the proposed work, which includes trenching for the new siphon, it is possible that excavation activities could uncover buried archaeological materials. Prehistoric materials most likely would include obsidian and basalt flaked-stone tools (e.g., projectile points, knives, and choppers), tool-making debris, or milling equipment, such as mortars and pestles. Historic-era materials that might be uncovered would likely be related to construction of the hatchery, including refuse discarded by construction workers.

If archaeological remains are accidentally discovered that are determined eligible for listing in the CRHR/NRHP or determined to be a TCR, and proposed project activities would affect them in a way that would render them ineligible for such listing, a significant impact (or adverse effect pursuant to 36 CFR 800.5(a)(1)) would result. Should previously undiscovered archaeological resources be found, implementation of **Mitigation Measure CR-1** would ensure that impacts on CRHR/NRHP-eligible archaeological sites accidentally uncovered during construction are reduced to a less-than-significant level by immediately halting work if materials are discovered (and notifying the USFS Kern River District archaeologist if such materials are discovered on USFS land); evaluating the finds for CRHR/NRHP eligibility, and implementing appropriate mitigation measures, as necessary. Preconstruction cultural resources sensitivity training for construction workers would, furthermore, enhance the ability to recognize discovered cultural materials during excavations. Implementation of Mitigation Measures CR-1 and CR-2 would reduce impacts related to accidental discovery of CRHR/NRHP-eligible archaeological resources to a level that is **less than significant with mitigation** or meets the federal equivalent of resolving the adverse effect (36 CFR 800.6(b)).

Mitigation Measure CR-2: Erect Exclusionary Fencing to Protect Known Archaeological Resources

Native American sites P-15-002517 and P-15-014890 are located in close proximity to the project APE. Neither site has been evaluated for CRHR/NRHP eligibility. Nevertheless, to ensure that the sites are not damaged by construction, the State shall require construction contractors to protect the sites with exclusionary fencing. If the potential staging area located between Sierra Way and the SCE access road is not selected for use, site P-15-002517 will not require exclusionary fencing. Fencing will be required for P-15-014890 in all instances.

c. Disturbance of any human remains, including those interred outside of formal cemeteries—Less than Significant with Mitigation

No evidence of human remains was observed within the APE during pedestrian surveys. However, there continues to be a possibility that project-related construction may adversely

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affect human remains, although this is considered unlikely. Should any such remains be discovered during construction, the California Health and Safety Code Section 7050.5 requires that work immediately stop within the vicinity of the finds and that the County coroner be notified to assess the finds. The USFS Kern River District archaeologist must also be contacted if any finds are discovered on USFS property. Implementation of **Mitigation Measure CR-3** would ensure that the Proposed Project would not result in any substantial adverse effects on human remains uncovered during the course of construction by requiring that, if human remains are uncovered, work must be halted and the County coroner must be contacted. Adherence to these procedures and provisions of the California Health and Safety Code would reduce potential impacts on human remains to a level that is **less than significant with mitigation**.

Mitigation Measure CR-3: Immediately Halt Construction if Human Remains Are Discovered and Implement Applicable Provisions of the California Health and Safety Code Section 7050.5

If human remains are accidentally discovered during the Proposed Project's construction activities, the requirements of California Health and Safety Code Section 7050.5 shall be followed. Potentially damaging excavation shall halt on the project site within a minimum radius of 100 feet of the remains, and the County coroner shall be notified. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (California Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the NAHC by phone within 24 hours of making that determination (California Health and Safety Code Section 7050[c]). Pursuant to the provisions of Public Resources Code Section 5097.98, the NAHC shall identify a Most Likely Descendent (MLD). The MLD designated by the NAHC shall have at least 48 hours to inspect the site and propose treatment and disposition of the remains and any associated grave goods. The State shall work with the MLD to ensure that the remains are removed to a protected location and treated with dignity and respect. Native American human remains may also be determined to be TCRs. The County coroner will contend with the human remains if they are not of Native American origin.

If Native American human remains are discovered on lands under the jurisdiction of the USFS, the USFS Kern River District archaeologist will be notified and the requirements of NAGPRA will be fulfilled in consultation with the USFS and local Native American tribes.

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3.6 ENERGY

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

3.6.1 Regulatory Setting

Federal Laws, Regulations, and Policies

The Energy Policy and Conservation Act of 1975 was established in response to the oil crisis of 1973, which increased oil prices due to a shortage of reserves. The Act required that all vehicles sold in the U.S. meet certain fuel economy goals, known as the Corporate Average Fuel Economy (CAFE) standards. The National Highway Traffic Safety Administration (NHTSA) of the USDOT administers the CAFE program, and USEPA provides the fuel economy data. USEPA and the National Highway Traffic Safety Administration (NHTSA) have developed regulations to improve the efficiency of cars, and light-, medium-, and heavy-duty vehicles.

State Laws, Regulations, and Policies

Energy resource-related regulations, policies, and plans at the state level, require the regular analysis of energy data and developing recommendations to reduce statewide energy use, and setting requirements on the use of renewable energy sources. Senate Bill (SB) 1389, passed in 2002, requires the California Energy Commission (CEC) to prepare an Integrated Energy Policy Report for the governor and legislature every 2 years (CEC 2022a). The report contains an integrated assessment of major energy trends and issues facing California's electricity, natural gas, and transportation fuel sectors; and provides policy recommendations to conserve resources, protect the environment, ensure reliable, secure, and diverse energy supplies, enhance the state's economy, and protect public health and safety (CEC 2022a). The 2022 Integrated Energy Policy Report Update discusses the CEC's equity and environmental justice efforts, its development of a more easily navigable online data platform via the California Energy Planning Library, and an update to the California Energy Demand Forecast. The report also provides information and policy recommendations on emerging topics related to energy reliability, western electricity integration, hydrogen, gasoline prices, gas transition, and distributed energy resources (CEC 2022b).

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In addition, since 2002, California has established a Renewables Portfolio Standard (RPS) program, through multiple senate bills (SB 1078, SB 107, SB X1-2, SB 350, SB 100) and executive orders (S-14-08, B-55-18), that requires increasingly higher targets of electricity retail sales be served by eligible renewable resources. The established eligible renewable source targets include 20 percent of electricity retail sales by 2010; 33 percent of electricity retail sales by 2020; 50 percent by 2030; and 100 percent zero-carbon electricity for the state and statewide carbon neutrality by 2045 (California Public Utilities Commission 2022, CEC 2017).

Section 3.8, "Greenhouse Gas Emissions," provides additional details on California's 2020 Climate Change Scoping Plan, which details the state's strategy for achieving the state's GHG targets, including energy-related goals and policies. It contains measures and actions that may pertain to the proposed Project relating to vehicle efficiency and transitioning to alternatively powered vehicles (CARB 2022).

Local Laws, Regulations, and Policies

The Kern County General Plan (Kern County 2009) establishes actions that Kern County will take to enhance the energy resources. There are no specific energy policies in the general plan applicable to the Project.

3.6.2 Environmental Setting

Energy Resources and Consumption

California has extensive energy resources, including an abundant supply of crude oil and high production of conventional hydroelectric power, and it leads the nation in electricity generation from solar, geothermal, and biomass resources (U.S. Energy Information Administration [EIA] 2022). California has the second highest total energy consumption in the United States but one of the lowest energy consumption rates per capita (48th in 2020) due to its mild climate and energy efficiency programs (EIA 2022). A comparison of California's energy consuming end-use sectors indicates that the transportation sector is the greatest energy consumer, followed by Industrial, Commercial, and then Residential (EIA 2022). California is the largest consumer of jet fuel in the United States and the second largest consumer of motor gasoline after Texas (EIA 2022).

Kern County is widely recognized as significant to California's energy development. The county produces a substantial portion of California's oil and natural gas. Kern County ranks third in total wind power generation in the State. The county also has substantial electric and hydroelectric generation capacity, untapped geothermal and solar resources, and abundant municipal and agricultural wastes with energy potential.

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3.6.3 Discussion of Checklist Responses

a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources—Less than Significant

The Proposed Project's construction activities would require the consumption of energy (fossil fuels) for equipment, worker vehicles, and truck trips. The Proposed Project would involve a few pieces of equipment that may use electricity such as pumps or compressors. The consumption of energy for the Proposed Project's equipment and vehicles would be minimized by limiting idling of vehicles. Table 3.6-1 shows the estimated fuel use from construction equipment, worker vehicles, and truck trips. The calculations used to develop these estimates are presented in Appendix A.

Table 3.6-1. Project Fossil Fuel Use

Source Type	Diesel Fuel Use (gallons)	Gasoline Fuel Use (gallons)
Off-road Construction Equipment[1]	86,729	0
On-Road Vehicles[2,3]	1,448	3,297
Total	86,176	3,297

[1] Fuel use for off-road construction equipment was estimated using a fuel use factor from CARB's off-road in-use engine emissions model of 0.408 and 0.367 pound of diesel per horsepower-hour for engines below 100 horsepower and greater than or equal to 100 horsepower respectively and diesel fuel density of 7.1089 pounds per gallon. This value includes the use of construction equipment.

[2] Fuel use for construction worker vehicles was estimated using fuel use estimates from EMFAC with an estimated rate of 34.8 gallons per mile.

[3] Fuel use for hauling vehicles was estimated using fuel use estimates from EMFAC with an estimated rate of 6.0 gallons per mile.

Energy consumption during construction work is necessary for meeting the project objectives of replacing the water pipeline to the Kern River Hatchery. These activities would not cause wasteful, inefficient, and unnecessary consumption of energy or cause a substantial increase in energy demand and the need for additional energy resources. Although no mitigation measures are necessary to reduce this impact to a less-than-significant level, implementation of Mitigation Measure AQ-1 would further reduce the Proposed Project's effect by requiring minimization of idling times and requiring that all equipment be maintained and tuned properly. As a result, the Proposed Project would not result in wasteful, inefficient, or unnecessary consumption of energy. Therefore, this impact is considered **less than significant**. No mitigation is required.

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b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency—Less than Significant

The Proposed Project activity would not conflict with any of the goals, policies, or implementation actions identified in the applicable energy plans, such as the 2022 Integrated Energy Policy Report Update, and Kern County's General Plan, because the Proposed Project would not create any future permanent energy demands that would be substantially different from when the previous pipeline was in service and would be completed as efficiently as possible. Temporary energy demands from the use of worker vehicles would occur during the follow-up maintenance activities. However, the follow-up maintenance activities would be of short duration, and the associated vehicle use would be limited and conducted as efficiently as possible. Thus, the Proposed Project would not conflict with any plans relating to renewable energy or energy efficiency. Therefore, this impact is considered **less than significant**. No mitigation is required.

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3.7 GEOLOGY, SOILS, AND SEISMICITY

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:				
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.	☐	☐	☐	☒
ii. Strong seismic ground shaking?	☐	☐	☐	☒
iii Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☒	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

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3.7.1 Regulatory Setting

Federal Laws, Regulations, and Policies

Section 402 of the Clean Water Act/National Pollutant Discharge Elimination System

The CWA is discussed in detail in Section 3.10, "Hydrology and Water Quality." However, because Section 402 of CWA is also directly relevant to earthwork, additional information is provided here.

The 1987 amendments to the CWA added Section 402(p), which establishes a framework for regulating municipal and industrial stormwater discharges under the NPDES program. As described in Section 3.10, USEPA has delegated to the SWRCB the authority for the NPDES program in California, where it is implemented by the state's nine RWQCBs. Under the NPDES Phase II Rule, any construction activity disturbing 1 acre or more must obtain coverage under the state's General Permit for Storm Water Discharges Associated with Construction Activity (Construction General Permit). General Permit applicants are required to prepare a Notice of Intent stating that stormwater will be discharged from a construction site, and that a SWPPP describes the BMPs that will be implemented to avoid adverse effects on receiving water quality as a result of construction activities, including earthwork.

National Earthquake Hazards Reduction Act

The National Earthquake Hazards Reduction Act of 1977 (Public Law 95-124) and creation of the National Earthquake Hazards Reduction Program (NEHRP) established a long-term earthquake risk reduction program to better understand, predict, and mitigate risks associated with seismic events. The following four federal agencies are responsible for coordinating activities under NEHRP: United States Geological Survey (USGS); National Science Foundation; Federal Emergency Management Agency; and the National Institute of Standards and Technology. While changes have occurred in program details in some of the reauthorizations, the four basic NEHRP goals remain unchanged (NEHRP 2021):

(1) Develop effective practices and policies for earthquake loss reduction and accelerate their implementation.

(2) Improve techniques for reducing earthquake vulnerabilities of facilities and systems.

(3) Improve earthquake hazards identification and risk assessment methods, and their use.

(4) Improve the understanding of earthquakes and their effects.

Implementation of NEHRP objectives is accomplished primarily through original research, publications, and recommendations and guidelines for state, regional, and local agencies in the development of plans and policies to promote safety and emergency planning.

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State Laws, Regulations, and Policies

California Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act) (Pub. Res. Code Section 2621 et seq.) was enacted in 1972 to reduce the risk to life and property from surface fault rupture in California. The intent of the act is to prohibit construction of most types of structures intended for human occupancy on the surface traces of active faults and strictly regulate construction in the corridors along active faults (earthquake fault zones).

The Alquist-Priolo Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards. It also defines criteria for identifying active faults, which is defined if one or more of its segments or strands shows evidence of surface displacement in the last 11,000 years (CDOC 2019a). The act states that its intent is to "provide policies and criteria to assist cities, counties, and state agencies in the exercise of their responsibility to prohibit the location of developments and structures for human occupancy across the trace of active faults." The act also requires the State Geologist to compile maps delineating earthquake fault zones and to submit maps to all affected cities, counties and state agencies for review and comment (California Geological Survey [CGS] 2018).

Seismic Hazards Mapping Act

As with the Alquist-Priolo Act, the Seismic Hazards Mapping Act of 1990 (SHMA) (Pub. Res. Code Sections 2690–2699.6) is intended to reduce damage resulting from earthquakes. The Alquist-Priolo Act addresses surface fault rupture, while the SHMA addresses non-surface fault rupture earthquake hazards, including liquefaction and seismically induced landslides. The SHMA highlights the need to identify and map seismic hazard zones in order for cities and counties to adequately prepare the safety element of their general plans and to encourage land use management policies and regulations to reduce and mitigate those hazards to protect public health and safety. Cities and counties are required to regulate development within mapped Seismic Hazard Zones (CDOC 2019b).

Under the SHMA, permit review is the primary mechanism by which development can be locally regulated. Specifically, cities and counties are prohibited from issuing development permits for sites within Seismic Hazard Zones until appropriate site-specific geologic and/or geotechnical investigations have been performed and measures to reduce potential damage have been incorporated into the development plans.

California Building Code and International Building Code

The State of California mandates minimum standards for building design through the California Building Code (CBC) (CFR Title 24). The CBC also specifies standards for geologic and seismic hazards, other than surface faulting to address seismic safety, earthquake-resistant design and construction (California Building Standards Commission 2021b). These codes are administered and updated by the California Building Standards Commission. CBC specifies criteria for open excavation, seismic design, and load-bearing capacity directly related to construction in California. CBC standards determine building strength based on regional seismic risks and recommended construction specifications to provide building strength above that risk. The 2019

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CBC was published in July 2019 with an effective date of January 1, 2020 (California Building Standards Commission 2021a).

Local Laws, Regulations, and Policies

The Safety Element of the Kern County General Plan contains the following goals, policies, and implementation measures for geology, soils, and seismicity (Kern County 2009).

Goals:

(1) Minimize injuries and loss of life and reduce property damage.

(2) Reduce economic and social disruption resulting from earthquakes, fire, flooding, and other geologic hazards by assuring the continuity of vital emergency public services and functions.

Policies:

(2) Those hazardous areas, identified as unsuitable for human occupancy, are guided toward open space uses, such as agriculture, wildlife habitat, and limited recreation.

(4) The County shall encourage extra precautions be taken for the design of significant lifeline installations, such as highways, utilities, and petrochemical pipelines.

Implementation Measures:

(A) All hazards (geologic, fire, and flood) should be considered whenever a Planning Commission or Board of Supervisor's action could involve the establishment of a land use activity susceptible to such hazards.

(C) Require detailed site studies for ground shaking characteristics, liquefaction potential, dam failure inundation, flooding potential, and fault rupture potential as background to the design process for critical facilities under County discretionary approval.

The Land Use/Conservation/Open Space Element of the Kern County General Plan contains the following policy and implementation measure for paleontological resources (Kern County 2009).

Policy 25. The County will promote the preservation of cultural and historic resources which provide ties with the past and constitute a heritage value to residents and visitors.

Implementation Measure M. In areas of known paleontological resources, the County should address the preservation of these resources where feasible.

3.7.2 Environmental Setting

Except where otherwise noted, information for the Environmental Setting was taken from the *Geotechnical Evaluation Final Design for Kern River Fish Hatchery Siphon and Pipeline, California Department of General Services, Kernville, California* (BKF Engineers 2023).

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Geology

Regional Geology

The project site is located in the southern Sierra Nevada geomorphic province of southern California. The Sierra Nevada consists of an approximately 400-mile-long by 40- to 100-mile-wide mountain range along the east side of California that extends from the Cascade Range province on the north to the Tehachapi Mountains at the southern end of Great Valley province.

The mountains are generally defined by the Sierra Nevada batholith emplaced generally during the Jurassic and Cretaceous Periods and associated exposures of granitic and metamorphic rock where overlying basement rock has been eroded away. Areas of the batholith remain covered by basement metasedimentary rock (i.e., roof pendants) that was present prior to emplacement of the batholith. Northern portions of the range consist of stacked island arc terranes. Younger Mesozoic and Cenozoic sedimentary and volcanic rocks are also present over portions of the range. The project site is located within the Kern River Valley, which consists of a relatively large alluvial-filled, north to south trending valley. The valley is generally drained by the Kern River that flows to the south, where it is dammed to form Lake Isabella. The river is located west of the site and the reservoir to the south.

Geology at the Project Site

Published geologic maps indicate that the project site is underlain by Paleozoic-age metasedimentary rocks consisting of schist, phyllite, limestone, and quartzite, and young alluvium associated with the Kern River.

The materials encountered in our subsurface exploration consisted of fill, alluvium, and metamorphic bedrock to the depths explored of up to 16.5 feet.

Fill. Fill was encountered in our borings near the proposed new inlet structure and was observed in the upper portion of the river embankment slope as well as in two test pits. The fill generally consisted moist, loose to medium dense, silty sand and silty gravel with sand, with trace amounts of metal construction debris and trash.

Alluvium. The alluvium generally consisted of moist, loose to very dense, gravel with silt, silty gravel, sand, sand with silt, and silty sand. The upper two to three feet of the alluvial soils were medium dense and became dense to very dense below. Cobbles and boulders were encountered in each of the test pits and were observed at the ground surface. The boulders encountered in our test pits ranged from 1 foot to 6 feet in diameter. The cobbles and boulders resulted in difficult excavating conditions.

Bedrock. Metamorphic bedrock was encountered below the fill in two borings near the proposed inlet structure and was exposed on the river embankment slope adjacent to the area where the inlet siphon will be constructed. The bedrock generally consisted of gray, moist, fresh to moderately weathered, moderately hard to hard phyllite. The bedrock hardness increased with depth in the hard, metamorphic bedrock.

Based on geologic mapping performed for the project, the majority of the river embankment slope in the area of the new siphon inlet structure consists of exposed bedrock with a small

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amount of fill observed at the top of the slope. In addition, some loose/soft sediments mantle the bedrock on the river bottom.

Groundwater

Groundwater depth at the project site is not stabilized and conditions will vary. Based on the proximity of the pipeline to the Kern River and the coarse nature of the alluvial soils, the depth to groundwater is anticipated to be influenced by the elevation of the surface water in the river and may fluctuate depending on the seasonal flows. Fluctuations in the level of groundwater will occur due to variations in ground surface topography, subsurface stratification, rainfall, irrigation practices, groundwater pumping, and other factors that were not evident at the time of our field evaluation.

Soils

Soils at the project site consist of Xerofluvents-Xerorthents-Riverwash association, sloping (Natural Resources Conservation Service [NRCS] 2023). Adjacent to the project site is the Cieneba-rock outcrop complex, 50 to 75 percent slopes.

Seismicity

The principal seismic hazards evaluated at the project site are surface rupture, ground motion, and liquefaction.

Surface Fault Rupture

The project site is not located within a State of California Earthquake Fault Zone (Hart and Bryant 2007). The pipeline alignment is in relatively close proximity to the Kern Canyon Fault Zone; however, this fault zone is not considered active. Therefore, surface fault rupture from an active fault is considered unlikely. However, lurching or cracking of the ground surface as a result of nearby seismic events is possible.

Strong Seismic Ground Shaking

The project site is located in a seismically active area, as is the majority of southern California, and the potential for strong ground motion in the project area is considered substantial during the design life of the proposed pipeline. Considering the proximity of the site to active faults capable of producing a maximum moment magnitude of 6.0 or more, the project area has a high potential for experiencing strong seismic ground shaking.

Liquefaction and Differential Settlement

Liquefaction is the phenomenon in which loosely deposited granular soils and low-plastic fine-grained soils located below the water table undergo rapid loss of shear strength due to excess pore pressure generation when subjected to strong earthquake-induced ground shaking. Sufficient ground shaking duration results in the loss of grain-to-grain contact due to a rapid rise in pore water pressure. This causes the soil to behave as a fluid for a short time. Liquefaction is generally known to occur in saturated or near-saturated cohesionless soils at depths shallower than 50 feet below the ground surface. Liquefaction is also known to occur in relatively fine-grained saturated non-plastic soils. Factors known to influence liquefaction potential include

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composition and thickness of soil layers, grain size, relative density, groundwater level, degree of saturation, and both intensity and duration of ground shaking.

The project site is not located in an area that has been evaluated for liquefaction potential. However, the majority of the soils encountered in exploratory borings were very dense with significant amounts of large cobbles and boulders, which are not a soil type that is susceptible to liquefaction.

Differential settlement can result from liquefaction. However, the soils at the project site are not susceptible to liquefaction.

Landslide and Slope Failure

The project site is generally relatively flat (NRCS 2023). However, the nearby river embankment slopes to the Kern River (BKF Engineers 2023), and on the other side of the driveway from the siphon alignment leading from Sierra Way to the SCE plant, a steep slope rises from the pavement.

Lateral Spreading

River banks and other open slopes can be subject to lateral spreading, depending on the characteristics of the soil at the site. In particular, seismically induced liquefaction can lead to lateral spreading. While the project site is adjacent to a riverbank, the soils at the site are not subject to liquefaction.

Subsidence and Collapse

Subsidence can occur when substances such as oil or groundwater are removed in large quantity from underground. Collapse can occur when soils that are subject to collapse are present at a site and disturbed. Neither of these is present at the project site.

Paleontological Resources

Fossils are the geologically altered remains of a once-living organism and/or traces of its existence (such as footprints). Fossils occur in rocks, also known as geologic units. A *geological unit* is a volume of rock of identifiable origin and age range that is defined by the distinctive and dominant, easily mapped and recognizable petrographic, lithologic, or paleontological features (facies) that characterize it.

Unlike archaeological sites, which are narrowly defined, paleontological sites are defined by the entire extent (both areal and stratigraphic) of a geologic unit. Once a unit is identified as containing vertebrate fossils or other rare fossils, the entire unit is a paleontological site (Society for Vertebrate Paleontology [SVP] 2010). For this reason, the *paleontological potential* of geologic units, or the likelihood of a geologic unit to yield significant fossils, is described and analyzed broadly, rather than being limited to geographic boundaries. *Significant fossils*, according to SVP, are fossils and fossiliferous deposits consisting of identifiable vertebrate fossils; large or small, uncommon invertebrate, plant, and trace fossils; and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information. Paleontological resources are considered to be older than recorded

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human history and/or older than middle Holocene (i.e., older than about 5,000 radiocarbon years).

According to SVP (2010) procedures for the assessment and mitigation of impacts on paleontological resources, a geologic unit has high paleontological potential if it is known to contain vertebrate or significant invertebrate, plan, or trace fossils. A unit has undetermined paleontological potential if there is little information available concerning their paleontological content, geologic age, and depositional environment. A unit has low paleontological potential if existing studies by a qualified professional paleontologist indicate low potential for yielding significant fossils. A unit has no paleontological potential if they are too young to yield fossils or are formed in an environment that precludes fossils (such as some metamorphic rocks and plutonic rocks such as granites and diorites).

As stated above in "Geology at the Project Site," the project site is underlain by Paleozoic-era metasedimentary rocks consisting of schist, phyllite, limestone, and quartzite; young alluvium associated with the Kern River; and artificial fill. The limestone associated with the metasedimentary rocks has potential to contain fossils. Further, rocks of this age have been found to yield fossils in Kern County (University of California Museum of Paleontology [UCMP] 2023). All recorded specimens of this age in Kern County in the UCMP database are invertebrates. Vertebrate fossils of other eras occur in Kern County; however, geologic units of these eras are not present at the project site. Because it is unclear whether the metamorphic rocks of Paleozoic age at the project site contain significant fossils, the paleontological potential is undetermined.

The young alluvium and artificial fill present at the project site are too young to contain fossils. Therefore, these units have no paleontological potential.

3.7.3 Discussion of Checklist Responses

a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Seismic-related rupture of a known earthquake fault—No Impact

The Proposed Project would remove and replace an existing siphon and pipeline from the Kern River to the Kern River Hatchery; therefore, it would not increase the risk of seismicity. Further, it would not involve the placement of structures for human habitation at the project site. Therefore, the Proposed Project would not increase the risk of surface fault rupture or increase the exposure of people or structures to such risk. There would be **no impact**.

ii. Strong seismic ground shaking—No Impact

The Proposed Project would remove and replace an existing siphon and pipeline from the Kern River to the Kern River Hatchery; therefore, it would not increase the risk of seismicity. Further, it would not involve the placement of structures for human habitation at the project site. Therefore, the Proposed Project would not increase the risk of strong seismic

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ground shaking or increase the exposure of people or structures to such risk. There would be **no impact**.

iii. Seismic-related ground failure, including liquefaction—Less than Significant

The project site is not located on soils that are vulnerable to liquefaction. Therefore, the new siphon that would be installed at the project site would not be subject to damage from liquefaction. In addition, the new siphon inlet structure would be supported on bedrock, which is not susceptible to liquefaction. Further, the siphon inlet and outlet structures as well as the pipeline do not include structures intended for human occupancy. Therefore, the Proposed Project would not increase the risk of seismically induced liquefaction or increase the exposure of people or structures to such risk. The impact would be **less than significant**.

iv. Landslides—Less than Significant

The project site is not located on or immediately adjacent to a steep slope that would be vulnerable to landslide. As described above, the project site is generally flat, although it is adjacent to areas with some slope. Therefore, the possibility of landslides on the project site is highly unlikely. However, construction of the Proposed Project would involve grading, trenching, and eventual undergrounding of the siphon pipeline. Surficial slumps and failure of inadequately shored trenches are types of land sliding that could occur during construction. The U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) outlines specific excavation and trenching standards for building (29 CFR Section 1926.650) and utility trenching operations (29 CFR Section 1926.652). In addition, these risks would be further minimized through compliance with State regulations and the CBC and implementation of standard construction practices. Furthermore, adherence to and compliance with the Kern County General Plan Safety Element, as well as compliance with the County Development Codes and the California Building Code, would ensure that impacts associated with landslides during construction would be **less than significant**.

b. Substantial soil erosion or the loss of topsoil—Less than Significant

Construction of the Proposed Project would have potential to contribute to accelerated erosion. Construction activities would involve ground-disturbing activities, such as demolition and removal of existing on-site facilities (e.g., the pipeline) and earth-moving for crushing and boring of boulders for pipeline undergrounding. Any of these activities could increase risk of erosion, particularly because of the project location adjacent to a body of flowing water.

During construction, clearing, grubbing, and grading activities would remove ground cover and expose and disturb soils. Exposed and disturbed soil would be vulnerable to erosion from wind and precipitation events, with soil particles becoming entrained in the runoff. Altered drainage patterns on site as a result of construction could also cause redirection and concentration of runoff, potentially further exacerbating the erosion problem.

However, because the area of disturbance would be greater than 1 acre, the proposed project would be subject to the Construction General Permit (refer to Section 8.2.1). In

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accordance with the Construction General Permit, DGS or its construction contractor would be required to prepare and implement a SWPPP. Among other things, the SWPPP would include a list of BMPs that would be implemented during project construction to prevent soil erosion and protect the topsoil. These BMPs would be implemented to ensure effective erosion control during construction. Exposed soils within the work area would be stabilized or landscaped following completion of construction activities. With erosion control BMPs and SWPPP compliance, impacts related to accelerated erosion during construction would be **less than significant**.

c. Location on a geologic unit or soil that is unstable or that would become unstable as a result of the Proposed Project and potentially result in an on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse—Less than Significant

Landslide. The risk of landslide is discussed above under item 3.7.3(a)(iv).

Lateral spreading. The project site is located on a riverbank, a feature that in general can be susceptible to lateral spreading. However, lateral spreading is activated by liquefaction, and the soils at the project site are not susceptible to liquefaction, as discussed under item 3.7.3(a)(iii). Further, the siphon inlet and outlet structures as well as the pipeline do not include structures intended for human occupancy. Therefore, the Proposed Project would not increase the risk of seismically induced lateral spreading or increase the exposure of people or structures to such risk.

Subsidence. The Proposed Project would not involve removal of substances below the ground, such as water or petroleum, that would result in subsidence.

Liquefaction. The risk of liquefaction is discussed above under 3.7(a)(iii).

Collapse. The project site is composed of boulders, rocks, sandy soil, and fill overlying bedrock. None of these geologic units is susceptible to collapse.

The impact related to location on unstable geologic units or soils is **less than significant**.

d. Location on expansive soil, creating substantial direct or indirect risks to life or property—No Impact

While the NRCS (2023) does not have data on the expansive qualities of the soil at the project site, the soil is composed primarily of silty sand and silty gravel (fill) and gravel with silt, silty gravel, sand, sand with silt, and silty sand as well as cobbles and boulders (alluvium). Underlying the fill and alluvium is bedrock. None of these soil types has a high clay content, and therefore is not expansive. Therefore, the project would not be located on expansive soil, thereby creating substantial direct or indirect risks to life or property. There would be **no impact**.

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e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater—No Impact

The Proposed Project would not involve the installation of facilities that would rely on septic tanks or alternative wastewater disposal systems. Therefore, the suitability of soils for the use of septic tanks or alternative wastewater systems is not relevant. There would be **no impact**.

f. Destruction of a unique paleontological resource or site or unique geological feature—Less than Significant with Mitigation

The limestone component of the Paleozoic-age metasedimentary rocks underlying the project site has potential to contain fossils. While the UCMP database query does not indicate any fossils of this era present along the Kern River, it does indicate invertebrate fossils of this age appearing in Kern County with locality unspecified. Accordingly, the geologic unit present at the project site has potential to contain fossils. If project excavation were to encounter significant fossils, there is a risk that the fossils could be damaged or destroyed. This would constitute a significant impact. Implementation of **Mitigation Measure GEO-1** would require the State of California or its contractors to stop construction and appropriately investigate any inadvertent paleontological discoveries. Therefore, the potential for the Proposed Project to directly or indirectly destroy a unique paleontological resource would be reduced to a **less-than-significant level with mitigation.**

Mitigation Measure GEO-1: Halt Construction if Paleontological Resources Are Discovered, Evaluate Discoveries for Uniqueness, and Implement Appropriate Mitigation Measures for Unique Resources.

The State of California (DGS) and its contractors shall implement the following procedures if paleontological resources are discovered during construction activities:

- Stop work immediately within 50 feet.
- Contact DGS immediately.
- Protect the site from further impacts, including looting, erosion, or other human or natural damage.
- A paleontological resources principal investigator who meets the standards set forth by the Society of Vertebrate Paleontology will be retained to evaluate the discovery and make a recommendation to DGS as to whether or not it is a unique paleontological resource.
- If the resource is not a unique paleontological resource, then it will be documented appropriately, and no further measures will be required.
- If the resource is a unique paleontological resource, the principal investigator, in consultation with DGS, will recommend resource-specific measures to protect

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and document the paleontological resource, such as photo documentation and avoidance or collection.

- If collection is necessary, the fossil material will be properly prepared in accordance with SVP guidelines and/or curation at a recognized museum repository. Appropriate documentation will be included with all curated materials.

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3.8 GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

3.8.1 Regulatory Setting

Federal Laws, Regulations, and Policies

At the federal level, USEPA has developed regulations to reduce greenhouse gas (GHG) emissions from motor vehicles and has developed permitting requirements for large stationary emitters of GHGs. USEPA and NHTSA have issued rules regarding the national program of fuel economy standards for passenger vehicles and light-duty trucks. The NHTSA and USEPA updated the CAFE and GHG emissions standards for passenger cars and light trucks and established new standards covering model years 2021 through 2026, under the Safer Affordable Fuel Efficient (SAFE) vehicles final rule (SAFE Rule Part Two). This rule, which went into effect on June 29, 2020, rolled back some of the fuel efficiency mandates that had been in effect. In March 2022, CAFE standards were finalized for model years 2024 through 2026. The final rule establishes standards that require an industry-wide fleet average of approximately 49 mpg for passenger cars and light trucks. Current rulemaking is under way to establish standards for model years 2027 and beyond for passenger cars and light trucks, standards for model years 2029 and beyond for heavy-duty pickup trucks and vans, and standards for model years 2030 and beyond for medium- and heavy-duty on-highway vehicles and work trucks.

In 2019, the NHTSA and the USEPA also issued a regulation revoking California's Clean Air Act waiver, which had allowed California to set its own emissions standards, asserting that the waiver was preempted by federal law. On December 21, 2021, the NHTSA published its CAFE Preemption rule, which finalizes its repeal of the SAFE Rule Part One. USEPA rescinded SAFE Rule Part One on March 9, 2022, and reinstated California's authority under the Clean Air Act to implement its own GHG emission standards and zero-emission vehicle (ZEV) sales mandate. Notably, California harmonized its vehicle efficiency standards through 2025 with the federal standards through the Advanced Clean Cars Program.

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State Laws, Regulations, and Policies

In recent years, California has enacted a number of policies and plans to address GHG emissions and climate change. In 2006, the California State Legislature enacted AB 32, the Global Warming Solutions Act, which set the overall goals for reducing California's GHG emissions to 1990 levels by 2020. SB 32 codified an overall goal for reducing California's GHG emissions to 40 percent below 1990 levels by 2030. Executive Orders (EOs) S-3-05 and B-16-2012 further extend this goal to 80 percent below 1990 levels by 2050. The CARB has completed rulemaking to implement several GHG emission reduction regulations and continues to investigate the feasibility of implementing additional GHG emission reduction regulations. These include the low carbon fuel standard, which reduces GHG emissions associated with fuel usage, and the RPS, which requires electricity suppliers to increase the amount of electricity generated from renewable sources to certain thresholds by various deadlines. In 2018, SB 100 updated the RPS to require 50 percent renewable resources by the end 2026, 60 percent by the end of 2030, and 100 percent renewable energy and zero carbon resources by 2045. EO B-55–18 signed by Governor Jerry Brown set a goal of statewide carbon neutrality by 2045 and net negative emissions thereafter. These goals were strengthened by AB 1279, the California Climate Crisis Act, which passed in 2022. The Act declared it the policy of the state both to achieve net zero greenhouse gas emissions as soon as possible, but no later than 2045, and achieve and maintain net negative greenhouse gas emissions thereafter, and to ensure that by 2045, statewide anthropogenic greenhouse gas emissions are reduced to at least 85% below the 1990 levels.

CARB approved the First Update to the AB 32 Scoping Plan on May 22, 2014 (CARB 2014). This update defines climate change priorities for the next 5 years and also sets the groundwork to reach long-term goals set forth in EOs S-3-05 and B-16-2012. The update also highlights California's progress toward meeting the near-term 2020 GHG emission reduction goals and evaluates how to align the state's longer term GHG reduction strategies with other state policy priorities for water, waste, natural resources, clean energy, transportation, and land use. CARB released and adopted a 2022 Scoping Plan (CARB 2022). The 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) lays out a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels no later than 2045, as directed by AB 1279.

Local Laws, Regulations, and Policies

EKAPCD proposes the following process for determining individual and cumulative significance of project specific GHG emissions on climate change when issuing permits for new stationary-source projects (EKAPCD 2012):

A. Project subject to a CEQA statutory exemption or subject to a CEQA categorical exemption that does not otherwise have significant individual and cumulative effects on GHG emissions would not require further CEQA review.

B. Project that is not exempt from CEQA would require quantification of Project Specific GHG Emissions to determine annual GHG emissions.

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C. Project that emits less than 25,000 tons per year of GHGs would be determined to have a less than significant individual or cumulatively considerable impact on GHG emissions and would not require further CEQA review.

3.8.2 Environmental Setting

Climate change results from the accumulation in the atmosphere of GHGs, which are produced primarily by the burning of fossil fuels for energy. Because GHGs (carbon dioxide [CO_2], methane, and nitrous oxide) persist and mix in the atmosphere, emissions anywhere in the world affect the climate everywhere in the world. GHG emissions are typically reported in terms of carbon dioxide equivalents (CO_2e), which converts all GHGs to an equivalent basis taking into account their global warming potential compared to CO_2.

Anthropogenic (human-caused) emissions of GHGs are widely accepted in the scientific community as contributing to global warming. Temperature increases associated with climate change are expected to adversely affect plant and animal species, cause ocean acidification and sea level rise, affect water supplies, affect agriculture, and harm public health.

Global climate change is already affecting ecosystems and societies throughout the world. Climate change adaptation refers to the efforts undertaken by societies and ecosystems to adjust to and prepare for current and future climate change, thereby reducing vulnerability to those changes. Human adaptation has occurred naturally over history; people move to more suitable living locations, adjust food sources, and more recently, change energy sources. Similarly, plant and animal species also adapt over time to changing conditions; they migrate or alter behaviors in accordance with changing climates, food sources, and predators.

Many national, as well as local and regional, governments are implementing adaptive practices to address changes in climate, as well as planning for expected future impacts from climate change. Some examples of adaptations that are already in practice or under consideration include conserving water and minimizing runoff with climate-appropriate landscaping, capturing excess rainfall to minimize flooding and maintain a constant water supply through dry spells and droughts, protecting valuable resources and infrastructure from flood damage and sea level rise, and using water-efficient appliances.

CARB compiles GHG inventories for the State of California. Based on CARB's 2020 GHG inventory data, California emitted 369.2 million metric tonnes carbon dioxide equivalent ($MMTCO_2e$) emissions, including emissions resulting from imported electrical power. (CARB 2023). Despite California's population and economic growth, CARB's 2020 statewide inventory indicates that California's net GHG emissions in 2020 were below 1990 levels of 431 MMTCO2e which was the 2020 GHG reduction target codified in California under AB 32.

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3.8.3 Discussion of Checklist Responses

a. Generate a net increase in greenhouse gas emissions which may have a significant impact on the environment—Less than Significant

The Proposed Project would generate GHG emissions during construction and operation. Construction-related GHG emissions would result from the combustion of fossil-fueled construction equipment, material hauling, and worker trips. These emissions were estimated using CalEEMod version 2022.1.1.21, based on information from Chapter 2, *Project Description,* along with additional site-specific information. This includes a detailed list of construction equipment but using default horsepower and load factors; the number of workers for each construction phase was provided to estimate worker trips as well as vendor and hauling trips. Vendor and hauling trips were assumed to be 20 miles each way since the Proposed Project is in a rural area. The default worker trip rate for Kern County was used. The Proposed Project's construction-related GHG emissions are estimated at 890 metric tons of carbon dioxide equivalents ($MTCO_2e$). This is less than the EKAPCD significance threshold of 25,000 $MTCO_2e$ per year.

Operational GHG emissions would result from fossil-fueled equipment and motor vehicles. The Proposed Project's operational emissions would be minimal due to only occasional inspections and would be similar to emissions that occurred when the previous pipeline was operational.

The net project emissions when amortized construction emissions are included would be less than 30 $MTCO_2e$ per year, which would not be anticipated to result in a significant impact to global climate change or impede the goals of AB 32 or SB 32. Since the Proposed Project's emissions would be below the significance threshold, the impact would be **less than significant**.

b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases—Less than Significant

The State of California has implemented AB 32, SB 32, and multiple Executive Orders to reduce GHG emissions. The Project does not pose any conflict with the most recent list of CARB's early action strategies, nor is it one of the sectors at which measures are targeted. The 2022 Scoping Plan (CARB 2022) did not mention similar projects as a specific target for additional strategies, but emission reductions at the project site would be influenced by decisions relating to target sectors such as water, waste, natural resources, clean energy, transportation, and land use. The Proposed Project would not be required to report emissions to CARB. Therefore, emissions generated by the Project would not be expected to have a substantial contribution to the ongoing impact on global climate change. The Project would not conflict or impede implementation of local General Plans. For these reasons, the Proposed Project would not conflict with AB 32 or SB 32, the local general plans. Therefore, this impact would be **less than significant**.

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3.9 HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e. Be within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport and result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☒	☐	☐
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☒	☐	☐

3.9.1 Regulatory Setting

Hazardous materials and hazardous wastes are subject to extensive federal, state, and local regulations to protect public health and the environment. These regulations provide definitions of hazardous materials; establish reporting requirements; set guidelines for handling, storage, transport, and disposal of hazardous wastes; and require health and safety provisions for

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workers and the public. The major federal, state, and regional agencies enforcing these regulations are the USEPA; OSHA; California Department of Toxic Substances Control (DTSC); Cal/OSHA; California Governor's Office of Emergency Services (Cal OES); SWRCB; Central Valley RWQCB; and EKAPCD.

Federal Laws, Regulations, and Policies

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, also called the Superfund Act; 42 USC Section 9601 et seq.) is intended to protect the public and the environment from the effects of past hazardous waste disposal activities and new hazardous material spills. Under CERCLA, USEPA has the authority to seek the parties responsible for hazardous materials releases and to ensure their cooperation in site remediation. CERCLA also provides federal funding (through the "Superfund") for the remediation of hazardous materials contamination. The Superfund Amendments and Reauthorization Act of 1986 (Public Law 99-499) amended some provisions of CERCLA and provides for a Community Right-to-Know program.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act of 1976 (RCRA; 42 USC Section 6901 *et seq.*), as amended by the Hazardous and Solid Waste Amendments of 1984, is the primary federal law for the regulation of solid waste and hazardous waste in the United States. These laws provide for the "cradle-to-grave" regulation of hazardous wastes, including generation, transportation, treatment, storage, and disposal. Any business, institution, or other entity that generates hazardous waste is required to identify and track its hazardous waste from the point of generation until it is recycled, reused, or disposed of.

The USEPA has primary responsibility for implementing RCRA, but individual states are encouraged to seek authorization to implement some or all of RCRA's provisions. California received authority to implement the RCRA program in August 1992. DTSC is responsible for implementing the RCRA program in addition to California's own hazardous waste laws, which are collectively known as the Hazardous Waste Control Law.

Occupational Safety and Health Administration

OSHA is responsible at the federal level for ensuring worker safety. OSHA sets federal standards for implementation of workplace training, exposure limits, and safety procedures for the handling of hazardous substances (as well as other hazards). OSHA also establishes criteria by which each state can implement its own health and safety program.

State Laws, Regulations, and Policies

California Occupational Safety and Health Administration

Cal/OSHA assumes primary responsibility for developing and enforcing workplace safety regulations in California. Cal/OSHA regulations pertaining to the use of hazardous materials in the workplace (CCR Title 8) include requirements for safety training, availability of safety

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equipment, accident and illness prevention programs, warnings about exposure to hazardous substances, and preparation of emergency action and fire prevention plans. Hazard communication program regulations that are enforced by Cal/OSHA require workplaces to maintain procedures for identifying and labeling hazardous substances, inform workers about the hazards associated with hazardous substances and their handling, and prepare health and safety plans to protect workers at hazardous waste sites. Employers must also make material safety data sheets available to employees and document employee information and training programs.

California Accidental Release Prevention

The purpose of the California Accidental Release Prevention (CalARP) program is to prevent accidental releases of substances that can cause serious harm to the public and the environment, to minimize the damage if releases do occur, and to satisfy community right-to-know laws. In accordance with this program, businesses that handle more than a threshold quantity of regulated substance(s) are required to develop a risk management plan (RMP). Certified Unified Program Agencies (CUPAs) implement the CalARP program through review of RMPs, facility inspections, and public access to information that is not confidential or a trade secret.

Hazardous Waste Control Law

The Hazardous Waste Control Law (California Health and Safety Code Chapter 6.5, Section 25100 et seq.) authorizes the California Environmental Protection Agency (CalEPA) and DTSC to regulate the generation, transport, treatment, storage, and disposal of hazardous wastes. DTSC can also delegate enforcement responsibilities to local jurisdictions that enter into agreements with DTSC for the generation, transport, and disposal of hazardous materials under the authority of the Hazard Waste Control Law.

The Unified Program

The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of six environmental and emergency response programs. CalEPA and other State agencies set the standards for their programs while local governments implement the standards. These local implementing agencies are called CUPAs. For each county, the CUPA regulates/oversees the following (not all of which are applicable to the Proposed Project):

- Hazardous Materials Business Plans;
- CalARP plans or federal RMPs;
- The operation of underground storage tanks (USTs) and aboveground storage tanks (ASTs);
- Universal waste and hazardous waste generators and handlers;
- On-site hazardous waste treatment;
- Inspections, permitting, and enforcement;

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- Proposition 65 reporting; and
- Emergency response.

California Fire Code

The California Fire Code (24 CCR Part 9) establishes minimum requirements to safeguard the public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new and existing buildings. Chapter 33 of the code contains requirements for fire safety during construction and demolition activities, such as development of a pre-fire plan in coordination with the fire chief; maintaining vehicle access for firefighting at construction sites, and requirements related to safe operation of internal combustion engine construction equipment.

Specifically, the California Fire Code requires that smoking only be conducted in approved areas (Section 3304.1), materials susceptible to spontaneous ignition, such as oily rags, be stored in a listed disposal container (Section 3304.2.4), sources of ignition and smoking be prohibited in flammable and combustible liquid storage areas (Section 3305.4), and that structures under construction be provided with not less than one approved portable fire extinguisher, including one in every storage and construction shed and additional portable fire extinguishers where special hazards exist including where flammable and combustible liquids are stored and used (Section 3315.1), among other requirements. Chapter 35 of the California Fire Code governs welding and other hot work and imposes numerous safety requirements to minimize the risk of fire ignition from these activities.

California Department of Forestry and Fire Protection Wildland Fire Management

The Office of the State Fire Marshal and California Department of Forestry and Fire Protection (CAL FIRE) administer State policies regarding wildland fire safety. Construction contractors must comply with the following requirements in the Public Resources Code during construction activities at any sites with forest-, brush-, or grass-covered land:

- Earthmoving and portable equipment with internal combustion engines must be equipped with a spark arrestor to reduce the potential for igniting a wildland fire (Section 4442).
- Appropriate fire-suppression equipment must be maintained from April 1 to December 1, the highest-danger period for fires (Section 4428).
- On days when a burning permit is required, flammable materials must be removed to a distance of 10 feet from any equipment that could produce a spark, fire, or flame, and the construction contractor must maintain the appropriate fire-suppression equipment (Section 4427).
- On days when a burning permit is required, portable tools powered by gasoline-fueled internal combustion engines must not be used within 25 feet of any flammable materials (Section 4431).

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Porter-Cologne Water Quality Control Act

As discussed in more detail in Section 3.10, "*Hydrology and Water Quality"*, the Porter-Cologne Act (California Water Code, Division 7) is the provision of the California Water Code that regulates water quality in California and authorizes the SWRCB and RWQCBs to implement and enforce the regulations.

RWQCBs regulate discharges under the Porter-Cologne Act primarily through the issuance of WDRs. Anyone discharging or proposing to discharge materials that could affect water quality must file a report of waste discharge. The SWRCB and applicable RWQCBs can make their own investigations or may require dischargers to carry out water quality investigations and report on water quality issues. The Proposed Project site is under the jurisdiction of the Central Valley RWQCB.

Local Laws, Regulations, and Policies

There are no local laws related to hazards and hazardous materials related to the Proposed Project.

3.9.2 Environmental Setting

Hazardous Materials Sites

There are no active hazardous materials cleanup sites listed on EnviroStor or Geotracker (DTSC 2023; SWRCB 2023) within 5000 feet of the Project site. The Project area is not located on a site listed pursuant to Government Code Section 65962.5 (also known as the Cortese List), and which is generally represented by the EnviroStor database (DTSC 2023).

Valley Fever

Valley Fever is a fungal-borne respiratory infection endemic to the soil within the southwestern portion of the United States, including Kern County in the Central Valley of California. Valley Fever is caused by the fungus *Coccidioides immitis*, which grows in soils in areas of low rainfall, high summer temperatures, and moderate winter temperatures. It poses a risk to humans when the soil is disturbed by ground-disturbing activities, such as digging, driving, and high winds. Populations with more than 20 cases annually of Valley Fever per 100,000 people are considered highly endemic (Department of Industrial Relations, 2023). According to the County, in 2022, Kern County had 280 cases per 100,000 people and thus would be considered highly endemic (Kern Public Health, 2023).

Airports

The nearest airport to the project site is Kern Valley Airport, which is located approximately 3.2 miles to the south.

Wildfire Hazards

The Project site is adjacent to wildlands. The adjacent wildlands are within the State Responsibility Area (SRA) and has the designation for very high fire hazard severity zones (FHSZs) (CAL FIRE 2023). As discussed in greater detail in Section 3.15, "Public Services," the Project site

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is served by the Kern County Fire Department out of Fire Station 76, which is located approximately 1.5 miles southeast of the site.

Sensitive Receptors

Sensitive receptors include facilities such as hospitals, schools, daycare facilities, elderly housing and convalescent facilities where the occupants are more susceptible to the adverse effects of exposure to toxic chemicals, pesticides, and other pollutants. The nearest such facilities to the project site are Camp Owen, a County-operated youth detention facility located approximately 450 feet east of the proposed pipeline alignment across Sierra Way from the project site; and residential land uses located 350 feet to the west and east of the proposed pipeline alignment. The nearest school is Kernville Elementary School, located 1 mile to the south, while the nearest hospital is the Kern Valley Hospital, located approximately 9.35 miles to the southeast of the project site.

3.9.3 Discussion of Checklist Responses

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials—Less than Significant with Mitigation

Construction

As described in Chapter 2, *Project Description,* construction of the Proposed Project would involve clearing and grubbing; removing existing concrete debris and trash; excavation/trenching; and hauling of soil, debris, and material on- and offsite. Accordingly, Project construction would potentially require the routine transfer, use, storage, or disposal of hazardous materials (e.g., fuel, oil, and lubricants) used during typical construction activities. The Project would comply with all relevant federal, State, and local statutes and regulations related to transport, use, storage, or disposal of hazardous materials during construction, and all materials designated for disposal would be evaluated for appropriate federal and State hazardous waste criteria. Nevertheless, during routine transport and use of equipment, small amounts of hazardous materials could be accidentally released, which could result in adverse effects on the public or the environment. Mitigation Measure HAZ-1 requires specific measures for spill prevention and containment of hazardous materials on the Project site during construction. Implementation of Mitigation Measure HAZ-1 would reduce potential impacts from releases of hazardous materials during construction to less-than-significant levels.

It is not expected that any construction wastes generated by the Project would be contaminated. Any spoils or other on-site soils that may become contaminated by products used by heavy construction equipment (e.g., from a hydraulic fluid leak) would be hauled offsite for disposal at a permitted landfill. As a result of compliance with the applicable regulations described above, no substantial risks would result to construction workers, the public, or the environment from the construction-related transport, use, storage, or disposal of hazardous materials.

During construction, the Project would disturb the soil and cause the fungal spores to become airborne, potentially putting construction personnel and wildlife at risk of contracting Valley

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Fever. Dust control mitigation measures and requirements imposed by state and federal Occupational Safety and Health Administrations (OSHA and Cal/OSHA) would reduce effects of Valley Fever. As an example, when exposure to dust is unavoidable, DGS would be required to develop and implement a respiratory protection program in accordance with Cal/OSHA's Respiratory Protection standard (8 CCR 5144) and contractors would have to provide National Institute for Occupational Safety and Health-approved respiratory protection with particulate filters rated as N95, N99, N100, P100, or high-efficiency particulate air (HEPA). Mitigation Measure AQ-1 requires preparation and implementation of a Construction Fugitive Dust Control Plan. With implementation of Mitigation Measure AQ-1, the impact to construction workers and adjacent residents would be less than significant with mitigation.

Thus, with the implementation of Mitigation Measures HAZ-1 and AQ-1, this impact would be **less than significant with mitigation**.

Mitigation Measure HAZ-1: Hazardous Materials Spill Prevention and Containment.

The following measures shall be implemented prior to and during construction and shall be incorporated into project plans and specifications:

- All equipment shall be inspected by the contractor for leaks prior to the start of construction and regularly throughout Project construction. Leaks from any equipment shall be contained and the leak remedied before the equipment is again used on the site.
- BMPs for spill prevention shall be incorporated into Project plans and specifications and shall contain measures for secondary containment and safe handling procedures.
- A spill kit shall be maintained on site throughout all construction activities and shall contain appropriate items to absorb, contain, neutralize, or remove hazardous materials stored or used in large quantities during construction.
- Project plans and specifications shall identify construction staging areas and designated areas where equipment refueling, lubrication, and maintenance may occur. Areas designated for refueling, lubrication, and maintenance of equipment shall be approved by the State.
- In the event of any spill or release of any chemical or wastewater during construction, the contractor shall immediately notify the State.
- Hazardous substances shall be handled in accordance with Title 22 of the California Code of Regulations, which prescribes measures to appropriately manage hazardous substances, including requirements for storage, spill prevention and response and reporting procedures.

Operations

Operation and maintenance activities at the Project site may require the use of a minor amount of hazardous materials (i.e., the use of fuel to power access vehicles); however, all hazardous materials used during operation and maintenance would comply with existing federal, State, and local regulations, and would not create a significant hazard to the public or the

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environment. Therefore, the Project would have a **less-than-significant** impact during the operation phase.

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—Less than Significant with Mitigation

As discussed in item 3.9.3(a), Proposed Project construction would require the use of certain hazardous materials, such as fuels and oils. These materials would be contained in construction equipment and/or could be stored on-site. Spills of these hazardous materials could result in a significant hazard to the public or environment if handled improperly and released through upset or accident conditions. As detailed above, the Proposed Project's use of hazardous materials would comply with all applicable laws and regulations, and Mitigation Measure HAZ-1 would also be implemented. Given implementation of these measures, including BMPs for spill prevention, secondary containment measures, and maintenance spill clean-up kits on-site, Proposed Project construction would not create a significant hazard to the public or the environment from reasonably foreseeable upset or accident conditions involving the use of hazardous materials.

The project site is not located on or near any hazardous materials contamination/clean-up sites; thus, the Proposed Project would not release hazardous materials through disturbance of contaminated soils during construction.

As discussed in item 3.9.3(a), Proposed Project operation and maintenance activities would use a minor amount of hazardous materials (e.g., fuel, oil) associated with equipment that may be used for site inspections and periodic trash rack clearing. However, the use of these hazardous materials would comply with all applicable laws and regulations and would not create a significant hazard to the public or environment. Overall, this impact would be **less than significant with mitigation.**

c. Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school—No Impact

As outlined in Section 3.9.2, there are no schools located within 0.25 mile (1,320 feet) of the project site. Therefore, the Proposed Project would have **no impact**.

d. Located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, create a significant hazard to the public or the environment—No Impact

The Proposed Project would not be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Therefore, the

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Proposed Project would not create a significant hazard to the public or the environment. There would be **no impact**.

e. Located within an airport land use plan area or, where such a plan has not been adopted, be within 2 miles of a private airport or public airport and result in a safety hazard or excessive noise for people residing or working in the study area—No Impact

There are no airports located within 2 miles of the project site. Kern Valley Airport is located approximately 3.2 miles from the project site. The Proposed Project would not construct any structures, create a safety hazard, or result in an increased use of areas near airports that would result in excessive noise for people working in the area. The Proposed Project would have **no impact**.

f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan—Less than Significant with Mitigation

The use of Sierra Way by construction equipment and hauling trucks accessing the site could interfere with emergency access, creating a potentially significant impact. However, implementation of **Mitigation Measure TR-1**, described in Section 3.17, "Transportation," would provide traffic control at the project access road that could allow emergency vehicles access through the area and to the site. Project construction would not involve large numbers of construction personnel, and project operation would not introduce new users to the project area. With implementation of Mitigation Measure TR-1, neither construction nor operation of the Proposed Project would impair emergency response or interfere with implementation of an adopted emergency response plan or emergency evacuation plan. The Project would have a **less than significant impact with mitigation** on adopted emergency response plans or emergency evacuation plans.

Mitigation Measure TR-1. Prepare and Implement a Construction Traffic Management Plan

See Section 317, "Transportation."

g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires—Less than Significant with Mitigation

Project activities would clear and grub the Project site prior to construction, which would reduce the potential for accidental wildfire ignition by much removing flammable vegetation. The Project site is within the existing service area for the Kern County Fire Department. Construction activities utilizing internal combustion engine equipment would have potential to provide a spark and inadvertently ignite a wildfire, which could expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

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As discussed in Section 3.20, “Wildfire,” implementation of Mitigation Measure WF-1 would require the inclusion of spark arrestors and additional fire suppression precautions during the high fire danger period. Furthermore, project construction activities would comply with applicable Public Resource Code requirements related to wildland fire safety, which would reduce the risk of accidental wildfire ignition. Overall, the Proposed Project would not significantly exacerbate wildfire risks or hazards. Therefore, the impact would be **less than significant with mitigation**.

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3.10 HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Proposed Project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☒	☐	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
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 on- or off-site;	☐	☐	☒	☐
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
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	☐	☒	☐	☐
iv. impede or redirect flood flows?	☐	☐	☒	☐
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☒	☐	☐

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3.10.1 Regulatory Setting

Federal Laws, Regulations, and Policies

Clean Water Act

The CWA is the primary federal law that protects the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands. Key sections of the CWA pertaining to water quality regulation that are potentially relevant for the Proposed Project are Sections 303, 401, and 402. For discussion of Section 404 of the CWA, please refer to Section 3.4, "Biological Resources".

Section 303(d) – Listing of Impaired Water Bodies

Under CWA Section 303(d), states are required to identify "impaired water bodies" (i.e., those not meeting established water quality standards); identify the pollutants causing the impairment; establish priority rankings for waters on the list, and develop a schedule for the development of control plans to improve water quality. USEPA then approves the State's recommended list of impaired waters or adds and/or removes waterbodies.

Section 401 – Water Quality Certification

Under CWA Section 401, a federal agency may not issue a permit or license to conduct any activity that may result in any discharge into waters of the U.S. unless a Section 401 water quality certification (WQC) is issued, or certification is waived (USEPA 2022). States and authorized tribes where the discharge would originate are generally responsible for issuing WQCs. One of the major federal permits subject to Section 401 is the CWA Section 404 permit issued by the USACE (refer to discussion in Section 3.4, "Biological Resources").

In issuing WQCs, certifying authorities consider whether the federally licensed or permitted activity will comply with applicable water quality standards, effluent limitations, new source performance standards, toxic pollutants restrictions and other appropriate water quality requirements of state or tribal law (USEPA 2022).

Section 402 – National Pollutant Discharge Elimination System Permits for Stormwater Discharge

CWA Section 402 regulates stormwater discharges to surface waters through the NPDES, which is officially administered by USEPA. In California, USEPA has delegated its authority to the SWRCB, which, in turn, delegates implementation responsibility to the nine RWQCBs, as discussed below in reference to the Porter-Cologne Act.

The NPDES program provides for both general (those that cover a number of similar or related activities) and individual (activity- or project-specific) permits. One of the common general permits that comes into play for construction activities is SWRCB's General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order 2022-0057-DWQ) ("Construction General Permit"). This permit applies to most construction projects that disturb 1 or more acre(s) of land and requires that the applicant file a public notice of intent to discharge stormwater and prepare and implement a stormwater pollution prevention plan (SWPPP). Since the Proposed Project would disturb more than 1 acre of land, it would be subject

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to the Construction General Permit. Among other things, the SWPPP would include a list of BMPs that would be implemented during project construction to prevent soil erosion, control fugitive dust, and protect the topsoil. These BMPs would be implemented to ensure effective erosion control during construction. BMPs identified in the SWPPP may include the following:

- Minimize the area of soil disturbed.
- Use water, appropriate soil stabilizers, and/or re-vegetation to reduce airborne dust.
- Stabilize all spoils piles by tarping or other methods.
- Suspend work during heavy winds.

Another type of general NPDES permit are those issued under the SWRCB's Municipal Stormwater Permitting Program, which regulates discharges from municipal separate storm sewer systems (MS4s) (SWRCB 2024). Permits are issued under two phases depending on the size of the urbanized area/municipality. Phase I MS4 permits are issued for municipalities with over 100,000 people, and are often issued to a group of co-permittees within a metropolitan area. Phase II MS4 permits are issued for municipalities with less than 100,000 people. Kern County has enrolled under a Region-wide MS4 Permit (Order R5-2016-0040; applicable to both Phase I and II MS4s), which specifies a pollutant prioritization approach for permittees to implement a Storm Water Management Program.

State Laws, Regulations, and Policies

Porter–Cologne Water Quality Control Act

The Porter–Cologne Act, passed in 1969, dovetails with CWA (see discussion of the CWA above). It established SWRCB and divided the state into nine regions, each overseen by an RWQCB. SWRCB is the primary State agency responsible for protecting the quality of the state's surface water and groundwater supplies; however, much of the SWRCB's daily implementation authority is delegated to the nine RWQCBs, which are responsible for implementing CWA Sections 401, 402, and 303[d]. In general, SWRCB manages water rights and regulates statewide water quality, whereas RWQCBs focus on water quality within their respective regions.

The Porter–Cologne Act requires RWQCBs to develop water quality control plans (also known as basin plans) that designate beneficial uses of California's major surface-water bodies and groundwater basins and establish specific narrative and numerical water quality objectives (WQOs) for those waters. Beneficial uses represent the services and qualities of a waterbody (i.e., the reasons that the waterbody is considered valuable). WQOs reflect the standards necessary to protect and support those beneficial uses. Basin plan standards are primarily implemented by regulating waste discharges so that WQOs are met. Under the Porter–Cologne Act, basin plans must be updated every 3 years.

Water Quality Control Plan for the Tulare Lake Basin

The Central Valley RWQCB has developed separate basin plans for the Tulare Lake Basin (within which the Proposed Project is located) and the Sacramento and San Joaquin River Basins. The Tulare Lake Basin Plan (2018) identifies beneficial uses for surface and groundwater bodies within the basin, and specifies WQOs to protect and maintain the beneficial uses. Surface water body beneficial uses pertaining to the Proposed Project are provided in **Table 3.10-1**.

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Table 3.10-1. Beneficial Uses of Surface Waterbodies Potentially Affected by the Proposed Project

Stream	Beneficial Uses													
	MUN	AGR	IND	PRO	POW	REC-1	REC-2	WARM	COLD	WILD	RARE	SPWN	GWR	FRSH
Kern River														
Above Lake Isabella	●				●	●	●	●	●	●	●	●		●
Lake Isabella					●	●	●	●	●	●				●
Lake Isabella to KR-1[1]					●	●	●	●	●	●	●			
Below KR-1[1]	●	●	●	●	●	●	●	●		●	●		●	

Notes:

[1] KR-1 = Southern California Edison Kern River Powerhouse No. 1

Beneficial Uses Definitions:

Municipal and Domestic Supply (MUN) – Uses of water for community, military, or individual water supply systems, including, but not limited to, drinking water supply.

Agricultural Supply (AGR) – Uses of water for farming, horticulture, or ranching, including, but not limited to, irrigation, stock watering, or support of vegetation for range grazing.

Industrial Service Supply (IND) – Uses of water for industrial activities that do not depend primarily on water quality, including, but not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection, or oil well re-pressurization.

Industrial Process Supply (PRO) – Uses of water for industrial activities that depend primarily on water quality.

Hydropower Generation (POW) – Uses of water for hydropower generation.

Water Contact Recreation (REC-1) – Uses of water for recreation activities involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, water-skiing, skin and scuba diving, surfing, white water activities, fishing, or use of natural hot springs.

Non-Contact Water Recreation (REC-2) – Uses of water that support warm water ecosystems, including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.

Warm Freshwater Habitat (WARM) – Uses of water that support warm water ecosystems, including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.

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Cold Freshwater Habitat (COLD) – Uses of water that support cold water ecosystems, including, but not limited to, preservation and enhancement of terrestrial habitats or wetlands, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources.

Wildlife Habitat (WILD) – Uses of water that support terrestrial or wetland ecosystems, including, but not limited to, preservation and enhancement of terrestrial habitats or wetlands, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources.

Rare, Threatened, or Endangered Species (RARE) – Uses of water that support habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under state or federal law as rare, threatened or endangered.

Spawning, Reproduction, and/or Early Development (SPWN) – Uses of water that support high quality aquatic habitats suitable for reproduction and early development of fish.

Ground Water Recharge (GWR) – Uses of water for natural or artificial recharge of ground water for purposes of future extraction, maintenance of water quality, or halting of saltwater intrusion into freshwater aquifers.

Freshwater Replenishment (FRSH) – Uses of water for natural or artificial maintenance of surface water quantity or quality.

Source: Central Valley RWQCB 2018

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The Tulare Lake Basin Plan (2018) specifies surface water WQOs for a wide range of constituents/pollutants. Of most relevance to the Proposed Project and its potential effects are the following:

- **Oil and Grease.** Waters shall not contain oils, greases, waxes, or other materials in concentrations that cause nuisance, result in a visible film or coating on the surface of the water or on objects in the water, or otherwise adversely affect beneficial uses.
- **Sediment.** The suspended sediment load and suspended sediment discharge rate of waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.
- **Settleable Material.** Waters shall not contain substances in concentrations that result in the deposition of material that causes nuisance or adversely affects beneficial uses.
- **Turbidity.** Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increases in turbidity attributable to controllable water quality factors shall not exceed the following limits:
  - Where natural turbidity is between 0 and 5 Nephelometric Turbidity Units (NTUs), increases shall not exceed 1 NTU.
  - Where natural turbidity is between 5 and 50 NTUs, increases shall not exceed 20 percent.
  - Where natural turbidity is equal to or between 50 and 100 NTUs, increases shall not exceed 10 NTUs.
  - Where natural turbidity is greater than 100 NTUs, increases shall not exceed 10 percent.

With respect to groundwater, the Proposed Project site is located within the Kern River Valley Groundwater Basin (5-025). The Tulare Lake Basin Plan (2018) designates MUN, AGR, and IND as existing beneficial uses for this groundwater basin.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA) became law in 2015 and created a legal and policy framework to locally manage groundwater sustainably. SGMA allows local agencies to customize groundwater sustainability plans (GSPs) to their regional economic and environmental conditions and needs, and establish new governance structures, known as Groundwater Sustainability Agencies (GSAs). GSPs are intended to facilitate the use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results (e.g., chronic lowering of groundwater levels). Based on the State's Basin Prioritization process, SGMA requires medium and high priority basins to develop GSAs and GSPs and manage groundwater for long-term sustainability (California Department of Water Resources [DWR] 2024a).

The Proposed Project site overlies the Kern River Valley Groundwater Basin (5-025), as noted above, which is designated as very low priority by DWR (DWR 2024b).

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Local Laws, Regulations, and Policies

Kern County General Plan

The Kern County General Plan (2009) guides land use and development within the unincorporated areas of the county. The following goals and policies within the General Plan are potentially applicable to the Proposed Project and the hydrology and water quality analysis.

Land Use, Open Space, and Conservation Element

General Provisions

Goal 1. Ensure that the County can accommodate anticipated future growth and development while maintaining a safe and healthful environment and a prosperous economy by preserving valuable natural resources, guiding development away from hazardous areas, and assuring the provision of adequate public services.

Policy 34. Ensure that water quality standards are met for existing users and future development.

Policy 37. Ensure maintenance and repair of existing water systems.

Policy 43. Drainage shall conform to the Kern County Development Standards and the Grading Ordinance.

Policy 44. Discretionary projects shall analyze watershed impacts and mitigate for construction-related and urban pollutants, as well as alterations of flow patterns and introduction of impervious surfaces as required by [CEQA], to prevent the degradation of the watershed to the extent practical.

Safety Element

Goal 2. Reduce economic and social disruption resulting from earthquakes, fire, flooding, and other geologic hazards by assuring the continuity of vital emergency public services and functions.

Section 4.4 – Dam Failure, Flooding, and Inundation

Policy 1. Design discretionary critical facilities located within the potential inundation area for dam failure in order to mitigate the effects of inundation on the facility; promote orderly shutdown and evacuation (as appropriate); and prevent on-site hazards from affecting building occupants and the surrounding communities in the event of dam failure.

Policy 2. Design discretionary critical facilities in the potential dam inundation area used for the storage, or use of hazardous materials to prevent on-site hazards from affecting surrounding communities in the event of inundation.

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3.10.2 Environmental Setting

Topography and Climate

Elevations in the Project area range from approximately 2,685 feet above mean sea level (MSL) to 2,712 feet above MSL (LSA Associates, Inc. 2022). The Project vicinity is surrounded by mountain ranges to the east and west of the Kern River. While the hatchery area is relatively flat, there are levees on either side of the hatchery, creating a basin, with some boulders along the levees.

The Project area has a Mediterranean climate characterized by cool, wet winters and hot, dry summers. Average temperatures range from a winter low of 31 degrees Fahrenheit (°F) in January to a high of 98°F in July (United States Climate Data 2023). Mean annual precipitation is approximately 28.5 inches, with most precipitation occurring from November through April (United States Geological Survey [USGS] 2023; United States Climate Data 2023).

Surface Water Hydrology and Quality

As noted above, the Project site is located within the Central Valley Hydrologic Region, as overseen by the Central Valley RWQCB. More specifically, it is located in the Tulare Lake Basin, which comprises the drainage area of the San Joaquin Valley south of the San Joaquin River. Further, the Project site is located within the Kern River Hydrologic Unit (554.00), Upper Kern Hydrologic Area (554.20), and Kernville Hydrologic Subarea (554.22) (Central Valley RWQCB 2018). Surface water from the Tulare Lake Basin only drains north into the San Joaquin River in years of extreme rainfall. The essentially closed basin is situated in the topographic horseshoe formed by the Diablo and Temblor Ranges on the west, by the San Emigdio and Tehachapi Mountains on the south, and by the Sierra Nevada Mountains on the east and southeast (Central Valley RWQCB 2018). The Tulare Lake Basin encompasses approximately 10.5 million acres, of which approximately 3.25 million acres are in federal ownership (Central Valley RWQCB 2018).

The existing siphon/pipeline facility is located adjacent to and within the north fork of the Kern River, approximately 4.4 miles north of Lake Isabella. The Kern River is approximately 165 miles long (Water Association of Kern County 2024), with its headwaters located near the base of Mount Whitney. The two main forks of the river (north and south) join at Lake Isabella. Downstream of Lake Isabella, the river flows through undeveloped areas before passing through the City of Bakersfield. The drainage area upstream of the Project site is approximately 1,004 square miles (USGS 2023).

While the Tulare Lake Basin is recognized as one of the most important agricultural centers in the world, the Project site is located in the more mountainous eastern portion of the Basin, where there is less agricultural activity. Normally, all native surface water supplies, imported water supplies, and direct precipitation in the Tulare Lake Basin percolate into valley groundwater if not lost through consumptive use, evapotranspiration, or evaporation (Central Valley RWQCB 2018). Generally, the Kern River is of excellent quality. No impairments are identified for the Kern River in the CWA, Section 303(d) list, while Lake Isabella is listed as impaired for mercury, dissolved oxygen, and pH (SWRCB 2022).

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Stormwater

As described in Chapter 2, *Project Description,* the Project site is located on relatively undeveloped land within and north of the census-designated place of Kernville, California. The existing siphon/pipeline generally follows the Kern River bank before turning slightly to interconnect with the hatchery facility. As such, there are no existing stormwater collection facilities in the area, apart from roadside ditches or swales that may be present along roadways in the vicinity. It is assumed that water falling onto the Project site as precipitation, or running onto the site from adjacent areas, would sheet flow overland to the Kern River.

Groundwater Levels, Flows, and Quality

As indicated above, the Project site is located within the Kern River Valley Groundwater Basin (5-025), which is designated as very low priority pursuant to SGMA (DWR 2024b). This basin is bounded by the Greenhorn Mountains and Kern Canyon Fault on the west, while the Piute and Kiavah Mountains bound the basin to the south and east (DWR 2004). The southern portion of the basin is dominated by Isabella Reservoir, from which the Kern River flows towards the San Joaquin Valley.

Groundwater in the basin is produced from predominantly recent alluvium, and, to a lesser degree, older (Pleistocene) alluvium in the northern portion of the basin (DWR 2004). This alluvium is derived from the granitic and metamorphic bedrock that surrounds the basin on all sides. Based on DWR well completion reports, the highest production wells are irrigation and municipal wells drilled near Isabella Reservoir or near the valley axis where coarse river-laid sediment is abundant (DWR 2004).

Groundwater recharge in the Kern River Valley Groundwater Basin occurs primarily through direct precipitation and infiltration occurring along valley margins; however, recharge also occurs along the north and south forks of the Kern River, and along tributaries such as Kelso and Canebrake Creeks (DWR 2004). In terms of quality impairments, iron and manganese levels in wells along the Kern Canyon Fault sometimes exceed the secondary MCLs, and there are occasionally high fluoride concentrations (DWR 2004).

Floodplains, Dam Inundation Areas, Tsunamis, and Seiches

As noted above, the existing siphon/pipeline facility is located close to, and follows, the east bank of the North Fork Kern River. As such, virtually the entire Project site is located within the Regulatory Floodway/Zone AE, as identified by FEMA (FEMA 2024). The Regulatory Floodway is defined as the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height (typically one foot). Zone AE is a Special Flood Hazard Area, which is defined as the area that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year (FEMA 2020).

Chapter 2, *Project Description,* notes that in 1967, a levee was constructed around the hatchery for the likely purpose of providing flood protection from river flows. Damaging floods have also occurred more recently. In spring 2022, heavy rains resulted in major flooding of the Kern River, with most of the hatchery facility being submerged in floodwaters for several days. Portions of

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the pipeline also were heavily damaged and/or entirely displaced; in some areas, soil was scoured away from the pipeline alignment, leaving the pipeline unsupported.

Being above Lake Isabella, the Project site is outside the inundation area for Isabella Dam. No other dams exist upstream of the Project site along the North Fork Kern River or tributaries that could inundate the site during a failure. Additionally, at roughly 130 miles inland from the coast, the site is well outside of any tsunami hazard zones. Given that the Project site is located approximately 4.4 miles upstream from Lake Isabella, and there are no other large enclosed bodies of water nearby, it also would not be within any risk areas for seiche waves.

3.10.3 Discussion of Checklist Responses

a. Violate any water quality standards, waste discharge requirements or otherwise substantially degrade water quality—Less than Significant with Mitigation

Construction

Construction of the Proposed Project would involve ground disturbance associated with demolition/removal of the existing siphon and pipeline facilities; excavation for installation of the new underground pipeline, and stabilization/clearing of staging areas for use during construction activities. Construction of the siphon and inlet structure also would require installation of a coffer dam and dewatering to preclude river water from entering the construction site. These activities would loosen soils and could result in erosion and sedimentation if precautions are not taken. Soils loosened on-site during the ground-disturbing activities could be carried off-site during rainstorms or by wind, likely being discharged to the Kern River where the sediments could then be carried downstream to Lake Isabella or deposited in the Kern River channel. While neither Lake Isabella nor the Kern River are listed as impaired for sediment, this would be detrimental to water quality and aquatic habitat. Installation of the coffer dam and dewatering also would expose previously inundated areas that may be susceptible to erosion.

In addition to erosion/sedimentation, the use of heavy construction equipment containing hazardous materials (e.g., fuel, oil, grease) could lead to accidental or inadvertent releases of such materials, which could subsequently result in adverse water quality impacts. Leaking equipment or spills onto soil could result in the materials being discharged into the Kern River or leaching into groundwater. Due to the project site's location within and directly adjacent to the Kern River, there is a heightened risk of pollution as there is a direct connection to surface waters.

Given that the Proposed Project would disturb more than 1 acre of land, coverage under the Construction General Permit would be required, including preparation and implementation of a SWPPP. In general, the SWPPP would include measures that would reduce potential discharges of pollutants during construction activities, such as sediments and hazardous materials. The SWPPP may include BMPs to control erosion at the source, such as through minimizing soil disturbance, preserving existing vegetation where feasible, and stabilizing and revegetating disturbed areas as soon as possible after grading or construction activities. Temporary soil

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stabilization measures/practices that could be utilized include covering disturbed areas with mulch, temporary seeding, soil stabilizers, binders, fiber rolls or blankets, temporary vegetation, and permanent seeding (SWRCB 2013). Additionally, the SWPPP would include sediment control measures, which would be used to capture any soil that becomes eroded. This may include perimeter control measures, such as installing silt fences or placing straw waddles below slopes (SWRCB 2013).

As described further in Section 3.9, "Hazards and Hazardous Materials," transport, storage, use, and disposal of hazardous materials for the Proposed Project's construction activities would be performed in compliance with all applicable federal, state, and local laws and regulations. Furthermore, **Mitigation Measure HAZ-1** would require that spill containment measures be implemented for hazardous materials used during construction, and that spill clean-up materials be kept on-site. Implementation of Mitigation Measure HAZ-1 would ensure that hazardous materials releases during construction are avoided/minimized to the extent feasible, and that damage to surface or groundwater quality is minimized in the event such releases do occur. As a result, Proposed Project construction would not violate any water quality standards or WDRs or otherwise substantially degrade water quality. Therefore, this impact would be **less than significant with mitigation**.

Operation

The Proposed Project would allow the Kern River Hatchery to resume normal operations consistent with conditions before closure of the facility in December 2020. As such, relative to baseline, no changes to operations or maintenance activities would take place as a result of the Proposed Project. While small amounts of hazardous materials may be used during routine maintenance and repair of the siphon and pipeline facilities, CDFW would follow applicable federal, state, and local laws and regulations pertaining to hazardous materials, which would reduce potential for impacts. Additionally, the rate of water withdrawal via the siphon, as well as the uses of water within the hatchery, would be the same as under baseline conditions. Thus, there would be no potential for the operational withdrawal/use of Kern River water under the Proposed Project to result in substantial impacts on water quality, beyond those that may occur under baseline conditions.

Operation of the Proposed Project would not violate any water quality standards or WDRs or otherwise substantially degrade water quality. Therefore, the impact would be **less than significant**.

b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge, such that the project may impede sustainable groundwater management of the basin—Less than Significant

The Proposed Project would be limited to the demolition and replacement of the existing Kern River siphon/pipeline facility, with the new pipeline being installed underground. Thus, the Proposed Project would not add any impervious surface to the area that could impede groundwater recharge (i.e., by inhibiting infiltration of precipitation/water into the soil and groundwater). Additionally, the Proposed Project would not change the operational use of water with respect to the hatchery; the rate of withdrawal via the siphon and use of water in the hatchery would not change relative to baseline. Water that passes through the hatchery

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would continue to be released back to the Kern River. To the extent that groundwater recharge occurs via percolation through the Kern River channel bottom, this source of recharge would not change as a result of the Proposed Project, relative to baseline conditions.

Proposed Project construction would use some water, primarily for dust control. At the discretion of the construction contractor, this water may be obtained directly from the river or from groundwater sources; in either case, given the relatively minor amount of water needed, this would not substantially decrease groundwater supplies. As described in Section 3.10.2, the project site is located within the Kern River Valley Groundwater Basin, which is designated as very low priority by DWR. Therefore, no GSP has been prepared or is required for the basin, and the Proposed Project's water use would not affect sustainable management of the basin.

As such, the Proposed Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge, such that the Project may impede sustainable groundwater management of the basin. This impact would be **less than significant**.

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 on- or off-site—Less than Significant

During construction, the Proposed Project would alter the drainage pattern at the project site in the sense that it would create ground disturbance and excavation (i.e., trenching) for installation of the pipeline facilities. Additionally, Proposed Project construction would require installation of a temporary coffer dam and dewatering in the portion of the Kern River where the siphon/inlet would be installed. As discussed in item 3.10.3(a) above, this could result in erosion or siltation, as the soils disturbed by construction activities would be more susceptible to erosion and transport of sediments off-site (e.g., into the Kern River). Installation of the coffer dam may disturb river sediments, while dewatering of the work area would expose previously inundated soils/sediments, which could be susceptible to erosion.

Given implementation of the SWPPP, as described in item 3.10.3(a), these impacts would not be significant. The SWPPP would include a suite of erosion- and sediment-control BMPs, which would substantially reduce the potential for substantial erosion or siltation on- or off-site as a result of Proposed Project construction.

Over the long term, the Proposed Project would not substantially alter the existing drainage pattern of the site. As described in Chapter 2, *Project Description,* the majority of the existing pipeline is above ground and supported by reinforced concrete piers; in several isolated areas, the existing pipeline is buried. By contrast, most of the new/replacement pipeline would be installed underground. Two sections of pipe, totaling approximately 150 feet in length, would be above ground, and these sections would be encased in concrete. As a result, the Proposed Project would actually reduce the total amount of impervious surface at the site due to the underground installation and removal of most of the existing concrete piers.

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The Proposed Project, following revegetation of the ground surface after construction, would not substantially increase the rate of surface runoff such as to potentially result in erosion and siltation. Following removal of the coffer dam, the river flow would return to normal in this localized area. This impact would be **less than significant.**

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite—Less than Significant

As described above in item 3.10.3(c)(i), the Proposed Project would not create additional impervious surface area at the site, and would actually reduce the total amount of impervious surface area. Thus, it would not substantially increase the rate or amount of surface runoff over the long term. During construction, the Proposed Project would involve ground disturbance, which could temporarily increase the rate or amount of surface runoff at the site. With the work areas and/or staging areas denuded of vegetation, any precipitation falling on the site would likely flow off site more quickly than under baseline conditions.

As discussed in Section 3.10.2, however, due to the project site's close proximity to the Kern River and the local topography, any surface runoff from the project work areas is anticipated to sheet flow toward the Kern River. Given the conveyance capacity of the river and the relatively small size of the project work areas, this would not result in flooding. The potential staging areas are located farther from the river, and runoff from these areas could flow to surrounding properties; however, due to the small size of the staging areas and their largely disturbed condition under baseline conditions, the development/use of the staging areas would not substantially increase the rate or amount of surface runoff such as to result in flooding on- or offsite.

Following construction, with revegetation of the work areas and return of the staging areas to their previous condition, the surface runoff rates from the project site would be similar to pre-project conditions. Overall, the Proposed Project would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite. This impact would be **less than significant**.

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—Less than Significant with Mitigation

The project site is located in an unincorporated and relatively undeveloped portion of Kern County (within and north of Kernville). As such, there is no centralized stormwater collection system serving the site. Rather, due to the close proximity of the site to the Kern River and local topography, it is expected that surface runoff from the project site would largely sheet flow to the river or percolate into groundwater. While runoff from the staging areas could flow to surrounding properties or areas, including roadside ditches that convey stormwater, this contribution would not be substantial. For the reasons discussed above in item 3.10.3(c)(ii), the Proposed Project would not substantially increase the rate or amount of

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stormwater runoff (as it would not add or increase impervious surface area). Moreover, it would not affect the capacity of any existing or planned stormwater drainage systems.

As discussed in item 3.10.3(a) above, Proposed Project construction would use a variety of hazardous materials contained in construction equipment or stored on-site or at staging areas (e.g., fuel, oil, grease). These materials could potentially leak or spill, which could then lead to polluted runoff flowing off-site. However, implementation of **Mitigation Measure HAZ-1**, which would require BMPs such as secondary containment and maintenance of spill clean-up kits, would substantially reduce the likelihood of accidental or inadvertent spills of hazardous materials during project construction activities. Over the longer term, Proposed Project operation and maintenance activities may use small amounts of hazardous materials (e.g., during repair or maintenance of components), but this would not pose a significant risk due to the small amounts involved and would be similar to baseline conditions.

With implementation of Mitigation Measure HAZ-1, the Proposed Project would not provide substantial additional sources of polluted runoff. Overall, the Proposed Project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Therefore, the impact would be **less than significant with mitigation**.

iv. Impede or redirect flood flows—Less than Significant

The Proposed Project site is located adjacent to the Kern River and is within the Regulatory Floodway, as designated by FEMA (FEMA 2024). As discussed above in item 3.10.3(c)(i), most of the Proposed Project facilities would be placed underground (e.g., much of the pipeline), which would minimize potential for the Proposed Project to impede or redirect flood flows over the long term. Whereas most of the existing pipeline is above ground and supported by reinforced concrete piers, the new/replacement pipeline would be primarily installed underground (except for two sections totaling approximately 150 feet, out of the total pipeline length of approximately 0.5 mile). Other components of the Proposed Project (e.g., siphon and inlet structure, pump vault and pipeline assembly, diversion and outlet structure) that would be above ground would have similar dimensions to the existing facilities being replaced. As a result, the Proposed Project, once constructed, would not substantially impede or redirect flood flows.

During Proposed Project construction, large construction equipment and materials would be present on the site that, if present during a flooding event, could impede or redirect flood flows associated with the Kern River. Being in the Regulatory Floodway, the project site is within the area that must be reserved to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. However, most project construction activities would take place primarily, if not exclusively, during the dry season (when a large flood would be much less likely to occur). This, combined with the low probability of a 100-year event occurring in any given year and the practical ability for the construction contractor to move equipment out of the floodplain if very large storms are forecasted, would render this potential impact less than significant.

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Overall, the Proposed Project would not substantially alter the existing drainage pattern of the site or area in a manner that would impede or redirect flood flows. Therefore, the impact would be **less than significant**.

d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation—Less than Significant

As discussed in Section 3.10.2 and in item 3.10.3(c)(iv), much of the project site is located within the Regulatory Floodway/Zone AE of the Kern River, which is a Special Flood Hazard Area. The entire pipeline alignment is within this area, while the potential staging areas are located just outside the flood hazard zone. However, the project site is outside of any tsunami or seiche hazard zones.

During Proposed Project construction, heavy equipment containing hazardous materials (e.g., fuel, oil, grease) would be present at the project site within the Regulatory Floodway/Zone AE, and hazardous materials could also be temporarily stored at project work areas within the Special Flood Hazard Area. If a 100-year flood event were to occur at the same time that construction activities were taking place, this could potentially release pollutants due to inundation. Given the unlikelihood of such a confluence of events, however, and considering the ability of construction contractors to move equipment and materials outside of potential inundation zones, this impact would be less than significant.

Over the longer term, during project operation, no hazardous materials or other potential pollutant sources would be present at the site that could be released during an inundation event. Most of the pipeline would be below ground; the aboveground project facilities would not contain unsecured hazardous materials and would be similar to conditions at the existing facilities. Therefore, the Proposed Project would not risk release of pollutants due to project inundation over the long term. This impact would be **less than significant**.

e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan—Less than Significant with Mitigation

As discussed under item 3.10.3(a), Proposed Project construction would involve ground-disturbing activities and use of hazardous materials, which could result in releases of pollutants if proper precautions are not taken. This could conflict with or obstruct implementation of the Tulare Lake Basin Plan, as such pollutant discharges would potentially violate WQOs and impair achievement of beneficial uses (see Table 3.10-2) for the Kern River and/or downstream waterbodies (e.g., Lake Isabella). However, with implementation of the SWPPP and Mitigation Measure HAZ-1, the potential for construction-related pollutant discharges would be avoided or substantially reduced. Over the long term, the Proposed Project would not conflict with or obstruct the Tulare Lake Basin Plan, as it would not result in substantial operational pollutant discharges. The rate and amount of Kern River water diverted by the Proposed Project, as well as the uses within the hatchery (and subsequent releases back to the river), would be similar to baseline conditions.

The Proposed Project overlies the Kern River Valley Groundwater Basin, which is designated as very low priority pursuant to SGMA (DWR 2024). Due to this very low priority designation, a GSA

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is not required to be formed nor a GSP prepared for the basin. Thus, there is no sustainable groundwater management plan currently in effect for the groundwater basin underlying the project area. Moreover, as discussed in item 3.10.3(b) above, the Proposed Project would not use substantial quantities of groundwater during construction or operation and would not add substantial impervious surface or involve other changes in the existing land use/cover that would adversely affect groundwater recharge. As a result, the Proposed Project would not adversely affect the sustainability of the underlying groundwater supplies. Overall, this impact would be **less than significant with mitigation.**

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3.11 LAND USE AND PLANNING

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:				
a. Physically divide an established community?	☐	☒	☐	☐
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?	☐	☐	☒	☐

3.11.1 Regulatory Setting

Federal Laws, Regulations, and Policies

Land Management Plan for the Sequoia National Forest

The Land Management Plan for the Sequoia National Forest is developed by USFS in accordance with the requirements of the National Forest Management Act of 1976. It is a strategic document that identifies long-term overall conditions and provides direction on how to proceed to achieve these conditions.

State Laws, Regulations, and Policies

Upper Kern Basin Fishery Management Plan

The Upper Kern Basin Fishery Management Plan was developed in cooperation by the California Department of Fish and Game, the Sequoia National Forest, and Sequoia National Park to protect and enhance native fish and their habitats, particularly the native Kern River rainbow trout, and provide for recreational fishing. The project site is referred to frequently (as Kern River Planting Base), as a possible key location for an interpretive center, and a location for developing broodstocks.

Local Laws, Regulations, and Policies

Kern County General Plan – Land Use, Open Space, and Conservation Element

The Land Use, Open Space, and Conservation Element of the Kern County General Plan provides the following goals and policies relevant to land use in the project area.

Goal 1.2.1 To promote harmonious and mutually beneficial uses of land among the various jurisdictions and land management entities present in Kern County.

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Goal 1.9.1 To contain new development within an area large enough to meet generous projections of foreseeable need, but in locations which will not impair the economic strength derived from the petroleum, agriculture, rangeland, or mineral resources, or diminish the other amenities which exist in the County.

Goal 1.9.3 Ensure the development of resource areas minimize effects on neighboring resource lands.

Goal 1.10.1 Ensure that the County can accommodate anticipated future growth and development while maintaining a safe and healthful environment and a prosperous economy by preserving valuable natural resources, guiding development away from hazardous areas, and assuring the provision of adequate public services.

Policy 1.10.9.50 Employ land use policies that protect the County's businesses from physical degradation and ensure orderly growth, thereby, sustaining opportunities for current and future generations to enjoy economic vitality.

3.11.2 Environmental Setting

The Proposed Project is located north of Kernville, within Kern County. The project site is evenly distributed through parcels owned by the County of Kern, USFS, and SCE (Figure 2-3). The Project site's Kern County zoning designation is E20 (Estate 20 acres), and RF (Recreation Forestry) (Kern County GIS 2023a). The site has general plan land use designations of 1.1 "State or Federal Land," 2.5 "Flood Hazard," 3.3 "Other Facilities," and 8.5 "Resource Management (Min 20-acre parcel size)" (Kern County GIS, 2023b).

Adjacent land uses consist primarily of rural and low-density residential developments and undeveloped land. SCE's KR-3 Hydroelectric Power Station is located to the north, and Camp Owen, a youth detention center operated by the County of Kern, is located to the east across Sierra Way.

3.11.3 Discussion of Checklist Responses

a. Divide an established community—Less than Significant with Mitigation

The Proposed Project consists of removing and replacing the existing Kern River Hatchery siphon and pipeline. During construction, there may be temporary interruptions in access for the unnamed access road and surrounding areas as construction vehicles and materials move in and around the Project site. As discussed in Section 3.17, "Transportation," implementation of Mitigation Measure TR-1 shall require that contractors prepare and implement a construction traffic management plan to manage traffic flow during construction, ensure adequate emergency access, and reduce possible traffic safety hazards. This will also reduce the impact of construction related access interruptions by limiting conflicts between truck and automobile traffic on nearby roads, and minimize impacts on vehicular and pedestrian traffic, circulation, and safety. Furthermore, these construction-related interruptions would be temporary in nature.

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During operation, the Proposed Project would be in the same general alignment and location as the existing siphon and pipeline. Furthermore, as the Proposed Project would relocate the existing aboveground pipeline underground, it would increase potential access in and around the site. Therefore, the Proposed Project would not divide an established community or disrupt adjacent land uses. The impact would be **less than significant with mitigation**.

Mitigation Measure TR-1. Prepare and Implement a Construction Traffic Management Plan

See Section 3.17, "Transportation."

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—Less than Significant

The Proposed Project would remove the existing Kern River Hatchery siphon and pipeline, which was constructed in 1967, and install a replacement in the same general alignment and location. The Proposed Project aims to restore functionality so hatchery operations can resume and would not permanently change land use or compliance with the zoning ordinance in the project area. Therefore, the impact would be **less than significant**.

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3.12 MINERAL RESOURCES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

3.12.1 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies are applicable to mineral resources in relation to the Proposed Project.

State Laws, Regulations, and Policies

No state laws, regulations, or policies are applicable to mineral resources in relation to the Proposed Project.

Local Laws, Regulations, and Policies

The Conservation Element of the Kern County General Plan (Kern County 2009) contains the following goal and implementation measure related to conservation of agricultural resources.

Goal 2: Protect areas of important mineral, petroleum, and agricultural resource potential for future use.

> Implementation Measure H: Use the California Geological Survey's latest maps to locate mineral deposits until the regional and Statewide importance mineral deposits map has been completed, as required by the Surface Mining and Reclamation Act.

3.12.2 Environmental Setting

According to the Kern County General Plan EIR, Kern County is one of the largest producers of mineral products in California with a production value of almost one-quarter of the State's total (Kern County 2004). The principal mineral product is petroleum. Kern county accounts for approximately 79 percent of total crude oil produced in California or about 86 million barrels in 2020 (California Geologic Energy Management Division 2020). Additionally, Kern County

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produces various other minerals, such as borax and cement, to supplement its economic growth (Kern County 2009).

The nearest mineral operations are located south of the project area:

- Kern Rock Co. Pit (Deposit ID: 10285034) is located approximately 1 mile southeast of the project site. The commodity of the mine was tungsten. The mine currently is not an active producer.
- Little Dick Mine (Deposit ID: 10188009) is located approximately 2.5 miles southeast of the project site. The commodity of the mine was tungsten. The mine currently is not an active producer.
- Big Blue Mine (Deposit ID: 10107641) is located approximately 2.5 miles southeast of the project site. The mine is active and currently produces tungsten and gold.
- Red Hill (Deposit ID: 10048739) is located approximately 2.4 miles southwest of the project site. The commodity of the mine was gold. The mine currently is not an active producer.

3.12.3 Discussion of Checklist Responses

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

According to the Kern County General Plan Zoning map, the Proposed Project is located on land designated as designated as Public Facilities and Services (3.3), Non-Jurisdictional Land (1.1), and Resource (8.5) (Kern County, 2009). The U.S. Geological Survey's (USGS's) Mineral Resources Data System (MRDS) is a collection of reports describing metallic and nonmetallic mineral resources throughout California. According to the MRDS, the project site is not located on or near any known mineral resources of value to the region or residents of the state (USGS 2011). Therefore, there would be **no impact** to known valued mineral resources.

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

The project site has not been identified as a locally important mineral recovery site, nor would it interfere with an existing locally important mineral resource recovery site that has been delineated on a local general plan, specific plan, or other land use plan. Additionally, the nearest active mining operations are located over 2 miles away from the project site; therefore, no active or historic mining operations would be affected by the Proposed Project. The Proposed Project would have **no impact** on any locally important mineral resource recovery sites.

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3.13 NOISE

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project result in:				
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?	☐	☐	☒	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c. For a project located within the vicinity of a private airstrip or an airport land use plan area, 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 site to excessive noise levels?	☐	☐	☐	☒

3.13.1 Overview of Noise and Vibration Concepts and Terminology

Noise

In the CEQA context, noise can be defined as unwanted sound. Sound is characterized by various parameters, including the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level is the most common descriptor used to characterize the loudness of an ambient sound level, or sound intensity. The decibel (dB) scale is used to quantify sound intensity. Because sound pressure can vary enormously within the range of human hearing, a logarithmic scale is used to keep sound intensity numbers at a convenient and manageable level. The human ear is not equally sensitive to all frequencies in the spectrum, so noise measurements are weighted more heavily for frequencies to which humans are sensitive, creating the A-weighted decibel (dBA) scale.

Different types of measurements are used to characterize the time-varying nature of sound. Below are brief definitions of these measurements and other terminology used in this chapter.

- **Decibel (dB)** is a measure of sound on a logarithmic scale that indicates the squared ratio of sound pressure amplitude to a reference sound pressure amplitude. The reference pressure is 20 micro-pascals.

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- **A-weighted decibel (dBA)** is an overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
- **Maximum sound level (L_{max})** is the maximum sound level measured during a given measurement period.
- **Minimum sound level (L_{min})** is the minimum sound level measured during a given measurement period.
- **Equivalent sound level (L_{eq})** is the equivalent steady-state sound level that, in a given period, would contain the same acoustical energy as a time-varying sound level during that same period.
- **Percentile-exceeded sound level (L_{xx})** is the sound level exceeded during *x* percent of a given measurement period. For example, L_{10} is the sound level exceeded 10 percent of the measurement period.
- **Day-night sound level (L_{dn})** is the energy average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the A-weighted sound levels during the period from 10:00 p.m. to 7:00 a.m. (typical sleeping hours). This weighting adjustment reflects the elevated sensitivity of individuals to ambient sound during nighttime hours.
- **Community noise equivalent level (CNEL)** is the energy average of the A-weighted sound levels during a 24-hour period, with 5 dB added to the A-weighted sound levels between 7:00 p.m. and 10:00 p.m. and 10 dB added to the A-weighted sound levels between 10:00 p.m. and 7:00 a.m.

In general, human sound perception is such that a change in sound level of 3 dB is barely noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving the sound level. **Table 3.13-1** presents approximate noise levels for common noise sources, measured adjacent to the source.

Table 3.13-1. Examples of Common Noise Levels

Common Outdoor Activities	Noise Level (dBA)
Jet flyover at 1,000 feet	110
Gas lawnmower at 3 feet	100
Diesel truck at 50 feet traveling 50 miles per hour	90
Noisy urban area, daytime	80
Gas lawnmower at 100 feet, commercial area	70
Heavy traffic at 300 feet	60
Quiet urban area, daytime	50
Quiet urban area, nighttime	40

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Common Outdoor Activities	Noise Level (dBA)
Quiet suburban area, nighttime	30
Quiet rural area, nighttime	20

Source: Caltrans 2013

Vibration

Ground-borne vibration propagates from the source through the ground to adjacent buildings by surface waves. Vibration may be composed of a single pulse, a series of pulses, or a continuous oscillatory motion. The frequency of a vibrating object describes how rapidly it is oscillating, measured in Hertz (Hz). Most environmental vibrations consist of a composite, or "spectrum," of many frequencies. The normal frequency range of most ground-borne vibrations that can be felt generally starts from a low frequency of less than 1 Hz to a high of about 200 Hz. Vibration information for this analysis has been described in terms of the peak particle velocity (PPV), measured in inches per second (in/sec), or of the vibration level measured with respect to root-mean-square vibration velocity in decibels (VdB), with a reference quantity of 1 micro-inch per second.

Vibration energy dissipates as it travels through the ground, causing the vibration amplitude to decrease with distance away from the source. High-frequency vibrations reduce much more rapidly than do those characterized by low frequencies, so that in a far-field zone distant from a source, the vibrations with lower frequency amplitudes tend to dominate. Soil properties also affect the propagation of vibration. When ground-borne vibration interacts with a building, a ground-to-foundation coupling loss usually results but the vibration also can be amplified by the structural resonances of the walls and floors. Vibration in buildings is typically perceived as rattling of windows, shaking of loose items, or the motion of building surfaces. In some cases, the vibration of building surfaces also can be radiated as sound and heard as a low-frequency rumbling noise, known as ground-borne noise.

Ground-borne vibration is generally limited to areas within a few hundred feet of certain types of industrial operations and construction/demolition activities, such as pile driving. Road vehicles rarely create enough ground-borne vibration amplitude to be perceptible to humans unless the receiver is in immediate proximity to the source or the road surface is poorly maintained and has potholes or bumps. Human sensitivity to vibration varies by frequency and by receiver. Generally, people are more sensitive to low-frequency vibration. Human annoyance also is related to the number and duration of events; the more events or the greater the duration, the more annoying it becomes.

3.13.2 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies for construction-related noise and vibration apply to the Proposed Project; however, the Federal Transit Administration's (FTA) guidelines may be utilized in impact analyses, as described below.

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Federal Transit Administration Transit Noise and Vibration Impact Assessment Manual

The FTA's Transit Noise and Vibration Impact Assessment Manual states that for evaluating daytime construction noise impacts in outdoor areas, a noise threshold of 90 dBA L_{eq} and 100 dBA L_{eq} should be used for residential and commercial/industrial areas, respectively (FTA 2018). For construction vibration impacts, the FTA guidelines use an annoyance threshold of 80 VdB for infrequent events (fewer than 30 vibration events per day) and a damage threshold of 0.12 in/sec PPV for buildings susceptible to vibration damage, 0.2 PPV for non-engineered timber and masonry buildings, 0.3 PPV for engineered concrete and masonry, and 0.5 PPV for reinforced-concrete, steel, or timber (FTA 2018).

State Laws, Regulations, and Policies

State Land Use Compatibility Guidelines

California requires each local government entity to implement a noise element as part of its general plan. California Administrative Code, Title 4, presents guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. The state land use compatibility guidelines are listed in **Table 3.13-2**.

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Table 3.13-2. State Land Use Compatibility Standards for Community Noise Environment

Land Use Category	Community Noise Exposure - L_{dn} or CNEL (dB)						
	55	60	65	70	75	80	
Residential – Low Density Single Family, Duplex, Mobile Homes							
Residential – Multi-Family							
Transient Lodging – Motels, Hotels							
Schools, Libraries, Churches, Hospitals, Nursing Homes							
Auditoriums, Concert Halls, Amphitheaters							
Sports Arenas, Outdoor Spectator Sports							
Playgrounds, Neighborhood Parks							
Golf Courses, Riding Stables, Water Recreation, Cemeteries							
Office Buildings, Business Commercial and Professional							
Industrial, Manufacturing, Utilities, Agriculture							

Normally Acceptable:	Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
Conditionally Acceptable:	New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
Normally Unacceptable:	New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
Clearly Unacceptable:	New construction or development generally should not be undertaken.

Source: California Governor's Office of Planning and Research 2017

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Local Laws, Regulations, and Policies

County of Kern Noise Regulations

Noise control regulations within the County of Kern are established in Title 8 of the County's Municipal Code.

8.36.020 It is unlawful for any person to do, or cause to be done, any of the following acts within the unincorporated areas of the county:

> (H). Create noise from construction, between the hours of nine (9:00) p.m. and six (6:00) a.m. on weekdays and nine (9:00) p.m. and eight (8:00) a.m. on weekends, which is audible to a person with average hearing faculties or capacity at a distance of one hundred fifty (150) feet from the construction site, if the construction site is within one thousand (1,000) feet of an occupied residential dwelling except as provided below:
>
> > 1.The development services agency director or his designated representative may for good cause exempt some construction work for a limited time.
> >
> > 2.Emergency work is exempt from this section.

County of Kern General Plan

The County of Kern General Plan (2009) guides land use and development within the County's boundaries. Goals and policies in the General Plan that are potentially applicable to the Proposed Project and the noise analysis include the following:

> **Goal 1:** Ensure that residents of Kern County are protected from excessive noise and that moderate levels of noise are maintained.
>
> > **Policy 1,** Review discretionary industrial, commercial, or other noise-generating land use projects for compatibility with nearby noise-sensitive land uses.
> >
> > **Policy 2,** Require noise level criteria applied to all categories of land uses to be consistent with the recommendations of the California Division of Occupational Safety and Health (DOSH).

3.13.3 Environmental Setting

The Proposed Project is located in Kernville, northeastern Kern County, California. The project site is bordered to the north by Southern California Edison's (SCE's) Kern River No. 3 (KR-3) Hydroelectric Power Station, to the east by an unnamed paved access road, to the south by rural residential development, and to the west by the Kern River and undeveloped land. Adjacent land uses consist primarily of rural and low-density residential development and undeveloped land. Camp Owen, a youth detention center operated by the County of Kern, is located across Sierra Way from the hatchery.

The nearest sensitive noise receptor is a single-family residence roughly 300 feet from the proposed pipeline alignment, while multiple residential areas are located between 300 and 500

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feet from the proposed pipeline alignment. Finally, the structures associated with Camp Owens are located approximately 450 feet from the proposed pipeline alignment.

The nearest schools, daycares, and other types of sensitive receptors are located more than a mile away in Kernville. Highway 29 is located 1 mile east of the Project site, and the nearest airport is over 3 miles away. There are recreational resources adjacent to the Project site in every direction and consist of trails and river recreational activities.

The Proposed Project site is located in a rural part of Kern County with few major sources of noise nearby. Noise sources may include vehicle noise and people recreating in the area with car doors slamming and use of landscape maintenance equipment.

3.13.4 Discussion of Checklist Reponses

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—Less than Significant

Noise impacts resulting from construction depend on the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive receptors. Construction noise impacts primarily occur when construction activities occur during noise-sensitive times of the day (early morning, evening, and nighttime hours), when construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction occurs over an extended period (e.g., longer than one year). Significant noise impacts do not normally occur when standard construction noise control measures are enforced or when the duration of the noise-generating construction activities is limited to one construction season or less. Reasonable regulation of the hours of construction, as well as regulation of the arrival and operation of heavy equipment and the delivery of construction material, are necessary to protect the health and safety of the public, promote the general welfare of the community, and maintain the quality of life.

Project construction activities would be typical for vegetation removal, earth excavation, and pipeline construction and would generate noise from activities such as site grading and material hauling. Construction is expected to occur over 14 months. Construction activities would typically be performed Monday through Friday between 7 a.m. and 5 p.m. Construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours. After-hours work and work on Saturdays, Sundays, and State holidays would require approval from the State of California. During construction of the Proposed Project, noise from construction activities would temporarily add to the noise environment in the Project vicinity. As shown in **Table 3.13-3**, activities involved in construction would generate maximum noise levels ranging from 76 to 85 dBA at a distance of 50 feet. The non-explosive demolition agent that may be used would not result in a substantial generation of noise that would affect the existing ambient noise during construction.

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Table 3.13-3. Typical Construction Equipment Noise

Type of Equipment	Maximum Level, dBA at 50 feet
Backhoe	78
Chainsaw	83
Compressor (air)	78
Dump Truck	76
Excavator	81
Flat Bed Truck	84
Generator	81
Jackhammer	85
Pneumatic Tools	85
Portable Generator	68
Skid Steer	80
Water pump	73
Source: FHWA, 2018.	

Multiple types of equipment (e.g., trucks, pneumatic tools) that would be used for construction of the Proposed Project may generate sound levels of 85 dBA at a distance of 50 feet (FHWA 2018). These would be operating more than 50 feet from the nearest residences and would therefore not exceed 85 dBA at those properties. Ambient noise in the project area includes traffic and noise from adjacent roadways, so hauling trucks would not generate a significant increase in ambient noise levels. Furthermore, construction would be temporary and as the Proposed Project occurs on multiple segments, the impact would not occur simultaneously along the entire length of the construction alignment. Typically, construction equipment operates in alternative cycles of full power and low power, producing average noise levels less than the maximum noise level. The average sound level of construction activity also depends on the amount of time that the equipment operates and the intensity of the construction activities during that time. Noise would also be generated during the construction phase by increased truck traffic on area roadways. Action-generated noise sources would be truck traffic associated with transport of heavy materials and equipment to and from the construction site. This noise increase would be short in duration and would occur only during daytime hours.

Upon completion of construction, the Proposed Project would operate similarly to the hatchery's previous operational conditions, with the same amount of maintenance required. Thus, impacts from noise generated by construction and operation would be **less than significant**.

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b. Generation of excessive groundborne vibration or groundborne noise levels—Less than Significant

Common construction activities and equipment may expose people to excessive groundborne vibration or groundborne noise. Construction vibration impacts include human annoyance and building structural damage. Human annoyance occurs when construction vibrations rise significantly above the threshold of perception. Caltrans provides guidance regarding construction-related groundborne vibration (Caltrans 2020). The Caltrans manual states that vibrations with a PPV of 0.1 inches/second begin to cause irritation. Larger, heavier construction vehicles have a PPV of 0.089 inches/second or less at a distance of 25 feet (Caltrans 2020). At a distance of 250 feet, the PPV would be approximately 0.0028 inches/second. Groundborne vibrations typically reduce in effect over short distances. There are no adjacent structures that not associated with the Proposed Project that are within 250 feet of the proposed construction activities. Thus, potential impacts associated with the Proposed Project would be localized and temporary during the construction period and would not substantially affect nearby residences. Construction of the Proposed Project would require the use of heavy construction equipment, specifically excavators, dozers, and trucks. The Proposed Project would not require pile driving, blasting, or other special construction techniques associated with greater groundborne vibration. In locations where jackhammering would be ineffective, a non-explosive demolition agent or expansive grout would be used which would not result in groundborne vibrations. Therefore, the expected generation of groundborne vibration associated with the Proposed Project would remain below the 0.1 inch/second annoyance threshold. Accordingly, the Proposed Project would have a **less-than-significant** impact related to vibration during construction or operation. Impacts would be less than significant.

c. For a project located within the vicinity of a private airstrip or an airport land use plan area, or, within 2 miles of a public airport or public-use airport, would the project expose people residing or working in the project site to excessive noise levels—No Impact

The nearest airport is Kern Valley Airport, located 3.2 miles south of the hatchery. There are no other airports, either public or private, within the vicinity of the project site. Implementation of the Proposed Project would not increase exposure to excessive noise levels associated with the airport. Thus, the Project would have **no impact**.

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3.14 POPULATION AND HOUSING

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:				
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)?	☐	☐	☐	☒
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.14.1 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal regulations are applicable to population and housing in relation to the Proposed Project.

State Laws, Regulations, and Policies

No state laws are applicable to population and housing in relation to the Proposed Project.

Local Laws, Regulations, and Policies

No goals or policies in the Kern County General Plan Housing Element are applicable to the Proposed Project.

3.14.2 Environmental Setting

The project site is within the town of Kernville in Kern County. Kern County's population is currently estimated at 916,108 as of July 1, 2022, a 0.8 percent increase from April 1, 2020 (U.S. Census Bureau 2023). There are approximately 306,170 housing units in Kern County, of which approximately 283,510 are occupied (U.S. Census Bureau 2023). According to the General Plan Housing Element, the total county population between 2000 and 2013 increased just under 30 percent, while in the unincorporated areas the population increased by approximately 15 percent (Kern County 2016).

The majority of jobs in Kern County are in the educational services, health care, and social assistance industry, which together accounted for 21.6 percent of the workforce in 2022 (USCB 2022). Other large industries include agriculture and retail trade.

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The project site is bordered to the north by SCE's KR-3 Hydroelectric Power Station, to the east by an unnamed paved road, to the south by the Kern River Hatchery and rural residential development, and to the west by the Kern River and undeveloped land (LSA 2022). The unnamed road provides access to the KR-3 power station, an SCE maintenance facility, and a parking area used by recreational visitors, including anglers and rafting companies that launch float trips from the river bank. Adjacent land uses consist primarily of rural and low-density residential developments and undeveloped land. Camp Owen, a youth detention center operated by the County of Kern, is located across Sierra Way from the hatchery.

3.14.3 Discussion of Checklist Responses

a. Induce unplanned population growth—No Impact

During construction, the Proposed Project would employ a small number of workers temporarily. These workers are anticipated to live locally or commute to the project site and would not generate population growth in the area. The Proposed Project does not involve characteristics such as homes or businesses that would directly generate population growth nor would the Project extend roadways.

The purpose of the Project is to reconstruct the siphon pipeline in order to supply water to the hatchery in order to reopen the facility. The Proposed Project does not involve any increase in water diversion, staffing, or fishery operations compared to its previous operational condition. This would likely not indirectly induce additional growth in the region. There would be **no impact**.

b. Displace a substantial number of existing people or housing—No Impact

The purpose of the Proposed Project is to reconstruct the siphon pipeline in order to supply water to the hatchery in order to reopen the facility. No people or housing would be displaced or removed as a result of the Proposed Project. There would be **no impact**.

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3.15 PUBLIC SERVICES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:				
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:				
i. Fire protection?	☐	☒	☐	☐
ii. Police protection?	☐	☐	☒	☐
iii. Schools?	☐	☐	☐	☒
iv. Parks?	☐	☒	☐	☐
v. Other public facilities?	☐	☒	☐	☐

3.15.1 Environmental Setting

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies are applicable to public services in relation to the Proposed Project.

State Laws, Regulations, and Policies

CALGreen (California Building, Electrical, and Fire Codes)

The California Building Standards Code (Title 24 of the California Code of Regulations [CCR]) – also known as CALGreen – serves as the basis for the design and construction of buildings in California. 24 CCR Part 3 is the Electrical Code, which contains standards for electrical systems, including safety features such as overcurrent protection, surge arresters, and proper wiring methods.

24 CCR Part 9 is the California Fire Code. This portion of the code contains requirements related to emergency planning and preparedness, fire service features, building services and systems, fire-resistance-rated construction, fire protection systems, and construction requirements for existing buildings, as well as specialized standards for specific types of facilities and materials.

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Local Laws, Regulations, and Policies

Kern County General Plan Safety Element

The Kern County General Plan provides goals and policies relevant to public services in the Safety Element. The following policies and implementation measures are applicable to the Proposed Project:

Policy 4.1.2 Reduce economic and social disruption resulting from earthquakes, fire, flooding, and other geologic hazards by assuring the continuity of vital emergency public services and functions.

Policy 4.6.1 Require discretionary projects to assess impacts on emergency services and facilities.

Policy 4.6.6 All discretionary projects shall comply with the adopted Fire Code and the requirements of the Fire Department.

Implementation Measure 4.6.A Require that all development comply with the requirements of the Kern County Fire Department or other appropriate agency regarding access, fire flows, and fire protection facilities.

Policy 4.7.2 Monitor, enforce, and update, as appropriate, all emergency plans as needs and as conditions change.

3.15.2 Environmental Setting

Fire Protection

Fire protection services for all of Kern County, including for Kernville, which is a census-designated place, are provided by the Kern County Fire Department (KCFD). KCFD operates a total of 47 fire stations and has approximately 620 permanent employees who service an area of more than 8,000 square miles (KCFD 2024). KCFD also has 14 Mutual Aid Agreements with nearby organizations to maintain the prompt availability of emergency services.

In 2021, KCFD responded to 95,218 emergency calls (KCFD 2021). The project site would be served by KCFD's Fire Station 76, located at 11018 Kernville Road, Kernville (approximately 1.5 miles southeast of the project site).

Police Protection

Law enforcement services at the project site are provided by the Kern County Sheriff's Office. The Kern County Sheriff's Office is located at 7046 Lake Isabella Boulevard, Lake Isabella (approximately 13.6 miles southeast of the project site). **Table 3.15-1** provides the Kern County Sheriff's Office Uniform Crime Reporting (U.C.R.) statistics for Kern County.

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Table 3.15-1. 2017 Crime Statistics for Kern County

Crime	Number of Reports
Homicide	89
Rape	307
Robbery	1,297
Aggravated Assault	3,296
Burglary	7,429
Larceny-Theft	5,899
Motor Vehicle Theft	15,605

Source: Board of State and Community Corrections 2017

Schools

The area in the vicinity of the project site is served by the Kernville Union School District (KUSD). The KUSD is made up of two elementary schools and one middle school and has a total enrollment of 824 students, with a staff of 94 employees (KUSD 2024). The nearest school to the project site is Kernville Elementary School, which is located approximately 1.2 miles southeast at 13350 Sierra Way.

Parks

Kern County contains eight regional parks and 40 neighborhood parks (Kern County n.d.). While the closest official county park to the project site is Riverside Park, which is approximately 1.6 miles southeast, several other recreational facilities are near the project site along the Kern River, such as Cannell Meadow Trails and Rivernook Campground. The Cannell Meadow Trails are located 0.3 mile north of the project site at an unmarked address on Sierra Way and Rivernook Campground is located 0.8 mile south of the project site at 14001 Sierra Way. Additionally, the unnamed road east of the project site provides access to a parking area used by recreational visitors for fishing and boating.

Other Public Facilities

Camp Owen, a youth detention facility, is located directly across Sierra Way from the project site. Additionally, a CDFW office is located approximately 0.1 mile south of the project site at 14591 Sierra Way. The nearest medical center to the project site is Clinica Sierra Vista, which is located 6.1 miles southwest.

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3.15.3 Discussion of Checklist Responses

a. Result in adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities

i. Fire protection—Less than Significant with Mitigation

The Proposed Project would require the operation of power tools and fossil-fuel-powered equipment during construction that could provide sources of ignition and increase fire risk. Construction activities would also involve the storage of flammable materials, which could potentially increase the demand for fire protection services in the area. As outlined in Section 3.20, "Wildfire," implementation of **Mitigation Measure WF-1** would reduce the potential for accidental ignition by requiring spark arrestors on all equipment with internal combustion engines. Additionally, fire suppression equipment would be present on site, and construction workers would take precautions to further limit the potential for ignition. Implementation of this mitigation measure would reduce the potential for the Proposed Project to lead to an increased need for fire protection in the project area. This Proposed Project would have a **less-than-significant impact with mitigation** on fire protection services.

ii. Police protection—Less than Significant

Neither construction nor operation of the Proposed Project would create an increase in population that could lead to a higher demand for police protection or create changes to the surrounding area (such as road closures) that would affect police response times. Because the Proposed Project would not generate substantial demand for police protection, affect average response times, alter other metrics of performance, or require the provision of new police facilities, the impact on police protection would be **less than significant**.

iii. Schools—No Impact

The nearest school is Kernville Elementary School, which is located 1.2 miles southeast of the project site. The Proposed Project would not affect existing school facilities, nor would it contribute to a substantial change in population that would require construction of new schools. There would be **no impact** to existing schools.

iv. Parks—Less than Significant with Mitigation

The Proposed Project would not involve the construction of or displace any existing parks or recreational facilities. As mentioned above, while no existing parks or recreational facilities are located on the project site, the unnamed road to the east provides access to a parking area used by recreational visitors. However, construction activities would not require the temporary closure of any nearby parks or recreational facilities, or otherwise affect the access or use of such facilities. Potential impacts to the road and recreational parking area as a result of construction-related vehicular traffic are described in Section 4.17, "Transportation." To ensure continued access to these areas and reduce the potential for construction activities to impede access, **Mitigation Measure TR-1** would require that the construction contractor(s) prepare and

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implement a construction traffic management plan. As a result, this impact would be **less than significant with mitigation**.

v. Other public facilities—Less than Significant with Mitigation

Camp Owen, a youth detention center operated by Kern County, is located across Sierra Way from the hatchery. The two possible staging areas are adjacent to Sierra Way, which could temporarily increase traffic in the area and marginally decrease access to Camp Owen when construction equipment is brought to the site at the beginning of the construction period and removed from the site at the end of the construction period. To ensure continued access to these areas and reduce the potential for construction activities to impede access, Mitigation Measure TR-1 would require that the construction contractor(s) prepare and implement a construction traffic management plan. However, these potential impacts would not require or result in the need to construct new or expanded public facilities. This impact would **be less than significant with mitigation**.

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3.16 RECREATION

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:				
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

3.16.1 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal regulations are applicable to recreation in relation to the Proposed Project.

State Laws, Regulations, and Policies

No State laws are applicable to recreation in relation to the Proposed Project.

Local Laws, Regulations, and Policies

The Land Use, Open Space, and Conservation Element of the Kern County General Plan (Kern County 2009) contains the following goal related to recreational resources.

Public Facilities and Services (Goal 12): Provide a balanced system of parks and recreational facilities to meet Kern County's diverse needs, and clearly define responsibility for the provision of these facilities.

3.16.2 Environmental Setting

The Proposed Project is in northern Kern County, directly adjacent to the east bank of the Kern River. The Kern River provides an array of recreational opportunities, including rafting, biking, and fishing. The Sequoia National Forest is located to the east of the project site, and a small portion of the pipeline alignment crosses USFS land. The existing proposed pipeline alignments run parallel to an unnamed access road by which visitors can reach the Kern River.

Prior to Kern River Hatchery's closing in 2020, the hatchery was used to raise fish for planting in the Kern River. CDFW would release the fish to populate certain species for ecological and recreational purposes.

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3.16.3 Discussion of Checklist Responses

a. Increase use of existing parks or recreational facilities—Less than Significant

The Kern River is known for its recreational fishing and river rafting activities. The access road from Sierra Way to the parking/staging area at the river runs roughly parallel to the Proposed Project alignment; access to the river would be maintained throughout the construction period. Although a 6,500-square-foot area around the siphon inlet would be dewatered and isolated with a coffer dam during 4 months of the construction period, access to the river itself would be maintained in the project area during and after construction. In addition, adjacent trails would not be closed or affected during the construction of the Proposed Project. Therefore, visitors would not need to find a replacement for the recreational facilities at the project site during construction.

During operations, access to adjacent recreational resources would be similar to existing conditions. The operation of the Proposed Project would permit access to the Kern River for public recreational purposes and would not impede access to the Sequoia National Forest or surrounding recreational resources. The Proposed Project would allow the Kern River Hatchery to resume normal operations consistent with conditions before the closure of the facility in December 2020, potentially enhancing the region's recreational fishery. Therefore, there would not be a substantial increase of employees relocating to the area in comparison to prior operational years. Additionally, as noted in Section 3.14, "Population and Housing," the Proposed Project would not result in substantial population growth and, therefore, would not substantially increase demand for parks and recreational facilities in the area. As a result, this impact would be **less than significant**.

b. Creation of new or altered recreational facilities—No Impact

The Proposed Project would not create or permanently alter any recreational facilities. Likewise, the Proposed Project would not introduce substantial numbers of people to the area or otherwise cause the need to construct new or altered recreational facilities. Therefore, **no impact** would occur.

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3.17 TRANSPORTATION

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:				
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☐	☒
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☒	☐	☐
d. Result in inadequate emergency access?	☐	☒	☐	☐

3.17.1 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies are applicable to transportation in relation to the Proposed Project.

State Laws, Regulations, and Policies

No state laws, regulations, or policies are applicable to transportation in relation to the Proposed Project.

Local Laws, Regulations, and Policies

No local laws, regulations, or policies are applicable to transportation in relation to the Proposed Project.

3.17.2 Environmental Setting

Existing Vehicle Access

Access to the project area is via Sierra Way. Sierra Way is accessed from Burlando Road via State Route (SR) 155. Both access routes are accessed regionally from SR-178. Sierra Way and Burlando Road are two-lane arterials and SR-155 and SR-178 are two-lane highways.

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Existing Bicycle and Pedestrian Facilities

Pedestrian facilities and bike lanes are available in the adjacent community of Kernville but there are no pedestrian or bike facilities located adjacent to the project site. Under California law, bicycles could access the area via Sierra Way.

Existing Transit Service

Public transit service is provided regionally by Kern Transit. The nearest bus route is Route 220; the nearest bus stop is at the intersection of Valley View Drive at Sierra Way, which is approximately 1 mile south of the Kern River Hatchery.

3.17.3 Traffic and Transportation Terminology

The following are definitions of key traffic and transportation terms used in this section and based on materials published by the Transportation Research Board (2010)

Delay. Delay refers to the additional travel time experienced by a driver or traveler that results from the inability to travel at optimal speed, and stops resulting from congestion or traffic control.

Freeway. Freeways are controlled access routes that provide for major intra and interregional travel. They are corridors that accommodate trips at highest speeds with access only from selected links to the network, consistent with the population and network densities of the areas they traverse.

Arterial Streets. Arterial streets are intended to provide for the movement of through-traffic between major traffic generators such as the Civic Center, the Central Business District and other commercial centers, and distribute traffic from freeways to less important arterials serving residential areas directly.

Collector Streets. Collector streets collect and distribute traffic to and from major highways and local streets. Collector streets also serve secondary traffic generators such as shopping and business centers, schools, parks and high density or large-scale residential areas.

3.17.4 Discussion of Checklist Responses

a. Conflict with applicable circulation plans, ordinances, or policies and applicable congestion management programs—Less than Significant

As described in Chapter 2, *Project Description,* construction activities would take place Monday through Friday between 7 a.m. and 5 p.m. After-hours work and work on Saturdays, Sundays, and State holidays would be permitted at the discretion of the State of California. Table 2-1 in Chapter 2 shows the types of equipment and number of vehicle trips associated with each phase of construction. Construction staging would occur onsite and would not affect the existing roadway network.

The Proposed Project would not entail a change in land use from existing conditions or introduce factors that would generate new or unanticipated long-term changes in average daily

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traffic (ADT) or vehicle miles traveled (VMT). Therefore, no direct or cumulative population growth would occur that is not already incorporated into regional growth projections.

The Proposed Project would not adversely affect future transit service, nor would it create a demand for alternative transportation systems. The Project construction activities would not directly impact any transit routes or pedestrian/bicycle facilities (no such routes or facilities are present on or in immediate proximity to the Project site), and it would not increase population over the long-term, such as to increase demand for services. In addition, the magnitude of increased traffic on the road resulting from Proposed Project construction would not affect pedestrian and bicycle safety, and thus would not conflict with the goals and policies of applicable plans. As a result, this impact would be **less than significant**.

b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)—No Impact

The Proposed Project would not entail a change in land use from existing conditions or introduce factors that would generate new or unanticipated long-term changes in VMT, such as residences and facilities. Roadway capacity would be unaffected. Therefore, the Proposed Project would not conflict, or be inconsistent, with CEQA Guidelines Section 15064.3(b)(2). **No impact** would result.

c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)—Less than Significant with Mitigation

Construction vehicles on the project site would be stored at two staging areas, which would be fenced and therefore not accessible to the public. Table 2-1 in Chapter 2, *Project Description,* shows the number of vehicle trips that would be required during the different phases of construction. The presence of slow-moving equipment and trucks on Sierra Way could potentially interfere with the flow of traffic, resulting in a traffic hazard that would be significant. Implementation of **Mitigation Measure TR-1** would reduce this impact to a less-than-significant level with mitigation by ensuring that the presence of construction traffic would not result in a lane hazard.

Mitigation Measure TR-1. Prepare and Implement a Construction Traffic Management Plan

The State of California (DGS) shall require that the construction contractor(s) prepare and implement a construction traffic management plan to manage traffic flow during construction, reduce potential interference with local emergency response plans, reduce potential traffic safety hazards, and ensure adequate access for emergency responders. DGS and/or the construction contractor(s) will ensure that the plan is implemented during construction. The plan will include, but not be limited to, the following measures:

- Identify construction truck haul routes and timing to limit conflicts between truck and automobile traffic on nearby roads. The identified routes will be

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designed to minimize impacts on vehicular and pedestrian traffic, circulation, and safety.

- Provide signage indicating the access route.
- Coordinate construction activities to ensure that one travel lane remains open at all times, unless flaggers or temporary traffic controls are in place, to provide emergency access.
- Evaluate the need to provide flaggers or temporary traffic control on Sierra Way to assist trucks in accessing the roadway with minimal disruption of traffic.
- Document road pavement conditions before and after Project construction. Make provisions to monitor the condition of roads used for haul routes so that any damage or debris attributable to haul trucks can be identified and corrected. Roads damaged by construction vehicles shall be repaired to their preconstruction condition.

Over the long term, the Proposed Project would not require changes to any road configurations that could create sharp curves or dangerous intersections. Additionally, the Proposed Project would not generate a sufficient number of trips by equipment or vehicles that would be incompatible with the roadway and potentially create a hazard. Implementation of Mitigation Measure TR-1 would reduce the potential for traffic to be affected by construction activity; this impact would be **less than significant with mitigation**.

d. Inadequate emergency access—Less than Significant with Mitigation

As discussed in item 3.17.3(c), project construction would take place at a location that is not open to public access. A non-substantial number of trips would be generated during the construction period (see Table 2-1), and the project site would be accessed via Sierra Way. During project construction, emergency access could be temporarily restricted from the presence of slow-moving trucks on local roads. As discussed under items (a) and (b), implementation of Mitigation Measure TR-1 would require the construction contractor to identify construction haul routes that minimize traffic on nearby streets. Implementation of this mitigation measure would reduce construction-related impacts on emergency access to a less-than-significant level.

As previously described, operational traffic would not substantially reduce the effectiveness of nearby roadways or impair emergency access on these roads. For these reasons, the Proposed Project would not be expected to result in inadequate emergency access and, even with increased activity, any impacts of project operation would be less than significant.

While the presence of slow-moving equipment and trucks on these roadways could potentially interfere with emergency access (e.g., if an emergency were to occur at the same time that such equipment and/or trucks are utilizing the roadways), with implementation of Mitigation Measure TR-1 the impacts would not be substantial and would be minimized through adherence to traffic laws. In conclusion, impacts related to emergency access as a result of the Proposed Project would be less than significant with mitigation**.**

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Following construction, the Proposed Project would not generate any vehicle or truck trips apart from infrequent trips associated with inspection and maintenance. Additionally, the Proposed Project would not create any new physical barriers or limitations to access for emergency vehicles; rather, the existing access would remain unchanged following the Proposed Project implementation. For these reasons, with implementation of Mitigation Measure TR-1, the Proposed Project would not result in inadequate emergency access and the impact would be **less than significant with mitigation.**

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3.18 TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Proposed Project:				
a. 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:				
i. 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)	☐	☒	☐	☐
ii. 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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

3.18.1 Regulatory Setting

Federal Laws, Regulations, and Policies

The Proposed Project is partially located on land under the jurisdiction of the USFS and it is, therefore, an undertaking pursuant to 36 CFR 800.16(y). Several laws and regulations pertaining to cultural resources are listed in Section 3.5.1, and these are relevant to all cultural resources, including tribal resources. Federal law does not specifically address TCRs, as these resources are defined in the California Public Resource Code. However, similar resources called traditional cultural properties (TCPs) fall under the purview of Section 106 of the NHPA, as described in Section 3.5, "Cultural Resources," of this IS/MND. TCPs are locations of cultural value that are historic properties. A place of cultural value is eligible as a TCP "because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community"

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(Parker and King 1990, rev. 1998). A TCP must be a tangible property, meaning that it must be a place with a referenced location, and it must have been continually a part of the community's cultural practices and beliefs for the past 50 years or more. Unlike TCRs, TCPs can be associated with communities other than Native American tribes, although the resources are usually associated with tribes. By definition, TCPs are historic properties; that is, they meet the eligibility criteria as a historic property for listing in the NRHP. Therefore, as historic properties, TCPs must be treated according to the implementing regulations found under 36 CFR Part 800, as amended in 2001.

State Laws, Regulations, and Policies

In addition to the State laws and regulations listed in Section 3.5, the Proposed Project must also comply with Pub. Res. Code Section 21080.3.1 (also referred to as Assembly Bill 52), which requires that CEQA lead agencies consult with any California Native American tribe that is traditionally and culturally affiliated with the geographic area of a proposed project if so requested by the tribe, and if the agency intends to release a negative declaration, mitigated negative declaration, or environmental impact report for a project. The law also specifies, under Pub. Res. Code Section 21084.2, that a project with an effect that may cause a substantial adverse change in the significance of a TCR is considered a project that may have a significant effect on the environment. CDFW, as the CEQA lead agency, has consulted with Native American tribes pursuant to Pub. Res. Code Section 21080.3.1.

As defined in Pub. Res. Code Section 21074(a), TCRs are:

a. (1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

    (a) Included or determined to be eligible for inclusion in the CRHR; or

    (b) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

b. (2) 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

TCRs are further defined under Section 21074(b) and (c) as follows:

    (b) A cultural landscape that meets the criteria of subdivision (a) is a TCR to the extent that the landscape is geographically defined in terms of the size and scope of the landscape; and

    (c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms to the criteria of subdivision (a).

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Mitigation measures for TCRs must be developed in consultation with the affected California Native American tribe pursuant to Section 21080.3.2 or according to Section 21084.3. Section 21084.3 identifies mitigation measures that include avoidance and preservation of TCRs and treating TCRs with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource.

Local Laws, Regulations, and Policies

Local laws, regulations, and policies applicable to the Proposed Project with regard to TCRs are the same as those identified in Section 3.5, "Cultural Resources."

3.18.2 Environmental Setting

The Proposed Project is located in the traditional ancestral territory of the Tubatulabals. No tribes with a traditional and cultural affiliation to the project area have requested consultation with DGS or CDFW on department projects pursuant to Pub. Res. Code Section 21080.3.1. However, in the spirit of compliance with Pub. Res. Code Section 21080.3.1, local tribes who were identified by the NAHC as having a traditional and cultural association with the project area were notified about the Proposed Project via letters dated January 3, 2024. Follow-up emails were sent, on February 5, 2024, to those who had not yet responded to the original letter.

Chairperson Robinson of the Kern Valley Indian Community responded to the follow-up email on February 6, 2024, with a call to DGS that was supported by a subsequent email. Chairperson Robinson expressed concern about the potential for the inadvertent discovery of Native American resources during project construction due to the sensitivity of the location adjacent to the river and requested that a tribal monitor be present during all ground disturbing activities. On March 5, 2024, the DGS emailed confirmation to Chairperson Robinson that tribal and archaeological monitoring would be included as a mitigation measure in the CEQA environmental document.

DGS did not receive any other tribal requests for consultation on the Proposed Project.

Table 3.18-1 lists all those tribal representatives contacted and summarizes the results of the consultation. All correspondence between the NAHC, Native American tribes, DGS, and CDFW is provided in Appendix C.

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Table 3.18-1. Native American Consultation

Organization/Tribe	Name of Contact	Letter Date/Email Follow-up	Tribal Response	Comments
Kern Valley Indian Community	Robert Robinson, Chairperson	January 3, 2024/ February 5, 2024	February 6, 2024	Phone call and email from Chairperson Robinson voicing concern about resources in the area and requesting monitoring of all ground disturbance
Tejon Indian Tribe	Candice Garza, CRM Scheduler	January 3, 2024/ February 5, 2024		
Tubatulabals of Kern Valley	Robert Gomez, Chairperson	January 3, 2024/ February 5, 2024		
Tule River Indian Tribe	Neil Peyron, Chairperson	January 3, 2024/ February 5, 2024		

3.18.3 Discussion of Checklist Responses

a. 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:

v. 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)—Less than Significant with Mitigation

vi. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria

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set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe—Less than Significant with Mitigation

No TCRs that are listed or eligible for listing in the CRHR or a local register of historical resources have been identified within the project area. Therefore, there would be no impact to known TCRs that are listed or eligible for listing in the CRHR or a local register.

Although DGS notified tribes with a traditional and cultural affiliation with the area about the Proposed Project, none of the tribes contacted identified TCRs in the project area. Furthermore, no TCRs determined by the lead agency, in its discretion and supported by substantial evidence, to be significant are known to be located in the project vicinity. As a result, it appears that there would be no impact to TCRs. However, it is possible that Native American archaeological remains or Native American human remains that would be determined to be TCRs could be discovered during the course of construction. If such archaeological or human remains are identified, they would be treated according to **Mitigation Measure CR-1** or **Mitigation Measure CR-3**, respectively, as described in Section 3.5, "Cultural Resources." **Mitigation Measure CR-2** would protect known resources in the vicinity of construction. Implementation of these mitigation measures would result in a less-than-significant impact with regard to potential TCRs. As a result, this impact would be **less than significant with mitigation.**

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3.19 UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:				
a. Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
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?	☐	☐	☐	☒
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?	☐	☐	☒	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

3.19.1 Regulatory Setting

Federal Laws, Regulations, and Policies

Clean Water Act

The CWA was originally enacted in 1948 and has been amended numerous times, with significant expansions in 1972 and 1977. The CWA's main objectives are to maintain and restore the chemical, physical, and biological integrity of waters through the authorization of standards. Authority for the implementation and enforcement of the CWA lies primarily with the USEPA and its delegated state and local agencies, the SWRCB and, in the project area, the Central Valley RWQCB.

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State Laws, Regulations, and Policies

California Integrated Waste Management Act of 1989

The California Integrated Waste Management Act of 1989, enacted through Assembly Bill (AB) 939 and modified by subsequent legislation, required all California cities and counties to implement programs to reduce, recycle, and compost at least 50 percent of wastes by 2000 (Pub. Res. Code Section 41780). Later legislation mandated that the 50 percent diversion requirement be achieved every year. A jurisdiction's diversion rate is the percentage of its total waste that is diverted from disposal through reduction, reuse, and recycling programs. The state, acting through the California Integrated Waste Management Board, determines compliance with this mandate. Per capita disposal rates are used to determine if a jurisdiction's efforts are meeting the intent of the act.

Assembly Bill 341, Solid Waste Diversion

Effective July 1, 2012, California's Commercial Recycling Bill (AB 341) established a policy goal for California that at least 75 percent of solid waste generated be source-reduced, recycled, or composted by 2020. The bill is intended to reduce GHG emissions by diverting recyclable materials and expand the opportunity for increased economic activity and green industry job creation. AB 341 is a statewide policy goal rather than a city or county jurisdictional mandate.

Local Laws, Regulations, and Policies

Kern County General Plan Land Use Element

The Kern County General Plan provides goals and implementation measures relevant to Utilities and Service Systems in the Land Use Element. These include the following:

Goals

1.4.5 Ensure that adequate supplies of quality (appropriate for intended use) water are available to residential, industrial, and agricultural users within Kern County.

1.4.9 Serve the needs of industries and Kern County residents in a manner that does not degrade the water supply and the environment and protect the public health and safety by avoiding surface and subsurface nuisances resulting from the disposal of hazardous wastes, irrespective of the geographic origin of the waste.

Implementation Measures

N. Secure complete and accurate information on all hazardous wastes generated, handled, stored, treated, transported, and disposed of within or through Kern County.

O. Reduce to the greatest degree possible the amount of waste to be disposed of by encouraging private industry to construct and manage a high-quality system of transfer stations, recycling facilities, treatment plants, and incinerators located near the generators of hazardous waste.

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3.19.2 Environmental Setting

Water

There are many different water purveyors within Kern County. Kernville and the surrounding Kern River Valley rely on the California Water Service's (Cal Water's) Kern River Valley District, which uses both groundwater and surface water. Groundwater originates from a series of rock fissures below the ground and is treated at a plant in Wofford Heights to remove excess minerals such as iron and manganese. Surface water is pulled from the Kern River and is filtered using a membrane filtration system in Kernville (Cal Water n.d.).

In September 2022, the Cal Water Kern River Valley District served a population of approximately 5,591 people within the rural Kern River Valley; the average systemwide per-capita water use during this time was approximately 158 gallons per capita per day (Pacific Institute 2023).

The Proposed Project consists of removing and replacing the existing Kern River Hatchery siphon and pipeline to convey water from the Kern River so that the hatchery can resume operations similar to conditions before its closure in 2020. It is not anticipated that any off-site water source would be needed for the Proposed Project.

Wastewater

The project site is located in an unincorporated area of Kern County and is not serviced by a municipal wastewater provider. The project site and surrounding area rely on septic tanks for wastewater capture, storage, and treatment. The Kern County Public Health Services Department, Environmental Health Division regulates onsite wastewater treatment sites for the unincorporated areas of the county, such as the Kern River Valley (Kern County Public Health Department 2017). The Proposed Project would not install or expand any wastewater collection, disposal, or treatment facilities.

Stormwater

There is no centralized stormwater collection system serving the project site or surrounding vicinity. Due to the close proximity of the site to the Kern River and the local topography of the area, surface runoff from the project site and surrounding area typically flows toward the Kern River or percolates into groundwater. The Proposed Project would not alter existing stormwater facilities.

Solid Waste

Kern County has several solid waste collection and disposal services. The Kern River Valley receives solid waste collection through Thomas Refuse Service (Kern County Public Works 2023a). Garbage is taken to the Kern Valley Transfer Station and then hauled to one of seven disposal sites within the county (Kern County Public Works 2023b). The Kern Valley Transfer Station is located approximately 5.3 miles southeast of the project site.

As mentioned in Chapter 2, *Project Description*, during construction of the Proposed Project, screening, crushing, and on-site spreading may be considered for disposal of removed rock and

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cobble, and vegetation removed from the alignment would be chipped and spread back on the site. Additionally, spoils associated with trenching would be redistributed along the pipe alignment and would not be hauled off-site. Any demolition materials that are not retained on site – primarily steel, concrete, and asphalt – would be stockpiled in the construction staging areas and hauled off site by the construction contractor for disposal or recycling.

Electricity and Natural Gas

SCE supplies electricity to the Kernville area, and the Kern River Gas Transmission Company supplies natural gas (SCE n.d.). The project site is adjacent to SCE's KR-3 Hydroelectric Power Station. No new electric lines would be installed as part of the Proposed Project. There would be a maximum of two temporary generators on-site during the construction period.

Communications

There are many communications service providers within Kern County. Mediacom and Kern Valley Wireless are the primary providers of communications services within the Kern River Valley area. No new communication lines would be installed in association with the Proposed Project.

3.19.3 Discussion of Checklist Responses

a. Require the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities or expansion of existing facilities, the construction or relocation of which could cause significant environmental effects—Less than Significant

The Proposed Project would remove and replace the existing siphon and pipeline that provides water to the Kern River Hatchery to restore hatchery operations to pre-2020 conditions. This would involve the demolition and replacement of the existing siphon, pipeline, and associated structures, as well as the installation of a replacement pump, intake line, diversion structure, and outlet structures. While the Proposed Project technically requires the construction of water facilities, the flow rate, amount of withdrawal, purpose of use, and location of use of water withdrawn from the Kern River would not differ from previous operating conditions and thus would not create any new significant environmental effects. The Proposed Project would also not involve the relocation or construction or any electric power, natural gas, or telecommunications facilities. Therefore, this impact is **less than significant**.

b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years—Less than Significant

Water use during construction would be minimal and would be primarily for dust control (as needed) and portable restroom facilities to serve a maximum of 15 construction workers during the 14-month construction period.

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As mentioned above, once constructed, the Proposed Project would not increase the flow rate, amount of withdrawal, purpose of use, or location of use of water withdrawn from the Kern River and conveyed through the pipeline to the hatchery. Water usage associated with operations of the Proposed Project would be consistent with conditions before the December 2020 closure of the facility. This impact would be **less than significant**.

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

As mentioned in criterion 3.19.3(b), a maximum of 15 construction workers would be present on the project site at any given time throughout the construction window. Portable restrooms would be used on-site and would be maintained by a contracted vendor; thus, there would be no overall change in the need for wastewater treatment.

Operations of the Proposed Project would run consistently to pre-facility closure operations, and no increase in the creation of wastewater is expected. As a result, there would be **no impact**.

d,e. 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/ Comply with federal, state, and local management and reduction statutes and regulations related to solid waste—Less than Significant

During construction, the Proposed Project would generate debris associated with demolition of the existing siphon and pipeline, excavation of a trench, and construction of the replacement siphon and pipeline. Some materials associated with demolition such as rock, cobble, and vegetation may be screened, crushed, and spread on-site. Demolition materials not being retained on site – primarily steel, concrete, and asphalt – would be stockpiled in the construction staging areas and hauled off site for disposal or recycling. As mentioned above, waste would be brought to the Kern Valley Transfer Station and then taken to one of seven landfills in the county. Due to the large number of available landfills in the vicinity of the project area, it is not expected that the waste generated from the Proposed Project would exceed the capacity of local waste disposal infrastructure. Hazardous waste requiring disposal would be transported to a hazardous waste facility for disposal or recycling. See Section 3.9, "Hazards and Hazardous Materials," for further discussion on hazardous wastes.

Because a percentage of the solid waste associated with construction would be either retained on-site or recycled, waste disposal associated with construction of the Proposed Project would be consistent with the California Integrated Waste Management Act, Assembly Bill 341, and the Kern County General Plan, which all aim to increase the amount of waste that is diverted from landfills.

The generation of solid waste associated with operation of the facility is expected to be consistent with pre-closure operations. As such, Proposed Project operations would not

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generate solid waste in excess of state or local standards, exceed the capacity of local infrastructure, or impair the attainment of any solid waste goals. Additionally, operation of the Proposed Project would comply with applicable management and reduction regulations related to solid waste. Therefore, this impact would be **less than significant**.

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3.20 WILDFIRE

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☒	☐	☐
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?	☐	☒	☐	☐
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?	☐	☒	☐	☐
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?	☐	☐	☒	☐

3.20.1 Regulatory Setting

Federal Laws, Regulations, and Policies

Land Management Plan for the Sequoia National Forest

The Land Management Plan for the Sequoia National Forest is developed by USFS in accordance with the requirements of the National Forest Management Act of 1976. It is a strategic document that identifies long-term overall conditions and provides direction in how to proceed to achieve these conditions. Relevant goals include the following:

FIRE-FW-DC 01 Coordinate wildfire management with relevant State agencies, adjacent Federal agencies, and other partners, and include consideration of the net gains to the public.

FIRE-FW-DC 04 Restore ecosystems to a more fire-resilient condition and lessen the threat of wildfire to communities.

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FIRE-FW-DC 05 Coordinate with other jurisdictions such as communities, Tribes, service providers, and Federal, State, county, and local entities regarding prevention, preparedness, planned activities, and responses to wildland fires. Notify those agencies about upcoming and ongoing fire season and any prescribed fire activity.

FIRE-CWPZ-GOAL 02 Reduce the impacts of wildfire on communities through fuel reduction treatments, prescribed fire, and managing wildfires that can benefit natural resources while reducing risk.

FIRE-CWPZ-GOAL 04 Work with partners and adjacent landowners to support or contribute toward defensible space as defined by California Public Resource Code 4291.

State Laws, Regulations, and Policies

2018 Strategic Fire Plan for California

The Strategic Fire Plan, developed by the State Board of Forestry and Fire Protection, provides direction and guidance to the California Department of Forestry and Fire Protection (CAL FIRE) and its 21 field units. The 2018 Plan sets forth the following goals focused on fire prevention, natural resource management, and fire suppression efforts:

a. Improve the availability and use of consistent, shared information on hazard and risk assessment;

b. Promote the role of local planning processes, including general plans, new development, and existing developments, and recognize individual landowner/homeowner responsibilities;

c. Foster a shared vision among communities and the multiple fire protection jurisdictions, including county-based plans and community-based plans such as Community Wildfire Protection Plans (CWPPs);

d. Increase awareness and actions to improve fire resistance of man-made assets at risk;

e. Increase awareness and actions to improve fire resistance of man-made assets at risk and fire resilience of wildland environments through natural resource management;

f. Integrate implementation of fire and vegetative fuels management practices consistent with the priorities of landowners or managers;

g. Determine and seek the needed level of resources for fire prevention, natural resource management, fire suppression, and related services; and

h. Implement needed assessments and actions for post-fire protection and recovery.

California Public Resources Code

The Public Resources Code includes fire safety regulations restricting the use of certain equipment that could produce sparks or flames, and specifies requirements for the safe use of

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gasoline-powered tools in fire hazard areas. Contractors must comply with the following requirements during construction activities at any sites with forest-, brush-, or grass-covered land:

a. Earthmoving and portable equipment with internal combustion engines must be equipped with a spark arrestor to reduce the potential for igniting a wildland fire (Pub. Res. Code Section 4442).

b. Appropriate fire-suppression equipment must be maintained from April 1 to December 1, the highest-danger period for fires (Pub. Res. Code Section 4428).

c. On days when a burning permit is required, flammable materials must be removed to a distance of 10 feet from any equipment that could produce a spark, fire, or flame, and the construction contractor must maintain the appropriate fire-suppression equipment (Pub. Res. Code Section 4427).

d. On days when a burning permit is required, portable tools powered by gasoline-fueled internal combustion engines must not be used within 25 feet of any flammable materials (Pub. Res. Code Section 4431).

Local Laws, Regulations, and Policies

Kern County General Plan Safety Element

The Safety Element of the Kern County General Plan provides the following policies and implementation measures relevant to wildfire that are applicable to the Proposed Project.

Policy 4.6.1 Require discretionary projects to assess impacts on emergency services and facilities.

Policy 4.6.6 All discretionary projects shall comply with the adopted Fire Code and the requirements of the Fire Department.

Implementation Measure 4.6.A Require that all development comply with the requirements of the Kern County Fire Department or other appropriate agency regarding access, fire flows, and fire protection facilities.

3.20.2 Environmental Setting

CAL FIRE maps Fire Hazard Severity Zones (FHSZ) based on the severity of fire hazards that would be expected to occur in that area. These areas, or “zones,” are categorized based on increasing fire hazard: medium, high, and very high. These zones are determined by factors such as fuels, slope, and fire weather for the area (CAL FIRE 2023a). FHSZs are found in State Responsibility Areas (SRAs); these are areas where the State of California has financial responsibility for wildfire protection and prevention (CAL FIRE 2023a).

The project site is located within a both a “Very High” SRA classification and a FRA (Federal Responsibility Area) (CAL FIRE 2023b). The parts of the project site within the Sequoia National

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Forest are classified as “community wildfire protection,” which identifies areas where, should a wildfire be ignited, a higher level of community assets may be lost (USFS 2023a, 2023b).

The project site is located on land with mild slopes immediately adjacent to the Kern River. Adjacent land uses consist primarily of rural and low-density residential developments and undeveloped land. Camp Owen, a youth detention center operated by the County of Kern, is located across Sierra Way from the hatchery.

3.20.3 Discussion of Checklist Responses

a. Substantially impair an adopted emergency response plan or emergency evacuation plan—Less than Significant with Mitigation

The project site is located west of Sierra Way. This road provides access to the project site, follows the Kern River, and is the main road running north to south in the area. No full-road closures are expected during construction. Construction-related vehicles on Sierra Way may temporarily increase traffic and could result in traffic slowdowns on Sierra Way; thus, construction could result in delays, contributing to temporary impairment of the evacuation process, should the Proposed Project’s construction activities coincide with an emergency. However, Sierra Way would only be used during construction to transport the construction equipment to the staging area at the beginning of the construction period, and to remove the equipment at the end of the construction period. During the 14-month construction period, equipment would remain at the staging areas and travel on the unnamed access road but not on Sierra Way. Furthermore, as discussed in Section 3.17, “Transportation,” implementation of Mitigation Measure TR-1 shall require that contractors prepare and implement a construction traffic management plan to manage traffic flow during construction. This would manage traffic to ensure adequate emergency responder access, by methods such as signage, and coordinating construction activities to ensure that one travel lane remains open at all times, unless flaggers or temporary traffic controls are in place, to provide emergency access. Given the temporary nature of the Proposed Project construction activities, and that the implementation of the project will be returning the hatchery to pre-closure conditions, the Proposed Project is not expected to have long-term impacts on emergency response or evacuation plans. Therefore, this impact would be **less than significant with mitigation.**

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 with Mitigation

The Proposed Project would involve removing and replacing the hatchery siphon and pipeline to return to pre-closure conditions; therefore, it would not involve placing people or habitable structures in areas lacking adequate fire protection. Further, the Proposed Project would require the removal of onsite vegetation, reducing the amount of combustible material in the area. After construction is complete, the area would be revegetated to provide erosion control.

There is a potential for an accidental ignition of a wildland fire during construction activities, particularly when conducted during the dry summer months when fire danger is the highest. Use of vehicles and equipment for construction activities could ignite a fire through generation

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of sparks or heat. **Mitigation Measure WF-1** would be implemented to reduce potential impacts by requiring all equipment with internal combustion engines to be equipped with spark arrestors. In addition, during the high fire danger period (April 1 – December 1), all work crews would take additional precautions around flammable materials and have fire suppression equipment available. Therefore, this impact would be **less than significant with mitigation**.

Mitigation Measure WF-1: Implement Fire Suppression Measures during Construction

The State of California (DGS) shall require the following measures to be implemented during construction activities at the project site:

- All earthmoving and portable equipment with internal combustion engines will be equipped with spark arrestors.
- During the high fire danger period (April 1–December 1), work crews will:
  - Have appropriate fire suppression equipment available at the work site.
  - Keep flammable materials, including flammable vegetation slash, at least 10 feet away from any equipment that could produce a spark, fire, or flame.
  - Not use portable tools powered by gasoline-fueled internal combustion engines within 25 feet of any flammable materials unless a round-point shovel or fire extinguisher is within immediate reach of the work crew (no more than 25 feet away from the work area).

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 with Mitigation

The Proposed Project would replace existing structures and would therefore not result in an increased ongoing fire risk or impact on the environment. The only electrical component would be the replacement pump, which would be enclosed in an existing concrete pump vault and would not be exposed to surrounding vegetation. During construction, vehicles and equipment could ignite a fire during the dry summer months. **Mitigation Measure WF-1** would be implemented to reduce potential impacts, requiring that on-site fire suppression equipment be available, spark arrestors are present on all equipment with internal combustion engines, and additional precautions are taken on high fire danger days. Therefore, installation of or maintenance of infrastructure would not exacerbate fire risks. This impact would be **less than significant with mitigation.**

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—Less than Significant

The Proposed Project would replace existing structures in the same general area and alignment as under existing conditions, and would not result in drainage changes or increase the flow rate, amount of withdrawal, purpose of use, or location of use of water withdrawn from the Kern River. The replacement siphon pipeline would be underground rather than the existing

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aboveground alignment. Project construction would include vegetation removal, grading, and trenching which may contribute to erosion. As discussed in Section 3.7, "Geology, Soils, and Seismicity," the contractor for the Proposed Project would prepare and implement a SWPPP which will include measures to prevent erosion and protect topsoil during project construction. Furthermore, upon project completion, the Project area would be revegetated or stabilized to provide ongoing erosion control. Therefore, this impact would be **less than significant**.

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3.21 MANDATORY FINDINGS OF SIGNIFICANCE

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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 plan or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b.	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c.	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

3.21.1 Discussion of Checklist Responses

a. Effects on environmental quality, fish or wildlife, and historic resources—Less than Significant with Mitigation

Degrade Quality of Environment

As described in Sections 3.1 through 3.20 of this environmental checklist, the proposed project has the potential for significant impacts on various environmental resources that could degrade the quality of the existing environment.

As discussed in Section 3.3, construction of the proposed project could result in air quality impacts related to a cumulatively considerable net increase of a criteria pollutant. Mitigation Measure AQ-1 would reduce this impact to less than significant with mitigation through reducing fugitive dust during construction. In addition, project construction could expose sensitive receptors to substantial air pollutant concentrations, specifically Valley Fever, through

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ground disturbance. Mitigation Measure AQ-2 would reduce this impact to less than significant with mitigation by requiring preparation of and adherence to a Valley Fever Management Plan.

As discussed in Section 3.7, project construction could directly or indirectly destroy a unique paleontological resource. Mitigation Measure GEO-1 would reduce the impact to less than significant with mitigation through requiring stop work in case of accidental discovery.

As discussed in Section 3.9, project construction could create a significant hazard through transport, use, or disposal of hazardous materials or the accidental but reasonably foreseeable upset and accident conditions that could release hazardous materials. Mitigation Measure HAZ-1 would reduce this impact to less than significant with mitigation by requiring measures to reduce risk of release. In addition, Mitigation Measure AQ-1 would reduce the impact to less than significant with mitigation by controlling fugitive dust emissions. Further, project construction could interfere with emergency access. Mitigation Measure TR-1 would reduce this measure to less than significant with mitigation by providing traffic control at the project access road that could allow emergency vehicles access through the area and to the site.

As discussed in Section 3.10, project construction could degrade water quality through accidental release of hazardous materials into the water or through stormwater runoff. Implementation of Mitigation Measure HAZ-1 would reduce the impact to less than significant with mitigation by ensuring that hazardous materials releases during construction are avoided/minimized to the extent feasible, and that damage to surface or groundwater quality is minimized in the event such releases do occur.

As discussed in Sections 3.9 and 3.20, construction could increase risk of wildfire. Implementation of Mitigation Measure WF-1 would reduce the impact to less than significant with mitigation by requiring the inclusion of spark arrestors and additional fire suppression precautions during the high fire danger period.

Wildlife Habitat and Populations; Rare and Endangered Species

As discussed in Section 3.4, the Project site and immediate vicinity support habitat for several special-status plant, wildlife, and invertebrate species. Construction activities that remove, trample, or crush individual special-status plants; disturb burrows; generate noise; or create visual distractions during the breeding season could disturb special-status wildlife and invertebrate species as well as nesting birds and raptors within the Project site and vicinity. The potential exists for significant impacts on special-status wildlife and on nesting birds. Therefore, this impact would have the potential to significantly impact biological resources and habitats. Implementation of Mitigation Measures BIO-1 through BIO-10 would reduce these impacts to less than significant with mitigation by requiring surveys, fencing, and minimizing the amount of vegetation to the greatest extent feasible. In addition, accidental release of hazardous materials into non-wetland features and nursery areas could result in impacts to these resources. Implementation of Mitigation Measure HAZ-1 would reduce the impact to less than significant with mitigation requiring measures to reduce risk of release of hazardous materials.

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California History and Prehistory

As described in Section 3.5, the proposed project construction activities would include ground disturbing activities, including potential excavations up to 20 feet deep. The proposed project has the potential for significant impacts related to unknown archaeological resources, human remains, and tribal cultural resources. Therefore, this impact would have the potential to significantly impact cultural resources. Implementation of Mitigation Measures CR-1, CR-2, and CR-3 would reduce the impact to less than significant with mitigation by requiring worker awareness training, for work to stop in case of inadvertent discovery, and proper documentation as appropriate; erecting exclusionary fencing in case of any such discovery; and halting work and contacting the County coroner in case of discovery of human remains.

b. Cumulative impacts—Less than Significant

A cumulative impact refers to the combined effect of "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts" (CEQA Guidelines § 15355). Cumulative impacts reflect "the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time" (CEQA Guidelines § 15355[b]).

Lead agencies may use a "list" approach to identify related projects or may base the identification of cumulative impacts on a summary of projections in an adopted general plan or related planning document (CEQA Guidelines Section 15130[b]), also known as the "projection" approach. This document utilizes a combination of the list and projection approaches. Project contributions to localized cumulative impacts (air quality, biological resources, noise and vibrations) are evaluated using the list approach, while Project contributions to regional cumulative impacts (GHG emissions and traffic) are evaluated using the projection approach.

Projects with the potential to contribute to the same cumulative impacts as the Proposed Project would likely be within close geographic proximity to the project area, except for certain resources (e.g., air quality, GHG emissions). The Kern County construction services division website (Kern County 2023), CEQAnet (Governor's Office of Planning and Research 2023), U.S. Forest Service planning documents (USFS n.d.), and CDFW projects (Branch pers. comm. 2024) were consulted to determine projects that could combine with the Proposed Project to yield cumulative impacts. None were identified. As a result, the Proposed Project would not have incremental impacts that are individually limited, considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. The impact is **less than significant**.

c. Substantial adverse effects on human beings—Less than Significant with Mitigation

As discussed in Section 3.11, project construction could cause temporary interruptions in access for the unnamed access road and surrounding areas. However, Mitigation Measure TR-1 would reduce the impact to less than significant with mitigation by requiring that contractors prepare and implement a construction traffic management plan to manage traffic flow during construction, ensure adequate emergency access, and reduce possible traffic safety hazards.

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As discussed in Section 3.15, project construction could increase risk of wildfire, which in turn could potentially increase the demand for fire protection services in the area. Implementation of Mitigation Measure WF-1 would reduce the impact to less than significant with mitigation by requiring spark arrestors on all equipment with internal combustion engines. In addition, project construction could reduce access to parks and recreational areas in the project vicinity as well as to Camp Owen, a youth detention center operated by Kern County, as a result of construction-related vehicular traffic. Implementation of Mitigation Measure TR-1 would reduce the impact to less than significant with mitigation by requiring preparation of and adherence to a construction traffic management plan.

As discussed in Section 3.17, project construction has potential to interfere with the flow of traffic, resulting in a traffic hazard and impeding emergency access. Implementation of Mitigation Measure TR-1 would reduce the impact to less than significant with mitigation by requiring preparation of and adherence to a construction traffic management plan.

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Appendix A

Air Quality/Greenhouse Gas Modeling Results and Energy Use Calculations

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Appendix A-1

Air Quality/Greenhouse Gas Modeling Results

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Kern River Custom Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Kern River
Construction Start Date	4/1/2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.10
Precipitation (days)	34.0
Location	35.77294720805351, -118.43471958215034
County	Kern-Mojave Desert
City	Unincorporated
Air District	Kern County APCD
Air Basin	Mojave Desert
TAZ	2799
EDFZ	9
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
User Defined Industrial	1.00	User Defined Unit	1.00	1.00	1.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.85	7.45	62.8	59.6	0.13	2.86	49.2	52.0	2.63	8.14	10.8	—	14,272	14,272	0.57	0.15	2.17	14,333
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.83	3.23	24.2	29.6	0.07	0.98	42.9	43.8	0.90	4.33	5.23	—	8,194	8,194	0.33	0.11	0.06	8,233
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.97	2.50	19.2	20.9	0.05	0.79	19.1	19.9	0.73	2.41	3.14	—	5,350	5,350	0.22	0.06	0.42	5,374
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.54	0.46	3.50	3.81	0.01	0.15	3.48	3.62	0.13	0.44	0.57	—	886	886	0.04	0.01	0.07	890

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2024	8.85	7.45	62.8	59.6	0.13	2.86	49.2	52.0	2.63	8.14	10.8	—	14,272	14,272	0.57	0.15	2.17	14,333
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	3.83	3.23	24.2	29.6	0.07	0.98	42.9	43.8	0.90	4.33	5.23	—	8,194	8,194	0.33	0.11	0.06	8,233
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.97	2.50	19.2	20.9	0.05	0.79	19.1	19.9	0.73	2.41	3.14	—	5,350	5,350	0.22	0.06	0.42	5,374
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.54	0.46	3.50	3.81	0.01	0.15	3.48	3.62	0.13	0.44	0.57	—	886	886	0.04	0.01	0.07	890

3. Construction Emissions Details

3.1. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	8.65	7.27	62.5	56.9	0.13	2.86	—	2.86	2.63	—	2.63	—	13,724	13,724	0.56	0.11	—	13,771
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.71	0.60	5.14	4.67	0.01	0.23	—	0.23	0.22	—	0.22	—	1,128	1,128	0.05	0.01	—	1,132
Dust From Material Movement	—	—	—	—	—	—	0.63	0.63	—	0.32	0.32	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.94	0.85	< 0.005	0.04	—	0.04	0.04	—	0.04	—	187	187	0.01	< 0.005	—	187
Dust From Material Movement	—	—	—	—	—	—	0.11	0.11	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.17	0.15	2.65	0.00	0.00	38.5	38.5	0.00	3.89	3.89	—	408	408	0.02	0.01	1.72	415
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.16	0.03	< 0.005	< 0.005	2.98	2.98	< 0.005	0.30	0.31	—	140	140	< 0.005	0.02	0.30	147
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.17	0.00	0.00	2.87	2.87	0.00	0.29	0.29	—	30.7	30.7	< 0.005	< 0.005	0.06	31.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.22	0.22	< 0.005	0.02	0.02	—	11.5	11.5	< 0.005	< 0.005	0.01	12.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.52	0.52	0.00	0.05	0.05	—	5.09	5.09	< 0.005	< 0.005	0.01	5.16
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	< 0.005	—	1.91	1.91	< 0.005	< 0.005	< 0.005	2.00

3.3. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	7.05	5.90	44.3	47.7	0.11	1.77	—	1.77	1.63	—	1.63	—	11,897	11,897	0.48	0.10	—	11,938
Dust From Material Movement	—	—	—	—	—	—	2.56	2.56	—	1.31	1.31	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.45	1.21	9.11	9.79	0.02	0.36	—	0.36	0.34	—	0.34	—	2,445	2,445	0.10	0.02	—	2,453
Dust From Material Movement	—	—	—	—	—	—	0.53	0.53	—	0.27	0.27	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.26	0.22	1.66	1.79	< 0.005	0.07	—	0.07	0.06	—	0.06	—	405	405	0.02	< 0.005	—	406
Dust From Material Movement	—	—	—	—	—	—	0.10	0.10	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.10	1.77	0.00	0.00	25.7	25.7	0.00	2.60	2.60	—	272	272	0.01	0.01	1.15	277
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.60	0.60	< 0.005	0.06	0.06	—	24.8	24.8	< 0.005	< 0.005	0.07	25.9
Hauling	< 0.005	< 0.005	0.16	0.03	< 0.005	< 0.005	2.98	2.98	< 0.005	0.30	0.31	—	140	140	< 0.005	0.02	0.30	147
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.28	0.00	0.00	4.79	4.79	0.00	0.48	0.48	—	51.2	51.2	< 0.005	< 0.005	0.10	52.0
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.11	0.11	< 0.005	0.01	0.01	—	5.11	5.11	< 0.005	< 0.005	0.01	5.32
Hauling	< 0.005	< 0.005	0.04	0.01	< 0.005	< 0.005	0.56	0.56	< 0.005	0.06	0.06	—	28.8	28.8	< 0.005	< 0.005	0.03	30.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.87	0.87	0.00	0.09	0.09	—	8.48	8.48	< 0.005	< 0.005	0.02	8.60
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	0.85	0.85	< 0.005	< 0.005	< 0.005	0.88
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.10	0.10	< 0.005	0.01	0.01	—	4.77	4.77	< 0.005	< 0.005	< 0.005	4.99

3.5. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.66	3.07	23.8	27.7	0.07	0.98	—	0.98	0.90	—	0.90	—	7,635	7,635	0.31	0.06	—	7,661
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.66	3.07	23.8	27.7	0.07	0.98	—	0.98	0.90	—	0.90	—	7,635	7,635	0.31	0.06	—	7,661
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.60	0.50	3.90	4.56	0.01	0.16	—	0.16	0.15	—	0.15	—	1,255	1,255	0.05	0.01	—	1,259
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.71	0.83	< 0.005	0.03	—	0.03	0.03	—	0.03	—	208	208	0.01	< 0.005	—	208
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.17	0.15	2.65	0.00	0.00	38.5	38.5	0.00	3.89	3.89	—	408	408	0.02	0.01	1.72	415
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	1.33	1.33	< 0.005	0.14	0.14	—	55.6	55.6	< 0.005	0.01	0.15	58.0
Hauling	< 0.005	< 0.005	0.16	0.03	< 0.005	< 0.005	2.98	2.98	< 0.005	0.30	0.31	—	140	140	< 0.005	0.02	0.30	147
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.16	0.18	1.84	0.00	0.00	38.5	38.5	0.00	3.89	3.89	—	363	363	0.02	0.01	0.04	368
Vendor	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	1.33	1.33	< 0.005	0.14	0.14	—	55.6	55.6	< 0.005	0.01	< 0.005	57.9
Hauling	< 0.005	< 0.005	0.17	0.04	< 0.005	< 0.005	2.98	2.98	< 0.005	0.30	0.31	—	140	140	< 0.005	0.02	0.01	147
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.34	0.00	0.00	5.75	5.75	0.00	0.58	0.58	—	61.5	61.5	< 0.005	< 0.005	0.12	62.3
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.20	0.20	< 0.005	0.02	0.02	—	9.14	9.14	< 0.005	< 0.005	0.01	9.53
Hauling	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.44	0.44	< 0.005	0.05	0.05	—	23.0	23.0	< 0.005	< 0.005	0.02	24.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.01	0.06	0.00	0.00	1.05	1.05	0.00	0.11	0.11	—	10.2	10.2	< 0.005	< 0.005	0.02	10.3
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	< 0.005	—	1.51	1.51	< 0.005	< 0.005	< 0.005	1.58
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.08	0.08	< 0.005	0.01	0.01	—	3.81	3.81	< 0.005	< 0.005	< 0.005	4.00

3.7. Close Out (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.58	1.33	10.1	10.8	0.03	0.41	—	0.41	0.37	—	0.37	—	3,237	3,237	0.13	0.03	—	3,248
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.83	0.89	< 0.005	0.03	—	0.03	0.03	—	0.03	—	266	266	0.01	< 0.005	—	267
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.15	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	44.0	44.0	< 0.005	< 0.005	—	44.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.16	0.18	1.84	0.00	0.00	38.5	38.5	0.00	3.89	3.89	—	363	363	0.02	0.01	0.04	368
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.60	0.60	< 0.005	0.06	0.06	—	24.9	24.9	< 0.005	< 0.005	< 0.005	25.9
Hauling	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.60	0.60	< 0.005	0.06	0.06	—	28.0	28.0	< 0.005	< 0.005	< 0.005	29.4
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.17	0.00	0.00	2.87	2.87	0.00	0.29	0.29	—	30.7	30.7	< 0.005	< 0.005	0.06	31.2
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	< 0.005	—	2.04	2.04	< 0.005	< 0.005	< 0.005	2.13
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	< 0.005	—	2.30	2.30	< 0.005	< 0.005	< 0.005	2.41

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.52	0.52	0.00	0.05	0.05	—	5.09	5.09	< 0.005	< 0.005	0.01	5.16
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	0.34	0.34	< 0.005	< 0.005	< 0.005	0.35
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	0.38	0.38	< 0.005	< 0.005	< 0.005	0.40

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	4/1/2024	5/10/2024	5.00	30.0	—
Grading	Grading	5/11/2024	8/23/2024	5.00	75.0	—
Building Construction	Building Construction	8/24/2024	11/15/2024	5.00	60.0	—
Close Out	Trenching	11/16/2024	12/27/2024	5.00	30.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Site Preparation	Off-Highway Trucks	Diesel	Average	3.00	8.00	376	0.38
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Generator Sets	Diesel	Average	2.00	8.00	14.0	0.74
Site Preparation	Other Construction Equipment	Diesel	Average	6.00	8.00	82.0	0.42
Site Preparation	Off-Highway Trucks	Diesel	Average	3.00	4.00	376	0.38
Site Preparation	Off-Highway Trucks	Diesel	Average	1.00	8.00	376	0.38
Grading	Excavators	Diesel	Average	3.00	8.00	36.0	0.38

Grading	Off-Highway Trucks	Diesel	Average	3.00	8.00	376	0.38
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Rubber Tired Loaders	Diesel	Average	3.00	8.00	150	0.36
Grading	Off-Highway Trucks	Diesel	Average	3.00	4.00	376	0.38
Grading	Air Compressors	Diesel	Average	6.00	8.00	37.0	0.48
Grading	Generator Sets	Diesel	Average	2.00	8.00	14.0	0.74
Grading	Off-Highway Trucks	Diesel	Average	1.00	8.00	376	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	4.00	367	0.29
Building Construction	Off-Highway Trucks	Diesel	Average	1.00	8.00	376	0.38
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Cement and Mortar Mixers	Diesel	Average	2.00	8.00	10.0	0.56
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Rubber Tired Loaders	Diesel	Average	2.00	8.00	150	0.36
Building Construction	Off-Highway Trucks	Diesel	Average	3.00	4.00	376	0.38
Building Construction	Off-Highway Trucks	Diesel	Average	1.00	8.00	376	0.38
Building Construction	Generator Sets	Diesel	Average	2.00	8.00	14.0	0.74
Close Out	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Close Out	Cranes	Diesel	Average	1.00	4.00	367	0.29
Close Out	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Close Out	Off-Highway Trucks	Diesel	Average	1.00	4.00	376	0.38
Close Out	Off-Highway Trucks	Diesel	Average	1.00	8.00	376	0.38
Close Out	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	30.0	17.3	LDA,LDT1,LDT2
Site Preparation	Vendor	0.00	20.0	HHDT
Site Preparation	Hauling	2.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	17.3	LDA,LDT1,LDT2
Grading	Vendor	0.40	20.0	HHDT,MHDT
Grading	Hauling	2.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	30.0	17.3	LDA,LDT1,LDT2
Building Construction	Vendor	0.83	21.6	HHDT,MHDT
Building Construction	Hauling	2.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Close Out	—	—	—	—
Close Out	Worker	30.0	17.3	LDA,LDT1,LDT2
Close Out	Vendor	0.40	20.0	HHDT,MHDT
Close Out	Hauling	0.40	20.0	HHDT
Close Out	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	45.0	0.00	—
Grading	—	—	37.5	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Industrial	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	532	0.03	< 0.005

8. User Changes to Default Data

Screen	Justification
Land Use	size not used in calculations for project
Construction: Construction Phases	Site specific construction schedule
Construction: Off-Road Equipment	site specific construction list provided
Construction: Trips and VMT	site specific trip numbers increased vendor trip lengths since far from an urban area.
Construction: On-Road Fugitive Dust	end of travel trip for may be on unpaved roads, assumed 5% of trip length.

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Appendix B

Biological Resources Evaluation

Kern River Fish Hatchery Siphon Replacement Project

Kernville, Kern County, California

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BIOLOGICAL RESOURCES EVALUATION

KERN RIVER FISH HATCHERY SIPHON REPLACEMENT PROJECT

KERNVILLE, KERN COUNTY, CALIFORNIA

Submitted to:

Debra Lilly – Senior Environmental Professional
Montrose Environmental
Sacramento, CA

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December 2023
REVISED
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Introduction

MESA Biological LLC (MESA) has prepared this Biological Resources Evaluation (BRE) for Montrose Environmental and The State of California Department of General Services to evaluate the potential for sensitive biological resources in the vicinity of the Kern River Fish Hatchery Siphon Replacement Project. The project occurs less than one mile north of Kernville, California and will consist of the replacement of the siphon inlet and the approximate 0.5-mile above ground siphon pipeline. The pipeline was used to transport water from the Kern River just south of the Southern California Edison (SCE) No. 3 Hydroelectric Power Station to the Kern River Fish Hatchery and will be replaced with a similar sized siphon and below grade pipeline in the same general alignment (**Attachment A – Vicinity Map**). Since 1967 the hatchery has been operated by the California Department of Fish and Wildlife (CDFW). Over the past several years the integrity of the pipeline has deteriorated, leading to inoperability and the permanent closing of the hatchery.

This BRE will provide recommendations to address potential impacts to sensitive biological resources known to occur in the region. For continuity purposes throughout this report, the term “project site” will be used to address siphon inlet and 0.5-mile pipeline route, while the term “evaluation site” will be used to describe the project site and its 250-foot buffer area being evaluated within this report.

Project Location and Description

The project site occurs just north of Kernville, Kern County, California and falls within Section 9 and 10 of Township 25 South, Range 33 East. More specifically, the siphon inlet occurs just south of the Hydroelectric Power Station. From the siphon point, the 0.5-mile pipeline route runs parallel on the east side of the Kern River between the river and Sierra Way until terminating at the Kern River Fish Hatchery. The evaluation site occurs within the Kernville United States Geological Survey (USGS) 7.5-minute quadrangle and within the Kern River Valley at an elevation ranging from approximately 2,685 feet to 2,710 feet above mean sea level (881 meters – 826 meters) (**Attachment A – Project Area Map**).

Methodology

This BRE includes a review of relevant literature that was followed by a reconnaissance level field survey conducted on December 15, 2023. The purpose of this analysis is to document the biological conditions found throughout the site and its 250-foot buffer area to provide information an evaluation of the biological resources potentially impacted by this pipeline replacement project.

Database Queries

Information obtained to support the evaluation of the site included review of current and historical aerial imagery of the evaluation site and vicinity. MESA also conducted a review of the California

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CDFW California Natural Diversity Database (CNDDB) (CDFW 2023a) and the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2023). Both CNDDB and CNPS reviews included a search of the Kernville USGS 7.5-minute quadrangle and the surrounding 8 quadrangles (Fairview, Sirretta Peak, Cannell Peak, Weldon, Lake Isabella North, Alta Sierra, Tobias Peak, Johnsondale). In addition to the CNPS and CNDDB queries, MESA also conducted a review of the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) (USFWS 2023a) website for detail on federal resources potentially occurring in the evaluation site. As a result of the database queries, a list of potentially occurring species was compiled and provided within **Attachment B – Special-Status Species Tables**. The tables have been formulated to describe the species habitat requirements, their listing status, and a brief description of their potential for occurrence in the evaluation site. The review of this literature provided biologists with general information and a broad overview of the potential biological resources found in the vicinity of the evaluation site. In addition, information was also gathered from a variety of other sources including the CDFW Biogeographic Information and Observation System (BIOS) (CDFW 2023b); USFWS Critical Habitat Portal (USFWS 2023b), USFWS National Wetlands Inventory (NWI) (USFWS 2023c); and the USGS National Hydrography Dataset (NHD) (USGS 2023)

Field Reconnaissance Surveys

Prior to conducting the field surveys, Montrose Environmental provided MESA with a Critical Issues Analysis prepared by LSA Associates, Inc (LSA) for this project in July of 2021 (LSA 2021). While this BRE was conducted independent of the Critical Issues Analysis, MESA utilized this report to verify and confirm previously catalogued vegetation communities and habitat types found within the evaluation site. LSA also prepared an extensive list of observed plants in their analysis; therefore, MESA minimized their efforts during the survey only focusing on wildlife observations or any potential plants species not previously recorded by LSA. The inventory of wildlife species observed during the November 15 a survey is provided **Attachment C – Species Observation List**.

On November 15th, 2023, MESA conducted a field survey documenting existing site conditions in the evaluation site. The field survey focused on evaluating the potential for presence of sensitive biological resources. These resources included sensitive plant and wildlife species as well as habitat for nesting birds protected by federal and state laws. This analysis was referenced during the field survey and will be referenced throughout portions of this BRE.

Results and Findings

A total of five vegetation communities and two land cover types were identified in the LSA analysis and confirmed to be consistent with those identified during the MESA field survey. Vegetation communities described below are based on the classification system outlined in the Second Edition of A Manual of California Vegetation (Sawyer et al. 2009). Resulting from database queries discussed above, a total of 28 plant and 35 wildlife species were identified having the potential to occur within the evaluation area. Each of these special-status plant and wildlife species were assessed to determine potential presence within the evaluation area.

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Six sensitive plants and seven special-status wildlife species have been evaluated as having a moderate to high potential to occur or have been identified as being present within the evaluation site. These species will be further discussed below.

Vegetation Communities and Land Cover

The primary land cover outside of the vegetation communities identified consists of developed land and open waters. Developed land consists of paved or graded lands resulting from the development of infrastructure, such as buildings or other man-made structures. Open water is described within the LSA report as the hydrological flows within the banks of the Kern River. The vegetation communities as identified within the LSA Constraints Analysis are Fremont cottonwood forest and woodland (Populus fremontii – Fraxinus velutina – Salix goodingii Forest Woodland), Chaparral/Mixed Scrub, Non-native annual grasslands, Buckwheat Scrub and Foothill Pine Woodlands Alliance. Representative site photographs depicting habitats and land uses are provided in **Attachment D – Representative Photographs**.

Special-Status Plants Species

Special-status plants are those that are proposed for listing, or candidates for listing as threatened or endangered by the USFWS under the Federal Endangered Species Act (FESA) and those listed or candidates for listing as rare, threatened, or endangered by the CDFW under the California Endangered Species Act (CESA) and plants with a California Rare Plant Rank (CRPR) of 1B, 2, 3, or 4. The special status species table provided in Attachment B has compiled a list of all plants listed with a CRPR 1B.

As noted above, the results of the database query indicated a total of 28 special-status plants listed with CPR ranking 1B that are known or have the potential to occur within the region. The potential for each of these plant species to occur has been evaluated based primarily on the presence of suitable habitat determined during the reconnaissance field survey. The proximity to CNDDB and CNPS documented occurrences were also evaluated (**Attachment A – CNDDB Plant Map**). No special-status plant species were detected within the project site during the reconnaissance level survey; however, this survey was conducted outside the seasonal bloom period for many of these special-status plant species. It is possible that these special-status plant species occur in the evaluation site but were simply undetected due to the timing of the reconnaissance level survey.

Special Status Wildlife Species

Special-status wildlife is defined as listed, proposed for listing, or candidates for listing as threatened or endangered by the USFWS under FESA or those listed or candidates for listing as rare, threatened, or endangered by the CDFW under CESA and wildlife designated as “Species of Special Concern (SSC) by the CDFW or “Fully Protected” under the California Fish and Game Code (CFGC).

A total of 35 special-status wildlife species were identified by the database query. Of these species, a total of seven were evaluated to have the potential to occur within the evaluation site. Crotch bumble bee (*Bombus crotchii*), Cooper’s hawk (*Accipiter cooperii*), Swainson’s hawk, (*Buteo swainsoni*), western pond turtle (*Emys marmorata*), the southern Sierra legless lizard

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(Anniella campi), the California legless lizard (*Anniella spp*.) and the Fairview slender salamander (*Batrachoseps bramei*) have been evaluated to have a moderate to high potential to occur. Cooper's hawk has been identified as occurring during biological surveys. All seven species are further discussed below. **Attachment A – CNDDB Wildlife Map** shows the CNDDB recorded occurrences of special status species found within 5-miles of the evaluation site.

Wetlands and Waterways

The siphon inlet for the project occurs within the flowing water of the Kern River and is expected to be replaced as part of this project. Furthermore, portions of the pipeline may also occur within the jurisdiction of the U.S. Army Corps of Engineers (USACE), CDFW, and/or the Regional Water Quality Control Board (RWQCB)

The Kern River flows from the north, beginning in the high Sierra Nevada Mountain Range and extending into Lake Isabella where it continues through the City of Bakersfield before being diverted into the Buena Vista Lakebed. The USFWS NWI identifies the Kern River using the classification code of R3UBH, which is Riverine Upper Perennial, Unconsolidated Bottom, Permanently Flooded. Portions of the banks along the Kern River are classified as Palustrine Scrub-Scrub, Seasonally Flooded (PSSC). Much of the Kern River within the evaluation site is comprised of riparian habitat containing hydrophytic plants. Much of the riparian habitat contains canopies of cottonwoods, willows, and alders.

Several ephemeral stream channels were also identified using the USFWS NWI and the USGS NHD within the evaluation site. In addition to the bed, banks and the ordinary high-water mark of the Kern River, these ephemeral streams all convey hydrological flows into the Kern River. One ephemeral stream transects the pipeline route beginning from the east near upper reaches of Power Peak. During the field survey, a culvert was found to convey hydrological flows beneath the unnamed paved road just east of the siphon pipeline route, terminating at the Kern River. A second ephemeral stream was identified just east of the SCE Hydroelectric facility. Although this feature does not appear on the USFWS NWI or in the USGS NHD, the stream does contain channelized cut banks from recent hydrological flows and is currently diverted beneath Sierra Way via culverts leading flows into the Kern River (**Attachment A – Wetlands and Waterways**)

Montrose Environmental (Montrose) completed an Aquatic Resource Delineation Report for the Kern River Hatchery Siphon Replacement Project (Montrose 2023). This report evaluated a total 4.34-acres surrounding the project site. A total of 0.465 acres of potentially jurisdictional non-wetland waters of the U.S. and State were delineated. At the time of the delineation, Montrose evaluated and delineated an additional 0.306 acres considered as waters of the State.

Nesting Birds

CFGC Section 3503 and the federal Migratory Bird Treaty Act (MBTA) protect native bird species and their nests. Much of the riparian vegetation adjacent to the Kern River is favorable nesting habitat for a myriad of avian species protected by federal and state regulations. Implementation of the proposed project may result in direct or indirect effects to nesting bird species, should they be present within the evaluation site of surrounding lands. A few raptor species were identified

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in the biological surveys completed for this project. One Cooper's hawk was observed to be perched on a cottonwood directly above the existing pipeline. Cooper's hawk, other potentially occurring raptor species and birds protected under the auspices of the MBTA all have the potential to occur and are further discussed below.

Special Status Bat Species

Although no bat species were identified at the time of the reconnaissance-level survey, bats can utilize open areas or open areas under a tree canopy to forage and often roost near water. As identified by CNDDB review, the pallid bat *(Antrozous pallidus*), Townsend's big eared bat (*Corynorhinus townsendii*) and the Yuma myotis (*Myotis yumanensis*) have all been historically identified in the region. All three bat species could potentially utilize the riparian habitat within the evaluation site to forage; however, all three prefer caves, mines, rocky outcrops, bridges, tunnels, buildings or other man-made structures for roosting and nesting. The SCE Hydroelectric Power Station, CDFW Fish Hatchery and other man-made structures in the evaluation site could be an ideal location for roosting or maternal roosting sites Although structures that occur within the evaluation site may not be directly impacted by the project, indirect impacts to bat species may occur. Special-status bat species are further discussed below.

Discussion and Recommendations

The evaluation site contains potentially suitable habitat for six special-status plant species, eight special-status wildlife species, nesting birds, and potentially jurisdictional wetlands. If the project is subject to environmental review under CEQA and there will be impacts to special status species that are not listed as threatened or endangered under CESA and/or FESA, it may be considered significant and compensatory mitigation and/or specific avoidance and minimization measures may be required before and during construction of the project. The following discussion has been prepared to provide specific avoidance and minimization measures for the resources identified to potentially occur.

Special-Status Plants Species

Of the 28 special status plants identified, a total of six were evaluated as having a moderate to high potential to occur. The Kern River daisy (*Erigeron multiceps)*, southern Sierra monardella (*Monardella linoides* ssp*. Anemonoides*), Palmer's mariposa-lily (*Calochortus palmeri* var*. palmeri*)*,* alkali mariposa-lily (*Calochortus striatus*)**,** Mojave tarplant (*Deinandra mohavensis*)**,** and rose-flowered larkspur (*Delphinium purpusii*) have all been evaluated with potential to occur. Although these plants were not observed during the reconnaissance-level survey; the survey was conducted outside of the blooming period for both species. The following is recommended to address potential impacts within the project site.

- A qualified biologist(s) should conduct a protocol level botanical survey, in accordance with the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities. If sensitive plants are found, a qualified biologist shall determine if the project will result in a significant impact and if so, prepare compensatory mitigation measures or consult with regulatory agencies if CESA or FESA listed plats are found.

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Special-Status Wildlife Species

The project site contains potentially suitable habitat for eight special-status wildlife species. A brief description of each species along with a discussion of recommendations to minimize and avoid potential impacts are included.

Crotch bumble bee (*Bombus crotchii*)

The crotch bumble bee has been proposed for listing as an endangered species in California. This species of bumble bee occurs from Coastal California east to the Sierra Cascade crest and south to Mexico. Crotch bumble bee requires plant food genera consisting of Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia and Eriogonum. One CNDDB record of crotch bumble bee was recorded just south of the evaluation site in 1991. The Critical Issues Analysis prepared by LSA for this project in August of 2022 indicated that several food plant genera occurred within the evaluation site. The biological survey in December 2023 conducted by MESA confirmed that habitat suitable for this species was present.

- The biological survey conducted by LSA and MESA confirmed that habitat suitable for this species occurs in the evaluation site. Prior to project implementation, a qualified biologist knowledgeable in the identification of this species should perform surveys in accordance with the most recent CDFW protocols. CDFW guidance typically recommends that survey timing overlap with seasonal crotch bumble bee activity periods described as the queen flight season (February to March), colony active period (April to August), and the gyne flight season (September to October).

Swainson's Hawk, Cooper's Hawk and Other Raptors

The Cooper's hawk is a candidate species on the CDFW's watchlist. Their historic range consists of wooded portions throughout the state, including the southern Sierra Nevada foothills and Southern California. This species inhabits dense areas of live oak, riparian, and forest habitats near water. Open water near these riparian zones is utilized for nesting sites and foraging. They will often hunt in woodland habitats using perches to hunt prey or seek cover from predators. The Kern River and forest habitat within the project area provides suitable nesting and feeding habitat for the Cooper's hawk. The Swainson's hawk is listed as a State threatened species throughout its range. Their historic range consists of the Central Valley, Northeastern Plateau, and Mojave Desert. These transient voyagers will migrate south through the center and southern California in September and October. Their typical habitat consists of grassland and cropland containing scattered trees or groves. In the Central valley, they will often inhabit and forage near oak savannah, riparian areas, and agricultural fields. The Kern River and riparian vegetation communities present within the project area may provide suitable habitat for this species. The grassland and woodlands present may also provide suitable nesting sites. Proposed project work may indirectly or directly impact individuals within the evaluation site and beyond.

Although no CNDDB historical records of Cooper's hawk occur within 5-miles of the evaluation site; however, one occurrence of Swainson's hawk nesting occurs to the south within 5-miles of the evaluation site. One Cooper's hawk was observed to be perched in a cottonwood tree directly

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above the pipeline route. Cooper's hawks are known to nest within riparian deciduous habitats near a water source. Although the recreational activity in this area may act as a deterrent to nesting activities, the evaluation site still provides potential nesting opportunity for this species and other raptors.

- To the extent feasible, the project should be planned outside of the known breeding migration period in California for the CESA protected Swainson's hawk. Although the habitat found in the evaluation site is relatively marginal, this species has been documented to nest in the vicinity. If project related activities occur during the breeding period, a qualified biologist should conduct pre-construction surveys should be conducted and no-work buffer areas should be established around active nests.

- If construction occurs between February 1 and August 31, a qualified biologist will conduct surveys for nesting raptors in accordance with established CDFW raptor survey protocols. Surveys will cover a minimum of a 0.5-mile radius around the construction area. If nesting raptors are detected, project biologists will establish buffers around nests that are sufficient to ensure that breeding is not likely to be disrupted or adversely impacted by construction. Buffers around active raptor nests will be 500 feet for non-listed raptors, unless a qualified biologist determines that smaller buffers would be sufficient to avoid impacts to nesting raptors. Factors to be considered for determining buffer size will include the presence of natural buffers provided by vegetation or topography; nest height; locations of foraging territory; and baseline levels of noise and human activity. Buffers will be maintained until a qualified biologist has determined that young have fledged and are no longer reliant upon the nest or parental care for survival.

Western pond turtle

The western pond turtle is a state species of special concern. Their suitable aquatic habitat range spans throughout California and west of the Sierra-Cascade crest. This species relies on permanent or nearly permanent water sources that can be observed in a wide variety of habitats. These can include permanent ponds, lakes, streams, irrigation ditches, and intermittent streams. Suitable habitat requires sites where turtles can bask. This includes logs, rocks, and floating vegetation. Western pond turtles are considered omnivores and can feed on aquatic plant material as well as invertebrates. The Kern River provides suitable habitat for this species. Woodlands and aquatic vegetation are present on the stream bank which provides suitable foraging and breeding habitat. Proposed project work may indirectly or directly impact individuals within the project area.

- Prior to the initiation of project related construction activities, a qualified biologist shall conduct a visual survey should be conducted to determine pond turtle presence in areas where habitat for this species occurs. If western pond turtles are found to be occurring within the project area, they shall be allowed to leave the site on their own accord. A biological monitor should be present to identify any typical characteristic habitat features present during construction.

Southern Sierra Legless Lizard/California Legless Lizard

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The Southern Sierra legless lizard is a state species of special concern. Their historic range consists of the western edge of the Mojave Desert and Kern and Inyo County. They occupy chaparral, woodlands, and forests with suitable habitat. Like other legless lizard species, they occur in areas with warm, loose, and damp soil with leaf litter. The riparian vegetation present adjacent to the Kern River provides suitable habitat for this species. Woodland habitat and moist soils are present and provide cover. Proposed project work may have an indirect or direct impact to individuals within the work site. The California legless lizard is a state species of special-concern and consists of all elements that have not yet assigned to a new species within the *Anniella pulchra* complex. The California legless lizard occurs in a variety of habitats, generally in moist loose soils. One occurrence of the species identified as California legless lizard was found to occur a few miles south of the evaluation area. This occurrence was documented in 1959.

- As there are no agency approved protocols for detecting presence of this species, it is recommended that a qualified biologist be present during construction activities to assist with identifying potential areas that may be inhabited by this species prior to and during construction activities.

Fairview slender salamander

This species of slender salamander is known to occur throughout the upper Kern River Canyon area and west of Lake Isabella. It's typically found to occur in metamorphic rock outcrops in a variety of habitats. The Fairview slender salamander favors north-facing talus covered slopes in narrow canyons that are typically shaded in winter and remain moist and cool in the spring. Several occurrences of this species have been documented within 5-miles of the evaluation site. Areas containing chaparral scrub would be suitable for this species.

- Immediately prior to initial ground disturbance and vegetation removal, a qualified biologist shall conduct a pre-construction clearance survey of the project site for special status amphibians. If Fairview slender salamander is observed on site, they shall be relocated to suitable habitat in the immediate vicinity.

- Vegetation disturbance should be minimized to the greatest extent possible.

- All trash shall be removed from the site on a daily basis to avoid attracting potential predators.

- All vehicles and equipment shall be in good working condition and free of leaks. All leaks shall be contained and cleaned up immediately to reduce the potential for soil contamination.

- All holes or trenches shall be covered at the end of each workday or ramped to avoid potential entrapment.

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- It is recommended that a qualified biologist be present during construction activities to assist with identifying habitat characteristics that could be potentially suitable for this species.

Wetlands and Waterways

The Kern River and its riparian vegetation that occurs within the evaluation site will be subject to CDFW jurisdiction under Section 1602 of CFGC and is also subject to RWQCB regulations. Other stream channels identified in the evaluation site may also be subject to the same regulations. As the Kern River and its tributaries do not form a nexus with any jurisdictional waters of the United States, the project is not subject to Section 404 of the federal Clean Waters Act.

As addressed in the Draft Aquatic Resources Delineation Report (Montrose 2023). A delineation of aquatic resources was conducted for the Kern River Siphon Replacement Project. The study area encompassed a 4.34-acre area including a portion of the Kern River and features associated with the Kern River Hatchery, including the diversion structure. A total of 0.465 acre of potentially jurisdictional non-wetland waters of the U.S. and State were delineated within the study area. These features are classified as riverine perennial, riverine intermittent, and riverine ephemeral. An additional 0.306 acre of waters of the State were also delineated.

This formal delineation of aquatic resources should be utilized in consultation with CDFW and RWQCB to acquire applicable permits and/or authorizations.

Special Status Bats

Potential roosting habitat for special-status bats present in the large trees surrounding the project site. More favorable roosting sites may occur in possible crevices in the SCE Hydroelectric Power Station and the CDFW Fish Hatchery found within the evaluation site. Disturbance of maternity roosts from construction activities resulting in roost destruction or abandonment would be a potentially significant impact to special-status bat species and would be violations of CFGC. The following are recommendations to mitigate potential impacts due to special-status bat species within the evaluation site.

- Prior to tree removal, a qualified biologist should conduct a focused survey of all trees to be removed or impacted by construction activities to determine whether active roosts of special-status bats are present on site. If tree removal is planned for the fall, the survey should be conducted in September to ensure tree removal would have adequate time to occur during seasonal periods of bat activity, as described below. If tree removal is planned for the spring, then the survey should be conducted during the earliest possible time in March, to allow for suitable conditions for both the detection of bats and subsequent tree removal. Trees containing suitable potential bat roost habitat features should be clearly marked or identified.

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- If day roosts are found to be potentially present, the biologist should prepare a site-specific roosting bat protection plan to be implemented by the contractor following approval. The plan should incorporate the following guidance as appropriate.

    - Between September 1 and about October 15, or before evening temperatures fall below 45 degrees Fahrenheit and/or more than 0.5 inch of rainfall within 24 hours occurs.

    - Between March 1 and April 15, or after evening temperatures rise above 45 degrees Fahrenheit and/or no more than 0.5 inch of rainfall within 24 hours occurs.

- If a tree must be removed or trimmed during the breeding season and is identified as potentially containing a colonial maternity roost, then a qualified biologist should conduct acoustic emergence surveys or implement other appropriate methods to further evaluate if the roost is an active maternity roost. Under the biologist guidance, the contractor should implement similar to or better than the following.

    - If it is determined that the roost is not an active maternity roost, then the roost may be removed in accordance with the other requirements of this recommendation.

    - If it is found that an active maternity roost of a colonial roosting species is present, the roost should not be disturbed during the breeding season (April 15 to August 31).

- Potential colonial hibernation roosts should only be removed during seasonal periods of bat activity. Potential non-colonial roosts that cannot be avoided should be removed on warm days in late morning to afternoon when any bats present are likely to be warm and able to fly. Appropriate methods should be used to minimize the potential harm to bats during tree removal. Such methods may include using a two-step tree removal process. This method is conducted over two consecutive days and works by creating noise and vibration by cutting non-habitat branches and limbs from habitat trees using chainsaws only (no excavators or other heavy machinery) on day one. The noise and vibration disturbance, together with the visible alteration of the tree, is very effective in causing bats that emerge nightly to feed to not return to the roost that night. The remainder of the tree is removed on day two.

Nesting Birds

As addressed above, the evaluation site contains suitable nesting habitat for many avian species protected by the MBTA.

- If construction activities are scheduled to occur during the avian nesting season (typically February 1 to September 15), then typical avoidance and minimization measures to prevent take of bird nests, eggs or nestlings under California Fish and Game Code and

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the MBTA could pose constraints on the project. The following are recommendations and possible constraints due to special-status birds and nesting birds within the project site.

- A general pre-construction nesting bird survey should be conducted by a qualified biologist, within 14 days prior to the initiation of construction activities. If construction is stopped for more than 14 days during the nesting season, a pre-construction survey should be conducted prior to the re-start of construction activities. Surveys should include the disturbance area plus a 200-foot buffer.

- If active nests are located, an appropriate avoidance buffer should be established within which no work activity would be allowed which would impact these nests. The avoidance buffer would be established by the qualified biologist on a case-by-case basis based on the species and site conditions. Larger buffers may be required depending upon the status of the nest and the construction activities occurring in the vicinity of the nest. The buffer area(s) should be closed to all construction personnel and equipment until juveniles have fledged and/or the nest is inactive. A qualified biologist should confirm that breeding/nesting is complete, and the nest is no longer active prior to removal of the buffer. If work within a buffer area cannot be avoided, then a qualified biologist should be present to monitor all project activities that occur within the buffer. The biological monitor should evaluate the nesting avian species for signs of disturbance and should have the ability to stop work.

Conclusion

As noted above, this report is intended to identify sensitive biological resources and potential occurrence of special status species within the evaluation area. This report provides analysis sufficient to support CEQA, though further analysis may be required for compliance with FESA, or CESA, and/or the California Fish and Game Code.

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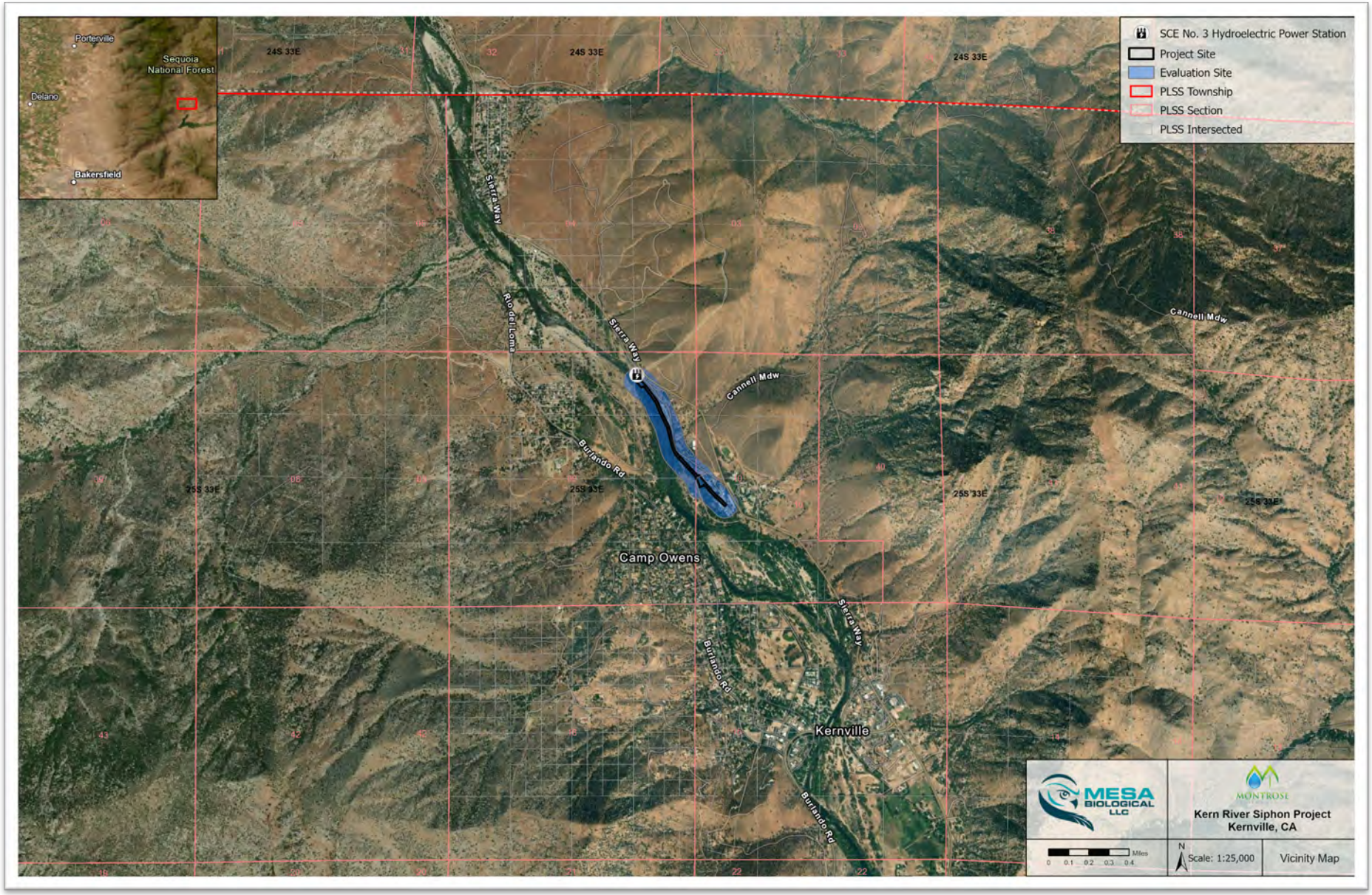
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Attachment A - Figures

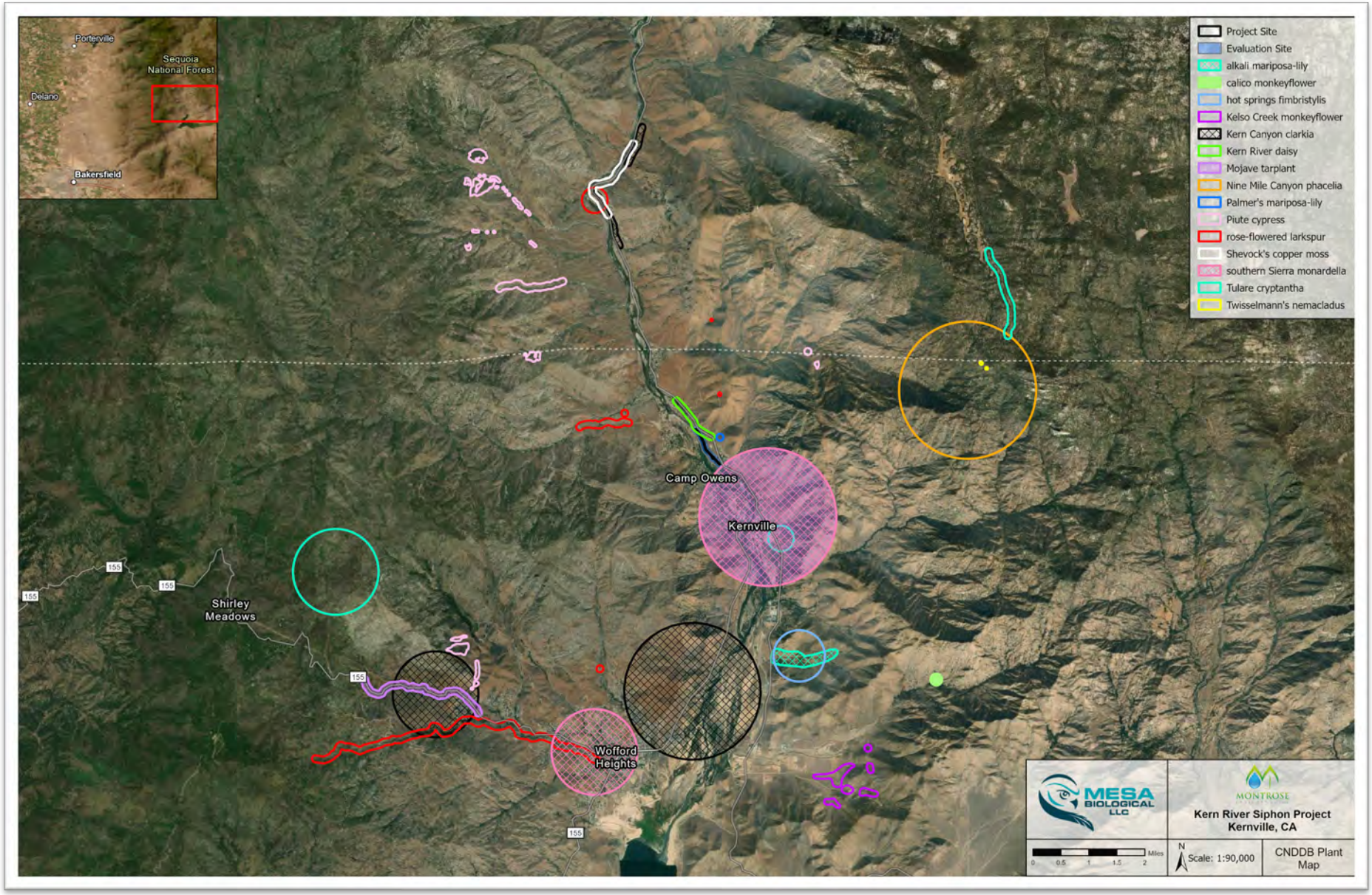
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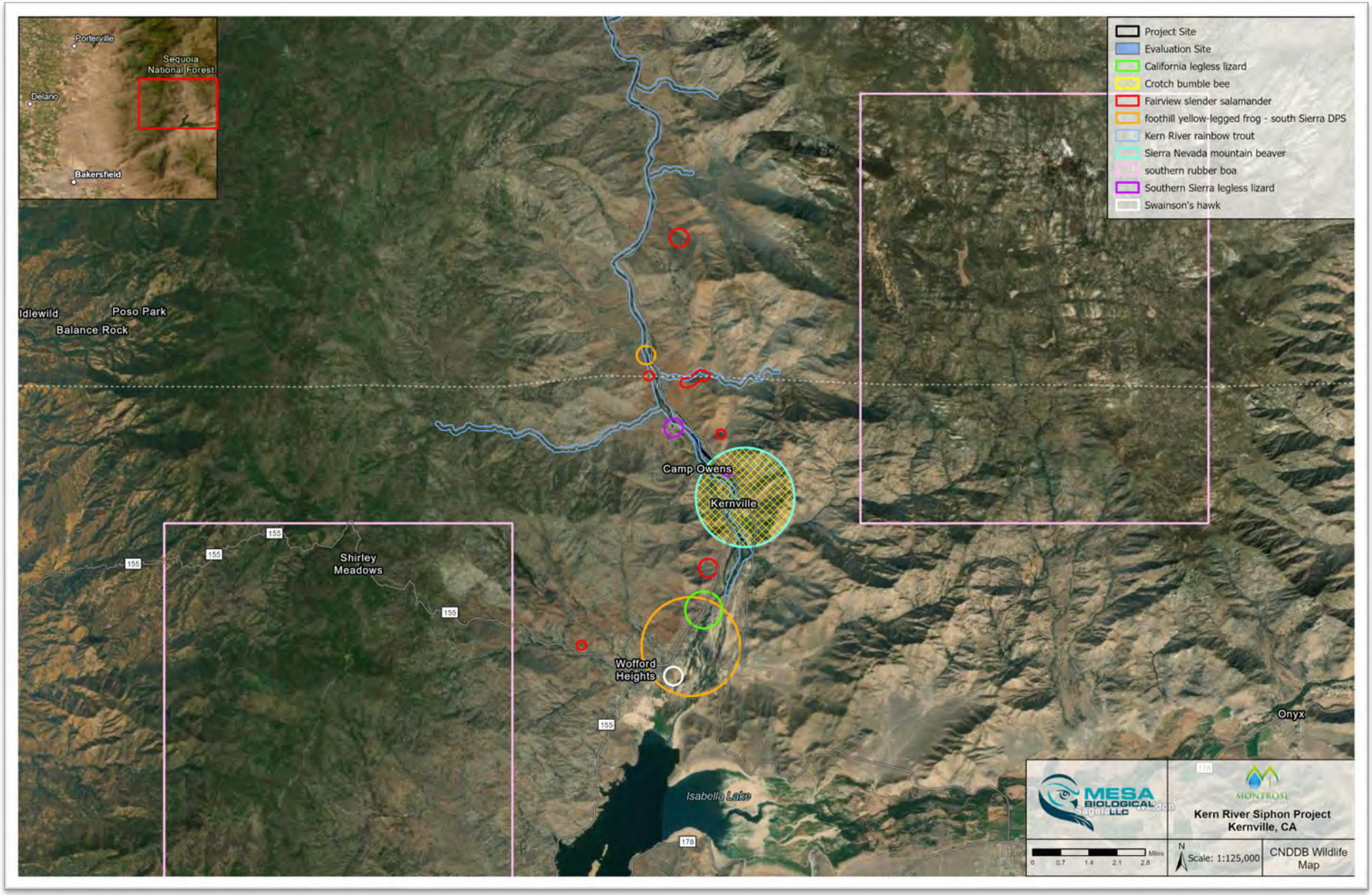
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Attachment B – List of Wildlife Species Observed

Docusign Envelope ID: DA975F07-47FB-42B2-B7D6-044B3012B499

Wildlife Species Observed During the December 2023 Field Survey

Scientific Name	Common Name
Odocoileus hemionus	mule deer
Corvus corax	common raven
Melanerpes formicivorus	acorn woodpecker
Sayorins nigricans	black phoebe
Otospermophilus beecheyi	California ground squirrel
Antthus rubescens	American pipit
Aphelocoma californica	scrub jay
Regulus satrapa	ruby crowned kinglet
Psaltriparus minimus	American bushtit
Anas platyrhynchos	mallard
Zonotrichia leucophyrs	white crowned sparrow
Colaptes auratus	northern flicker
Accipiter cooperii	Cooper's hawk
Calypte anna	Anna's hummingbird
Junco hyemalis	dark eyed junco
Callipepla californica	California quail
Sylvilagus audubonii	desert cottontail
Procyon lotor	raccoon

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Attachment C - Special-Status Species Evaluation Tables

Docusign Envelope ID: DA975F07-47FB-42B2-B7D6-044B3012B499

Special-Status Plant Species in the Regional Vicinity (Nine Quad) of the Evaluation Site

Scientific Name Common Name	Status Fed/State ESA CRPR	Habitat Requirements	Potential to Occur	Rationale
Boechera evadens hidden rockcress	None/None G1/S1 1B.3	Upper montane coniferous forest. Elev: 2560-2850m. Blooms May-Aug.	Not expected	No suitable habitat occurs in the project site.
Calochortus palmeri var. *palmeri* Palmer's mariposa-lily	None/None G3T2/S2 1B.2	Chaparral, Lower montane coniferous forest, Meadows and seeps. Elev: 710-2390m. Blooms Apr-Jul.	Moderate potential	Suitable chaparral habitat and elevational range. One historic occurrence has been recorded within 1 mile of project site, approximately 0.5-mile northeast.
Calochortus striatus alkali mariposa-lily	None/None G3/S2S3 1B.2	Chaparral, Chenopod scrub, Meadows and seeps, Mojavean desert scrub. Elev: 70-1595m. Blooms Apr-Jul.	Moderate potential	Suitable chaparral habitat present. Historical occurrence has been recorded within 5 miles of project, approximately 5 miles south of project site.
Calochortus westonii Shirley Meadows star-tulip	None/None G3/S3 1B.2	Broadleafed upland forest, Lower montane coniferous forest, Meadows and seeps. Elev: 1500-2105m. Blooms May-Jun.	Not expected	There are no known records of occurrence in the project vicinity and suitable habitat is absent in the project study area.
Camissonia integrifolia Kern River evening-primrose	None/None G2/S2 1B.3	Chaparral, Mojavean desert scrub. Elev: 700-1200m. Blooms (Apr)May.	Low potential	No historical records occur within 5-miles of the evaluation site; however, suitable chaparral habitat present.
Carlquistia muirii Muir's tarplant	None/None G2/S2 1B.3	Chaparral (montane), Lower montane coniferous forest, Upper montane coniferous forest. Elev: 755-2500m. Blooms Jul-Aug(Oct).	Low potential	No historical records occur within 5-miles of the evaluation site. Suitable chaparral habitat is present. The LSA biological survey was conducted at a time when this plant would have been identifiable.
Cryptantha clokeyi Clokey's cryptantha	None/None G3/S3 1B.2	Mojavean desert scrub. Elev 725-1365m. Blooms Apr.	Not expected	There are no known records of occurrence in the project vicinity and suitable habitat is absent in the project study area.
Cryptantha incana Tulare cryptantha	None/None G2/S2 1B.3	Lower montane coniferous forest (gravelly, rocky). Elev: 1430-2150m. Blooms Jun-Aug.	Not expected	Suitable habitat present. Outside of suitable elevation. No occurrence has been reported within 5-miles.
Deinandra mohavensis Mojave tarplant	None/CE G3/S3 1B.3	Chaparral, Coastal scrub, Riparian scrub. Elev: 640-1600m. Blooms (Jan-May) Jun-Oct.	Moderate potential	Historical records of this species occur within 5-miles and suitable habitat occurs
Delphinium purpusii rose-flowered larkspur	None/None G3/S3 1B.3	Chaparral, Cismontane woodland, Pinyon and juniper woodland. Elev: 300-1340m. Blooms (Mar)Apr-May.	High potential	Suitable chaparral habitat. Several historical occurrences have been recorded within 5-miles of project site.

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Diplacus pictus calico monkeyflower	None/None G2/S2 1B.2	Broadleafed upland forest, Cismontane woodland. Elev: 100-1430m. Blooms Mar-May.	Not expected	A historical occurrence has been recorded within 5 miles; however suitable habitat is not present.
Erigeron multiceps Kern River daisy	None/None G2G3/S2S3 1B.2	Meadows and seeps, Upper montane coniferous forest (openings). Elev: 1500m-2535m. Blooms Jun-Sep.	High Potential	Historical occurrences have been recorded within close proximity to the project site. Habitat for this species occurs.
Erythranthe shevockii Kelso Creek monkeyflower	None/None G1/S1 1B.1	Joshua tree "woodland", Pinyon and juniper woodland. Elev: 800-1340m. Blooms Mar-May.	Not expected	No historical occurrence has been recorded within 5 miles of project site. Habitat not present
Fritillaria brandegeei Greenhorn fritillary	None/None G2G3/S2S3 1B.3	Lower montane coniferous forest (granitic). Elev: 1330-2100m. Blooms Apr-Jun.	Not Expected	No suitable habitat or historical records present.
Galium angustifolium ssp. *Onycense* Onyx Peak bedstraw	None/None G5T3/S3 1B.3	Cismontane woodland, Pinyon and juniper woodland. Elev: 860-2300m Blooms Apr-Jul.	Low potential	No historical records occur within 5-miles of the evaluation site. Marginal habitat is present. The LSA biological survey was conducted at a time when this plant would have been identifiable.
Githopsis tenella delicate bluecup	None/None G2/S2 1B.3	Chaparral, Cismontane woodland. Elev: 325-1900m. Blooms Apr-Jun.	Low potential	Suitable habitat is present. No historical records of this species occur within 5-miles of the evaluation site.
Hesperocyparis nevadensis Piute cypress	None/None G2/S2 1B.2	Chaparral, Cismontane woodland, Closed-cone coniferous forest, Pinyon and juniper woodland. Elev: 720-1830m.	Low Potential	Suitable vegetation communities. Outside of suitable elevation. Historical occurrences have been observed within 5 miles of project site, approximately 4 miles northwest.
Hosackia oblongifolia var. *cuprea* copper-flowered bird's-foot trefoil	None/None G5T2/S2 1B.3	Meadows and seeps (edges), Upper montane coniferous forest. Elev: 2400-2750m. Blooms Jun-Aug.	Not Expected	No suitable habitat occurs in project site.
Ivesia campestris field ivesia	None/None G3/S3 1B.2	Meadows and seeps (edges), Subalpine coniferous forest, Upper montane coniferous forest. Elev: 1975-3395m. Blooms May-Aug.	Not Expected	No suitable habitat occurs in project site.
Lewisia disepala Yosemite lewisia	None/None G2/S2 1B.2	Lower montane coniferous forest, Pinyon and juniper woodland, Upper montane coniferous forest. Elev: 1035-3500m. Blooms Mar-Jun.	Not expected	No suitable habitat occurs in project site.

Mielichhoferia shevockii Shevock's copper moss	None/None G2/S2 1B.2	Cismontane woodland (mesic, metamorphic, rock). Elev: 750-1400m.	Low potential	Historic occurrences have been recorded within 5 miles of project site and suitable habitat is present.
Monardella linoides ssp. *Anemonoides* southern Sierra monardella	None/None G5T2/S2 1B.3	Chaparral, Cismontane woodland, Lower montane coniferous forest. Elev 670-2450m. Blooms Jun-Aug.	High potential	Suitable habitat occurs. Historical occurrences have been recorded within 0.5 miles of project site.
Monolopia congdonii San Joaquin woollythreads	FE/None G2/S2 1B.2	Chenopod scrub, Valley and foothill grassland (sandy). Elev: 60-800m. Blooms Feb-May.	Not expected	Habitat for this species does not occur and no historical records are present within 5-miles.
Nemacladus twisselmannii var. *twisselmannii* Twisselmann's nemacladus	None/CR G1T1/S1 1B.2	Upper montane coniferous forest (granitic, sandy or rocky). Elev 2240-2450m. Blooms Jul.	Not expected	Historical occurrences have been recorded within 5 miles of project. Habitat for this species is not present.
Phacelia novenmillensis Nine Mile Canyon phacelia	None/None G3/S3 1B.2	Broadleafed upland forest, Cismontane woodland, Pinyon and juniper woodland, Upper montane coniferous forest. Elev 1645-2640m. Blooms (Feb)May-Jun.	Low potential	Marginally suitable habitat is present. Historical occurrences have been recorded within 5 miles of project site.
Puccinellia simplex California alkali grass	None/None G2/S2 1B.2	Chenopod scrub, Meadows and seeps, Valley and foothill grassland, Vernal pools. Elev: 2-930m. Blooms Mar-May.	Not expected	Habitat for this species is not present and no historical records occur.
Stylocline masonii Mason's neststraw	None/None G1/S1 1B.1	Chenopod scrub, Pinyon and juniper woodland. Elev: 100-1200m. Blooms Mar-May.	Not expected	Habitat for this species is not present and no historical records occur.
Viola pinetorum ssp. *Grisea* grey-leaved violet	None/None G4G5T3/S3 1B.2	Meadows and seeps, Subalpine coniferous forest, Upper montane coniferous forest. Elev: 1500-3400m. Blooms Apr-Jul.	Not expected.	Habitat for this species is not present and no historical records occur.

FE = Federally Endangered
FC = Federal Candidate
FT = Federally Threatened
SE = State Endangered
ST = State Threatened
SC = State Candidate
SR = State Rare

CNPR (CNPS California Rare Plant Rank):
1A = Plants presumed extirpated in California
1B = Plants rare, threatened, or endangered in California and elsewhere

CRPR Threat Code Extension
.1 = Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 = Fairly endangered in California (20%-80% occurrences threatened)
.3 = Not very endangered in California (<205 of occurrences threatened

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Special-Status Wildlife Species in the Regional Vicinity (Nine Quad) of the Evaluation Site

Scientific Name Common Name	Status Fed/State ESA CDFW	Habitat Requirements	Potential to Occur	Rationale
Invertebrates				
Bombus crotchii Crotch bumble bee	None/CE	Found from coastal California east to the Sierra Mountains in a wide variety of habitats	Moderate potential	One CNDDB occurrence of this species occurs within 5-miles of the evaluation site and suitable habitat was found to occur.
Plebulina emigdionis San Emigdio blue butterfly	None/None	Occurs in riverbeds and desert canyons of Inyo, Kern, Los Angeles and San Bernardino Counties. Known host plant is *Atrioplex canescens* and *Lotus purshianus*	Low potential	No CNDDB records of this species occur within 5-miles and no suitable habitat occurs in the evaluation site.
Fish				
Oncorhynchus mykiss aguabonita California golden trout	None/None SSC	Native to the Kern Plateau in wide, shallow, and exposed streams with little riparian vegetation.	Not expected	Native to two streams on the eastern side of the Kern River. Golden Trout Creek and the South Fork River.
Oncorhynchus mykiss gilberti Kern River rainbow trout	None/None SSC	Occurs in the upper Kern River and its tributaries.	Low potential	Montrose Environmental communication with CDFW, indicated that the Kern River rainbow trout (*Oncorhynchus mykiss gilberti)* does not occur south of Johnsondale Bridge and north of Lake Isabella. This species is not expected to occur.
Amphibians				
Batrachoseps altasierrae Greenhorn Mountains slender salamander	None/None	Found in mixed coniferous forests at high elevations of the southern Sierra Mountains	Low potential	No CNDDB records of this species occur within 5-miles and no suitable habitat occurs in the evaluation site.
Batrachoseps bramei Fairview slender salamander	None/None	Only occurs in the upper Kern River canyon and west side of Lake Isabella in rocky outcrops of chaparral, mixed oak and conifer woodlands.	Moderate potential	Several observations of Fairview slender salamander were noted with 5-miles of the evaluation site. Relatively suitable habitat for this species occurs.
Batrachoseps robustus Kern Plateau salamander	None/None	Occurs in semi-arid Kern Plateau and Scodie Mountains in Jeffery pines, red fir, lodgepole pine and riparian scrub.	Low potential	No CNDDB records of this species occur within 5-miles and no suitable habitat occurs in the evaluation site.
Reptiles				
Anniella campi Southern Sierra legless lizard	None/None SSC	Found beneath leaf litter rocks and logs in desert canyons and springs along the western edge Mojave Desert in Kern and Inyo Counties.	High Potential	CNDDB records occur near the evaluation site and suitable habitat occurs.
Anniella spp. California legless lizard	None/None	Found from Contra Costa County south to San Diego within a variety of habitats. The CNDDB database records of this element represents records of Anniella not yet assigned to a new species within the Anniella pulchra complex.	Moderate Potential	CNDDB records occur within a 5-mile radius of the evaluation site. Suitable habitat occurs in the project site.
Charina umbratica southern rubber boa	None/ST	Found in streams or wet meadows in a variety of montane forest habitats within the Mt. Pinos, Tehachapi, and southern Sierra Mountain ranges.	Not expected	Although CNDDB observations occur within 5-miles of the evaluation site

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Emys marmorata western pond turtle	PT/None SSC	Occurs in ponds, marshes, rivers, streams and irrigation ditches containing basking sites in grassy open upland habitat for egg laying.	Moderate Potential	No CNDDB observation of this western pond turtle have been recorded within 5-miles of the evaluation site. Although habitat does occur, the flow within this portion of the Kern River would likely prevent this species occurrence.
Rana boylii pop. 5 foothill yellow-legged frog – south Sierra DPS	FE/SE	Occurs in partly shaded shallow streams of a variety of habitats. Uses cobble substrate for egg laying. Found in the South Fork American River and in the El Dorado County south to the Tehachapi Mountains.	Not expected	Although there is a historical occurrence of this this species within 5-miles of the evaluation site, this occurrence has been extirpated. No recently found occurrences of this species occurs near the evaluation site.
Rana muscosa southern mountain yellow-legged frog	FE/SE WL	Known from southern Sierras, San Gabriel, San Bernardino and San Jacinto Mountains in lakes and streams in a few feet of water.	Not expected	No CNDDB occurrences have been found within 5-miles of the evaluation site. The southern mountain yellow legged frog is typically found at elevations above 1,800 feet.
Birds				
Accipiter cooperii Cooper's hawk	None/None WL	Found in stands of live oak, riparian deciduous, or other forest habitats near water.	High potential	Although no CNDDB occurrences of Cooper's hawk are recorded within 5-miles of the evaluation site, one individual was observed to be perched in a cottonwood tree beneath the pipeline corridor.
Accipiter gentilis northern goshawk	None/None SSC	Occurs at middle to higher elevations of mature, dense coniferous forests. Found in in North Coast Ranges through Sierra Nevada, Klamath, Cascade, and Warner Mts., in Mt. Pinos and San Jacinto, San Bernardino, and White Mountains	Not expected	No CNDDB records occur within 5-miles of the evaluation site and the northern goshawk typically occurs at elevations higher than the project site.
Agelaius tricolor tricolored blackbird	None/ST SSC	Occurs as a highly colonial species around open water. Requires a protected nesting substrate of marshes and swamps.	Not expected	No CNDDB records of this species occurs within 5-miles of the project site and no suitable habitat for this species occurs.
Buteo swainsoni Swainson's hawk	None/ST	Found to breed in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah in the Central Valley. Typically forages next to grasslands, grain, alfalfa fields or livestock pastures.	Moderate potential	CNDDB recorded occurrences of Swainson's hawk occurs just south of the evaluation site. The riparian habitat provides potentially suitable nesting habitat; however recreational activity in the area may be a deterrent for nest sites.
Coccyzus americanus occidentalis western yellow-billed cuckoo	FT/SE	Occurs within dense foliage of deciduous trees and shrubs especially willows typically adjacent to slow moving watercourses, backwaters, or seeps.	Low potential	No CNDDB occurrences of western yellow-billed cuckoo occur within 5-miles of the project site. Although marginally suitable habitat for this species occurs, the continuous recreation that occurs in this area may act as a deterrent to this species.
Dendragapus fuliginosus howardi Mount Pinos sooty grouse	None/None SSC	Populates small islands within the Sierra Nevada range. Mainly inhabits white fir covered slopes.	Not expected	Habitat for this species does not exist. Evaluation site is located outside of the known range for this species.

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Empidonax traillii extimus southwestern willow flycatcher	FE/SE	Known within riparian woodlands of California. Uncommon summer resident of wet meadows of montane riparian habitats.	Low potential	Although marginally suitable habitat occurs, this species is typically absent from the Sierra Nevada range. No CNDDB records occur within 5-miles of the evaluation site.
Icteria virens yellow-breasted chat	None/None SSC	Valley and foothill riparian and desert riparian habitats	Low potential	Although marginal habitat occurs. No CNDDB records occur within 5-miles of the evaluation site.
Setophaga petechia yellow warbler	None/None G5/S3 SSC	Found in riparian plant associations near water. Nests and forages in willow thickets, cottonwoods, sycamore, ash and alders.	Low potential	No CNDDB records of this species occur within 5-miles of the evaluation site. Only marginal habitat occurs.
Vireo bellii pusillus least Bell's vireo	FE/SE	Found in low riparian habitats adjacent to water or dry river bottoms. Typically nests in willows Baccharis and mesquite.	Low potential	Although marginal habitat occurs. No CNDDB records of this species occurs within 5-miles of the evaluation site.
Mammals				
Antrozous pallidus pallid bat	None/None SSC	Found in desert grasslands, shrublands, woodlands and forests. Most common in open, dry habitats containing rocky outcrops for roosting	Low potential	No CNDDB records of this species occur within 5-miles of the evaluation site. Although this species could potentially roost within the riparian habitat found in the evaluation site, it is more commonly found to roost in rocky areas.
Aplodontia rufa californica Sierra Nevada mountain beaver	None/None SSC	Found within the Cascade, Klamath and Sierra Ranges. Found in dense growth of small deciduous trees and shrubs, Requires wet soil and an abundance of forbs in the Sierra Nevada and eastern slopes.	Low potential	Although one CNDDB records occurs within 5-miles of the project site, this species typically occurs in the high Sierras and along its eastern slopes.
Corynorhinus townsendii Townsend's big-eared bat	None/None SSC	Found throughout California. Most abundant in Mesic habitats. Typically roosts in caves, mines, tunnels, buildings or other man-made structures	Low potential	No CNDDB records of this species occur within 5-miles of the evaluation site. The project site does not contain suitable structures for roosting.
Gulo gulo wolverine	PT/ST FP	Found within the north coast mountains and the Sierra Nevada range in a wide variety of high elevation habitats.	Low potential	No CNDDB records occur within 5-miles and suitable habitat for this species does not occur in the evaluation site.
Martes caurina sierrae Sierra marten	None/None	Occurs in mixed evergreen forests with more than 40% closure along Sierra and Cascade Mountains	Low potential	No CNDDB records occur within 5-miles and suitable habitat does not existing in the evaluation site.
Myotis yumanensis Yuma myotis	None/None	Occurs in open forests and woodlands with sources of water. Breeding occurs in caves, mines, buildings, and crevices.	Low potential	No CNDDB records of this species occurs within 5-miles of the evaluation site. The project site does not contain structures that would be used for breeding or roosting.
Neotamias speciosus speciosus lodgepole chipmunk	None/None	Found at the summits of Piute, San Bernardino and San Jacinto mountains in open canopy forests.	Low potential	No CNDDB records occur within 5-miles and no suitable habitat occurs within the evaluation site.
Onychomys torridus tularensis Tulare grasshopper mouse	None/None SSC	Occurs in hot, arid valleys and scrublands in the Southern San Joaquin Valley.	Low potential	No CNDDB records of this species occur within 5-miles and no suitable habitat occurs in the evaluation site.

Pekania pennanti pop. 2 Fisher – southern Sierra Nevada ESU	FE/ST SSC	Occurs in intermediate to large tree stages of coniferous forests and deciduous riparian areas with dense canopy.	Low potential	No CNDDB records of this species occur within 5-miles and no suitable habitat occurs in the evaluation site.
Perognathus inornatus San Joaquin pocket mouse	None/None	Found in grasslands, oak savannah and arid scrublands of the Sacramento, Salinas, and San Joaquin Valleys and adjacent foothills.	Low potential	No CNDDB records of this species occur within 5-miles and no suitable habitat occurs in the evaluation site.
Taxidea taxus American badger	None/None SSC	Typically found in open shrublands, forests and herbaceous habitats in friable soils.	Low potential	No CNDDB records of this species occur within 5-miles and no suitable habitat occurs in the evaluation site.
Vulpes vulpes necator pop. 2 Sierra Nevada red fox – Sierra Nevada DPS	FE/ST	Found in high elevation alpine and sub-alpine conifer forests containing whitebark pine, mountain hemlock and lodgepole pine. Associated with snow cover.	Low potential	No CNDDB records of this species occur within 5-miles and no suitable habitat occurs in the evaluation site.

FE = Federally Endangered
FT = Federally Threatened
FC = Federal Candidate Species
SE = State Endangered
ST = State Threatened
SC = State Candidate
SS = State Sensitive
SFP = State Fully Protected
SSC = CDFW Species of Special Concern
FP = Fully Protected
WL = Watchlist

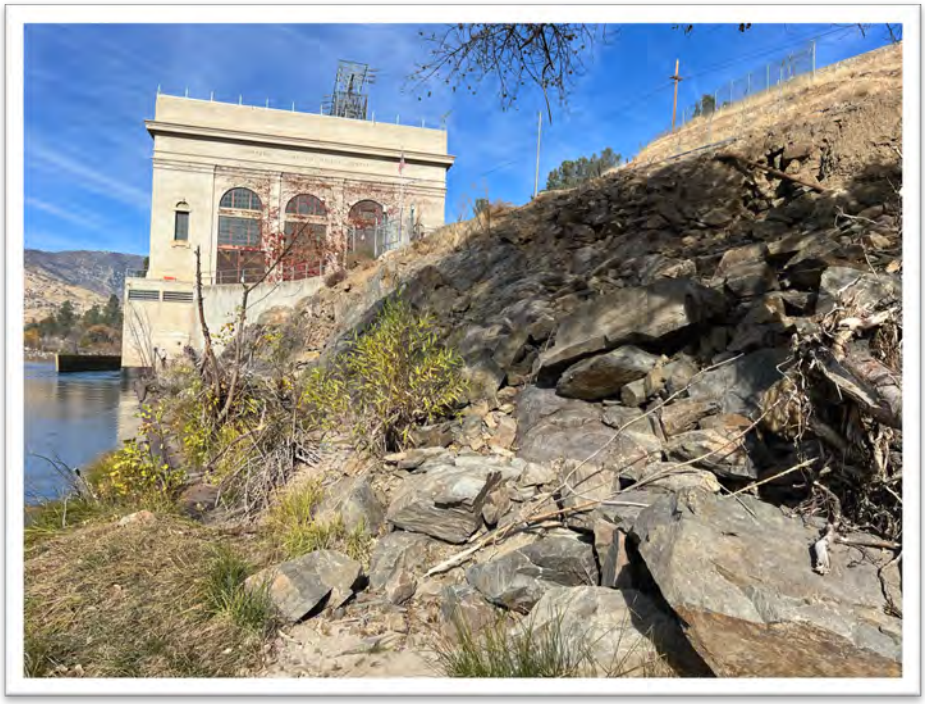
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Attachment D – Representative Project Site Photographs

Docusign Envelope ID: DA975F07-47FB-42B2-B7D6-044B3012B499



Photograph 1: was taken facing north overlooking the SCE Hydroelectric Power Station. The siphon for the Kern River Fish Hatchery is located just south of this station. A portion of the siphon is visible in this photo.



Photograph 2: was taken on top of an underground portion of the existing pipeline. The photograph illustrates a portion of the line that emerges above ground before reaching the siphon area.

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Photograph 3: was taken facing south overlooking a recreational parking area located just south of the SCE Hydroelectric Power Station.



Photograph 4: was taken facing south overlooking a portion of the existing pipeline that parallels the Kern River and the adjacent recreational parking area.

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Photograph 1: was taken facing south overlooking the existing pipeline that will be replaced. Photograph also illustrates the riparian habitat found along the banks of the Kern River.



Photograph 2: was taken facing south to illustrate some of the dense riparian cover found along portions of the pipeline route.

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Appendix C

Native American Consultation

Docusign Envelope ID: DA975F07-47FB-42B2-B7D6-044B3012B499

Local Government Tribal Consultation List Request

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahc@nahc.ca.gov

Type of List Requested

■ **CEQA Tribal Consultation List (AB 52)** – ***Per Public Resources Code § 21080.3.1, subs. (b), (d), (e) and 21080.3.2***

☐ **General Plan (SB 18)** - ***Per Government Code § 65352.3.***

Local Action Type:

___ General Plan ___ General Plan Element ___ General Plan Amendment

___ Specific Plan ___ Specific Plan Amendment ___ Pre-planning Outreach Activity

Required Information

Project Title: Kern River Fish Hatchery Siphon Replacement Project

Local Government/Lead Agency: Department of General Services

Contact Person: Jennifer Parson, Sr. Environmental Planner

Street Address: 707 Third Street, Suite 4-430

City: West Sacramento, CA **Zip:** 95605

Phone: (916) 376-1604 **Fax:** _____

Email: Jennifer.Parson@dgs.ca.gov

Specific Area Subject to Proposed Action

County: Kern **City/Community:** _____

Project Description:

The Department of General Services is assisting the California Department of Fish and Wildlife with a project to remove and replace the existing Kern River Hatchery siphon and pipeline, which is failing and not able to supply water necessary for hatchery operations.

Additional Request

■ **Sacred Lands File Search** - ***Required Information:***

USGS Quadrangle Name(s): Kernville

Township: 25S **Range:** 33E **Section(s):** 9, 10

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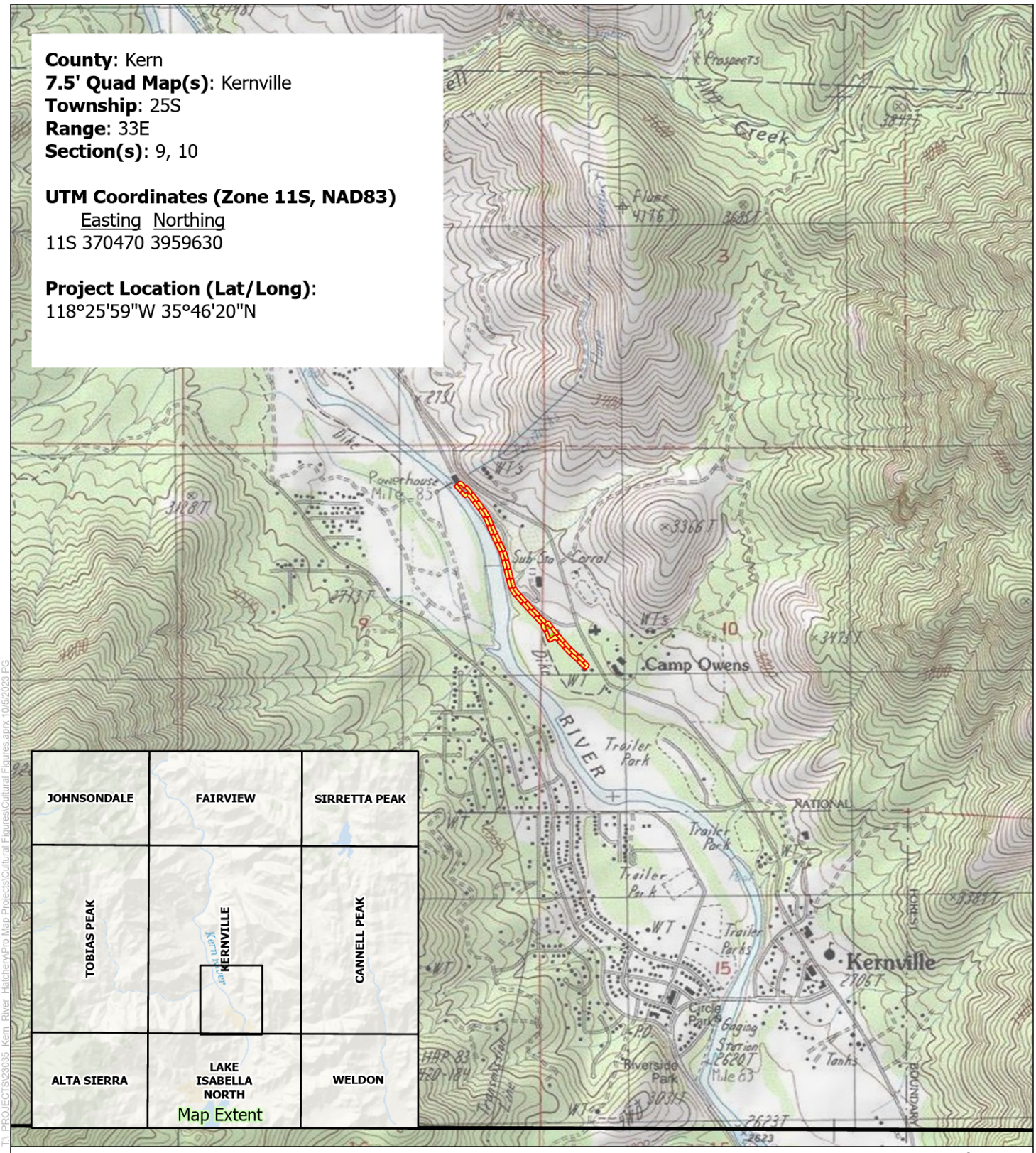


Figure 2
Project Location

MONTROSE ENVIRONMENTAL

Kern River Fish Hatchery Project

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Yokayo Pomo, Yuki, Nomlaki

SECRETARY
Sara Dutschke
Miwok

PARLIAMENTARIAN
Wayne Nelson
Luiseño

COMMISSIONER
Isaac Bojorquez
Ohlone-Costanoan

COMMISSIONER
Stanley Rodriguez
Kumeyaay

COMMISSIONER
Laurena Bolden
Serrano

COMMISSIONER
Reid Milanovich
Cahuilla

COMMISSIONER
Vacant

EXECUTIVE SECRETARY
Raymond C. Hitchcock
Miwok, Nisenan

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

December 13, 2023

Jennifer Parson
Department of General Services

Via Email to: ***Jennifer.Parson@dgs.ca.gov***

Re: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, Kern River Fish Hatchery Siphon Replacement Project, Kern County

Dear Ms. Parson:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

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- A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;
- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
- Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

- Any report that may contain site forms, site significance, and suggested mitigation measures.

  All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of any Sacred Lands File (SLF) check conducted through the Native American Heritage Commission was negative.

4. Any ethnographic studies conducted for any area including all or part of the APE; and

5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address: Cameron.vela@nahc.ca.gov.

Sincerely,

Cameron Vela

Cameron Vela
Cultural Resources Analyst

Attachment

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Native American Heritage Commission
Native American Contact List
Kern County
12/13/2023

County	Tribe Name	Fed (F) Non-Fed (N)	Contact Person	Contact Address	Phone #	Fax #	Email Address	Cultural Affiliation	Counties	Last Updated
Kern	Kern Valley Indian Community	N	Robert Robinson, Chairperson	P.O. Box 1010 Lake Isabella, CA, 93240	(760) 378-2915		bbutterbredt@gmail.com	Kawaiisu Tubatulabal Koso	Inyo,Kern,Los Angeles,San Bernardino,Tulare	
	Tejon Indian Tribe	F	Candice Garza, CRM Scheduler	4941 David Road Bakersfield, CA, 93307	(661) 345-0632		cgarza@tejonindiantribe-nsn.gov	Kitanemuk	Kern	4/11/2023
	Tubatulabals of Kern Valley	N	Robert Gomez, Chairperson	P.O. Box 226 Lake Isabella, CA, 93240	(760) 379-4590	(760) 379-4592	rgomez@tubatulabal.org	Tubatulabal	Kern,Tulare	
	Tule River Indian Tribe	F	Neil Peyron, Chairperson	P.O. Box 589 Porterville, CA, 93258	(559) 781-4271	(559) 781-4610	neil.peyron@tulerivertribe-nsn.gov	Yokut	Alameda,Amador,Calaveras,Contra Costa,Fresno,Inyo,Kern,Kings,Madera,Mariposa,Merced,Monterey,Sacramento,San	

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Kern River Fish Hatchery Siphon Replacement Project, Kern County.

Record: PROJ-2023-006088
Report Type: AB52 GIS
Counties: Kern
NAHC Group: All

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January 3, 2024

Robert Robinson, Chairperson
Kern Valley Indian Community
P.O. Box 1010
Lake Isabella, CA, 93240

RE: Kern River Hatchery Siphon Replacement Project – Tribal Consultation

Dear Honorable Chairperson Robinson:

The Department of General Services (DGS), on behalf of the California Department of Fish and Wildlife (CDFW), is writing to notify you of a proposed project in order to coordinate with you and verify the existence of any information on known tribal cultural resources that may be present or affected. It is important to note that neither DGS nor CDFW has received a request from you for notification of projects pursuant to Public Resources Code 21080.3.1(b)(1), also referred to as Assembly Bill 52.

CDFW operates the Kern River Hatchery, located in the southern Sierra Nevada at 14415 Sierra Way in Kernville, Kern County, California (Figure 1). The project is on the east bank of the Kern River, which flows from north to south at this location. It is, furthermore, found within the Kernville USGS 7.5-minute topographic quadrangle in Sections 9 and 10 of Township 25 South and Range 33 East (Figure 2).

The proposed project consists of removing and replacing the existing Kern River Hatchery siphon and pipeline, which has failed and is not able to supply water necessary for hatchery operations. The project includes demolition of the existing approximately 0.5-mile aboveground siphon pipeline and inlet/outlet structures, and construction of a new underground siphon pipeline and inlet/outlet in the same general alignment and locations.

A record search at the Southern San Joaquin Valley Information Center of the California Historical Resources Information System at California State University, Bakersfield, indicated that virtually the entire project area has previously been surveyed for archaeological resources, but it did not identify any known previously recorded Native American cultural resources within the project footprint. However, two Native American bedrock mortar sites have previously been recorded within close proximity to the project location.

A Sacred Lands and Files Search request at the Native American Heritage Commission (NAHC) indicated that no significant Native American resources are in the project vicinity. Despite the lack of known resources, the NAHC suggested that local tribes may have information that may not be on file at the NAHC, and your contact information was provided on their List of Native American Contacts for the area as a traditionally and

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culturally affiliated California Native American tribal representative. We are requesting any information that you may have regarding tribal cultural resources (as defined by Public Resources Code 21074) within the project area so that this information can be incorporated into project planning and we can work with you to avoid impacts to tribal cultural resources. DGS is respectfully requesting input from you within 30 days of receipt of this letter.

Your comments and concerns are important to us and we look forward to hearing from you. If you have any questions or comments regarding the project, I can be contacted via email at Jennifer.Parson@dgs.ca.gov or by phone at (916) 376-1604.

Sincerely,



Jennifer Parson
Senior Environmental Planner

Cc: Sarah Fonseca, CDFW Tribal Liaison (electronic transmittal)

Enclosures: Figure 1 – Project Vicinity
Figure 2 – Project Location

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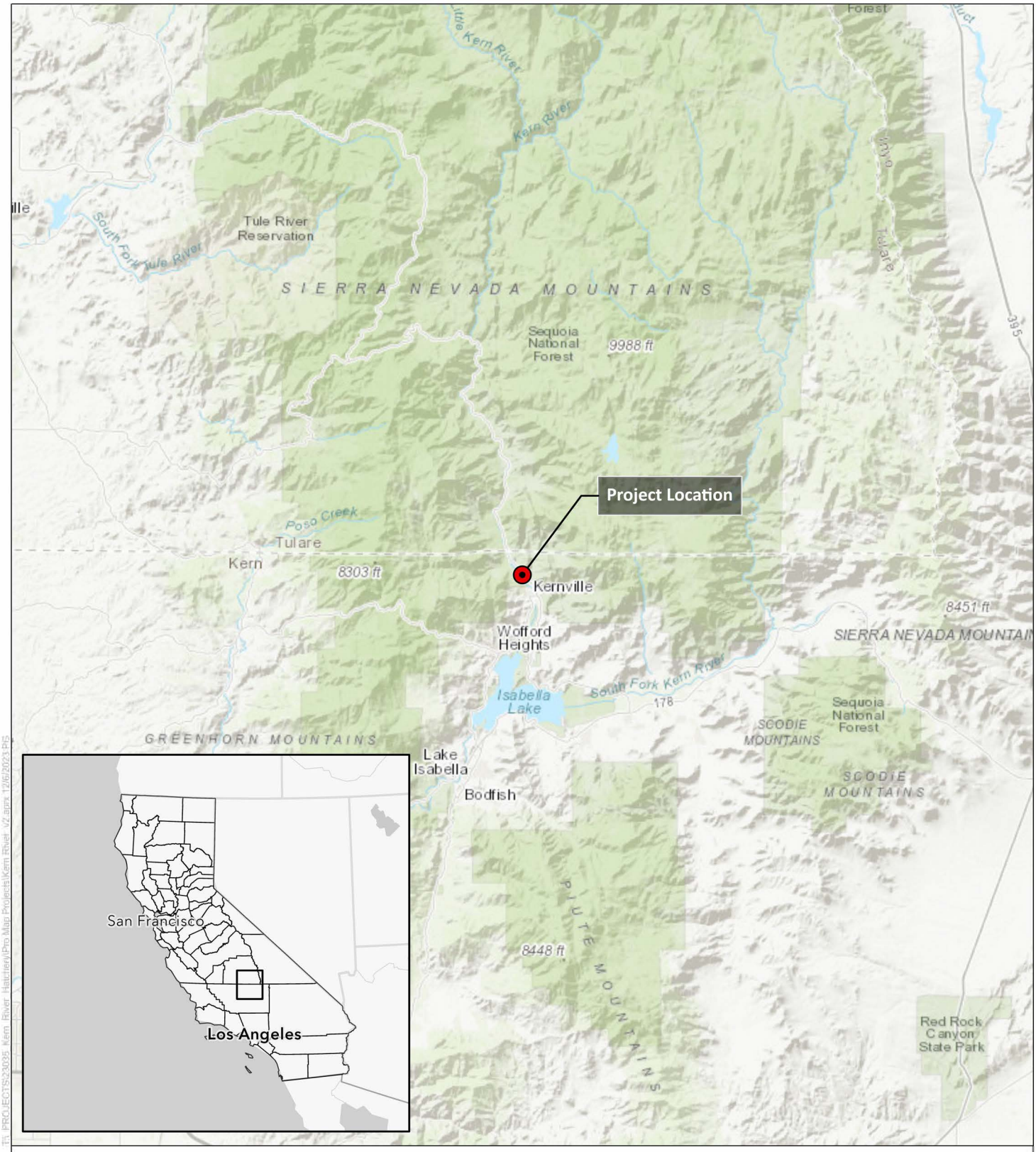


Figure 1
Project Vicinity

MONTROSE ENVIRONMENTAL

Kern River Hatchery Siphon Replacement Project

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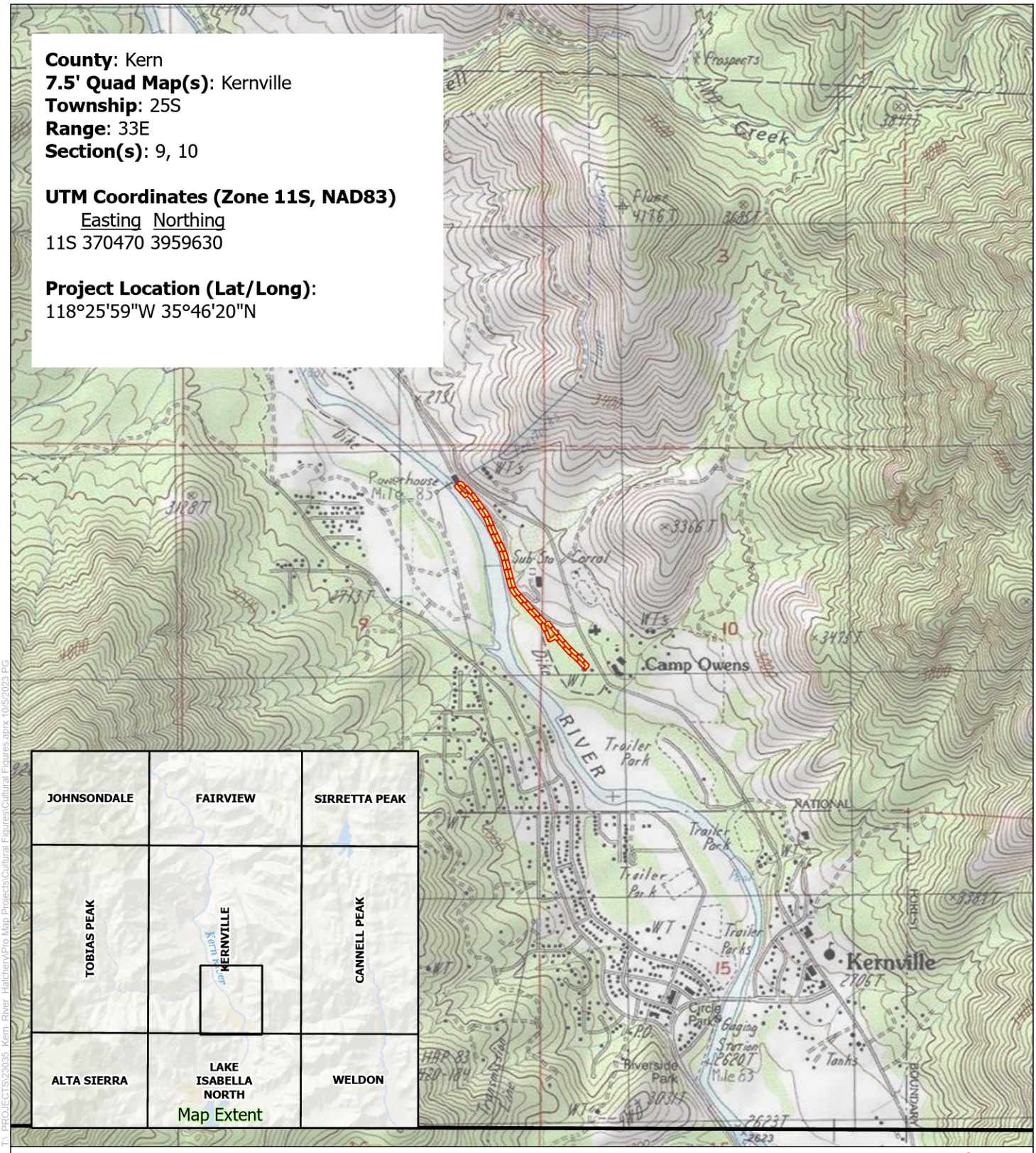


Figure 2
Project Location

MONTROSE ENVIRONMENTAL

Kern River Fish Hatchery Project

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January 3, 2024

Candice Garza
Tejon Indian Tribe
4941 David Road
Bakersfield, CA, 93307

RE: Kern River Hatchery Siphon Replacement Project – Tribal Consultation

Dear Ms. Garza:

The Department of General Services (DGS), on behalf of the California Department of Fish and Wildlife (CDFW), is writing to notify you of a proposed project in order to coordinate with you and verify the existence of any information on known tribal cultural resources that may be present or affected. It is important to note that neither DGS nor CDFW has received a request from you for notification of projects pursuant to Public Resources Code 21080.3.1(b)(1), also referred to as Assembly Bill 52.

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Your comments and concerns are important to us and we look forward to hearing from you. If you have any questions or comments regarding the project, I can be contacted via email at Jennifer.Parson@dgs.ca.gov or by phone at (916) 376-1604.

Sincerely,



Jennifer Parson
Senior Environmental Planner

Cc: Sarah Fonseca, CDFW Tribal Liaison (electronic transmittal)

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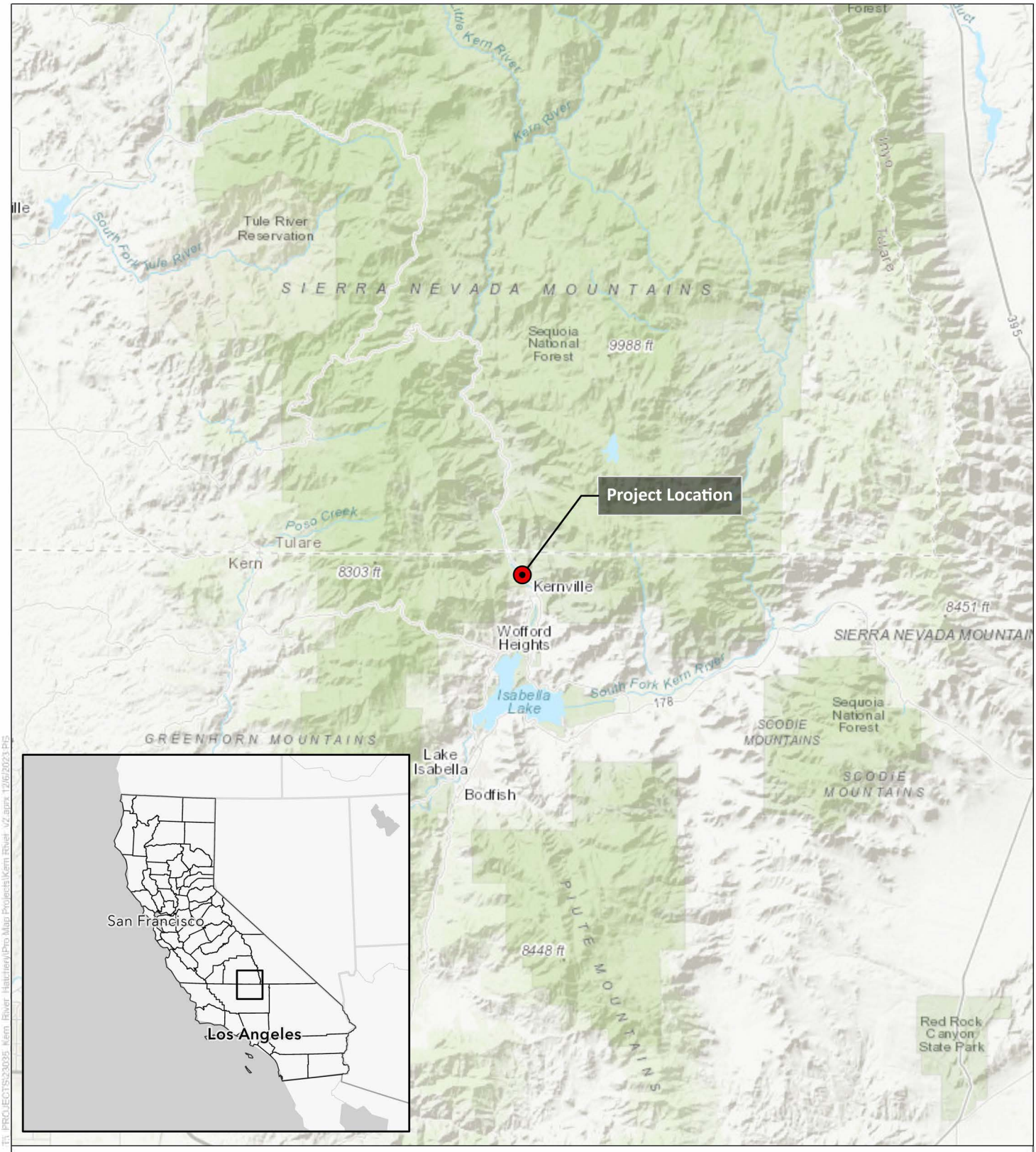


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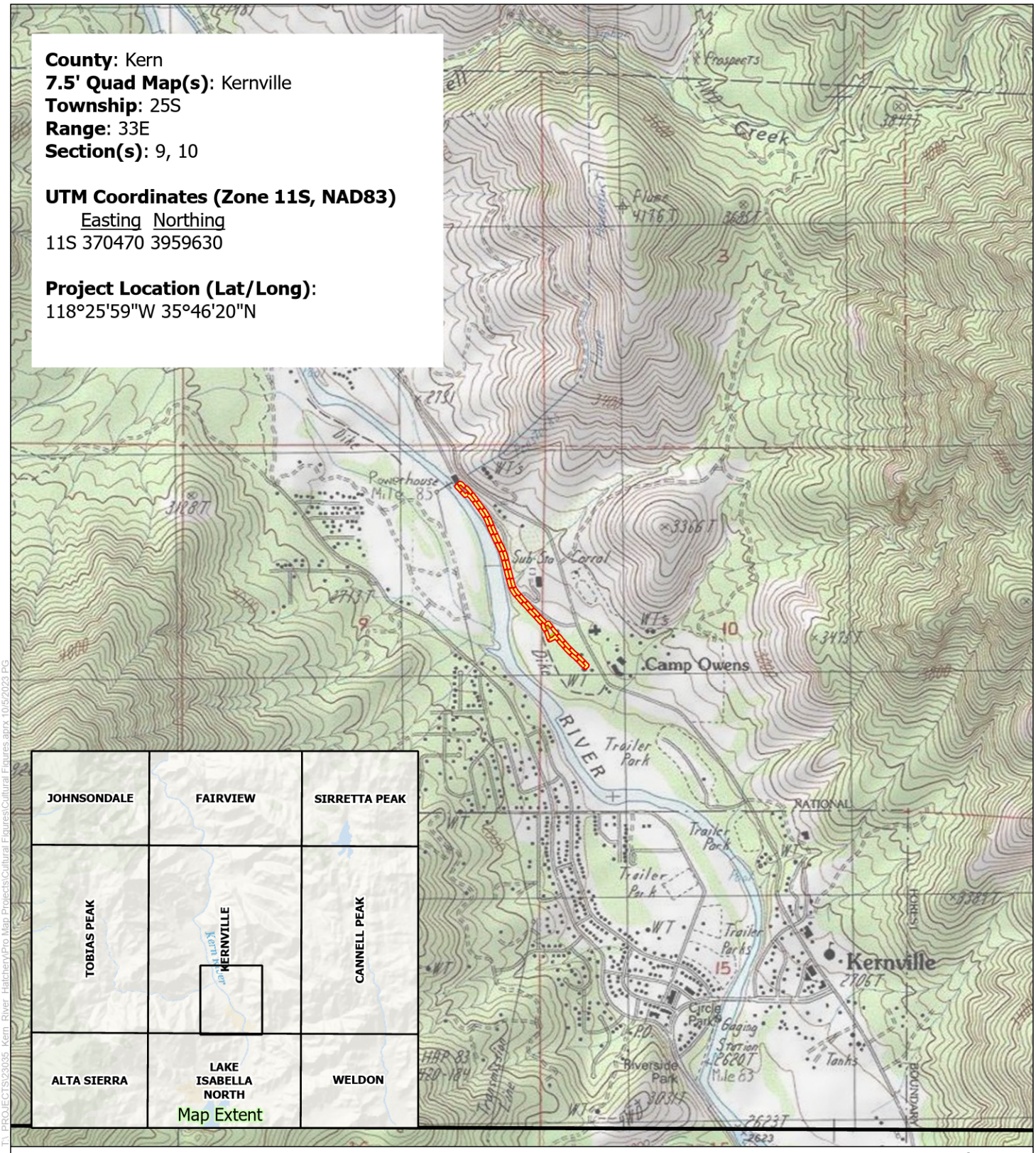


Figure 2
Project Location

MONTROSE ENVIRONMENTAL

Kern River Fish Hatchery Project

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January 3, 2024

Robert Gomez, Chairperson
Tubatulabals of Kern Valley
P.O. Box 226
Lake Isabella, CA, 93240

RE: Kern River Hatchery Siphon Replacement Project – Tribal Consultation

Dear Honorable Chairperson Gomez:

The Department of General Services (DGS), on behalf of the California Department of Fish and Wildlife (CDFW), is writing to notify you of a proposed project in order to coordinate with you and verify the existence of any information on known tribal cultural resources that may be present or affected. It is important to note that neither DGS nor CDFW has received a request from you for notification of projects pursuant to Public Resources Code 21080.3.1(b)(1), also referred to as Assembly Bill 52.

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Your comments and concerns are important to us and we look forward to hearing from you. If you have any questions or comments regarding the project, I can be contacted via email at Jennifer.Parson@dgs.ca.gov or by phone at (916) 376-1604.

Sincerely,



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Senior Environmental Planner

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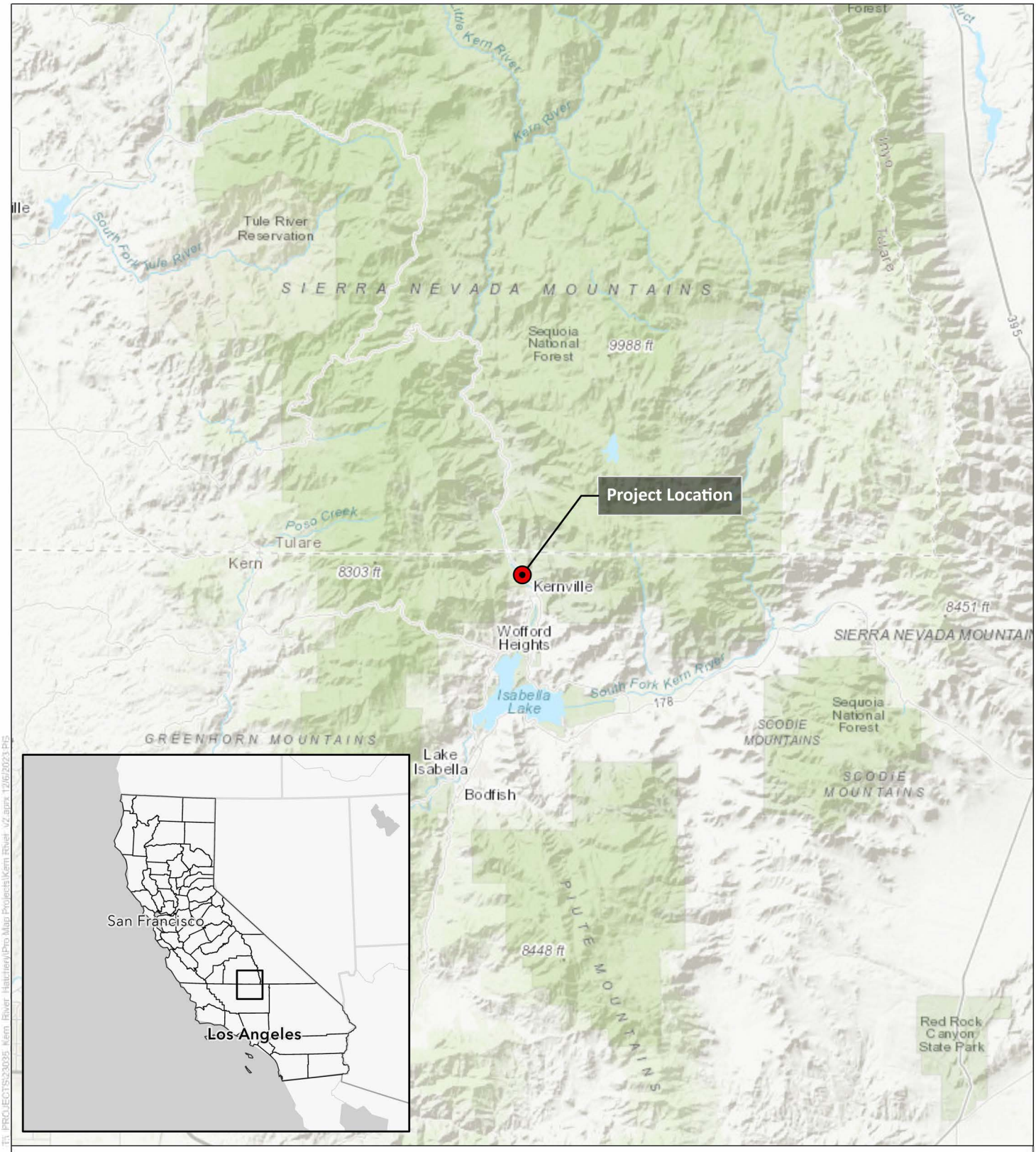


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Kern River Hatchery Siphon Replacement Project

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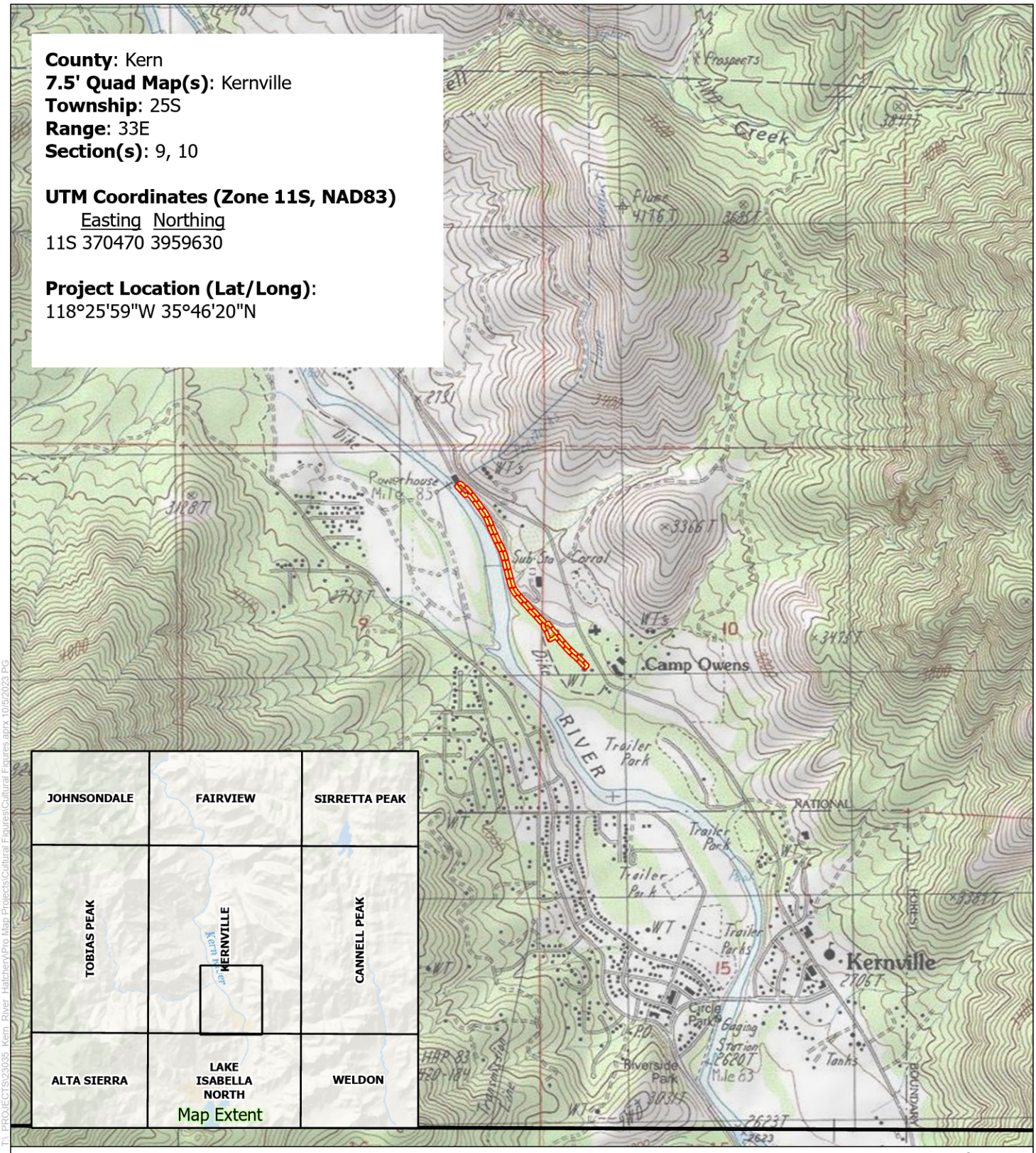


Figure 2
Project Location

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Kern River Fish Hatchery Project

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January 3, 2024

Neil Peyron, Chairperson
Tule River Indian Tribe
P.O. Box 589
Porterville, CA, 93258

RE: Kern River Hatchery Siphon Replacement Project – Tribal Consultation

Dear Honorable Chairperson Peyron:

The Department of General Services (DGS), on behalf of the California Department of Fish and Wildlife (CDFW), is writing to notify you of a proposed project in order to coordinate with you and verify the existence of any information on known tribal cultural resources that may be present or affected. It is important to note that neither DGS nor CDFW has received a request from you for notification of projects pursuant to Public Resources Code 21080.3.1(b)(1), also referred to as Assembly Bill 52.

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Your comments and concerns are important to us and we look forward to hearing from you. If you have any questions or comments regarding the project, I can be contacted via email at Jennifer.Parson@dgs.ca.gov or by phone at (916) 376-1604.

Sincerely,



Jennifer Parson
Senior Environmental Planner

Cc: Sarah Fonseca, CDFW Tribal Liaison (electronic transmittal)

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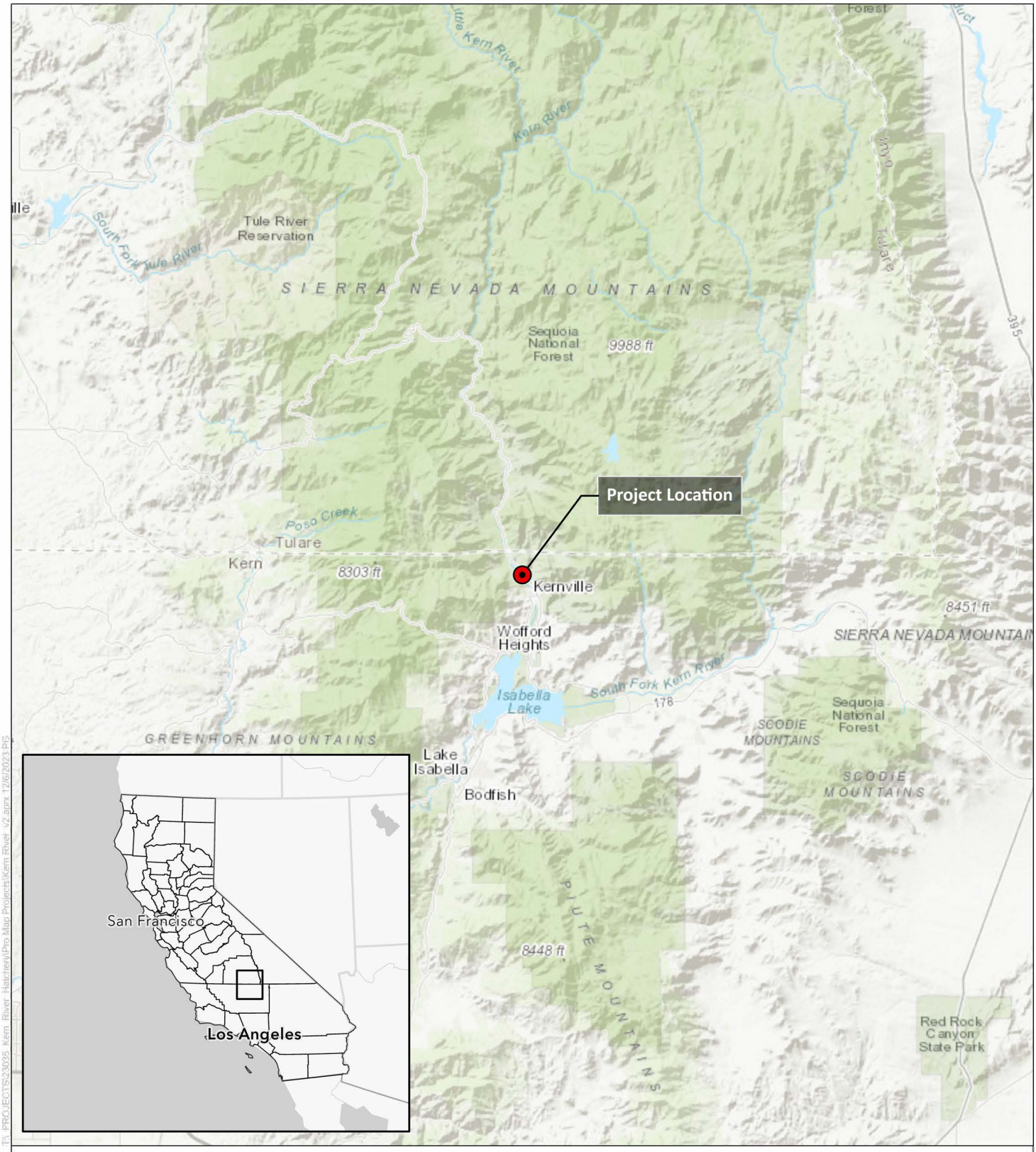


Figure 1
Project Vicinity

MONTROSE ENVIRONMENTAL

Kern River Hatchery Siphon Replacement Project

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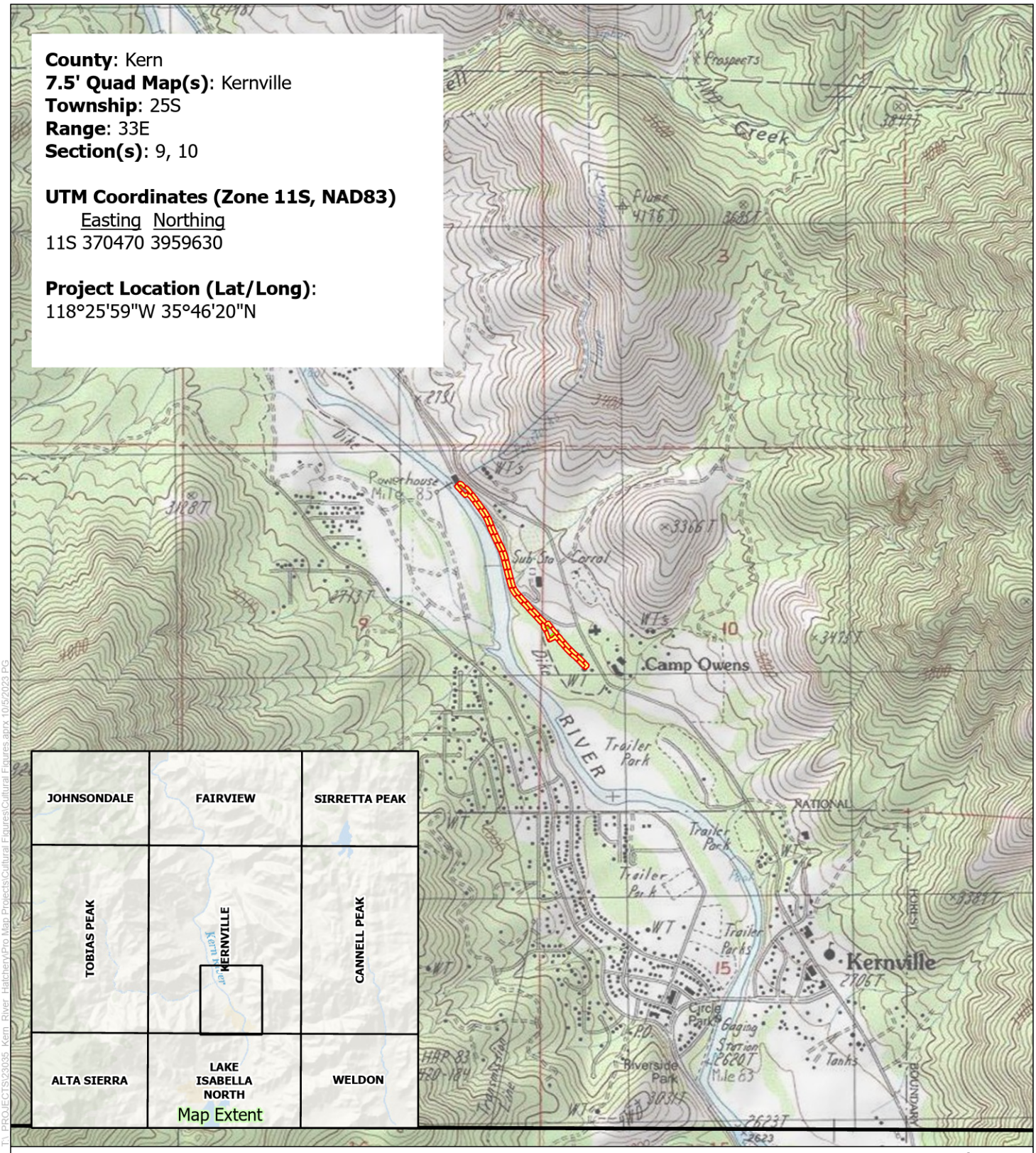


Figure 2
Project Location

MONTROSE ENVIRONMENTAL

Kern River Fish Hatchery Project

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From: Janis Offermann
To: cgarza@tejonindiantribe-nsn.gov
Cc: Jennifer.Parson@dgs.ca.gov; Aulakh, Justin@Wildlife; Sarah.Fonseca@wildlife.ca.gov; Debra Lilly
Subject: Kern River Hatchery Siphon Replacement Project
Date: Monday, February 5, 2024 10:31:00 AM
Attachments: Figure 1 Project Vicinity.pdf
Figure 2 Location Map.pdf
Tejon_Garza_Kern Hatchery_ AB52 Notification_01032024.pdf

Good morning, Ms. Garza

The Department of General Services (DGS) recently contacted you about the Kern River Hatchery Siphon Replacement Project (see attached letter). On behalf of DGS, as well as the California Department of Fish and Wildlife, I am writing to ensure that you received the letter and to extend the invitation to provide comments or concerns about the potential for the project to affect tribal cultural resources.

If you or any of your tribal members have any questions or concerns regarding this project, please contact Jennifer Parson, DGS Senior Environmental Planner, at Jennifer.Parson@dgs.ca.gov, or at (916) 376-1604.
Thank you for your time.
janis

Janis Offermann, M.A., RPA
Senior Cultural Resources Manager
Montrose Environmental
Mobile: +1-530-220-4918

Docusign Envelope ID: DA975F07-47FB-42B2-B7D6-044B3012B499

From: Janis Offermann
To: rgomez@tubatulabal.org
Cc: Jennifer.Parson@dgs.ca.gov; Aulakh, Justin@Wildlife; Sarah.Fonseca@wildlife.ca.gov; Debra Lilly
Subject: Kern River Hatchery Siphon Replacement Project
Date: Monday, February 5, 2024 10:43:00 AM
Attachments: Figure 1 Project Vicinity.pdf
Figure 2 Location Map.pdf
Tubatulabals_Gomez_Kern Hatchery__AB52 Notification_01032024.pdf

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Good morning, Chairperson Gomez

The Department of General Services (DGS) recently attempted to contact you via U.S. mail about the Kern River Hatchery Siphon Replacement Project (see attached letter). Unfortunately the letter, which was sent to an address provided by the Native American Heritage Commission, was returned to us. On behalf of DGS, as well as the California Department of Fish and Wildlife (CDFW), I am transmitting the letter to you via email. DGS and CDFW invites you to provide comments or concerns about the potential for the project to affect tribal cultural resources.

If you or any of your tribal members have any questions or concerns regarding this project, please contact Jennifer Parson, DGS Senior Environmental Planner, at Jennifer.Parson@dgs.ca.gov, or at (916) 376-1604.

Thank you for your time.
janis

Janis Offermann, M.A., RPA
Senior Cultural Resources Manager
Montrose Environmental
Mobile: +1-530-220-4918

Docusign Envelope ID: DA975F07-47FB-42B2-B7D6-044B3012B499

From: Janis Offermann
To: neil.peyron@tulerivertribe-nsn.gov
Cc: Jennifer.Parson@dgs.ca.gov; Aulakh, Justin@Wildlife; Sarah.Fonseca@wildlife.ca.gov; Debra Lilly
Subject: Kern River Hatchery Siphon Replacement Project
Date: Monday, February 5, 2024 10:33:00 AM
Attachments: Figure 1 Project Vicinity.pdf
Figure 2 Location Map.pdf
Tule River_Peyron_Kern Hatchery_AB52 Notification_01032024.pdf

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From: Janis Offermann
To: bbutterbredt@gmail.com
Cc: Jennifer.Parson@dgs.ca.gov; Aulakh, Justin@Wildlife; Sarah.Fonseca@wildlife.ca.gov; Debra Lilly
Subject: Kern River Hatchery Siphon Replacement Project
Date: Monday, February 5, 2024 10:29:00 AM
Attachments: Kern Valley_Robinson_Kern Hatchery_AB52 Notification_01032024.pdf
Figure 1 Project Vicinity.pdf
Figure 2 Location Map.pdf

Good morning, Chairperson Robinson
The Department of General Services (DGS) recently contacted you about the Kern River Hatchery Siphon Replacement Project (see attached letter). On behalf of DGS, as well as the California Department of Fish and Wildlife, I am writing to ensure that you received the letter and to extend the invitation to provide comments or concerns about the potential for the project to affect tribal cultural resources.

If you or any of your tribal members have any questions or concerns regarding this project, please contact Jennifer Parson, DGS Senior Environmental Planner, at Jennifer.Parson@dgs.ca.gov, or at (916) 376-1604.
Thank you for your time.
janis

Janis Offermann, M.A., RPA
Senior Cultural Resources Manager
Montrose Environmental
Mobile: +1-530-220-4918

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From: Parson, Jennifer@DGS
To: Aulakh, Justin@Wildlife; Fonseca, Sarah@Wildlife; Janis Offermann; Sheddy, Haley@DGS
Cc: Hatler, Gerald@Wildlife; Debra Lilly
Subject: [External] - FW: Kern River Fish Hatchery Syphon Replacement, Prehistoric Cultural Resource Concerns
Date: Tuesday, February 6, 2024 1:34:21 PM

> You don't often get email from jennifer.parson@dgs.ca.gov. Learn why this is important

Hi Justin and Sarah,

Please see the below request for Tribal Monitoring of the Kern River Siphon Replacement project, and let us know how CDFW would like to respond. My understanding is that this is the only tribal response we've received.

We can also discuss at the project meeting on Thursday.

Thank you,

Jennifer

Jennifer Parson
Office 916.376.1604 | Cell 916.217.3573 | jennifer.parson@dgs.ca.gov

---

From: Robert Robinson <bbutterbredt@gmail.com>
Sent: Tuesday, February 6, 2024 1:28 PM
To: Parson, Jennifer@DGS <Jennifer.Parson@dgs.ca.gov>
Subject: Kern River Fish Hatchery Syphon Replacement, Prehistoric Cultural Resource Concerns

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Ms Parson,
Kern Valley Indian Community (KVIC) is addressing concerns regarding identification, protection and preservation of prehistoric cultural resources inadvertently discovered during ground disturbing activities associated with the development of this project. KVIC requests culturally affiliated native american monitors be present for all ground disturbing activities associated with this project. KVIC has qualified culturally affiliated native american monitors available to monitor this project. We also request any cultural resources that are required to be collected be reinterned onto the property in a place safe from further disturbance.
Robert Robinson
KVIC Chairman, Tribal Historic Preservation Officer

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From: Parson, Jennifer@DGS
To: Robert Robinson
Cc: Fonseca, Sarah@Wildlife; Hatler, Gerald@Wildlife; Sheddy, Haley@DGS; Janis Offermann
Subject: [External] - RE: Kern River Fish Hatchery Syphon Replacement, Prehistoric Cultural Resource Concerns
Date: Tuesday, March 5, 2024 11:18:48 AM

Good morning Chairman Robinson,

Thank you for your interest in the Kern River Fish Hatchery Syphon Replacement project. I have confirmed with CDFW that that the requirement for a culturally affiliated Native American monitor be present for all ground disturbing activities associated with this project will be included in the project CEQA mitigation measures. CDFW/DGS will work with the Kern Valley Indian Community (KVIC) on the disposition of any cultural resources that are uncovered and required to be collected, so that they can be reinterned onto the property in a place safe from further disturbance.

Thank you again for your time and interest,

Jennifer

Jennifer Parson
Senior Environmental Planner
Project Management and Development Branch, Environmental Services
Department of General Services, Real Estate Services Division
707 Third Street, Suite 4-430, West Sacramento, CA 95605
Office 916.376.1604 | **Cell 916.217.3573** | jennifer.parson@dgs.ca.gov

From: Robert Robinson <bbutterbredt@gmail.com>
Sent: Tuesday, February 6, 2024 1:28 PM
To: Parson, Jennifer@DGS <Jennifer.Parson@dgs.ca.gov>
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Robert Robinson
KVIC Chairman, Tribal Historic Preservation Officer

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error, please immediately alert the sender by reply email and then delete this message and any attachments and the reply from your system. If you are not the intended recipient, you are hereby notified that any disclosure, use, dissemination, copying, or storage of this message or its attachments is strictly prohibited.

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Appendix D

Mitigation Monitoring and Reporting Plan

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MITIGATION MONITORING AND REPORTING PLAN

The following mitigation monitoring and reporting program (MMRP) summary table includes the mitigation measures identified in the California Department of Fish and Wildlife (CDFW) Kern River Hatchery Siphon Replacement Project Initial Study/ Mitigated Negative Declaration (IS/MND). For each mitigation measure, this table identifies monitoring and reporting actions that shall be carried out, the party responsible for implementing these actions, and the monitoring schedule. This table also includes a column where responsible parties can check off monitoring and reporting actions as they are completed. It is the responsibility of the Contractor to ensure that actions required for all of the mitigation measures listed herein are included in the project plans and specifications. It is the responsibility of the State to review and confirm that all of the mitigation measure actions described herein are in the project plans and specifications.

Acronyms and Abbreviations

BMP	best management practice
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CRHR	California Register of Historical Resources
dbh	diameter at breast height
DGS	Department of General Services
EKAPCD	Eastern Kern Air Pollution District
FESA	Federal Endangered Species Act
ITP	Incidental Take Permit
MLD	most likely descendent
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
NRHP	National Register of Historic Places
OSHA	Occupational Safety and Health Administration
Pub. Res. Code	Public Resources Code
SWHA	Swainson’s hawk
SWPPP	stormwater pollution prevention plan
TAC	Technical Advisory Committee
TCR	tribal cultural resource
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service

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Aesthetics

Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
BIO-10. Implement Revegetation in Riparian Habitat and Sensitive Natural Communities Disturbed during Construction See "Biological Resources" below.				

Agriculture and Forestry Resources

Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
None required				

Air Quality

Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
AQ-1. Prepare and Implement a Construction Fugitive Dust Control Plan As required by the California Occupational Safety and Health Administration (Cal/OSHA), the State of California Department of General Services (DGS) shall require construction contractors to prepare and implement a Construction Fugitive Dust Control Plan that complies with Cal/OSHA's Respiratory Protection standard (8 CCR 5144). Contractors shall be required to provide National Institute for Occupational Safety and Health-	1. Prepare and implement a Construction Fugitive Dust Control Plan to measure specifications.	1. Ensure the preparation and implementation of a Construction Fugitive Dust Control Plan to measure specifications.	1. Prior to the start of construction and during construction. 2. During Construction. 3. During Construction.	

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Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
approved respiratory protection with particulate filters rated as N95, N99, N100, P100, or HEPA. The Construction Fugitive Dust Control Plan shall include, at a minimum, implementation of Eastern Kern Air Pollution District (EKAPCD) Best Management Practices (BMPs) and stormwater pollution prevention plan (SWPPP) measures along with the following measures: 1. All soil excavated or graded should be sufficiently watered to prevent excessive dust. Watering should occur as needed with complete coverage of disturbed soil areas. Watering should be a minimum of twice daily on unpaved/untreated roads and on disturbed soil areas with active operations. 2. All clearing, grading, earth moving and excavation activities should cease a. during periods of winds greater than 20 mph (averaged over one hour), if disturbed material is easily windblown, or b. when dust plumes of 20% or greater opacity impact public roads, occupied structures or neighboring property. 3. All fine material transported offsite should be either sufficiently watered or securely covered to prevent excessive dust. 4. If more than 5,000 cubic yards of fill material will be imported or exported from the site, then all haul trucks should be required to exit the site	2. Provide respiratory protection to measure specifications. 3. Comply with required measures, and items 1-17 in the Fugitive Dust Control Plan.	2. Ensure Contractor's compliance with respiratory protection. 3. Ensure Contractor's compliance with all required measures and items 1-17 in the Fugitive Dust Control Plan.		

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Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
via an access point where a gravel pad or grizzly has been installed. 5. Areas disturbed by clearing, earth moving or excavation activities should be minimized at all times. 6. Stockpiles of soil or other fine loose material shall be stabilized by watering or other appropriate method to prevent wind-blown fugitive dust. 7. Where acceptable to the fire department, weed control should be accomplished by mowing instead of discing, thereby, leaving the ground undisturbed and with a mulch covering. 8. Once initial leveling has ceased all inactive soil areas within the construction site should either be seeded and watered until plant growth is evident, treated with a dust palliative, or watered twice daily until soil has sufficiently crusted to prevent fugitive dust emission. 9. All active disturbed soil areas should be sufficiently watered to prevent excessive dust, but no less than twice per day. 10. Onsite vehicle speed should be limited to 15 mph. 11. All areas with vehicle traffic should be paved, treated with dust palliatives, or watered a minimum of twice daily.				

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Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
12. Streets adjacent to the project site should be kept clean and accumulated silt removed. 13. Access to the site should be by means of an apron into the project from adjoining surfaced roadways. The apron should be surfaced or treated with dust palliatives. palliatives If operating on soils that cling to the wheels of the vehicles, a grizzly or other such device should be used on the road exiting the project, immediately prior to the pavement, in order to remove most of the soil material from the vehicle's tires. 14. Properly maintain and tune all internal combustion engine powered equipment. 15. Require employees and subcontractors to comply with California's idling restrictions for compression ignition engines. 16. Use low sulfur (California Air Resources Board (CARB) diesel fuel and renewable diesel fuel as required by the in-use off-road regulation. 17. Provide proof to the lead agency of compliance with CARB mobile source regulations for all equipment used during construction of the Project.				

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Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
AQ-2. Prepare and Implement a Valley Fever Management Plan for Review by CDPH and Kern County Department of Public Health and Final Approval by the State. The State of California (DGS) or its contractor(s) shall prepare and implement a Valley Fever Management Plan (VFMP). The VFMP shall be submitted to CDPH and the Kern County Department of Public Health for review consultation prior to the start of construction. The VFMP shall include, but not be limited to, the following elements as currently suggested by the California Department of Public Health: • Adopt site plans and work practices that reduce workers' exposure and which would also help minimize primary and secondary exposure to the community through direct dispersal of spores or secondary dispersal from contaminated workers or equipment bringing spores to the community. In addition to compliance with EKAPCD BMPs and SWPPP for the project, the site plans and work practices may include protective measures such as providing air conditioned cabs for vehicles that generate heavy dust and make sure workers keep windows and vents closed.	1. Prepare and implement a VFMP and submit to the CDPH and Kern County Department of Public Health for consultation prior to the start of construction. 2. Comply with all measures in the VFMP during construction, to measure specifications.	1. Ensure the preparation and implementation of a VFMP and submit to the CDPH and Kern County Department of Public Health for consultation prior to the start of construction. 2. Ensure the contractor complies with all measures in the VFMP during construction.	1. Prior to the start of construction and during construction. 2. During construction.	

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Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials

• Take measures to reduce transporting spores offsite, such as:
  ○ Clean tools, equipment, and vehicles before transporting offsite.
  ○ If workers' clothing is likely to be heavily contaminated with dust, provide coveralls and change rooms, and showers where possible.
• Train workers and supervisors about the risk of Valley Fever, the work activities that may increase the risk, and the measures used onsite to reduce exposure. Also train on how to recognize Valley Fever symptoms. This helps to ensure proper diagnosis and treatment as well as tracking potential outbreaks that may affect community.
• Encourage workers to report Valley Fever symptoms promptly to a supervisor. Not associating these symptoms with workplace exposures can lead to a delay in appropriate diagnosis and treatment. This helps to ensure proper diagnosis and treatment as well as tracking potential outbreaks that may affect community.				

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Biological Resources

Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
BIO-1. Conduct Environmental Awareness Training. The State of California (DGS) shall require that all construction personnel involved in the Proposed Project will attend an environmental awareness training prior to the commencement of project disturbance activities. The training will be conducted by a qualified biologist and will involve the presentation of sensitive species and habitats documented or potentially occurring in the project area. The training will include handouts that describe each resource with respect to listing status, habitat preferences, distinguishing physical characteristics, causes of its decline, and potential protection and avoidance measures. The handout will be distributed among construction personnel and will include photographs of the resources to facilitate the identification by personnel.	1. Attend an environmental awareness training prior to the start of ground disturbing activities.	1. Retain a qualified biologist to lead the environmental awareness training and provide handouts, per measure specifications.	1. Prior to the start of construction.	

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Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
BIO-2a. Perform Protocol-Level Botanical Survey. Prior to ground disturbance or vegetation removal, a qualified biologist shall conduct a protocol-level botanical survey for Kern River daisy, southern Sierra monardella, Palmer's mariposa-lily, alkali mariposa-lily, Mojave tarplant, and rose-flowered larkspur in accordance with the *CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018), or most updated version. If special-status plants are detected within the construction zone or within a 50-foot radius of the construction zone, the location will be mapped with GPS and flagged in the field, and DGS or its construction contractors will implement Mitigation Measure BIO-2b.	1. N/A	1. Retain a qualified biologist to lead the botanical survey.	1. Prior to ground disturbance or vegetation removal.	
BIO-2b. Avoid Impacts on Special-status Plant Species. If special-status plants are detected within the construction zone or within a 50-foot radius of the construction zone, DGS shall require that its construction contractors adjust the construction footprint or establish an exclusion area to avoid impacts to the plants. Locations of special-status plant populations will be clearly identified in the field by staking, flagging, or fencing prior to the	1. Adjust the construction footprint or establish an exclusion area to avoid impacts to special-status plants, if needed.	1. Ensure the contractor complies with adjusting the construction footprint or establish an exclusion area, if needed.	1. During construction, if needed. 2. During construction, if needed.	

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Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
commencement of activities that may cause disturbance. In addition, use collected GPS locations to prepare map(s) to show sensitive special-status plant populations . A qualified biologist will determine whether direct and/or indirect impacts would occur. If the biologist determines that impacts would not be completely avoided, Mitigation Measure BIO-2c would be implemented.	2. Identify locations of special-status species plant populations.	2. Retain a qualified biologist to determine if impacts would occur to special-status plants.		
BIO-2c. Minimize Impacts on Special-status Plant Species. If avoidance is not feasible, then DGS or its construction contractors shall implement measures to minimize the impact on the species. Minimization measures will be evaluated on a case-by-case basis for local rarity and extent of impacts. Minimization measures may include transplanting perennial species, seed collection and dispersal for annual species, and other conservation strategies that will protect the viability of the local population. If plant species listed under Federal Endangered Species Act (FESA) or California Endangered Species Act (CESA) would be adversely affected, DGS would consult the relevant agencies (CDFW or United States Fish and Wildlife Service [USFWS]) during development of minimization measures.	1. Develop a list of minimization measures to minimize impact to species, if avoidance is not feasible, to measure specifications. 2. N/A	1. Ensure development of a list of minimization measures to minimize impact to species if avoidance is not feasible. 2. Consultation with CDFW or USFWS if plant species listed under FESA or CESA would be affected.	1. Before construction, if needed. 2. Before construction, if needed.	

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Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
BIO-3. Measures to Protect Special-status Amphibians, Reptiles, and Fish A. No more than 5 days prior to the initiation of Project construction, a qualified biologist shall conduct a visual survey for western pond turtle, California legless lizard, southern Sierra legless lizard, and Fairview slender salamander in areas where suitable habitat occurs. Additionally, a biological monitor will monitor initial ground disturbance and vegetation removal within suitable habitat for these species. A biological monitor will also monitor initial dewatering within the Kern River. B. If special-status amphibians, reptiles, or fish are found within the Proposed Project area, work within 100 feet of the special-status species will pause and the individual shall be allowed to leave the site on their own accord or shall be relocated by the qualified biologist or biological monitor out of harm's way to suitable habitat that is at least 200 feet from the active work area. C. Vegetation disturbance will be minimized to the greatest extent possible and large oak trees will be protected in place wherever feasible. D. All holes or trenches shall be covered at the end of each workday or ramped at a 1:1 ratio to avoid potential wildlife entrapment.	1. N/A 2. Pause work within 100 feet of any identified special-status species until allowed to resume by qualified biologist. 3. Comply with items C, D, and E.	1. Retain a qualified biologist to conduct a visual survey for listed species, monitor initial ground disturbance and vegetation removal within suitable habitat, and monitor initial dewatering within the Kern River. 2. Retain a qualified biologist or monitor to move any special-status species discovered during work activities. 3. Ensure the contractor complies with items C, D, and E.	1. Prior to the start of construction and during construction. 2. During construction, if needed. 3. During construction.	

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Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
E. All trash shall be removed from the site daily to avoid attracting potential predators.				
BIO-4. Protection of Roosting Bats To minimize impacts on bat maternity colonies during the breeding season (April 15 to August 31) or non-reproductive roosting bats during the non-maternity season (September 1 to April 14), the State of California (DGS) or its construction contractors shall require a qualified biologist to conduct a pre-construction survey for roosting bats prior to the onset of ground-disturbing or tree removal activities. If tree removal or project related activities are planned for the fall, the survey shall be conducted in September to ensure tree removal or project related activities would have adequate time to occur during seasonal periods of bat activity, as described below. If tree removal or project related activities are planned for the spring, then the survey shall be conducted during the earliest possible time in March, to allow for suitable conditions for both the detection of bats and subsequent tree removal or project related activities. Trees containing potential bat roost habitat features should be clearly marked or identified.	1. N/A 2. Comply with specific measures outlined.	4. Retain a qualified biologist to conduct a pre-construction survey(s) for roosting bats prior to the onset of ground-disturbing or tree removal activities between April 15 to August 31, or September 1 to April 14. 5. Biologist will conduct bi-weekly site checks to ensure contractor compliance with listed measures.	1. Prior to the start of construction 2. During construction, if needed.	

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Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
The biologist will inspect for evidence of bat use within suitable habitat, such as guano, urine staining, or oil staining. If evidence of use is observed, or if high-quality roost sites are present in areas where evidence of bat use might not be detectable (such as a tree cavity), an evening emergence survey and/or a nocturnal acoustic survey may be necessary to determine if a bat colony is present and to identify the specific location of the bat colony. • If no active maternity colony or non-breeding bat roost is located, Proposed Project work can continue as planned. • If an active maternity colony or non-breeding roost is located, the biologist should prepare a site-specific roosting bat protection plan to be implemented by DGS or its construction contractors. The plan should incorporate the following guidance as appropriate. Removal or modification of trees or structures identified as suitable roosting habitat will be conducted during seasonal periods of bat activity, including the following: ○ Between September 1 and October 15, or before evening temperatures fall below 45 degrees Fahrenheit and/or more than 0.5-inch of rainfall within 24 hours occurs.				

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Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
○ Between March 1 and April 15, or after evening temperatures rise above 45 degrees Fahrenheit and/or no more than 0.5 inch of rainfall within 24 hours occurs. • If a tree must be removed or trimmed or Proposed Project related activity occurs during the breeding season (November – February) and roost site(s) or maternity roost(s) are identified, then a qualified biologist will conduct acoustic emergence surveys or implement other appropriate methods to further evaluate if the roost is an active maternity roost. Under the biologist guidance, CDFW, DGS, or its contractor will implement the following measures: • If it is determined that the roost is not an active maternity roost, then the roost may be removed in accordance with the other requirements of this recommendation. • If it is found that an active maternity roost of a roosting species is present, the roost will not be disturbed during the breeding season (April 15 to August 31).				

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Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
• Potential hibernation roosts should only be removed during seasonal periods of bat activity, as described above. Potential roosts that cannot be avoided should be removed on warm days in late morning to afternoon when any bats present are likely to be warm and able to fly. Appropriate methods, as described in the site-specific roosting bat protection plan, should be used to minimize the potential harm to bats during tree removal.				
BIO-5. Conduct Nesting Surveys for Swainson's Hawk and Other Raptors If construction occurs between February 1 and August 31, DGS or its construction contractors shall require that a qualified biologist conduct surveys for Swainson's hawk in accordance with the recommended timing and methodology developed by the SWHA TAC (2000), as modified in this measure. The SWHA TAC recommends a 0.5-mile survey distance from the limits of disturbance. However, due to the potential for disturbance, for this project the survey area would be limited to the Kern River riparian area within 1,000 feet of Proposed Project activities and the area between the Proposed Project and Sonora Way. The survey protocol includes early-season surveys to assist the Project Proponent in implementing necessary avoidance and	1. N/A 2. Provide the State with advance notice of construction schedule and anticipated start date. Support site access for qualified biologist. 3. N/A	1. Retain a qualified biologist to conduct preconstruction surveys. 2. Ensure qualified biologist conducts pre-construction surveys of construction work area according to Swainson's Hawk (SWHA) Technical Advisory	1. Before construction begins. 2. Before construction begins. 3. Before construction begins.	

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Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
minimization measures and identifying active nest sites prior to initiating ground-disturbing activities. Surveys for other nesting raptors will occur within a 500-foot buffer. If nesting Swainson's hawk or other raptors are detected, buffers shall be established around active nests in accordance with Mitigation Measure BIO-6.		Committee (TAC) protocol. 3. If nesting Swainson's hawk or other raptors are detected are detected, implement MM BIO-6.		
BIO-6. Establish Buffers to Avoid or Minimize Impacts on Swainson's Hawk. If ground-disturbing or vegetation removal activities are to take place during the normal bird breeding season (March 1 through September 15), additional pre-activity surveys for active nests shall be conducted by a qualified biologist no more than 10 days prior to the start of activities to ensure that no Swainson's hawks or other raptors have begun nesting activities near the site. Buffers around active Swainson's hawk nests will be 0.5 mile and buffers around active non-listed raptor nests will be 500 feet unless a qualified biologist determines, based on a site-specific evaluation, that a smaller buffer is sufficient to avoid impacts on nesting raptors. Factors to be considered when determining buffer size include the presence of natural buffers provided by vegetation or topography, nest	1. If nesting Swainson's hawk or other raptors are detected, comply with established buffers.	1. If nesting Swainson's hawk or other raptors are detected, ensure that contractor complies with established buffers. 2. Ensure that biologist conducts regular surveys and reports monitoring progress of Swainson's hawk or other raptors nests.	1. Before and during construction.	

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Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
height, locations of foraging territory, and baseline levels of noise and human activity. Buffers shall be maintained until a qualified biologist has determined that the young have fledged and are no longer reliant on the nest or parental care for survival. In the event that an active Swainson's hawk nest is detected during surveys and a 0.5-mile no-disturbance buffer is not feasible, DGS shall implement Mitigation Measure BIO-7.				
BIO-7. Swainson's Hawk Take Authorization. In the event that an active Swainson's hawk nest is detected during surveys and a 0.5-mile no-disturbance buffer is not feasible, consultation with CDFW shall occur to discuss how to implement the Proposed Project and avoid take. If take cannot be avoided, take authorization through the issuance of an Incidental Take Permit, in accordance with F&G Code Section 2081(b) is necessary to comply with CESA.	1. N/A	1. Ensure that qualified biologist complies with CDFW Incidental Take Permit (ITP) requirements.	1. Prior to and during construction.	

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Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
BIO-8. Nesting Bird Survey The State of California (DGS) and its construction contractors shall require a qualified biologist to conduct nesting bird surveys and comply with the subsequent measures, as needed, to ensure that birds protected under the MBTA are not adversely affected by Proposed Project construction activities: • A pre-construction nesting bird survey shall be conducted by a qualified biologist, within 14 days prior to the initiation of Proposed Project related activities. If Proposed Project related activity is stopped for more than 14 days during the nesting season, a pre-construction survey shall be conducted prior to the re-start of Proposed Project activities. • If active nests of birds protected by the MBTA are located, an appropriate avoidance buffer determined by the qualified biologist shall be established within which no work activity would be allowed which would impact these nests. The avoidance buffer will be established by the qualified biologist on a case-by-case basis based on the species and site conditions. Larger buffers may be required depending upon the status of	1. N/A 2. Comply with established buffer and pause work activities within the buffer. 3. N/A 4. N/A	1. Retain a qualified biologist to conduct preconstruction surveys, or subsequent surveys if work is stopped for more than 14 days. 2. If needed, ensure the biologist establishes a buffer around work activities. 3. Ensure the biologist notifies the contractor when it is safe to resume work activities. 4. Ensure that biologist monitors work activities If work within the established buffer can't be avoided.	1. Prior to the start of construction. 2. During construction, if needed. 3. During construction, if needed. 4. During construction, if needed.	

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Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
the nest and the project related activities occurring in the vicinity of the nest. The buffer area(s) shall be closed to all construction personnel and equipment until juveniles have fledged and/or the nest is inactive. A qualified biologist will confirm that breeding/nesting is complete, and the nest is no longer active prior to removal of the buffer. If work within a buffer area cannot be avoided, then a qualified biologist will be present to monitor all Proposed Project activities that occur within the buffer. The biological monitor will evaluate the nesting avian species for signs of disturbance and will have the ability to stop work in the vicinity of the nest.				
BIO-9. Avoid Crotch Bumble Bee Nests The State of California (DGS) and its construction contractors shall implement the following measures, as needed, to ensure that Crotch bumble bees are not adversely affected by Proposed Project construction activities:	1. N/A 2. Comply with established buffer and do not perform ground-disturbing activities within the buffer. 3. N/A	1. Retain a qualified biologist to conduct preconstruction surveys. 2. Ensure biologist establishes a non-disturbance buffer, if needed.	1. Prior to the start of construction. 2. During construction, if needed. 3. During construction, if needed.	

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Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
• Prior to project implementation, a qualified biologist knowledgeable in the identification of Crotch bumble bee shall conduct a pre-construction survey for nesting Crotch bumble bees. Surveys shall focus on burrows and, when feasible, shall be conducted during the period of highest detection probability (April through August) for this species. • If no state-listed bumble bee nests are detected during the survey, Proposed Project activities may proceed. • If state-listed bumble bee nests are detected, the qualified biologist shall establish a non-disturbance buffer around the nest (at least 10 feet) and no ground-disturbing activities shall occur within the buffer until the qualified biologist determines that the nest is no longer active.		3. Ensure biologist notifies contractor when ground-disturbing activities can resume within the buffer area.		
BIO-10. Develop and Implement Revegetation Plan in Riparian Habitat and Sensitive Natural Communities Disturbed during Construction CDFW, Before construction begins, DGS or its contractor(s) shall retain a qualified biologist to develop a Revegetation Plan to be implemented in riparian habitat and sensitive nature communities disturbed during construction. As	1. Revegetate disturbed soils. 2. Replace any plants of native woody species. 3. N/A	1. DGS to ensure that the contractor(s) revegetate to measure specifications in Revegetation Plan and LSAA.	1. Following the completion of construction. 2. Following the completion of construction.	

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Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
part of the Revegetation Plan, the biologist and/or contractor will survey, map, identify, and measure the diameter at breast height (dbh) of native woody plants 4 inches dbh or larger that would be damaged or removed during construction. The Revegetation Plan will be reviewed and approved by DGS and CDFW and shall be consistent with requirements of the LSAA. upon completion of construction, disturbed soils within areas of native vegetation shall be revegetated with site-appropriate native species to limit subsequent encroachment of non-native weeds. In accordance with the Revegetation Plan and as required by the LSAA, any native woody plant species of 4 inches dbh or greater within riparian habitat or sensitive natural communities that are damaged or removed as a result of construction activity shall be replaced at a 1:1 ratio; this ratio will increase to 3:1 for native trees of 24 inches dbh and greater. Replaced woody plant species shall be maintained and monitored to ensure a minimum of 65 percent survival of woody plantings after 3 years.		2. DGS to ensure the replacement of any plants of native woody species per measure specifications in Revegetation Plan and LSAA. 3. CDFW to facilitate/ ensure monitoring to achieve specified survival rate of woody plant species in accordance with specifications in Revegetation Plan and LSAA.	3. Following the completion of construction.	

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Cultural Resources

Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
CR-1. Conduct Cultural Resources Awareness Training, Provide Tribal and Archaeological Monitors during All Ground-Disturbing Activities, and Immediately Halt Construction if Cultural Resources Are Discovered, Evaluate All Identified Cultural Resources for Eligibility for Inclusion in the California Register of Historical Resources (CRHR)/ National Register of Historic Places (NRHP), and Implement Appropriate Mitigation Measures for Eligible Resources. Locations along river banks are generally considered sensitive for the presence of buried archaeological sites, and the two previously recorded BRM sites attest to the use of the area by indigenous communities. As a result, it is important that project construction workers be aware of the potential to discover buried cultural resources, know what kinds of items could be unearthed, and be prepared to stop work and follow established protocols for reporting the finds. To this end, the State shall require of construction contractors that preconstruction cultural resources awareness training will be provided to construction workers and their supervisors prior to ground-disturbing activities. The training will be developed and conducted in coordination with a qualified archaeologist meeting the U.S. Secretary of the Interior's	1. Attend cultural resources awareness training. 2. If any cultural resources are discovered, halt construction immediately within 100 feet of the find, and contact the State. 3. Do not resume construction in the vicinity of the finds until clearance is given by the State.	1. Retain a qualified archaeologist. 2. Confirm that any discoveries of archaeological finds are evaluated and addressed properly in accordance with the mitigation measure. 3. Provide clearance for construction activities to resume once appropriate.	1. Prior to construction 2. During construction, if necessary 3. Following any cultural resource discovery.	

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Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
guidelines for professional archaeologists; a representative from a culturally affiliated Native American tribe may also be invited to participate in the training. The program will include relevant information regarding sensitive cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The preconstruction cultural resources awareness program will also describe appropriate avoidance and minimization measures for resources that have the potential to be located on the project site and will outline what to do and whom to contact if any potential archaeological resources or artifacts are encountered. The program will underscore the requirement for confidentiality and culturally appropriate treatment of any finds of significance to Native Americans, consistent with Native American tribal values. Because of the sensitivity of the project area for buried Native American resources, tribal and archaeological monitors shall be present for all ground disturbing activities during construction. The State, or its representatives, will work directly with the Kern Valley Indian Community to provide a tribal monitor, who will be given at least seven days' notice prior to the initiation of ground disturbing activities. The archaeological monitor				

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Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
will record activities daily and a weekly summary will be provided to DGS. If any cultural resources, such as structural features, unusual amounts of bone or shell, flaked or ground stone artifacts, historic-era artifacts, human remains, or architectural remains, are encountered during any project-related construction activities, work shall be suspended immediately at the location of the find and within a radius of at least 50 feet, and the State will be contacted. If materials are discovered on United States Forest Service (USFS) lands, the Kern River Ranger District archaeologist shall be notified. Work will not resume until a qualified archaeologist and a Native American representative from a traditionally and culturally affiliated tribe, as appropriate, can assess the significance of the find and make recommendations for further evaluation and treatment as necessary. All cultural resources accidentally uncovered during construction within the project site that cannot be avoided shall be evaluated for eligibility for inclusion in the CRHR/NRHP. Resource evaluations will be conducted by individuals who meet the U.S. Secretary of the Interior's professional standards in archaeology, history, or architectural history, as appropriate. For finds that are of Native American concern,				

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Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
local Native American tribes will be notified, if they have requested notification. If any of the resources meet the eligibility criteria identified in Public Resources Code (Pub. Res. Code) Section 5024.1 or Section 21083.2(g), mitigation measures will be developed and implemented in accordance with California Environmental Quality Act (CEQA) Guidelines Section 15126.4(b) before construction resumes. Similar actions will be taken for resources that meet the NRHP eligibility criteria pursuant to 36 CFR 60.4 discovered on USFS lands. Mitigation measures for archaeological resources may include (but are not limited to) avoidance; incorporation of sites within parks, green space, or other open space; capping the site; deeding the site into a permanent conservation easement; or data recovery excavation. Mitigation measures for archaeological resources shall be developed in consultation with responsible agencies and, as appropriate, interested parties such as Native American tribes. Native American consultation is required if an archaeological site is determined to be a tribal cultural resource (TCR). Implementation of the approved mitigation would be required before resuming any construction activities with potential to affect identified eligible resources at the site.				

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Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
CR-2. Erect Exclusionary Fencing to Protect Known Archaeological Resources. Native American sites P-15-002517 and P-15-014890 are located in close proximity to the project APE. Neither site has been evaluated for CRHR/NRHP eligibility. Nevertheless, to ensure that the sites are not damaged by construction, the State shall require construction contractors to protect the sites with exclusionary fencing. If the potential staging area located between Sierra Way and the SCE access road is not selected for use, site P-15-002517 will not require exclusionary fencing. Fencing will be required for P-15-014890 in all instances.	1. Install exclusionary fencing for site P-15-014890, and for site P-15-002517, if needed.	1. Ensure the contractor installs exclusionary fencing.	1. Prior to the start of construction	
CR-3. Immediately Halt Construction if Human Remains Are Discovered and Implement Applicable Provisions of the California Health and Safety Code Section 7050.5 If human remains are accidentally discovered during the Proposed Project's construction activities, the requirements of California Health and Safety Code Section 7050.5 shall be followed. Potentially damaging excavation shall halt on the project site within a minimum radius of 100 feet of the remains, and the County coroner shall be notified. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state	1. Halt excavation on the project site within a minimum radius of 100 feet of the remains if human remains are discovered and contact the County coroner. 2. N/A 3. N/A	1. Confirm that any discoveries of archaeo-logical finds are evaluated and addressed properly in accordance with the mitigation measure.	1. During construction, if necessary. 2. During construction, if necessary 3. Following any human remains discovery	

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Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
lands (California Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (California Health and Safety Code Section 7050[c]). Pursuant to the provisions of Public Resources Code Section 5097.98, the NAHC shall identify a Most Likely Descendent (MLD). The MLD designated by the NAHC shall have at least 48 hours to inspect the site and propose treatment and disposition of the remains and any associated grave goods. The State shall work with the MLD to ensure that the remains are removed to a protected location and treated with dignity and respect. Native American human remains may also be determined to be TCRs. The County coroner will contend with the human remains if they are not of Native American origin. If Native American human remains are discovered on lands under the jurisdiction of the USFS, the USFS Kern River District archaeologist will be notified and the requirements of Native American Graves Protection and Repatriation Act (NAGPRA) will be fulfilled in consultation with the USFS and local Native American tribes.		2. Provide clearance for construction activities to resume once appropriate. 3. Work with the MLD to ensure that remains are removed to a protected location and treated with dignity and respect, if encountered.		

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Energy

Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
None required				

Geology, Soils, and Seismicity

Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
GEO-1. Halt Construction if Paleontological Resources Are Discovered, Evaluate Discoveries for Uniqueness, and Implement Appropriate Mitigation Measures for Unique Resources. The State of California (DGS) and its contractors shall implement the following procedures if paleontological resources are discovered during construction activities: • Stop work immediately within 50 feet. • Contact DGS immediately. • Protect the site from further impacts, including looting, erosion, or other human or natural damage. • A paleontological resources principal investigator who meets the standards set forth by the Society of Vertebrate Paleontology will be retained to evaluate the discovery and make a recommendation to DGS as to whether	1. Comply with all listed procedures if paleontological discoveries are made during work activities. 2. Notify DGS and Kern County of any discoveries. 3. Comply with any recommended protection measures, if needed. 4. N/A	1. Retain qualified archaeologist to monitor work activities to ensure contractor compliance with listed measure specifications. 1. N/A 2. Retain a qualified paleontological specialist to evaluate the discovery and recommend protection measures, if needed.	1. During construction, if needed. 2. During construction, if needed. 3. During construction, if needed. 1. During construction, if needed.	

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Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
or not it is a unique paleontological resource. • If the resource is not a unique paleontological resource, then it will be documented appropriately, and no further measures will be required. • If the resource is a unique paleontological resource, the principal investigator, in consultation with DGS, will recommend resource-specific measures to protect and document the paleontological resource, such as photo documentation and avoidance or collection. • If collection is necessary, the fossil material will be properly prepared in accordance with SVP guidelines and/or curation at a recognized museum repository. Appropriate documentation will be included with all curated materials.		3. Ensure any resource collection is handled and prepared properly in accordance with SVP guidelines and is correctly documented.		

Greenhouse Gas Emissions

Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
None required				

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Hazards and Hazardous Materials

Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
HAZ-1. Hazardous Materials Spill Prevention and Containment. The following measures shall be implemented prior to and during construction and shall be incorporated into project plans and specifications: • All equipment shall be inspected by the contractor for leaks prior to the start of construction and regularly throughout Project construction. Leaks from any equipment shall be contained and the leak remedied before the equipment is again used on the site. • BMPs for spill prevention shall be incorporated into Project plans and specifications and shall contain measures for secondary containment and safe handling procedures. • A spill kit shall be maintained on site throughout all construction activities and shall contain appropriate items to absorb, contain, neutralize, or remove hazardous materials stored or used in large quantities during construction.	1. Comply with all listed measures.	1. Ensure that listed measures are included in contract.	1. Prior to the start of construction and during construction.	

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Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
• Project plans and specifications shall identify construction staging areas and designated areas where equipment refueling, lubrication, and maintenance may occur. Areas designated for refueling, lubrication, and maintenance of equipment shall be approved by the State. • In the event of any spill or release of any chemical or wastewater during construction, the contractor shall immediately notify the State. • Hazardous substances shall be handled in accordance with Title 22 of the California Code of Regulations, which prescribes measures to appropriately manage hazardous substances, including requirements for storage, spill prevention and response and reporting procedures.				

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Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
AQ-1. Prepare and Implement a Construction Fugitive Dust Control Plan See "Air Quality" above.				
TR-1. Prepare and Implement a Construction Traffic Management Plan. See "Transportation" below.				
WF-1. Implement Fire Suppression Measures during Construction. See "Wildfire" below.				

Hydrology and Water Quality

Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
HAZ-1. Hazardous Materials Spill Prevention and Containment. See "Hazards and Hazardous Materials" above.				

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Land Use and Planning

Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
TR-1. Prepare and Implement a Construction Traffic Management Plan. See "Transportation" below.				

Mineral Resources

Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
None required				

Noise

Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
None required				

Population and Housing

Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
None required				

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Public Services

Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
WF-1. Implement Fire Suppression Measures during Construction. See "Wildfire" below.				
TR-1. Prepare and Implement a Construction Traffic Management Plan. See "Transportation" below.				

Recreation

Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
None required.				

Transportation

Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
TR-1. Prepare and Implement a Construction Traffic Management Plan. The State of California (DGS) shall require that the construction contractor(s) prepare and implement a construction traffic management plan to manage traffic flow during construction, reduce potential interference with local	1. Prepare and implement a construction traffic management plan.	1. N/A. 2. Ensure contractor compliance with the plan.	1. Prior to the start of construction and during construction. 2. During construction.	

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Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
emergency response plans, reduce potential traffic safety hazards, and ensure adequate access for emergency responders. DGS and/or the construction contractor(s) will ensure that the plan is implemented during construction. The plan will include, but not be limited to, the following measures: • Identify construction truck haul routes and timing to limit conflicts between truck and automobile traffic on nearby roads. The identified routes will be designed to minimize impacts on vehicular and pedestrian traffic, circulation, and safety. • Provide signage indicating the access route. • Coordinate construction activities to ensure that one travel lane remains open at all times, unless flaggers or temporary traffic controls are in place, to provide emergency access. • Evaluate the need to provide flaggers or temporary traffic control on Sierra Way to assist trucks in accessing the roadway with minimal disruption of traffic. • Document road pavement conditions before and after Project construction. Make provisions to monitor the condition	2. Comply with all traffic management plan measures during construction.			

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Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
of roads used for haul routes so that any damage or debris attributable to haul trucks can be identified and corrected. Roads damaged by construction vehicles shall be repaired to their preconstruction condition.				

Tribal Cultural Resources

Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
CR-1. Conduct Cultural Resources Awareness Training, Provide Tribal and Archaeological Monitors during All Ground-Disturbing Activities, and Immediately Halt Construction if Cultural Resources Are Discovered, Evaluate All Identified Cultural Resources for Eligibility for Inclusion in the CRHR/NRHP, and Implement Appropriate Mitigation Measures for Eligible Resources. See “Cultural Resources” above.				
CR-2. Erect Exclusionary Fencing to Protect Known Archaeological Resources. See “Cultural Resources” above.				

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Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
CR-3. Immediately Halt Construction if Human Remains Are Discovered and Implement Applicable Provisions of the California Health and Safety Code Section 7050.5. See "Cultural Resources" above.				

Utilities and Service Systems

Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
None required				

Wildfire

Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
WF-1. Implement Fire Suppression Measures during Construction DGS shall require the following measures to be implemented during construction activities at the project site: • All earthmoving and portable equipment with internal combustion engines will be equipped with spark arrestors. • During the high fire danger period (April 1–December 1), work crews will:	1. Comply with all listed fire suppression measures.	1. Ensure contractor complies with all listed fire suppression measures are included in contract.	1. During Construction	

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Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
○ Have appropriate fire suppression equipment available at the work site. ○ Keep flammable materials, including flammable vegetation slash, at least 10 feet away from any equipment that could produce a spark, fire, or flame. ○ Not use portable tools powered by gasoline-fueled internal combustion engines within 25 feet of any flammable materials unless a round-point shovel or fire extinguisher is within immediate reach of the work crew (no more than 25 feet away from the work area).				

Cumulative Impacts

Mitigation Measures	Contractor Responsibility	State Responsibility	Monitoring Schedule	Completion Date and Initials
None identified.				

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