

PUBLIC REVIEW DRAFT
INITIAL STUDY/
MITIGATED NEGATIVE DECLARATION

FOR THE

CPUD RECYCLE BACKWASH PROJECT
1601 W. Forty Road, Mokelumne Hill, CA

November 2024

Prepared for:

Calaveras Public Utility District
506 W. St. Charles Street
San Andreas, CA 95249

Prepared by:

BaseCamp Environmental, Inc.
802 W. Lodi Avenue
Lodi, CA 95240



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Prepared for:

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506 W. ST. CHARLES STREET
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NOTICE OF INTENT TO ADOPT MITIGATED NEGATIVE DECLARATION

Notice is hereby given that the Calaveras Public Utility District (CPUD) has prepared an Initial Study (IS) of environmental effects and intends to adopt a Mitigated Negative Declaration (MND) for the CPUD Recycle Backwash Station project. The CPUD is the Lead Agency for this project under the California Environmental Quality Act (CEQA).

The project would involve constructing a backwash recycle pump station and force main pipeline from the existing backwash ponds at the existing CPUD Water Treatment Plant to a new diffuser structure in Jeff Davis Reservoir. The pump station would occupy approximately 49.35 square feet and would be entirely located on the WTP property. No additional property would need to be acquired.

The IS/MND analyzes the potential environmental effects of the project in accordance with CEQA and the State CEQA Guidelines. Based on this analysis, the IS/MND finds that the project will not involve any significant environmental effects, provided that the mitigation measures described in the IS/MND are implemented. The CPUD has agreed to the mitigation measures and these measures will be adopted by the CPUD Board of Directors. There are no sites identified under Section 65962.5 of the Government Code located on or near the project site.

The IS/MND is available for public review at Calaveras Public Utility District at the address shown below and at the CPUD's website:

<https://www.cpubd.org/cpubd-system-work-and-news>

The CPUD will accept public and agency comments on the IS/MND during a 30-day review period that will begin on November 7, 2024 and end on December 9, 2024. Comments may be submitted by mail or e-mail as shown below:

Calaveras Public Utility District
506 W. St. Charles Street
San Andreas, CA 95249
info@cpud.org

After completion of the public review, the CPUD Board of Directors will consider adoption of the IS/MND and approval of the proposed project at their regularly scheduled meeting on December 17, 2024, at 5:00 p.m. at the address shown above.

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LIST OF ACRONYMS AND ABBREVIATIONS USED IN THIS DOCUMENT

AB	Assembly Bill
ARB	California Air Resources Board
BMP	Best Management Practice
CalEEMod	California Emissions Estimator Model
Cal Fire	California Department of Forestry and Fire Protection
CCAPCD	Calaveras County Air Pollution Control District
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CNDDDB	California Natural Diversity Database
CO ₂ e	carbon dioxide equivalent
CPUD	Calaveras Public Utility District
dBA	A-weighted decibels
EIR	Environmental Impact Report
EPA	U.S. Environmental Protection Agency
ESA	Environmentally Sensitive Area
FEMA	Federal Emergency Management Agency
GHG	greenhouse gas
IS/MND	Initial Study/Mitigated Negative Declaration
NO _x	nitrogen oxide
PM ₁₀	particulate matter 10 microns or less in diameter
RCEM	Road Construction Emissions Model
ROG	reactive organic gas
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SR	State Route
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
USFWS	U.S. Fish and Wildlife Service
VMT	vehicle miles traveled
WTP	Water Treatment Plant

MITIGATED NEGATIVE DECLARATION

A. General Project Information

Project Title:	CPUD Recycle Backwash
Lead Agency Name and Address:	Calaveras Public Utility District 506 W. St. Charles Street San Andreas, CA 95249
Contact Person and Phone Number:	Tyla Daries, Project Engineer 209-754-1824
Project Location:	Jeff Davis Reservoir and Water Treatment Plant 1601 W. Forty Road, Mokelumne Hill, CA
Project Sponsor Name and Address:	Calaveras Public Utility District (CPUD) 506 W. St. Charles Street San Andreas, CA 95249
General Plan Designation:	Not applicable
Zoning:	Not applicable
Description of Project:	The pump station would be constructed in the existing backwash pond area. The pipeline would extend underground approximately 1,130 linear feet from the pump station along an existing access road to a diffuser structure to be constructed underwater in Jeff Davis Reservoir, where the backwash water would be discharged.
Surrounding Land Uses and Setting:	The project is located adjacent to the existing Jeff Davis Reservoir northeast of Mokelumne Hill. The existing Jeff Davis Water Treatment Plant at the reservoir treats water from the reservoir and transmits it to the CPUD potable water distribution system. The project vicinity is mainly forested land outside the immediate reservoir and treatment plant vicinity; there is little development aside from the reservoir.
Other Public Agencies Whose Approval is Required:	State Water Resources Control Board (approval of environmental package), Calaveras County (grading permit), Calaveras County Air Pollution

Control District (Fugitive Dust Prevention and Control Plan approval), Central Valley Regional Water Quality Control Board (Construction General Permit).

Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, has consultation begun?

No tribes have requested consultation. See Appendix C regarding tribal outreach.

B. Environmental Factors Potentially Affected

The environmental factors checked below may be significantly affected by this project, involving at least one impact that is a “Potentially Significant Impact” prior to mitigation. Mitigation measures that would avoid potential effects or reduce them to a less than significant level have been prescribed for each of these effects, as described in the checklist and narrative on the following pages, and in the Summary Table at the end of Chapter 1.0.

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

C. Lead Agency Determination

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 and/or mitigation measures that would reduce potential effects to a less than significant level 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 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.

CALAVERAS PUBLIC UTILITY DISTRICT

Travis Small, General Manager

Date

1.0 INTRODUCTION

1.1 Project Brief

This document is an Initial Study/Mitigated Negative Declaration (IS/MND) for the CPUD Recycle Backwash Project (project). The project is northeast of the community of Mokelumne Hill in the unincorporated area of Calaveras County (Figures 1-1 through 1-4). The IS/MND has been prepared in compliance with the requirements of the California Environmental Quality Act (CEQA). For the purposes of CEQA, the Calaveras Public Utility District (CPUD) is the Lead Agency for the project.

The project proposes to construct a backwash recycle pump station and force main pipeline from the existing backwash storage at the Water Treatment Plant (WTP) to discharge and disperse backwash water into Jeff Davis Reservoir. Additionally, the project would include measures to improve the efficiency of the backwash ponds. The pump station would be installed at the location of the backwash ponds and would pump pond contents into the force main pipeline. The pipeline would extend underground approximately 1,130 linear feet from the pump station along an existing access road to a diffuser structure to be constructed within Jeff Davis Reservoir. The project and its CEQA document would require approval from the CPUD Board of Directors.

1.2 Purpose of Initial Study

CEQA requires that public agencies document and consider the potential environmental effects of the agency's actions that meet CEQA's definition of a "project." Briefly summarized, a "project" is an action that has the potential to result in direct or indirect physical changes in the environment. A project includes the agency's direct activities as well as activities that involve public agency approvals or funding. Guidelines for an agency's implementation of CEQA are found in the CEQA Guidelines (California Code of Regulations Title 14, Division 6, Chapter 3).

Provided that a project is not exempt from CEQA, the first step in the agency's consideration of its potential environmental effects is the preparation of an Initial Study. The purpose of an Initial Study is to determine whether the project would involve "significant" environmental effects, as defined by CEQA, and to describe any feasible mitigation measures that would avoid significant effects or reduce them to a level that is less than significant. If the Initial Study does not identify significant effects, then the agency ordinarily prepares a Negative Declaration. If the Initial Study notes significant effects but also identifies mitigation measures that would reduce these significant effects to a level that is less than significant, then the agency ordinarily prepares a Mitigated Negative Declaration. If a project involves significant effects that cannot be readily mitigated, then the agency must prepare an Environmental Impact Report. The agency may also decide to proceed directly with the preparation of an Environmental Impact Report without first preparing an Initial Study.

The proposed project is a “project” as defined by CEQA and is not exempt from CEQA consideration. The CPUD has determined that the project may potentially have significant environmental effects and therefore requires preparation of an Initial Study. This Initial Study describes the proposed project and its environmental setting, discusses the potential environmental effects of the project, and identifies feasible mitigation measures that would eliminate any potentially significant environmental effects of the project or reduce them to a level that would be less than significant. The Initial Study considers the project’s potential for significant environmental effects in the following subject areas:

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

This Initial Study concludes that the project would have potentially significant environmental effects, but that recommended mitigation measures would reduce all of these effects to a level that would be less than significant. As of the distribution of the IS/MND for public review, the CPUD has accepted and will implement all the mitigation measures recommended by the Initial Study. As a result, the CPUD has prepared a Mitigated Negative Declaration and notified the public of the CPUD’s intent to adopt the Initial Study/Mitigated Negative Declaration. A copy of the CPUD’s Notice of Intent, which indicates the time available for comment, is inside the cover of this document.

1.3 Project Background

The CPUD is a publicly-owned utility formed in 1934 to provide potable water to the communities of San Andreas and Mokelumne Hill and to outlying areas. It is governed by a Board of Directors with five elected members. The CPUD’s open canals and reservoirs were replaced in 1970 with the current system, consisting of a pump station on the South Fork of the Mokelumne River, the 2,000-acre foot Jeff Davis Reservoir, storage tanks in Mokelumne Hill and San Andreas, and 20 miles of connecting pipeline. A system to serve the community of Paloma was added in 1977, and a water system to serve the Railroad Flat/Glencoe area was added in 2004. CPUD pumps more than 450 million gallons of water per year for the nearly 2,000 customers in the 35-square-mile district, serving a population of almost 5,000 people.

The CPUD’s current water treatment process takes raw water by a pump station located at the confluence of the South Fork Mokelumne River and Licking Fork Creek. Water is

pumped from this location to Jeff Davis Reservoir, from which water is fed to the WTP, located at the base of the reservoir's dam. Water treatment consists of pre-chlorination, coagulation of particulate contaminants using polymeric coagulation agent, pressure filtration, post-chlorination, and corrosion control. Treated water is piped to an on-site clearwell until it is ready to be sent to the water distribution system.

The WTP treatment process includes six gravity-flow media filters that require backwashing, the timing of which depends on demand and water quality. "Backwashing" is a cleaning process that reverses water flow through filter media, which removes particulate matter, relieves any bed compression, and allows trapped gases in the filters to escape. The filters are backwashed simultaneously, and all backwash water is routed to two onsite settling ponds that work in series to settle sediments in the water. In the summer, settling time is every 24 hours; outside of summer, it may be every 48 hours (Tyla Daries electronic mail). From the settling ponds, the backwash water is currently discharged into an unnamed downstream watercourse, from which it flows into Wet Gulch before eventually discharging into the South Fork Mokelumne River. Approximately 28 million gallons per year of backwash water are discharged into the unnamed watercourse.

Over time, the settling ponds have become less effective due to several factors, including changes to the treatment. Because of this, the need for backwashing has increased and the quality of discharge to the unnamed watercourse has decreased. An engineering report prepared for the CPUD recommended the proposed project, which would recycle and disperse the backwash water in Jeff Davis Reservoir. The report stated that the regional area and entities dependent on flow of the Mokelumne River would benefit, as the CPUD's demand on the river source will be reduced by approximately 28 million gallons per year. Additionally, since backwash water would not be discharged into the unnamed watercourse, the region will benefit from improved downstream water quality (Weber, Ghio and Associates 2023).

The CPUD is working with the State Water Resources Control Board (SWRCB) to obtain funding for the project through the Drinking Water State Revolving Fund (DWSRF). The DWSRF is funded in part with federal money. Because of the involvement of federal funding, the project will also be subject to review under the National Environmental Policy Act (NEPA). NEPA review will be conducted separately from this CEQA environmental review.

1.4 Environmental Evaluation Checklist Terminology

The project's potential environmental effects are evaluated in the Environmental Evaluation Checklist presented in Chapter 3.0 of this IS/MND. The checklist includes a list of environmental considerations against which the project is evaluated. For each question, the CPUD determines whether the project would involve 1) a Potentially Significant Impact, 2) a Less Than Significant Impact with Mitigation Incorporated, 3) a Less Than Significant Impact, or 4) No Impact.

A Potentially Significant Impact occurs when there is substantial evidence that the project would involve a substantial adverse change to the physical environment,

i.e., the environmental effect may be significant, and mitigation measures have not been defined that would reduce the impact to a level that would be less than significant. If there is a Potentially Significant Impact entry in the Initial Study, then an EIR is required. No Potentially Significant Impacts are identified in this Initial Study.

An environmental effect that is Less Than Significant with Mitigation Incorporated is a Potentially Significant Impact that can be avoided or reduced to a level that is less than significant with the application of defined mitigation measures.

A Less Than Significant Impact occurs when the project would involve an environmental impact, but the impact would not cause a substantial adverse change to the physical environment that would require mitigation.

A determination of No Impact is self-explanatory.

This IS/MND identifies certain potentially significant environmental effects that would be mitigated by implementation of existing provisions of law and standards of practice related to land use planning and environmental protection. Such provisions are identified and considered in the environmental impact analysis, and the degree to which they would reduce potential environmental effects is discussed. These protections are considered part of the existing regulatory environment and are assumed to counter the potential environmental effects of the project as discussed. The need for additional mitigation measures described in this Initial Study occurs when such existing environmental protections are not adequate to avoid potential environmental effects or to reduce them to a level that is less than significant.

1.5 Summary of Environmental Effects and Mitigation Measures

Table 1-1, which follows Figure 1-4, summarizes the results of the environmental analysis contained in the Environmental Evaluation Checklist in Chapter 3.0 of this IS/MND. The potential environmental impacts of the proposed project are listed in the left-most column of this table. The level of significance of each impact is indicated in the second column. Feasible mitigation measures that are considered necessary to avoid or minimize the impacts are shown in the third column, and the significance of the impact after mitigation measures are applied is shown in the fourth column.

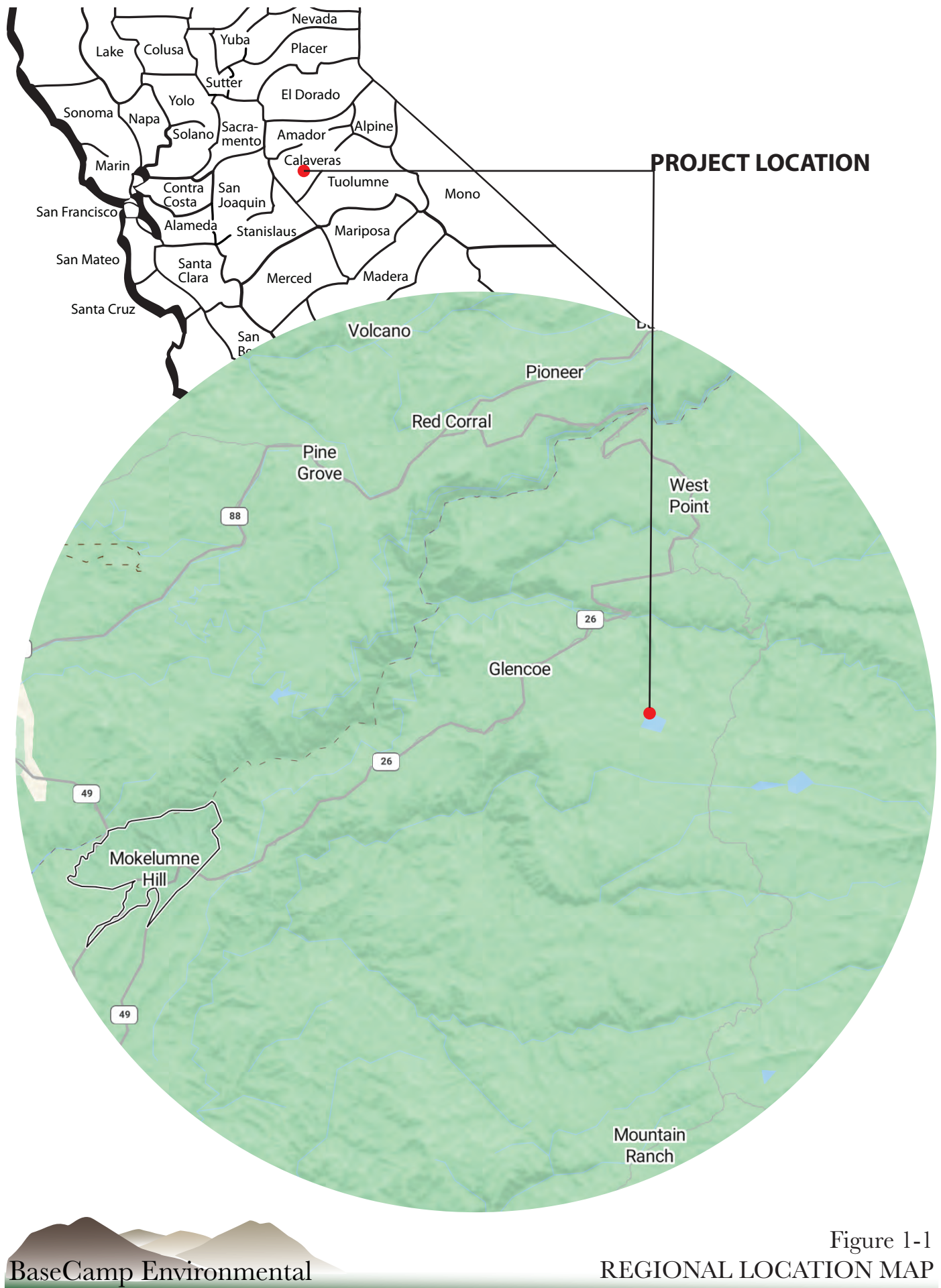
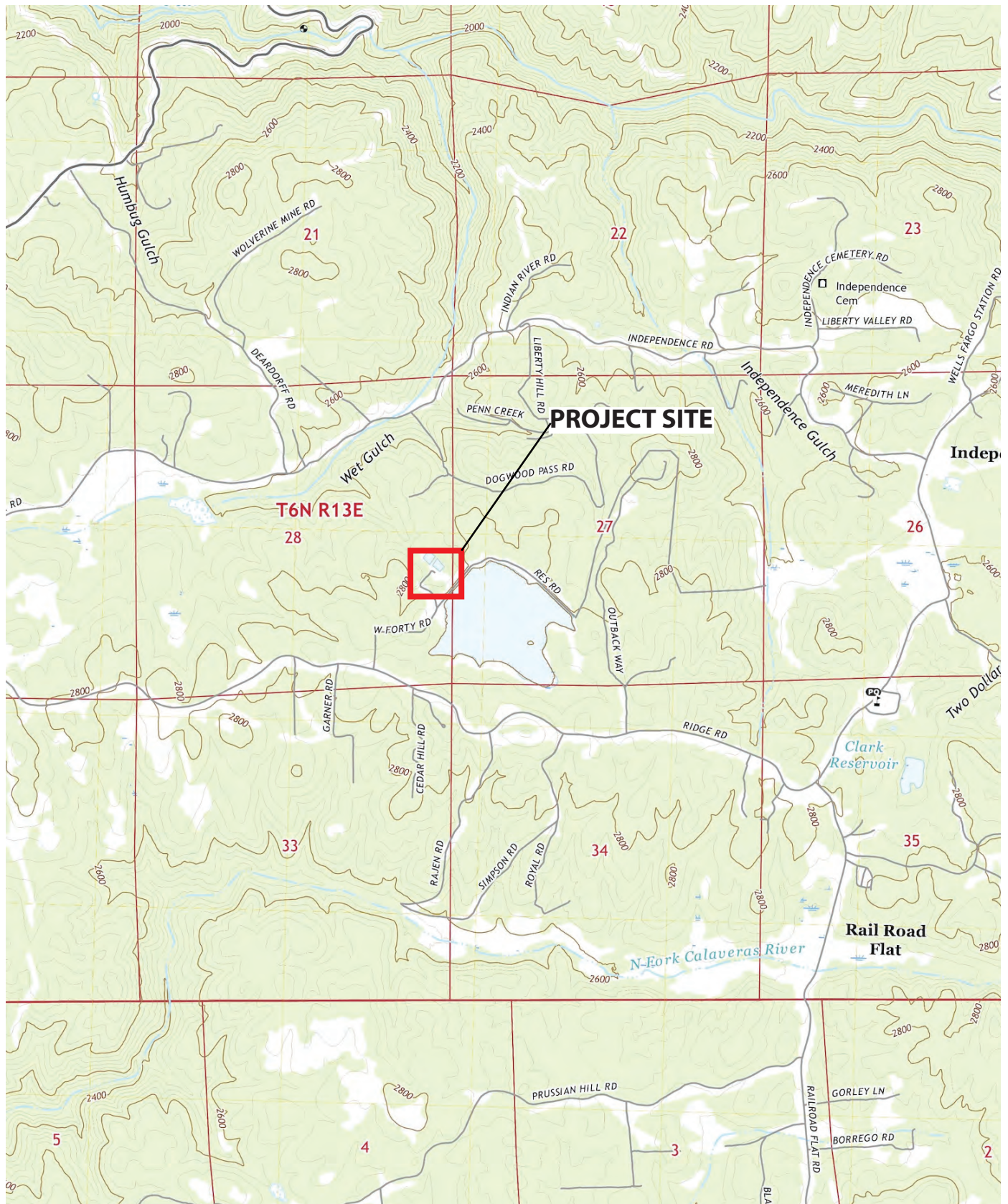


Figure 1-1
REGIONAL LOCATION MAP



SOURCE: USGS Quadrangle Map, Railroad Flat CA 2021



SOURCE: Google Earth

NOTE: SEE FIGURE 2-1 FOR DETAIL

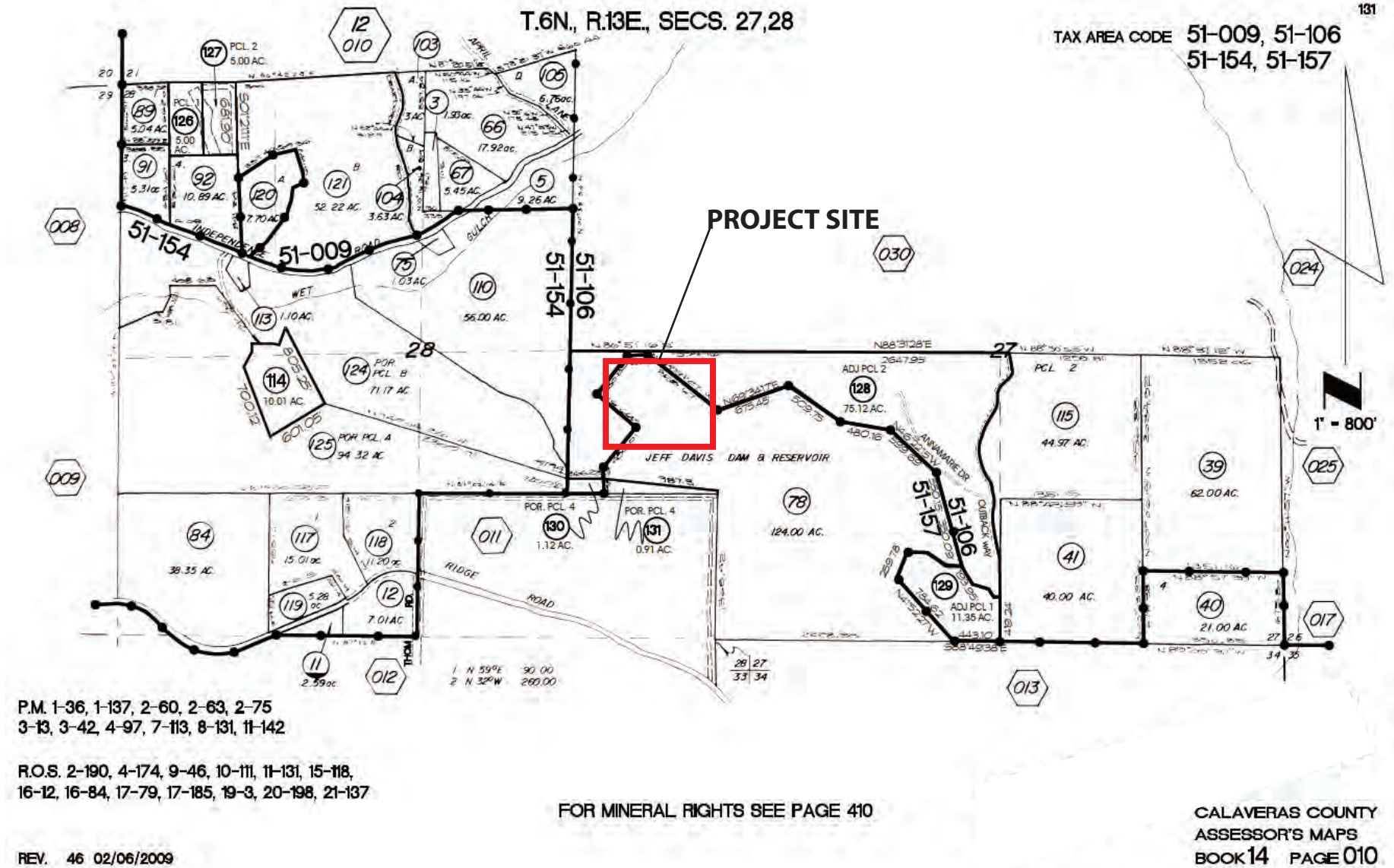


TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
3.1 AESTHETICS			
a) Scenic Vistas	NI	None required.	-
b) Scenic Routes and Resources	NI	None required.	-
c) Visual Character and Quality	LS	None required.	-
d) Light and Glare	NI	None required.	-
3.2 AGRICULTURE AND FORESTRY RESOURCES			
a) Agricultural Land Conversion	NI	None required.	-
b) Agricultural Zoning and Williamson Act	NI	None required.	-
c) Forest Land Zoning	NI	None required.	-
d) Forest Land Conversion	NI	None required.	-
e) Indirect Conversion of Farmland and Forest Land	NI	None required.	-
3.3 AIR QUALITY			
a) Air Quality Plan Consistency	LS	None required.	-
b) Cumulative Emissions	NI	None required.	-
c) Exposure of Sensitive Receptors	LS	None required.	-
d) Odors	NI	None required.	-
3.4 BIOLOGICAL RESOURCES			
a) Special-Status Species	PS	BIO-1: In the event construction commences between May 1 and October 1, pre-construction surveys for western pond turtle and their nests shall be conducted	LS

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
		within 48 hours prior to commencement of construction. This will involve a search by a qualified biologist for nests in uplands in and around the reservoir. It is recommended a 50-foot buffer area around the nest be staked and work will be delayed in the buffer area until hatching is complete and a qualified biologist confirms the young have left the nest site. BIO-2: If construction commences during the migratory bird nesting season (March 1 through July 31), a pre-construction survey for nesting birds is recommended. If active nests are found, work in the vicinity of the nests should be delayed until the young fledge.	
b) Riparian and Other Sensitive Habitats	NI	None required.	-
c) Wetlands and Waters of the U.S.	NI	None required.	-
d) Fish and Wildlife Movement	NI	None required.	-
e) Local Biological Requirements	NI	None required.	-
f) Conflict with Habitat Conservation Plans	NI	None required.	-
3.5 CULTURAL RESOURCES			
a) Historical Resources	NI	None required.	-
b) Archaeological Resources	PS	CULT-1: If buried cultural resources are inadvertently discovered during ground-disturbing activities, work shall stop within 30 feet of the find until a qualified archaeologist can assess the significance of the find. If necessary, the archaeologist will develop appropriate treatment measures in consultation with the Calaveras Public Utility District and other agencies as appropriate. Treatment measures may include, but are not limited to, preservation	LS

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures in place or excavation under supervision of a qualified archaeologist.	Significance After Mitigation Measures
c) Human Burials	LS	None required.	-
3.6 ENERGY			
a) Project Energy Consumption	LS	None required.	-
b) Consistency with Energy Plans	NI	None required.	-
3.7 GEOLOGY AND SOILS			
a-i) Fault Rupture Hazards	NI	None required.	-
a-ii) Seismic Ground Shaking	LS	None required.	-
a-iii) Other Seismic Hazards	NI	None required.	-
a-iv) Landslides	NI	None required.	-
b) Soil Erosion	LS	None required.	-
c) Unstable Soils	LS	None required.	-
d) Expansive Soils	LS	None required.	-
e) Adequacy of Soils for Wastewater Disposal	NI	None required.	-
f) Paleontological Resources and Unique Geologic Features	PS	GEO-1: If buried paleontological resources are inadvertently discovered during ground-disturbing activities, work shall stop within 30 feet of the find until a qualified paleontologist can assess the significance of the find. If necessary, the paleontologist will develop appropriate treatment measures in consultation with the Calaveras Public Utility District and other agencies as appropriate. Treatment measures may include, but are not	LS

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
		limited to, preservation in place or excavation under supervision of a qualified paleontologist.	
3.8 GREENHOUSE GAS EMISSIONS			
a) Project GHG Emissions	LS	None required.	-
b) Consistency with GHG Reduction Plans	NI	None required.	-
3.9 HAZARDS AND HAZARDOUS MATERIALS			
a) Hazardous Material Transport, Use and Storage	LS	None required.	-
b) Release of Hazardous Materials by Upset or Accident	LS	None required.	-
c) Hazardous Materials Releases near Schools	NI	None required.	-
d) Hazardous Materials Sites	NI	None required.	-
e) Airport Operations	NI	None required.	-
f) Emergency Response and Evacuation	NI	None required.	-
g) Wildland Fire Hazards	LS	None required.	-
3.10 HYDROLOGY AND WATER QUALITY			
a) Violation of Water Quality Standards	LS	None required.	-
b) Groundwater Supplies and Recharge	LS	None required.	-
c-i, ii, iii) Drainage Patterns and Runoff	NI	None required.	-
c-iv) Flood Flows	NI	None required.	-
d) Release of Pollutants in Flood Zone	NI	None required.	-

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
e) Conflict with Water Quality or Sustainable Groundwater Plans	LS	None required.	-
3.11 LAND USE AND PLANNING			
a) Division of Established Communities	NI	None required.	-
b) Conflict with Applicable Plans, Policies and Regulations Avoiding or Mitigating Environmental Effects	LS	None required.	-
3.12 MINERAL RESOURCES			
a, b) Loss of Mineral Resource Availability	NI	None required.	-
3.13 NOISE			
a) Exposure to Noise Exceeding Local Standards	LS	None required.	-
b) Groundborne Vibrations	LS	None required.	-
c) Exposure to Airport/Airstrip Noise	NI	None required.	-
3.14 POPULATION AND HOUSING			
a) Unplanned Population Growth	NI	None required.	-
b, c) Displacement of Housing and People	NI	None required.	-
3.15 PUBLIC SERVICES			
a-i) Fire Protection	NI	None required.	-
a-ii) Police Protection	NI	None required.	-
a-iii) Schools	NI	None required.	-
a-iv) Parks	NI	None required.	-

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
a-v) Other Public Facilities	NI	None required.	-
3.16 RECREATION			
a, b) Recreational Facilities	NI	None required.	-
3.17 TRANSPORTATION			
a) Conflict with Transportation Plans, Ordinances and Policies	NI	None required.	-
b) Conflict with CEQA Guidelines Section 15064.3(b)	NI	None required.	-
c) Traffic Hazards	NI	None required.	-
d) Emergency Access	NI	None required.	-
3.18 TRIBAL CULTURAL RESOURCES			
a-i, ii) Tribal Cultural Resources	PS	Mitigation Measure CULT-1.	LS
3.19 UTILITIES AND SERVICE SYSTEMS			
a) Construction or Relocation of Infrastructure	LS	None required.	-
b) Water Supply	NI	None required.	-
c) Wastewater Systems	NI	None required.	-
d, e) Solid Waste Services	NI	None required.	-
3.20 WILDFIRE			
a) Emergency Response and Emergency Evacuation Plans	NI	None required.	-
b) Exposure of Project Occupants to Pollutants	NI	None required.	-

TABLE 1-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation Measures	Mitigation Measures	Significance After Mitigation Measures
c) Installation and Maintenance of Infrastructure	NI	None required.	-
d) Risks from Runoff, Post-Fire Slope Instability, or Drainage Changes	NI	None required.	-
3.21 MANDATORY FINDINGS OF SIGNIFICANCE			
a) Findings on Biological and Cultural Resources	PS	Mitigation measures in Sections 3.4 and 3.5.	LS
b) Findings on Individually Limited but Cumulatively Considerable Impacts	NI	None required.	-
c) Findings on Adverse Effects on Human Beings	LS	None required.	-

Notes: NI = No Impact; LS = Less Than Significant; PS = Potentially Significant

2.0 PROJECT DESCRIPTION

2.1 Project Location

The project site is at the Jeff Davis Reservoir in Calaveras County, approximately nine miles northeast of the community of Mokelumne Hill (see Figures 1-1 through 1-4). The project site is shown on the U.S. Geological Survey's Rail Road Flat, California, 7.5-minute quadrangle map as within Sections 27 and 28, Township 6 North, Range 13 East, Mt. Diablo Base and Meridian. The latitude of the project site is approximately 38° 20' 38" North, and the longitude is approximately 120° 32' 32" West.

2.2 Project Details

The proposed project would involve constructing a backwash recycle pump station and force main pipeline from the existing backwash ponds to a new diffuser structure in Jeff Davis Reservoir (Figure 2-1). A detailed description of the project follows.

Backwash Recycle Pump Station

The project proposes the construction of a backwash recycle pump station between the two existing settling ponds on their northern side (Figure 2-2). The pump station would occupy approximately 49.35 square feet and would be entirely located on the WTP property. No additional property would need to be acquired.

The pump station would consist of two pumps, both inside precast concrete structures. One pump would provide capacity to accommodate precipitation from an average year, 24-hour storm plus the maximum daily backwash volume from one pond, the latter for design purposes estimated at 165,000 gallons (Tyla Daries electronic mail). The second pump would provide additional capacity to accommodate precipitation from a 100-year, 24-hour storm plus the maximum daily backwash volume for both ponds. For design purposes, this volume is approximately 315,593 gallons (Tyla Daries electronic mail).

Backwash water would be delivered to the pumps through a skimming inlet in each settling pond, with each inlet connected to the pump station by 40 linear feet of C900 pipe 12 inches in diameter. The water would be collected in a sump with the two submersible pumps secured at the bottom. Each pump would have 2.8 horsepower and would operate on an electrical current of 4.1 amperes. The design flow for each pump would be 315 gallons per minute (gpm), with a total flow of 630 gpm when both pumps are operating. Pumping would be regulated by float switches on a cable secured at the top and bottom, along with a pressure transducer.

Water from each pump would be sent out of the sump through a pipe containing a ball check valve and an isolation valve. The water from each pipe would be combined into one pipe that connects the pump station to the proposed force main pipeline. The flow in this

connecting pipeline would be regulated by a device containing a clean-out with a reducer and an isolation valve.

As noted, the pumps would operate on an electrical current. The project proposes to connect the pump station to existing electrical lines available at the WTP through the installation of 395 linear feet of electrical conduit. The conduit would be installed entirely within existing paved portions of the WTP site; no additional property would be affected. The electrical line within the conduit would connect to a control panel at the pump station.

Force Main Pipeline

The project proposes the installation of a force main pipeline that would extend approximately 1,130 linear feet. Pipeline construction would be confined to existing roadway or other CPUD property; no private or other public property would be affected.

The pipeline would be six inches in diameter and would consist of C 900 pipe. The pipeline would be laid along the northeast side of one of the settling ponds, then turn eastward and follow an access road located along the northern shore of Jeff Davis Reservoir. At approximately 1,050 linear feet from the pump station, the pipeline would make a sharp right turn and head to the reservoir. At the reservoir, the pipeline would connect to a diffuser structure constructed to reduce the energy of the discharge. The discharge would enter Jeff Davis Reservoir, becoming part of the water that would eventually be treated at the WTP and sent to CPUD customer.

The pipeline would be installed within a trench excavated along the pipeline route; the trench would be installed in a minimum of 12 inches of compacted bedding. The pipeline and bed in turn would be covered with compacted backfill and aggregate base material. It is expected that some of this backfill would be soil from trench excavation, while the aggregate base would most likely come from outside the project site. Total depth from the surface to the pipeline would be approximately 36 inches at minimum, with actual depth varying.

At the point where the pipeline turns from the access road toward the reservoir, a combination air/vacuum release valve would be installed. The release valve would ensure that any entrained air in the pipeline is automatically released to maximize pipeline performance. The release valve, installed inside a utility box, would remove air from the pipeline and release it through a small-diameter pipe extending upward from the valve. This pipe would be within an air valve enclosure.

Other Project Features

The project proposes to dredge the existing accumulated sludge from both settling ponds. The sludge is expected to be removed by a private firm with expertise in such removal. It is anticipated that the removed sludge would be applied to lands in accordance with federal and State regulations or would be taken to a landfill that is permitted to receive sludge. The project also proposes upgrading the existing electrical power connection between the electrical grid and the WTP to accommodate the power requirements of the pump station.

An existing steel storm drain, approximately 8 inches in diameter, was found between the new pipeline alignment and the property fence within 20 feet of the pipeline. This drain, which conveys collected drainage to a ditch at the base of the dam, is damaged and plugged. As a consequence, water overtops the area and scours the hill where the new force main is proposed. The project proposes to replace the storm drain with an armored V-ditch, which would be in the same location as the existing drain.

2.3 Permits and Approvals

The project would occur entirely on CPUD property. As such, the project and this IS/MND would require approval from the CPUD Board of Directors. The Board of Directors shall consider adoption of the IS/MND prior to its decision on the project.

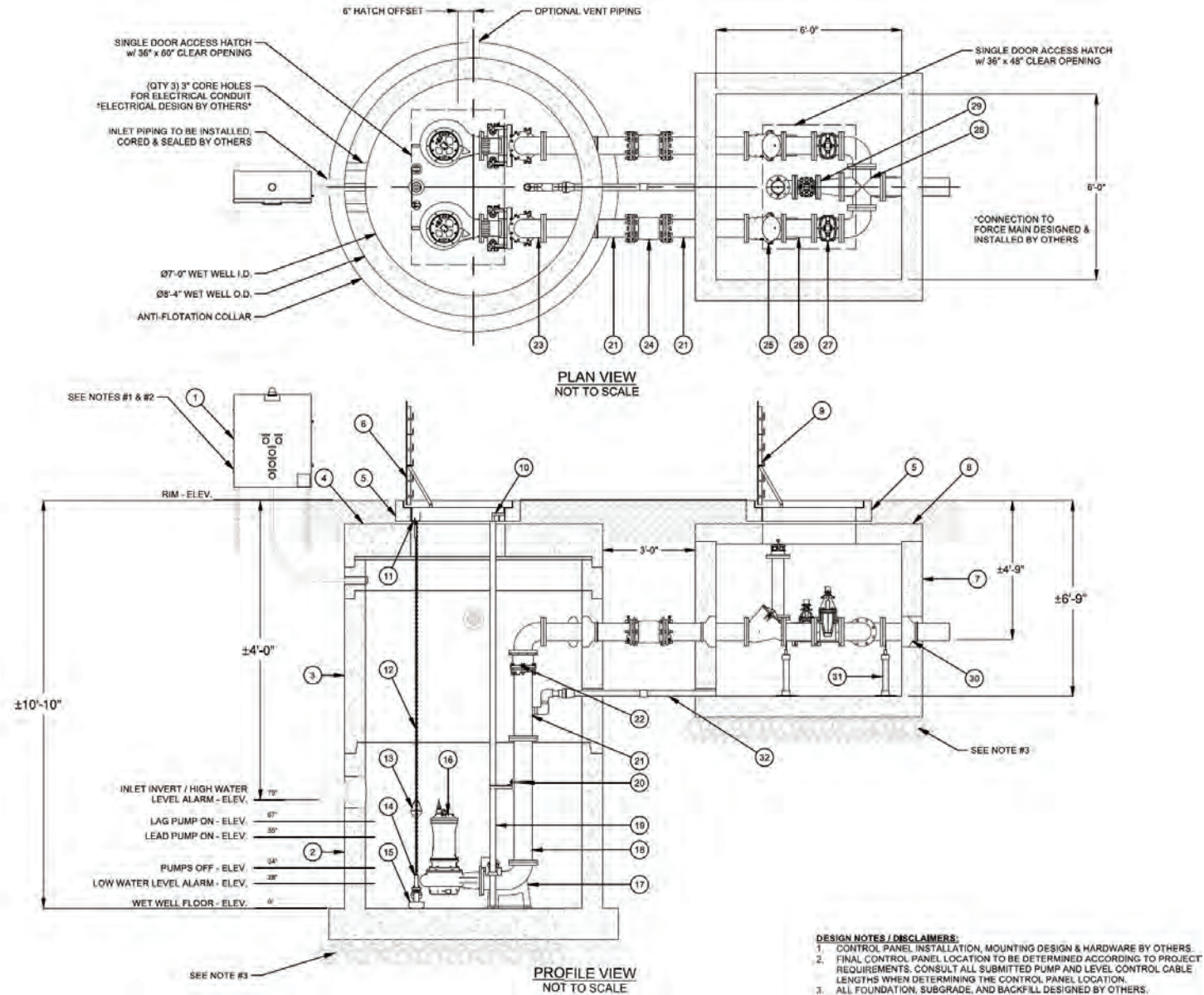
Should the project be approved, it is expected to require approvals or permits from other agencies. Specifically, the project would require a grading permit from Calaveras County and approval of a Fugitive Dust Prevention and Control Plan from the Calaveras County Air Pollution Control District (APCD).

It is anticipated that the project would be funded largely by the SWRCB through its Drinking Water State Revolving Fund (DWSRF) program. An application for DWSRF funding will be presented to the SWRCB, including an Environmental Package that evaluates the potential environmental impacts of the proposed project under CEQA and NEPA, along with a Technical Package and a Financial Security Package. The Environmental Package will include this IS/MND for purposes of compliance with CEQA and other information related to compliance with NEPA. The SWRCB must approve the application, and a finalized agreement must be executed before funding is disbursed. The SWRCB also has approval authority for a Construction General Permit that would apply to the project (see Section 3.7, Geology and Soils).



CPUD WATER TREATMENT PLANT

RECYCLE BACKWASH PROJECT EXHIBIT
10/1/2024



3.0 ENVIRONMENTAL EVALUATION CHECKLIST

The following environmental evaluation considers the potential environmental effects of City approval of the proposed project, as described in Chapter 2.0, Project Description. The format of this evaluation is based on the Environmental Checklist presented in CEQA Guidelines Appendix G.

3.1 AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	✓

Environmental Setting

The project site is at the Jeff Davis Reservoir and Water Treatment Plant, which are water supply facilities for CPUD. The facilities are in the Sierra Nevada foothills of northern Calaveras County, and the landscape is mostly forested. Very little development is found in this area, outside of small communities. Lighting on the project site is limited to exterior lighting for the purposes of safety, security, and emergencies.

Environmental Impacts and Mitigation Measures

a) Scenic Vistas.

The only scenic vista identified by the County consists of the Ebbetts Pass National Scenic Byway. The 58-mile stretch of State Route (SR) 4 and 89 known is in Calaveras and Alpine Counties. It includes 24 miles of road within Calaveras County from east of Arnold to the Alpine County line (Calaveras County 2018). The project site is located approximately 12 miles northwest of the Ebbetts Pass National Scenic Byway. No other designated scenic highways are in the project vicinity. The project would have no impact on scenic vistas.

b) Scenic Routes and Resources.

There are no officially designated scenic resources on the project site. The project is within a forested area that may be considered scenic. However, project construction would occur exclusively on the WTP and reservoir sites. No trees would be removed as a result of the project.

As noted in a) above, the Ebbetts Pass National Scenic Byway is a designated scenic highway in Calaveras County. The eastern portion of SR 4 in Calaveras County, which is part of the Ebbetts Pass byway, is also an officially designated State Scenic Highway (Caltrans 2019). As this segment of SR 4 is approximately 12 miles away and there are intervening foothills and forested land, the project site is not visible from this scenic highway. The project would have no impact on scenic resources or scenic highways.

c) Visual Character and Quality.

A recent change to the Environmental Checklist in CEQA Guidelines Appendix G emphasizes aesthetic and visual resource impacts on public views in non-urbanized areas. As defined in Appendix G, “public views” are views that are experienced from publicly accessible vantage points. Although not specifically defined, “publicly accessible vantage points” are assumed to include, though not necessarily limited to, public roads, parks, trails, and vista turnouts. The project is in a remote area with partially restricted access. The project site is not visible from any nearby publicly accessible vantage points, such as public roads.

The proposed pump station would be consistent with the existing landscape of the WTP, which is a water facility. Installation of the pipeline would involve trenching, which would temporarily affect the visual quality of the reservoir along its northern shore. The pipeline alignment would be restored to its pre-project condition upon completion of work, so there would be no permanent visual impacts. The existing visual landscape of the reservoir would be slightly altered with the installation of the diffuser structure, but the structure would not be of such a size that it would be a substantial visual intrusion on the landscape. Project impacts on visual character and quality would be less than significant.

d) Light and Glare.

The project does not propose the installation of lighting. Materials used by the project are not expected to generate glare, and in any case would not affect views from public roads

or from areas outside the project site. The project would have no impact related to light or glare.

3.2 AGRICULTURE AND FORESTRY RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	✓

Environmental Setting

The project is within a forested area of Calaveras County. Timberland in Calaveras County is under both public and private ownership and is concentrated in the eastern portion of the County generally at elevations above 2,500 feet. Timber production values have fluctuated widely in the County. In 1999, timber production represented more than half of the total agricultural production value countywide (Calaveras County 2019). However, in 2022, timber production value in the County was \$91,137, less than 0.5% of the total value of

agricultural production of Calaveras County and a 96% decrease from the 2021 value. One of the contributing factors of this decrease was brought on by lack of demand from the housing market (Calaveras County 2022).

The Important Farmland Maps, prepared by the California Department of Conservation as part of its Farmland Mapping and Monitoring Program, designate the viability of lands for farmland use, based on the physical and chemical properties of the soils. The maps categorize farmland as Prime Farmland, Unique Farmland, and Farmland of Statewide Importance. Collectively, these three categories are referred to as “Farmland” by CEQA Guidelines Appendix G. There are also designations for other agricultural land and for urban/built-up areas, among others. According to the 2020 Important Farmland Map of Calaveras County, the project is on land designated Urban and Built-Up Land, with the surrounding area designated as Grazing Land (FMMP 2020).

Environmental Impacts and Mitigation Measures

a) Farmland Conversion.

As noted, the project site is in an area with designations of Grazing Land and Urban and Built-Up land. CEQA Guidelines Appendix G defines Farmland as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. None of these designations apply to the project site or vicinity. The project would have no impact on Farmland conversion.

b) Agricultural Zoning and Williamson Act.

The project site and area surrounding Jeff Davis Reservoir is zoned RA-20, which is intended to be a zone that accommodates both residential and agricultural uses. Public works and utilities are allowed in the RA zone with a Conditional Use Permit. The project would be confined to the existing WTP and reservoir and would not interfere with any agricultural or forestry use.

The Williamson Act is State legislation that seeks to preserve farmland by offering property tax breaks to farmers who sign a contract pledging to keep their land in agricultural use. There are no lands in the area subject to Williamson Act contracts. The project would have no impact related to agricultural zoning or Williamson Act contracts.

c) Forest Land Zoning.

As noted in b) above, the project is within an RA zone, which allows for forestry activities by right. The RA zone also allows for public works and utilities. The project involves improvements to an existing water facility, so no new type of activity would be introduced that conflicts with the RA zone. The project would have no impact on forest land zoning.

d) Forest Land Conversion.

The project is within a forested area. However, the proposed facilities would be in an area that has already been developed with the Jeff Davis Reservoir and the WTP. It is expected that no trees would be required to be removed, and the existing forested area would remain

intact for future timber activities if they occur. The project would have no impact on forest land conversion.

e) Indirect Conversion of Farmland and Forest Land.

The project would involve improvements to an existing reservoir and WTP. As noted, there is no designated Farmland in the project vicinity, so the project would have no impact regarding indirect conversion of Farmland. As discussed in d) above, the project would not involve the removal of any trees. The project would not involve the installation of infrastructure, such as roads, that could encourage the conversion of the existing forested area to non-forest use. The project would have no impact on the indirect conversion of forest land.

3.3 AIR QUALITY

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

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable Air Quality Attainment 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?	☐	☐	☐	✓

Environmental Setting

Relatively few sources of air pollutant emissions are located within Calaveras County. However, air quality impacts occur through the transport of pollutants from the more developed Central Valley to the County. Therefore, while sources of emissions within the County may be limited, the transport of emissions from outside of the County can negatively impact air quality within the County. The most visible impacts to air quality

originating within the County are a result of open burning of vegetation related to property owners, industrial activities, and state agencies (Calaveras County 2018).

The Calaveras County Air Pollution Control District (CCAPCD) is responsible for protecting public health by managing the County’s air quality, and for achieving or maintaining ambient air quality standards set under both federal and California Clean Air Acts. Except for ozone and particulate matter less than 10 micrometers (PM₁₀), the Air Basin is in attainment of, or unclassified for, all federal and State ambient air quality standards. Ozone is not emitted directly into the air but is formed when reactive organic gases (ROG) and nitrogen oxides (NO_x) react in the atmosphere in the presence of sunlight. PM₁₀ is a mixture of solid and liquid particles suspended in air, including dust, pollen, soot, smoke, and liquid droplets.

In addition to the criteria pollutants, the ARB has identified other air pollutants as toxic air contaminants (TACs) - pollutants that are carcinogenic (i.e., cause cancer) or that may cause other adverse short-term or long-term health effects. Diesel particulate matter, considered a carcinogen, is the most common TAC, as it is a product of combustion in diesel engines. It is present at some concentration in all developed areas of the state. Other TACs are less common and are typically associated with industrial operations.

Environmental Impacts and Mitigation Measures

a) Air Quality Plan Consistency.

In order to evaluate air pollutant emissions from development projects, the CCAPCD established project-level significance thresholds for emissions of ROG, NO_x, and PM₁₀. The significance thresholds, expressed in pounds per day, serve as air quality standards in the evaluation of air quality impacts associated with proposed development projects. Thus, if a proposed project’s emissions exceed the CCAPCD thresholds, the projects could have a significant effect on regional air quality and attainment of federal and State ambient air quality standards. Table 3-1 shows the CEQA thresholds for significance for construction pollutant emissions within the CCAPCD.

TABLE 3-1
CCAPCD SIGNIFICANCE THRESHOLDS AND
PROJECT AIR POLLUTANT EMISSIONS

	ROG	NO _x	PM ₁₀
Construction Significance Thresholds	150	150	150
Construction Emissions	1.61	15.04	6.30
<i>Above Threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>

Note: All figures are in pounds per day. Construction emissions are maximum daily summer values.

Sources: Road Construction Emissions Model version 9.0.0, CalEEMod version 2022.1, CCAPCD undated.

The Road Construction Emissions Model (RCEM) was used to estimate the total pollutant emissions that would result from installation of the pipeline. Although originally developed for road projects, the RCEM has been modified to provide emission estimates for projects that are linear in character, such as pipeline installation. The California Emissions Estimator Model (CalEEMod) was used to estimate pollutant emissions associated with installation of the pump station. CalEEMod is an emissions model accepted by air quality districts throughout California. The full RCEM and CalEEMod results are shown in Appendix A of this document, and a summary is presented in Table 3-1 above.

As indicated in Table 3-1, project construction emissions would be substantially below the significance thresholds established by CCAPCD for criteria pollutant emissions addressed by the thresholds. As the significance thresholds were established in part to ensure consistency with the objectives of air quality attainment plans adopted by the CCAPCD, project construction emissions would not conflict with these plans.

While project construction emissions would not be significant, the project would still be required to comply with applicable CCAPCD rules and regulations, which would further reduce potential air quality impacts. As noted, SJVAPCD Regulation VIII contains measures to reduce fugitive dust emissions during construction. Dust control provisions are routinely included in site improvement plans and specifications, along with construction contracts.

After construction work is completed, the project would not generate any substantial air pollutant emissions from its operations. The only potential source of emissions from operations would be from diesel generators that would only be used during power outages, which would be infrequent. Project impacts related to air quality plans would be less than significant.

b) Cumulative Emissions.

As noted in a) above, the project would not generate any substantial emissions once construction work is completed. Future attainment of federal and State ambient air quality standards is a function of successful implementation of the CCAPCD's attainment plans. Consequently, the application of significance thresholds for criteria pollutants is relevant to the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality. Pursuant to the CCAPCD's guidance, if project-specific emissions are less than the thresholds of significance for criteria pollutants, the project would not be expected to result in a cumulatively considerable net increase of any criteria pollutant. As the project would not generate any substantial operational emissions, it would not have a cumulatively considerable net increase of any criteria pollutant and therefore would have no impact on this issue.

c) Exposure of Sensitive Receptors.

"Sensitive receptors" are people particularly sensitive to air pollutants, including children, the elderly, and people with health issues. They also include land uses where such people may congregate, such as residences, schools, parks and playgrounds, nursing homes, and hospitals. There are no sensitive receptors in the immediate vicinity of the project site – the

nearest sensitive receptor appears to be a residence approximately one-quarter mile to the north. At that distance, project construction emissions are expected to dissipate before reaching this residence. As noted, project operations would not generate any substantial air pollutant emissions. Project impacts on sensitive receptors would be less than significant.

d) Odors and Other Emissions.

The project does not involve any features that would generate any new or increased odors associated with WTP operations. Construction equipment could generate exhaust that would be considered odorous. However, exposure would be limited, and the exhaust emissions would quickly dissipate. In addition, as noted, the nearest sensitive receptor is one-quarter mile away.

Construction emissions would likely include diesel particulate matter, which is a TAC. However, these emissions would have adverse effects on sensitive receptors only with long-term exposure, and diesel particulate emissions would cease once construction work is completed. No diesel particulate matter would be generated by project operations, other than potential infrequent use of diesel generators. In both cases, diesel particulate matter emissions are expected to dissipate before reaching the nearest sensitive receptor, which is one-quarter mile away. The project would have no impact related to odors or other emissions.

3.4 BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Adversely impact, either directly or through habitat modifications, any endangered, rare, or threatened species, as listed in Title 14 of the California Code of Regulations (Sections 670.2 or 670.5) or in Title 50, Code of Federal Regulations (Sections 17.11 or 17.12)?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal,	☐	☐	☐	☒

filling, hydrological interruption, or other means?

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 Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	✓

Information for this section is provided mainly from a field survey and biological assessment prepared by Moore Biological Consultants in 2024, The biological assessment is shown in Appendix B of this IS/MND.

Environmental Setting

The project site is in the Sierra Nevada foothills of Calaveras County at an elevation of approximately 2,600-2,700 feet msl. Outside of the existing reservoir and adjacent WTP sites, the predominant vegetation communities consist of mixed coniferous forest and non-native annual grassland.

Prior to the field survey, Moore Biological conducted a search of California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDDB, 2024) which included the USGS 7.5-minute Railroad Flat, Pine Grove, West Point, Devils' Nose, Mokelumne Hill, and Fort Mountain topographic quadrangles, an area of approximately 500+/- square miles surrounding the site (see map in Appendix B). The United States Fish and Wildlife Service (USFWS) IPaC Trust Resource Report of Federally Threatened and Endangered species that may occur in or be affected by projects in the project vicinity was also reviewed. This information was used to identify wildlife and plant species that have been documented in the project vicinity or that may have the potential to occur if suitable habitat is present. The USFWS on-line-maps of designated critical habitat and the National Wetland Inventory (NWI) were also reviewed.

The field survey was conducted by biologists Diane S. Moore, M.S., and Colleen Laskowski, M.S. in May 2024. The survey consisted of walking throughout the site making observations of habitat conditions, noting surrounding land uses, habitat types, and plant

and wildlife species, and taking representative photographs. The survey included an assessment of the site for potentially jurisdictional Waters of the U.S. (a term that includes wetlands) as defined by the ACOE, 1987; 2008) and/or Waters of the State, including wetlands. The site was also searched for special-status species and potentially suitable habitat for special-status species (e.g., wetlands, caves, unusual soils). Trees in and near the site were assessed for the potential to be used by nesting raptors. A detailed table of potentially occurring “Special-Status Species” pursuant to CEQA was compiled from the results of the database searches. Special-status species include species that are currently listed as threatened or endangered, or species that are candidates for listing at the state or federal level, rare plants, and animals considered sensitive by CDFW. Common species identified in the CNDDDB were not included in the Special-Status Species table, which is shown in full in Appendix B, beginning on page 13 of the appendix.

General Biological Setting

The project site consists of the CPUD Water Treatment Plan (WTP) and nearby areas between the WRP and Jeff Davis Reservoir. The site includes gravel and paved areas within the WTP, mixed coniferous forest, and some open areas around the reservoir where the forest vegetation has been cleared (representative site photographs in the attachments to Appendix B). Some of the forest has been subject to disturbance related to construction, operation, and management of the reservoir and WTP. Portions of the site were also likely disturbed by historical logging and mining.

The Mixed Conifer series (Sawyer and Keeler-Wolf, 1995) best describes the woodland habitats on the site. Dominant trees include Ponderosa pine (*Pinus ponderosa*), Douglas fir (*Pseudotsuga menziesii*), and black oak (*Quercus kelloggii*), with lesser numbers of incense cedar (*Calocedrus decurrens*) and sugar pine (*Pinus lambertiana*). The understory is relatively open, with patches of mountain misery (*Chamaebatia foliolosa*), and other plants such as bracken fern (*Pteridium aquilinum*), Bolander’s bedstraw (*Galium bolanderi*), dogbane (*Apocynum androsaemifolium*), and goose-foot violet (*Viola purpurea*). A complete list of plant species observed in the site is a part of the BA in Appendix B.

As described above, the mixed coniferous forest vegetation has been cleared around the reservoir, resulting in relatively open areas that are generally sparsely vegetated with grasses and weeds, and some small areas with common manzanita (*Arctostaphylos manzanita*) shrubs. Red brome (*Bromus rubens*) and silver hairgrass (*Aira caryophyllea*) are the dominant grasses in the cleared areas. Other grassland species such as long-beaked hawkbit (*Leontodon saxatilis*), rose clover (*Trifolium hirtum*), common catchfly (*Silene gallica*), miner’s lettuce (*Claytonia perfoliata*), and broad-leaf filaree (*Erodium botrys*) are intermixed with the grasses.

Only a few birds were observed in the site during the field survey. Turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), mallard (*Anas platyrhynchos*), Canada goose (*Branta canadensis*), American crow (*Corvus brachyrhynchos*), black phoebe (*Sayornis nigricans*), killdeer (*Charadrius vociferous*), and white-breasted nuthatch (*Sitta carolinensis*) were observed in the site. A golden eagle (*Aquila chrysaetos*) was observed flying high over the site, heading north.

Relatively large trees in and near the site are potentially suitable for nesting raptors and it is likely one or more pairs of raptors nest in or near the site during most years. Smaller trees, shrubs, grasslands, and other vegetation in and near the site provide suitable nesting habitats for a variety of common birds, such as songbirds. Gravel and bare dirt areas in the site, especially the gravel around the ponds, provide suitable habitat for killdeer, which nest on the ground.

Mule (black-tail) deer (*Odocoileus hemionus*) was the only mammal observed in the site during the field survey. The site provides suitable habitat for a few common mammals such as coyote (*Canis latrans*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), and Virginia opossum (*Didelphis virginiana*), and western gray squirrel (*Sciurus griseus*). Mountain lions (*Felis concolor*) and bobcats (*Felis rufus*) may also occur in the area. A number of species of small rodents including mice (*Mus musculus*, *Reithrodontomys megalotis*, and *Peromyscus maniculatus*) and voles (*Microtus californicus*) also likely occur. The trees in the site also provide suitable foraging and/or roosting habitat for a variety of bats. No California ground squirrels (*Otospermophilus beecheyi*) or their burrows were observed in the site.

American bullfrog (*Lithobates catesbeianus*) was the only reptile observed in the site; no amphibians were observed. The site provides potentially suitable habitat for common reptile and amphibian species such as western fence lizard (*Sceloporus occidentalis*), Pacific chorus frog (*Pseudacris regilla*), western terrestrial garter snake (*Thamnophis elegans*), mountain kingsnake (*Lampropeltis zonata*), and western rattlesnake (*Crotalis viridis*).

Wetlands and Waters of the U.S.

Waters of the U.S., including wetlands, are defined under 33 Code of Federal Regulations (CFR) 328 to include navigable waterways, their tributaries, and adjacent wetlands. State and federal agencies regulate these habitats and Section 404 of the Clean Water Act requires that a permit be secured prior to the discharge of dredged or fill materials into any Waters of the U.S. The California Regional Water Quality Control Board (RWQCB) implements Section 401 of the Clean Water Act by issuing 401 Certification in support of 404 permits. Many jurisdictional Waters of the U.S. in California are also Waters of the State, and also fall under the jurisdiction of CDFW.

No potentially jurisdictional Waters of the U.S. or wetlands of any type were observed in the site. The woodlands have soils that appear to be well draining and support upland vegetation. The existing ponds were constructed in uplands and are managed and maintained. The reservoir is also a constructed feature and is subject to ongoing management and maintenance. The reservoir is also hydrologically isolated; there are no notable streams flowing into the reservoir. Water in the reservoir is pumped out of Mokelumne River and conveyed to the reservoir in pipes and tunnels.

Due their history, operation, and maintenance, the reservoir and ponds do not meet the technical and regulatory criteria of Waters of the U.S. or Waters of the State. The constructed and managed reservoir and ponds are also not “streams” or “lakes” and have

no riparian areas that would be subject to potential regulation by CDFW under the Fish and Game Code of California.

Special Status-Species

Special-status species are plants and animals that are legally protected under the state and/or federal endangered species acts or other regulations. The Federal Endangered Species Act (FESA) of 1973 declares that all federal departments and agencies shall utilize their authority to conserve endangered and threatened plant and animal species. The California Endangered Species Act (CESA) of 1984 parallels the policies of FESA and pertains to native California species.

Special-status species also include other species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts, and other essential habitats. The presence of species with legal protection under CESA and/or FESA often represents a major constraint to development, particularly when the species are wide-ranging or highly sensitive to habitat disturbance and where proposed development would result in a take of these species.

Special-status plants are those which are designated rare, threatened, or endangered and candidate species for listing by the USFWS. Special-status plants also include species considered rare or endangered under the conditions of Section 15380 of the California Environmental Quality Act Guidelines, such as those plant species identified on Lists 1A, 1B and 2 in the Inventory of Rare and Endangered Vascular Plants of California (CNPS, 2024). Finally, special-status plants may include other species that are considered sensitive or of special concern due to limited distribution or lack of adequate information to permit listing or rejection for state or federal status, such as those included on CNPS List 3.

The likelihood of occurrence of listed, candidate, and other special-status species in the site is extremely low. All such species are listed in a detailed table (Table 2) in Appendix B which provides a summary of the listing status and habitat requirements of special-status species that have been documented in the greater project vicinity or for which there is potentially suitable habitat in the greater project vicinity. This table also includes an assessment of the likelihood of occurrence of each of these species in the site. The evaluation of the potential for occurrence of each species is based on the distribution of regional occurrences (if any), habitat suitability, and field observations. All species are considered “Unlikely” to occur on the project site.

Special-Status Plants

A total of seventeen (17) species of special-status plants were identified in the CNDDDB (2024) search area, most of which are several miles from the site. Three-bracted onion (*Allium tribracteatum*), yellow-lip pansy monkeyflower (*Mimulus pulchellus*), and Stanislaus monkeyflower (*Erythranthe marmorata*) are the only special-status plant species documented in the CNDDDB within five miles of the site. No special-status plants are identified on the USFWS IPaC Trust Report.

Special-status plants generally occur in relatively undisturbed areas in vegetation communities such as marshes and swamps, meadows and seeps, chaparral, and areas with specialty soils. In contrast, the site consists of unremarkable mixed conifer and oak woodlands, cleared woodland areas around and near the reservoir, and developed areas in and around the plant that provides potentially suitable habitat for very few special-status plant species.

No special-status plants were observed in the site during the May 2024 survey which was scheduled to coincide with the blooming periods of three-bracted onion, yellow-lip pansy monkeyflower, Stanislaus monkeyflower, dubious pea (*Lathyrus sulphureus* var. *argillaceus*), and Mi-Wuk navarretia (*Navarretia miwukensis*). The remaining special-status plant species in Appendix B, Table 2 are either restricted to specific substrates which are not present on the site, occur in habitats that are not present on the site, or occur at elevations that are higher or lower than those at the site.

Special-Status Wildlife:

The potential for intensive use of habitats within the project site by special-status wildlife species is low. Foothill yellow-legged frog (*Rana boylei* pop. 5) and American goshawk (*Accipiter atricapillus*) are the only special-status wildlife species recorded in the CNDDB (2024) query within five miles of the site. California spotted owl (*Strix occidentalis*), which has been reported near the site in the Spotted Owl Observation Database (CDFW, 2024) is also listed in Table 2 of Appendix B.

The USFWS IPaC Trust Report also includes foothill yellow-legged frog and California spotted owl, and also includes California red-legged frog (*Rana draytonii*), northwestern pond turtle (*Actinemys marmorata*), California tiger salamander (*Ambystoma californiense*), (*Strix occidentalis*), and monarch butterfly (*Danaus plexippus*).

While the project vicinity may have provided habitat for one or more special-status wildlife species at some time in the past, historical mining, logging, and reservoir construction, operation, and maintenance have substantially modified natural habitats in the site. Northwestern pond turtle and California spotted owl are the only special-status wildlife species with potential to occur in the site on more than a transitory or occasional basis and are discussed further below.

California Spotted Owl:

California spotted owl has recently been proposed as Threatened at the Federal level and is a state listed Species of Special Concern. This species nests primarily in old growth or mature second growth coniferous forest stands at elevations higher than those at the site.

There are potentially suitable nest trees within the project site for California spotted owl. However, the site is at a lower elevation and southwest of where this species generally nests. California spotted owl primarily occurs in a 20+ mile wide band along the mid-elevation Sierra Nevada that is 5+/- to 25+/- miles northeast of the site. California spotted owls may fly through or forage in the site but are unlikely to nest in the site. Further, none

of the large trees along the force main alignment, which could potentially be used by California spotted owl will be removed.

Western Pond Turtle:

Western pond turtle has recently been proposed as Threatened at the Federal level and is a state listed Species of Special Concern. Western pond turtles are associated with permanent or nearly permanent bodies of water with adequate basking sites such as logs, rocks or open mud banks. Pond turtles construct nests in sandy banks along slow-moving streams and ponds in the spring and the young usually hatch in two to three months.

Due to reservoir operations and management as well as a lack of basking habitat, the reservoir provides very low-quality potential habitat for western pond turtle. No pond turtles were observed in the reservoir or along the banks of the reservoir during a focused search with binoculars. There are also no occurrences of western pond turtles in the CNDDDB (2024) search area. Sandy areas adjacent to the reservoir provide marginal quality nesting habitat for western pond turtle.

Other Special-Status Wildlife Species:

The site does not provide highly suitable habitat for other special-status wildlife species. Special-status birds may fly over the area on occasion but would not be expected to nest or roost in or immediately adjacent to the project site, primarily due to lack of habitat. For example, American goshawk may fly over or forage in the site on occasion, but nests in coniferous forests at elevations higher than those at the site.

Townsend's big-eared bat (*Corynorhinus townsendii*) may fly over the site and may potentially roost in large cavities in relatively large trees in the project vicinity. However, this species primarily roosts in caves, mines, and large buildings, and to a lesser extent in large cavities in trees. Further, none of the large trees along the force main alignment, which could potentially be used by roosting bats will be removed.

The site does not provide suitable aquatic habitat for California red-legged frog, western spadefoot (*Spea hammondi*), foothill yellow-legged frog, or Sierra Nevada yellow-legged frog (*Rana sierrae*).

Monarch butterfly may fly over the site during its migration, but this species is more known to occur in coastal environments and would not be expected to utilize the site for overwintering. Crotch bumble bee is more commonly found in southern California and is not expected to occur in the area.

Critical Habitat

The site is not in designated critical habitat of any federally listed species.

Environmental Impacts and Mitigation Measures

a) Special-Status Species.

The biological assessment identified 17 special-status plant species as potentially occurring in the project vicinity, based on database information. A field survey found no special-status plant occurrences and found that the habitat for these species was unsuitable. It was noted that the area has been highly disturbed in the past and is regularly disturbed by ongoing operations and maintenance activities.

No special-status wildlife species have substantial potential to occur in the project site on more than a transitory or very occasional basis. The site is not within designated critical habitat for any federally listed species. Mitigation measures described below would require pre-construction surveys and impact prevention measures for western pond turtle and migratory birds. With these measures, project impacts on special-status plant and wildlife species are considered less than significant.

Mitigation Measures:

- BIO-1: In the event construction commences between May 1 and October 1, pre-construction surveys for western pond turtle and their nests shall be conducted within 48 hours prior to commencement of construction. This will involve a search by a qualified biologist for nests in uplands in and around the reservoir. It is recommended a 50-foot buffer area around the nest be staked and work will be delayed in the buffer area until hatching is complete and a qualified biologist confirms the young have left the nest site.
- BIO-2: If construction commences during the migratory bird nesting season (March 1 through July 31), a pre-construction survey for nesting birds is recommended. If active nests are found, work in the vicinity of the nests should be delayed until the young fledge.

b) Riparian and Other Sensitive Natural Communities.

There are no streams or riparian communities on or near the project site. The biological assessment did not identify any other special-status communities on the project site. The project would have no impact on riparian or other sensitive natural communities.

c) State and Federally Protected Wetlands.

There are no potentially jurisdictional Waters of the U.S. or wetlands in the site. There are also no areas in the site meeting the criteria of Waters of the State, including wetlands. The project would have no impact on State or federally protected Waters or wetlands.

d) Fish and Wildlife Movement.

As there are no streams or channels on or near the project site, the project would have no impact on migration routes for fish. The project will not result in adverse impacts to wildlife movement corridors.

e) Local Biological Requirements.

Policy COS 3.9: Preserve and enhance healthy woodlands consistent with state law, reasonable development and fire safety considerations.

The project is the improvement of an existing water treatment facility. Construction activities associated with the project are not expected to affect any of the biological resources discussed above.

f) Conflict with Habitat Conservation Plans.

No Habitat Conservation Plans, Natural Community Conservation Plans, or similar regional or local plans cover the project site. Therefore, the project would not conflict with habitat conservation plans. The project would have no impact on this issue.

3.5 CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 formal cemeteries?	☐	☐	☒	☐

Information for this section is provided mainly from a cultural resource report prepared by Natural Investigations Company, except where otherwise noted. The report is available in Appendix C of this IS/MND. The preparation of the report involved a search of cultural resource databases, including the California Historical Resources Information System, and a field survey of the project site.

Environmental Setting

The project site is within an area historically occupied by the Northern Sierra Mi-wuk, also spelled Miwok. Section 3.18, Tribal Cultural Resources, discusses the Northern Sierra Mi-wuk in more detail.

Spanish explorations led by Gabriel Moraga from 1806 to 1813 found several rivers in the Central Valley region, including the Mokelumne River. After the end of the Mexican Revolution against Spain, the Mexican Period is marked by an extensive era of land grants, most of which were in the interior of the state, as well as by exploration by American fur trappers west of the Sierra Nevada Mountains. The American Period was initiated in 1848 with the signing of the Treaty of Guadalupe Hidalgo, which ended the Mexican-American War, and California became a territory of the United States. Gold was discovered at Sutter's Mill on the American River in Coloma the same year, and by 1849, nearly 90,000 people had journeyed to the gold fields. In 1850, largely as a result of the Gold Rush, California became the thirty-first state.

Created in 1850 at the time of statehood, Calaveras County is one of the original 27 counties of California. Located in the central part of the Mother Lode, the history of Calaveras County is deeply tied to the Gold Rush era and the mining of gold as well as copper. The Jeff Davis Mine was a gold mine located roughly 280 feet east-southeast of the WTP site. Topographic maps illustrated a small mineshaft, a cleared area southeast of the mine, and an unimproved two-track dirt road traveling northwest-southeast. Topographic maps after 1978 do not depict the Jeff Davis mine, the mineshaft, the two-track road, or the cleared area. A previously identified area of mine tailings in the vicinity of the WTP appears to be completely submerged by the dam and reservoir (Sycamore Environmental Consultants 2021).

The project site is in the Railroad Flat mining district within the East Gold Belt, a broad zone extending from 5 to 20 miles east of the Main Gold Belt, which was the true Mother Lode. The historic mining town of Rail Road Flat (formerly Independence Flat) was named after the primitive mule-drawn ore cars that were used here during the Gold Rush era. The camp was initially settled in 1849, with a post office established in 1857, closed in 1858, and re-established in 1869. The town's elementary school was established in 1896. The town, which never had an actual railroad, was registered as a California Historical Landmark in 1938.

Water has played an important part in the development of Calaveras County. From the county's beginnings in the early days of mining, ditches diverted water to the diggings, allowing for the establishment of camps and later towns. Water was also utilized for hydroelectric power generation, as well as to supply the growing agricultural and residential demands of the county. The CPUD was established in 1934 as a publicly owned utility company, providing water to the communities of San Andreas and Mokelumne Hill as well as outlying areas. In 1970, voters approved a bond to replace open canals and reservoirs with modern structures and facilities, including a pump station on the South Fork of the Mokelumne River, a 1.5-million-gallon storage tank in Mokelumne Hill, a 3.0-million-gallon storage tank in San Andreas, a 2,000-acre-foot reservoir that became Jeff

Davis Reservoir, and 20 miles of connecting pipeline. The Jeff Davis WTP was constructed in 1972 (Sycamore Environmental Consultants 2021).

Environmental Impacts and Mitigation Measures

a) Historical Resources.

A records search of the California Historical Resources Information System indicated that four historic-era cultural resources had been identified within one-half mile of the project site. Three of these historical resources were ditches; the fourth was a road/trail/railroad grade. No historical resources were recorded on the site itself, and the field survey did not identify any new historical resources. Based upon the conclusions of the cultural resource report, the project would have no impact on historical resources.

b) Archaeological Resources.

The cultural resource report stated that no archaeological resources were newly identified during the survey, and no other cultural resources were previously recorded within the project area. Considering a portion of the project area has been disturbed due to the development of a water treatment plant, the potential for the discovery of buried archaeological materials within the project area is low. As a result, the report does not recommend additional cultural resources work, and monitoring of ground-disturbing activity is likewise not recommended.

However, the report also stated that it is possible to inadvertently uncover cultural resources during ground-disturbing project activities. Mitigation described below would require work to be stopped when cultural resources are uncovered until these resources can be evaluated by a qualified archaeologist and recommendations made for their proper disposition. Implementation of this mitigation measure would reduce cultural resource impacts to a level that would be less than significant.

Mitigation Measures:

CULT-1: If buried cultural resources are inadvertently discovered during ground-disturbing activities, work shall stop within 30 feet of the find until a qualified archaeologist can assess the significance of the find. If necessary, the archaeologist will develop appropriate treatment measures in consultation with the Calaveras Public Utility District and other agencies as appropriate. Treatment measures may include, but are not limited to, preservation in place or excavation under supervision of a qualified archaeologist.

c) Human Burials.

The cultural resource report considers the discovery of human remains on the project site unlikely. However, it did state that the discovery of human remains is always a possibility during ground-disturbing activities.

California Public Resources Code Section 5097.98 and California Health and Safety Code Section 7050.5 describe the procedures to be followed when human remains are uncovered in a location outside a dedicated cemetery. The Calaveras County Sheriff/Coroner shall be contacted immediately. If it is determined that the remains are Native American in origin, then the County Sheriff/Coroner shall contact the Native American Heritage Commission, which in turn shall appoint a Most Likely Descendant to act as a tribal representative. The Most Likely Descendant shall develop a plan for the proper treatment of remains and associated funerary objects.

Compliance with the applicable codes and with the CEQA Guidelines section would ensure that any human remains and associated grave goods encountered during project construction would be treated with appropriate dignity. Project impacts on human remains would be less than significant.

3.6 ENERGY

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impacts 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?	☐	☐	☐	☒

Environmental Setting

Electricity and natural gas are major energy sources for residences and businesses in California. In Calaveras County, electricity consumption in 2022 totaled approximately 326 million kilowatt-hours, of which approximately 106 million kilowatt-hours were consumed by non-residential uses and the remainder by residential uses (CEC 2024a). In San Joaquin County, natural gas consumption in 2022 totaled approximately 0.89 million therms, of which approximately 0.49 million therms were consumed by non-residential uses and the remainder by residential uses (CEC 2024b).

Environmental Impacts and Mitigation Measures

a) Project Energy Consumption.

Project construction would involve fuel consumption and use of other non-renewable resources. Construction equipment used for trenching and other activities typically runs on

diesel fuel or gasoline. The same fuels typically are used for vehicles that transport equipment and workers to and from a construction site. Construction-related fuel consumption would be finite, short-term, and consistent with construction activities of a similar character. All construction equipment would be regulated per the ARB's In-Use Off-Road Diesel Vehicle Regulation. ARB standards for construction equipment includes measures to reduce emissions from vehicles by subjecting fleet owners to retrofit or accelerated replacement/repower requirements and imposing idling limitations on owners, operators, renters, or lessees of off-road diesel vehicles. Therefore, energy use associated with project construction would not be considered wasteful, inefficient, or unnecessary.

The project would be required to comply with all applicable standards and regulations regarding energy conservation and fuel efficiency, which would ensure that future activities would be energy efficient to the maximum extent practicable. The project would not result in a wasteful, inefficient, or unnecessary use of energy. Project impacts related to energy consumption are less than significant.

b) Consistency with Energy Plans.

Neither Calaveras County nor the CPUD currently has an adopted plan for renewable energy or energy efficiency. If a plan for renewable energy or energy efficiency is adopted prior to the Project receiving its entitlements, then the project would comply with the applicable plan requirements. The project would have no impact on this issue.

3.7 GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 strata 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, creating substantial direct or indirect risks to life or property?	☐	☐	✓	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	✓
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	✓	☐	☐

Environmental Setting

The topography of the project site is hilly, with some ravines and small flat areas. The Geologic Map of the Sacramento Quadrangle indicates the underlying geology of the project site as the Calaveras Complex, consisting of metasedimentary rocks (Wagner et al. 1981).

According to a custom soil survey, there is essentially one soil type on the project site, with variation as to the slopes. The Nedsgulch-Sites Complex is a well-drained soil derived from metasedimentary rock. Less steep complex soils consist of loam, silty clay, and silty clay loam soils. Steeper complex soils have more gravelly clay loam (NRCS 2024).

The nearest potentially active faults to the project site are the Bear Mountain and Melones Fault Zones in the western portion of Calaveras County. The intensity of an earthquake, which is a measure of observed ground shaking, is classified by the Modified Mercalli Scale. The Mercalli Scale rates the intensity of earthquakes from I to XII, with XII indicating the intensity causing the greatest damage. The County General Plan Draft EIR stated that, based on an assessment conducted by the California Geological Survey, levels of ground shaking in Calaveras County would equate to intensity values ranging from I to III (Calaveras County 2018).

Environmental Impacts and Mitigation Measures

a-i) Fault Rupture Hazards.

Surface fault rupture is associated with being located on or within close proximity of an active fault. Areas with a potential fault rupture are designated by Alquist-Priolo Earthquake Fault Zones as determined by the California Geological Survey. Calaveras County, including the project site, has no designated Alquist-Priolo Earthquake Fault Zones (California Geological Survey 2024). Therefore, the project would have no impact related to fault rupture hazards.

a-ii) Seismic Ground Shaking.

As noted, the nearest potentially active faults to the project site are the Bear Mountain and Melones Fault Zones in the western portion of Calaveras County. Ground shaking generated by activity of these faults could potentially be felt at the project site. The County General Plan Draft EIR stated that, based on an assessment conducted by the California Geological Survey, levels of ground shaking in Calaveras County would equate to intensity values ranging from I to III. At these intensities, few people recognize any shaking as earthquakes when felt (Calaveras County 2018).

Proposed water system improvements would incorporate engineering design features that would be in accordance with the standard engineering practices and the adopted California Building Code, which contains design criteria for seismic shaking. Given this and the anticipated intensities of any earthquakes in Calaveras County, project impacts related to ground shaking would be less than significant.

a-iii) Other Seismic Hazards.

The California Geological Survey administers the Seismic Hazards Mapping Program, which designates Seismic Hazard Zones that encompasses areas prone to seismic-related ground failure hazards such as liquefaction and earthquake-induced landslides. No portion of Calaveras County is within a Seismic Hazard Zone (Calaveras County 2018). Consequently, Calaveras County and the project site are not considered to be at risk from seismic-related ground failure hazards. The project would have no impact related to other seismic hazards.

a-iv) Landslides.

The project site is in the foothill region of Calaveras County. Landslides can pose a hazard to structures located on steep slopes (20 percent grade or higher), as well as on slopes recently affected by wildfires even in the absence of seismic events (Calaveras County 2018). However, the proposed pump station would be constructed on the relatively flat WTP site, and the proposed pipeline would be buried underground. Neither project feature is expected to induce landslides. The project would have no impact related to landslides.

b) Soil Erosion.

Project construction activities would temporarily loosen soils within the construction area, leaving them exposed to potential erosion by water. Contract provisions would require implementation of Best Management Practices (BMPs) consistent with the Calaveras County Grading, Drainage, and Erosion Control Design Manual to protect water quality and minimize the potential for siltation and downstream sedimentation. Potential BMPs may include, but are not limited to, vehicle and equipment management, material and waste management, and general stormwater management (Calaveras County 2012).

Also, since the project would disturb one acre of land or more, it would be required to obtain a Construction General Permit from the SWRCB. The Construction General Permit requirements include preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) to address potential water quality issues. The SWPPP would include applicable BMPs to avoid or minimize adverse water quality impacts. BMPs fall within the categories of Temporary Soil Stabilization, Temporary Sediment Control, Wind Erosion Control, Tracking Control, Non-Storm Water Management, and Waste Management and Materials Pollution Control.

As noted in Chapter 2.0, Project Description, a damaged and plugged storm drain is causing scouring on a hill where the force main alignment is proposed. The proposed replacement of the storm drain with a V-ditch would eliminate the scouring.

In summary, soil erosion on the project site could occur, but compliance with contract provisions and Construction General Permit requirements, along with the drainage improvement, would minimize potential erosion. Project impacts related to soil erosion would be less than significant.

c) Unstable Soils.

As noted in a) above, there are no Alquist-Priolo Earthquake Fault Zones in Calaveras County, and the risk of surface fault rupture within the County is considered low. The Nedsgulch-Sites complex soils are rated as stable for excavation walls. The project does not include activities that would result in soil units onsite becoming unstable, and potentially result in on or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse. Project impacts related to soil stability would be less than significant.

d) Expansive Soils.

Expansive soils that may cause problems for buildings and infrastructure typically have a significant clay content. They are also soils with a Plasticity Index greater than about 25, as determined by ASTM D4318. Soil survey data indicate the plasticity index of soils on the project site ranges from 18.0 to 18.9 (NRCS 2024).

The project is being designed in accordance with Calaveras County Code Chapter 15.04 - Uniform Codes. This chapter considers and addresses expansive soils. Given soil characteristics and compliance with the requirements of County Code Chapter 15.04, project impacts related to expansive soils are considered less than significant.

e) Adequacy of Soils for Wastewater Disposal.

The project would not use, and does not propose to install, any septic systems or alternative waste disposal systems. The project would have no impact related to adequacy of soils for wastewater disposal.

f) Paleontological Resources and Unique Geologic Features.

Paleontological resources are the remains of life preserved in a geologic context, such as fossils. The cultural resource report for the project stated that a record search of the Museum of Paleontology at the University of California in Berkeley found 31 paleontological sites on record within Calaveras County. The closest finds were located in the Mokelumne River watershed. Recovered species include a two-tusked mastodon, a four-tusked gomphothere, rhinoceros, camel, horse, bird, fish, tortoise, and tapir, among others still to be identified (Natural Investigations Company 2024).

The cultural resource report concluded that the Mokelumne Hill area is highly sensitive for paleontological resources. Mitigation described below would require work to be stopped when paleontological resources are uncovered until these resources can be evaluated by a qualified paleontologist and recommendations made for their proper disposition. Implementation of this mitigation measure would reduce paleontological resource impacts to a level that would be less than significant.

Mitigation Measures:

GEO-1: If buried paleontological resources are inadvertently discovered during ground-disturbing activities, work shall stop within 30 feet of the find until a qualified paleontologist can assess the significance of the find. If necessary, the paleontologist will develop appropriate treatment measures in consultation with the Calaveras Public Utility District and other agencies as appropriate. Treatment measures may include, but are not limited to, preservation in place or excavation under supervision of a qualified paleontologist.

3.8 GREENHOUSE GAS EMISSIONS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?

Environmental Setting

Greenhouse gases (GHGs) are gases that absorb and emit radiation within the thermal infrared range, trapping heat in the earth's atmosphere. GHGs are both naturally occurring and are emitted by human activity. GHGs include carbon dioxide, the most abundant GHG, as well as methane, nitrous oxide, and other gases. GHG emissions in California in 2021, the most recent year for which data are available, were estimated at approximately 381.3 million metric tons carbon dioxide equivalent (CO₂e) – a decrease of approximately 21.5% from the peak level in 2004. Transportation was the largest contributor to GHG emissions in California, with 39% of total emissions (ARB 2023).

GHG emissions and their impact on climate are a subject of concern for the State of California. The State of California has implemented GHG emission reduction strategies through Scoping Plans prepared in response to state legislation. In 2022, ARB adopted an update to the current Scoping Plan. The 2022 Scoping Plan assesses progress towards achieving the SB 32 2030 reduction target and lays out a path to achieve carbon neutrality no later than 2045. Proposed strategies to achieve these reductions include rapid movement to zero-emission transportation, phasing out fossil fuel use for heating homes and buildings, restricting use of chemicals and refrigerants that are thousands of times more powerful at trapping heat than carbon dioxide, expanded development of renewable energy sources, increased use of natural and working lands for incorporating and storing carbon, and greater employment of carbon removal technology (ARB 2022).

Cities and counties throughout California have prepared Climate Action Plans that outline how the local government will reduce GHG emissions, which are typically related to the 2020 emission reduction target set in the State's Climate Change Scoping Plan. Calaveras County is currently in the process of preparing a GHG Reduction Plan that would address emission reductions for target years 2030 per SB 32 and 2045.

Environmental Impacts and Mitigation Measures

a) Project GHG Emissions.

Based on results from the RCEM run (see Section 3.3, Air Quality), potential construction GHG emissions would amount to approximately 61.4 metric tons CO₂e for the construction period. Construction emissions would be limited to a short time and would cease once work is completed.

The Calaveras County APCD has not adopted thresholds of significance for the analysis of GHG emissions related to implementation of a proposed project. However, the nearby Sacramento Metropolitan Air Quality Management District has established a quantitative threshold of 1,100 metric tons CO₂e to determine the significance of project GHG emissions for CEQA purposes (SMAQMD 2021). This threshold applies to both construction and operational emissions. CEQA Guidelines Section 15064.7 allows for the

use of significance thresholds established by other agencies. The GHG construction emissions of the proposed project are well below this threshold of 1,100 metric tons CO₂e.

Upon completion of construction work, the project would not generate any direct GHG emissions, and would generate only minimal GHG emissions indirectly, mainly from maintenance vehicles and equipment. The CalEEMod estimated that operational GHG emissions would be 0.21 metric tons CO₂e annually, which is substantially below the Sacramento Metropolitan Air Quality Management District quantitative threshold. Based on this, project GHG emissions would be less than significant.

b) Consistency with GHG Reduction Plans.

As noted in a) above, upon completion of construction work, project operations would generate at most minimal GHG emissions. As a result, the project would not conflict with the GHG reduction objectives of the State's Climate Change Scoping Plan or with the County GHG Reduction Plan should it be adopted. The project would have no impact related to consistency with GHG reduction plans.

3.9 HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒

e) For a project located 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, would the project 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?	☐	☐	✓	☐

Environmental Setting

This section focuses on hazards associated with hazardous materials, proximity to airports, and wildfires. Geologic and soil hazards are addressed in Section 3.7, Geology and Soils, and potential flooding hazards are addressed in Section 3.10, Hydrology and Water Quality.

Data on hazardous material sites are kept in the GeoTracker database, maintained by the SWRCB, and in the EnviroStor database, maintained by the California Department of Toxic Substances Control. Both GeoTracker and EnviroStor provide the names and addresses of hazardous material sites, along with their cleanup status. A search of both GeoTracker and EnviroStor indicated no record of active hazardous material sites on or within one mile of the project site (SWRCB 2024, DTSC 2024).

Environmental Impacts and Mitigation Measures

a) Hazardous Materials Transportation, Use, and Disposal.

Small amounts of hazardous materials, such as fuel and solvents, would be used during construction and operation activities. Implementation of the project would continue the use, transport, and disposal of potentially hazardous materials on and in the vicinity of the project site, similar to existing conditions. The project would be required to comply with federal, state, and local regulations regarding the storage, handling, transportation, disposal, and cleanup of hazardous materials. Project impacts on hazardous materials transportation, use, or disposal would be less than significant.

b) Release of Hazardous Materials by Upset or Accident.

Project construction activities may involve the use of hazardous materials such as fuels and solvents, and thus create a potential for hazardous material spills. Construction and

maintenance vehicles would transport and use fuels in ordinary quantities. Fuel spills, if any occur, would be minimal and would not have significant adverse effects. Potential hazardous materials spills during construction would be addressed in the required SWPPP, described in Section 3.7, Geology and Soils. In accordance with SWPPP requirements, contractors have absorbent materials at construction sites to clean up minor spills. Other substances used in the construction process would be stored in approved containers and used in relatively small quantities, in accordance with the manufacturers' recommendations and/or applicable regulations.

As noted in a) above, the project would involve limited use of hazardous materials after project completion, and such materials would be used and stored in compliance with applicable regulations. Project impacts related to releases of hazardous materials would be less than significant.

c) Hazardous Material Emissions near Schools.

There are no schools within one-quarter mile of the project site. The nearest school is Mokelumne Hill Elementary School in the community of Mokelumne Hill, approximately nine miles to the southwest. As noted in a) above, the project would involve limited use of hazardous materials. The project would have no impact related to hazardous material emissions near schools.

d) Hazardous Materials Sites.

As previously noted, a search of the GeoTracker and EnviroStor databases did not identify any active hazardous material sites on or within one mile of the project site. Two leaking underground storage tank sites along Ridge Road south of the project site were recorded in GeoTracker. However, both sites were recorded as "Completed – Case Closed" (SWRCB 2024). The project would have no impact related to hazardous material sites.

e) Airport Operations.

There are no airports in the vicinity of the project site. The nearest public airport is the Amador County Airport in the community of Martell in Amador County, approximately 14 miles to the west. Given this distance, the project would not expose workers to safety hazards or excessive noise from operations at this airport. The project would have no impact related to public airport operations.

f) Emergency Response and Evacuation.

Construction of the project would involve work on CPUD property only. Project construction would not affect public roads, except for a temporary increase in construction traffic to and from the project site. Construction activities would not obstruct emergency vehicle access to the project site or to nearby land uses. Project construction activities would be coordinated with local law enforcement and emergency services providers as applicable. Project operations would not obstruct any roads, thereby not interfering with emergency vehicle access or with potential evacuations. The project would have no impact on emergency vehicle access or evacuations.

g) Wildland Fire Hazards.

The project is in a forested area where wildland fires may occur. However, the project would not place people in this area. The project features that are proposed would be minimally exposed to wildland fires, and any damage caused to these features would not lead to impairment of potable water service to CPUD customers. The project would not involve any substantial changes to fuel conditions or introduce new ignition sources. Project impacts related to wildland fire hazards are considered less than significant. Refer to Section 3.20, Wildfire, for more detailed information on wildfire hazards.

3.10 HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 offsite?	☐	☐	☐	✓
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?	☐	☐	☐	✓

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?	☐	☐	✓	☐

Environmental Setting

The project site is adjacent to Jeff Davis Reservoir, a created lake from which water is drawn and treated at the WTP and subsequently sent to CPUD customers. As described in Chapter 1.0, Introduction, an unnamed watercourse currently receives backwash water from the WTP, from which the water enters Wet Gulch and ultimately the South Fork Mokelumne River, a perennial stream that merges with other forks to form the Mokelumne River.

Groundwater is used by local water purveyors and individuals to meet domestic and agricultural demands. A portion of western Calaveras County overlies the Eastern San Joaquin groundwater sub-basin, which is a part of the larger San Joaquin Valley groundwater basin (Calaveras County 2018). There are no other identified groundwater basins in Calaveras County, including the project vicinity (DWR 2016).

Based on the Flood Insurance Rate Map prepared for the project area by the Federal Emergency Management Agency (FEMA), the project site does not lie within a designated flood zone (FEMA 2010). A review of the DWR website indicates that no portion of the project site is within the 200-year floodplain, the designation of which is required by the State’s SB 5 and companion bills (DWR 2024).

Environmental Impacts and Mitigation Measures

a) Violation of Water Quality Standards.

The potential water quality impacts of the project are related to erosion and sedimentation resulting from project construction potentially entering surface waters. Project construction could disturb soils such that sediments could be transported off the construction site during a storm event. As discussed in Section 3.7, Geology and Soils, the project would be required to obtain a Construction General Permit from the SWRCB. The Construction General Permit would require preparation and implementation of a SWPPP that would limit soil erosion. Implementation of the conditions of the Construction General Permit would minimize potential surface water quality impacts.

Project operations would not affect surface water quality. Backwash water discharge in Jeff Davis Reservoir would not significantly affect water quality, as potential contaminants

are limited, and this water would be treated as other water in the reservoir before being released to CPUD customers. Moreover, as noted in Chapter 2.0, Project Description, replacement of an existing storm drain with a V-ditch would eliminate existing scouring of a hill, which would also eliminate sediments that could enter the reservoir. Overall, project impacts related to potential violation of water quality standards would be less than significant.

b) Groundwater Supplies and Recharge.

The project would not require any water for its operations, including groundwater. The project would essentially not add impervious surfaces, so the existing recharge area in the project vicinity would remain unchanged. Project impacts related to groundwater supplies and recharge would be less than significant.

c-i, ii, iii) Drainage Patterns and Runoff.

The project involves the installation of underground water infrastructure in existing road rights-of-way and developed areas. Because of this, the project would not substantially affect existing surface drainage patterns within the construction area. As noted in b) above, the project would not substantially add impervious surfaces, so there would be essentially no increase in the amount of runoff from existing conditions. The project would have no impact on drainage patterns or runoff.

c-iv) Flood Flows.

As noted, the project site is not within a designated flood zone. Therefore, the project, including its aboveground structures, would not alter any flood flows. The project would have no impact related to flood flows.

d) Release of Pollutants in Flood Zone.

As noted, the project site is not within a designated flood zone. As discussed in Section 3.9, Hazards and Hazardous Materials, project operations would not involve the use of any hazardous materials. The project would have no impact related to the release of pollutants due to any inundation.

e) Conflict with Water Quality or Sustainable Groundwater Plans.

As the project is the installation of backwash water improvement, it is not expected to interfere with the attainment of the objectives of applicable water quality plans. The project may enhance the water quality of the South Fork Mokelumne River, as no backwash water would discharge into this stream.

In 2014, the State enacted the Sustainable Groundwater Management Act. This act requires the formation of local groundwater sustainability agencies that must assess conditions in their local water basins and adopt locally based Groundwater Sustainability Plans for sustainable use of groundwater and avoidance of overdraft. As noted, there are no identified groundwater basins in the project vicinity; therefore, no Groundwater Sustainability Plans

apply to the project site. Overall, project impacts on water quality or sustainable groundwater plans would be less than significant and may be beneficial.

3.11 LAND USE AND PLANNING

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

Environmental Setting

The project is at the Jeff Davis Reservoir, a CPUD facility that also has a WTP. The reservoir is in a mostly rural, forested area of Calaveras County, with scattered rural residences and small communities.

The current Calaveras County General Plan was adopted in 2019. The County General Plan is intended to guide orderly growth and development, promote equity, strengthen the economy, protect the environment, and promote public health and safety. This would be accomplished by setting forth goals and policies that advance the General Plan's intentions. The County General Plan includes a land use map that designates land uses in the unincorporated areas of Calaveras County. The project site is in an area designated Public/Institutional.

Environmental Impacts and Mitigation Measures

a) Division of Established Communities.

The project proposes improvements to a water system in a rural area. The project is not part of any recognized residential community in the area; therefore, it would not physically divide an established community. The project would have no impact on this issue.

b) Conflict with Applicable Plans, Policies and Regulations Avoiding or Mitigating Environmental Effects.

The project is in an area designated by the County General Plan as Public/Institutional, which identifies public or quasi-public facilities such as water treatment facilities. The project would be consistent with existing water storage and treatment activities being

conducted at Jeff Davis Reservoir, and therefore would be consistent with the County General Plan designation.

As the project would be constructed at an existing WTP, it is not expected to have significant environmental impacts, as analyzed in this IS/MND. In fact, with the recycling of the backwash, the project would promote policies in the County General Plan designed to improve water quality. Therefore, the project would not conflict with applicable plans, policies and regulations avoiding or mitigating environmental effects. Project impacts would be less than significant.

3.12 MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

Environmental Setting

Calaveras County has a long history of mining with a rich array of mineral resources due to its location within the Sierra Nevada foothills and the Mother Lode Belt. Mining activities occur on both private and public lands, the latter including lands managed by the U.S. Bureau of Land Management and the U.S. Forest Service (Calaveras County 2019). There are no mineral resource extraction activities on or near the project site. A search of a database for oil and natural gas wells and fields showed no record of them on or near the project site (DOGGR 2024).

Environmental Impacts and Mitigation Measures

a, b) Loss of Mineral Resource Availability.

Per the State Mining and Geology Board, as of 2013, there are no lands designated in Calaveras County as mineral areas of regional or statewide significance (Calaveras County 2019). Because of this, the project would not result in the loss of availability of a known mineral resource that would be of value either locally or regionally. The project would have no impact on availability of mineral resources.

3.13 NOISE

Would the project result in:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Environmental Setting

Assessment of noise impacts focuses on the “ambient” noise level, which is the general noise level in a project area. The existing ambient noise environment in the project vicinity consists mainly of WTP operations and vehicle traffic to and from Jeff Davis Reservoir. Very few land uses sensitive to noise, such as rural residences, are in the project vicinity. Chapter 9.02 of the Calaveras County Code contains provisions for the control of noise, including maximum allowable noise levels affecting land uses.

Environmental Impacts and Mitigation Measures

a) Exposure to Noise Exceeding Local Standards.

Construction activities could increase noise levels temporarily in the vicinity of the Project. Actual noise levels would depend on the type of construction equipment involved, distance to the source of the noise, time of day, and similar factors. Construction noise is temporary and would cease when project work is completed. Section 9.02.060 of the Calaveras County Code exempts several activities from the requirements of Chapter 9.02, including sound from construction activity, provided that all construction in or adjacent to residential areas shall be limited to the daytime hours between 7:00 a.m. and 6:00 p.m., unless otherwise subject to conditions in a valid discretionary land use permit that addresses construction noise associated with the project. As the project is not adjacent to a residential

area, this limitation would not apply. As has been noted, the nearest residence is one-quarter mile away, so construction noise levels would drop substantially at that distance.

The project, once completed, would not generate substantial noise. The pipelines would be underground, and the pump station would not operate near any noise-sensitive land uses. Project impacts regarding exposure to noise exceeding local standards would be less than significant.

b) Groundborne Vibration.

Project construction includes activities, such as the operation of large pieces of equipment like heavy trucks, that may result in the periodic, temporary generation of groundborne vibration. Vibrations associated with construction would cease once work is completed, and there are no nearby land uses that would be sensitive to these vibrations. Project operations would not introduce new sources of groundborne vibration. Project impacts related to groundborne vibrations would be less than significant.

c) Exposure to Airport/Airstrip Noise.

As noted in Section 3.9, Hazards and Hazardous Materials, the nearest public airport is approximately 14 miles away. The nearest private airport or airstrip is Eagle Ridge Ranch Airport, more than three miles east of the project site. Given this distance, the project would not place any workers on the project site in an area of exposure to noise from Eagle Ridge Ranch Airport. The project would have no impact related to airport or airstrip noise.

3.14 POPULATION AND HOUSING

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				✓

Environmental Setting

As of January 1, 2024, the population of unincorporated Calaveras County was estimated at 41,255. An estimated 25,921 housing units were in unincorporated Calaveras County as

of January 1, 2024, of which approximately 88.3% were single family detached residences (California Department of Finance 2024).

Environmental Impacts and Mitigation Measures

a) Unplanned Population Growth.

The project involves improvements to a water facility. It would not involve the construction of residences or employment centers that would directly or indirectly induce population growth.

By recycling backwash water, the project would make more potable water available for CPUD residents and businesses. Additional water could encourage more development, which could increase the population in the CPUD area. However, the CPUD area is a mostly rural area that is expected to experience limited growth. Further population growth would likely require an expanded water distribution system, which is not currently planned by CPUD. Future improvements to the distribution system, if necessary, would be subject to environmental review, as would any new development proposed in the CPUD area.

The project is not expected to encourage development and subsequent population growth not otherwise planned for in the Calaveras County General Plan. Therefore, the project would have no impact related to unplanned population growth.

b) Displacement of Housing and People.

The project site contains no housing; therefore, the project would not displace or otherwise affect existing housing in the vicinity. Because of this, the project would also not displace people. The project would have no impact on this issue.

3.15 PUBLIC SERVICES

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

i) Fire protection?

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
☐	☐	☐	✓
☐	☐	☐	✓

ii) Police protection?

iii) Schools?	☐	☐	☐	✓
iv) Parks?	☐	☐	☐	✓
v) Other public facilities?	☐	☐	☐	✓

Environmental Setting

Fire protection services in the project area are provided by the California Department of Forestry and Fire Protection (Cal Fire). The Calaveras County Sheriff's Department provides police protection services in the area. The project site is within the boundaries of the Calaveras Unified School District. There are no parks or other public services in the project vicinity.

Environmental Impacts and Mitigation Measures

a) Fire Protection, Police Protection, Schools, Parks, Other Public Services.

The project involves improvements to a water facility. Also, as discussed in Section 3.14, Population and Housing, the project is not expected to generate population growth. Because of this, demand for public services such as fire protection, police protection, schools, parks, and other public services would not increase. No new or expanded public service facilities would be required. The project would have no impact on public services.

3.16 RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	✓
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	✓

Environmental Setting

Park and recreation services within unincorporated Calaveras County are provided through County Parks and Recreation. There are no parks in the project vicinity. Jeff Davis Reservoir does not have recreational facilities.

Environmental Impacts and Mitigation Measures

a, b) Recreational Facilities.

The project involves improvements to water infrastructure. As discussed in Section 3.14, Population and Housing, the project is not expected to generate population growth. As such, demand for parks and recreational services would not increase, and no new or expanded parks or recreational facilities would be required. The project would have no impact on recreational facilities.

3.17 TRANSPORTATION

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with an applicable program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	✓
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	☐	☐	☐	✓
c) Substantially increase hazards 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?	☐	☐	☐	✓

Environmental Setting

The project site is accessed by West Forty Road, a rural road that mainly provides access to Jeff Davis Reservoir and the WTP. West Forty Road extends north from Ridge Road, an east-west County road that extends from State Route 26 to the community of Rail Road Flat. Reservoir Road crosses the dam and provides access to the northern and eastern shores of the reservoir. No public transit system serves the project site, and there are no bicycle or pedestrian facilities in the area.

Environmental Impacts and Mitigation Measures

a) Conflict with Transportation Plans, Ordinances, and Policies.

The project involves improvements to a water facility. The project, once completed, would not contribute any new traffic nor increase traffic volumes on roads in the vicinity. As the project is in a rural, forested area with few residents, there would be no transportation facilities such as bikeways, sidewalks, or public transit routes that would be affected. The project would have no impact on applicable transportation plans, ordinances, and policies.

b) Conflict with CEQA Guidelines Section 15064.3(b).

Recently, Section 15064.3 was added to the CEQA Guidelines. Section 15064.3 states that “vehicle miles traveled” (VMT) is the preferred metric for evaluating transportation impacts. VMT accounts for the total environmental impact of transportation associated with a project, including use of travel modes such as buses or bicycles. Section 15064.3(b) sets forth the criteria for analyzing transportation impacts using the preferred VMT metric. As noted in a) above, the project would not generate traffic. Because of this, the project would not increase VMT and therefore would not conflict with the objectives of CEQA Guidelines Section 15064.3(b). The project would have no impact on this issue.

c) Traffic Hazards.

The project would not alter any local roads such that it would introduce traffic hazards. The existing design features of roads in the area would not change. There would be temporary changes to the existing traffic mix on roads in the area during project construction, when construction equipment and vehicles would travel to and from the project site. However, once construction work ends, the existing vehicle traffic mix would return. As noted, the project would not introduce any new traffic. The project would have no impact on traffic hazards.

d) Emergency Access.

Existing emergency access to the project site would be retained during project construction, as discussed in Section 3.9, Hazards and Hazardous Materials. The project would not create any obstacles to emergency vehicle access once completed. The project would have no impact on emergency access.

3.18 TRIBAL CULTURAL RESOURCES

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

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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), or	☐	✓	☐	☐
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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	✓	☐	☐

Information in this section is based primarily upon a cultural resource report prepared by Natural Investigations Company. A copy of this report is available in Appendix C.

Environmental Setting

As noted, in Section 3.5, Cultural Resources, the project site lies within the traditional territory of the Northern Sierra Mi-wuk. Prior to Euro-American contact, Northern Sierra Mi-wuk occupied the foothills and mountains of the Mokelumne and Calaveras River drainages. Mi-wuk villages were divided into “tribelets”, which controlled specific lands and the natural resources within that territory. The population size of Sierran Mi-wuk tribelets averaged between 100 and 300 individuals. The territory of each Mi-wuk tribelet typically included a main village and smaller satellite villages.

Seasonally mobile hunter-gatherers with semi-permanent villages, the foothills and mountains provided the Northern Sierra Mi-wuk with an abundance of natural resources.

Acorns were of particular importance to the diet. Similar to other California Native American groups, the Mi-wuk employed a variety of tools, implements, and enclosures for hunting and collecting natural resources. The Mi-wuk participated in an extensive east-west trade network between the coast and the Great Basin. From coastal groups, marine shell and steatite moved eastward, while salt and obsidian traveled westward from the Sierras and Great Basin. Basketry, an important trade item, moved in both directions.

The discovery of gold in 1848 and the ensuing Gold Rush led to a flood of non-indigenous peoples into Mi-wuk territory. Sierran Mi-wuk remained in rancherias scattered throughout the foothills, but in addition to traditional hunting and gathering, they worked seasonally as paid laborers on farms and ranches. Their reliance on cash income increased as availability of natural resources decreased with the growth of non-Miwuk communities and towns in their traditional territory.

During the first half of the 1900s, the federal government acquired lands and established reservations, or rancherias, for the Plains Mi-wuk, Northern Sierra Mi-wuk and Central Sierra Mi-wuk. The U.S. Bureau of Indian Affairs terminated relations with most of these rancherias between 1934 and 1972, but status has been restored to the majority of the rancherias, beginning in 1984. At present, there are seven federally recognized rancherias in Amador, Calaveras, El Dorado, Lake, and Tuolumne Counties that have primarily or exclusively Eastern Mi-wuk populations: Wilton, Shingle Springs, Jackson, Buena Vista, Sheep Ranch, Tuolumne, and Chicken Ranch.

In 2014, the California Legislature enacted AB 52, which focuses on consultation with Native American tribes on land use issues potentially affecting the tribes. The intent of this consultation is to avoid or mitigate potential impacts on “tribal cultural resources,” which are defined as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe.” Under AB 52, when a tribe requests consultation with a CEQA lead agency on projects within its traditionally and culturally affiliated geographical area, the lead agency must provide the tribe with notice of a proposed project within 14 days of a project application being deemed complete or when the lead agency decides to undertake the project if it is the agency’s own project. The tribe has up to 30 days to respond to the notice and request consultation; if consultation is requested, then the local agency has up to 30 days to initiate consultation. The CPUD has not received any requests in writing from California Native American tribes traditionally and culturally affiliated with the area to be notified of proposed projects.

Environmental Impacts and Mitigation Measures

a-i, ii) Tribal Cultural Resources.

As part of the preparation of the cultural resource report for the project, Natural Investigation Company requested the Native American Heritage Commission to conduct a search of its Sacred Lands File for records of potential tribal sacred land on the project site. The Commission reported a negative result, indicating no sacred lands have been recorded on the project site. The field survey conducted as part of the cultural resource report found no new prehistoric or ethnographic sites. The project site rests upon Nedsgulch series soils

found on side slopes of high hills and mountains with slopes ranging from 3 to 60 percent. Buried soils representing former landscapes are not present in this soil series.

As discussed in Section 3.5, Cultural Resources, the potential for the discovery of buried archaeological materials within the project site is low. However, the report also stated that it is possible to inadvertently uncover cultural resources during ground-disturbing project activities. Mitigation Measure CULT-1 would require work to be stopped when cultural resources are uncovered until these resources can be evaluated by a qualified archaeologist and recommendations made for their proper disposition. Implementation of this mitigation measure would reduce tribal cultural resource impacts to a level that would be less than significant.

Mitigation Measure: Implementation of Mitigation Measure CULT-1.

3.19 UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment facilities or storm 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 determined 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?



Environmental Setting

As has been noted, the project proposes improvements to the existing WTP at Jeff Davis Reservoir, which is managed by CPUD. The CPUD provides potable water to customers and businesses in its service area. Wastewater services for employees at the WTP are provided by an individual septic system. As noted, existing overhead electrical lines managed by PG&E have been extended to the WTP.

Environmental Impacts and Mitigation Measures

a) Construction or Relocation of Infrastructure.

The project involves improvements to an existing water facility. This IS/MND evaluates the potential environmental impacts of these improvements. The conclusion reached in this IS/MND is that the project may have significant impacts, but all such impacts would be reduced to a level that would be less than significant with the implementation of identified mitigation measures. Otherwise, depending on the environmental issue, the project either would have no environmental impacts or would have environmental impacts that are less than significant.

The project is not expected to require the relocation of existing infrastructure on the project site. There is no existing infrastructure along the proposed pipeline alignment, and the pump station and electrical conduit work would occur on vacant portions of the WTP site. The project proposes an upgrade to the existing electrical connection of the project site to the electrical grid. All such work would occur within the existing utility right-of-way; no additional land would need to be acquired or would be affected by this work. Based on this, project impacts related to construction or relocation of infrastructure would be less than significant.

b) Water Supply.

The project involves improvements to a water facility. It would not require water use such that additional supplies would need to be obtained. In fact, the project would reduce demand on the existing South Fork Mokelumne River water source by recycling backwash water to the reservoir, from which it would be treated for potable water use. The project would have no impact on water supply and may have a beneficial impact.

c) Wastewater Treatment Capacity.

As noted, in Section 3.7, Geology and Soils, the project would not generate wastewater. As such, the project would not require the use of a wastewater treatment plant or alternate wastewater disposal system. The project would have no impact on wastewater treatment capacity.

d, e) Solid Waste Services.

The project involves improvements to a water facility. Project operations would not generate any solid waste that would require collection or the need for landfill capacity. Solid waste generated by the Project would be limited to construction debris. Disposal of this debris would occur at permitted landfills in accordance with federal, state, and local regulations. The project would have no impact on solid waste services.

3.20 WILDFIRE

If located in or near state responsibility areas or lands classified as Very High Fire Hazard Severity Zones, would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				✓

Environmental Setting

As noted in Section 3.9, Hazards and Hazardous Materials, the project is in an area of agricultural development. It is not located adjacent to any significant natural open spaces where wildland fires may occur.

The California Department of Forestry and Fire Protection's Fire and Resource Assessment Program identifies fire threat based on a combination of two factors: 1) fire frequency, or the likelihood of a given area burning, and 2) potential fire behavior. These two factors are combined in determining the following Fire Hazard Severity Zones: Moderate, High, Very

High. These zones are mapped for State Responsibility Areas, where the State of California is financially responsible for the prevention and suppression of wildfires. The project site and surrounding lands are within a State Responsibility Area and has been placed in a Very High Fire Hazard Severity Zone (Cal Fire 2022).

Environmental Impacts and Mitigation Measures

a) Emergency Response and Emergency Evacuation Plans.

As discussed in Section 3.9, Hazards and Hazardous Materials, the project would not substantially interfere with emergency vehicle access during construction. No interference would occur after project completion, and no obstruction of emergency vehicle access or evacuation issues related to wildfires would occur. The project would have no impact related to emergency response plans or emergency evacuation plans as they pertain to wildfires.

b) Exposure of Project Occupants to Pollutants.

The Project site does not support or include permanent occupants. No unique topographic or wind conditions are known to occur on site that exacerbate wildfire risks. The topographic and climate conditions of adjacent lands is similar. The project would have no impact related to exposure of project occupants to pollutants.

c) Installation and Maintenance of Infrastructure.

The project involves improvements to an existing water facility. All improvements would occur on the WTP site and Jeff Davis Reservoir; no new lands would need to be acquired. Maintenance of the new infrastructure would not involve any activities that do not currently occur at the WTP site or reservoir. Therefore, the project would not exacerbate fire risk or result in temporary or ongoing impacts to the environment. The project would have no impact on this issue.

d) Risks from Runoff, Post-Fire Slope Instability, or Drainage Changes.

As noted in b) above, the project would not construct any structures that would be occupied. Because of this, the project would not expose people or structures to downslope or downstream flooding or landslides, post-fire slope instability, or drainage changes. The project would have no impact on this issue.

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 plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
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 would cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

a) Findings on Biological and Cultural Resources.

The project's potential biological resource and cultural resource impacts were described in Sections 3.4 and 3.5, respectively. Potentially significant environmental effects on biological and cultural resources were identified, but implementation of mitigation measures that would be incorporated within the project would reduce these effects to a level that would be less than significant. The mitigation measures are described in Sections 3.4 and 3.5 and are listed in Table 1-1.

b) Findings on Cumulatively Considerable Impacts.

As described in this IS/MND, the potential environmental effects of the project would either be less than significant, or the project would have no impact at all, when compared to baseline conditions. Where the project involves potentially significant effects, these

effects would be reduced to a less-than-significant level with proposed mitigation measures and compliance with required permits and applicable regulations.

The potential environmental effects identified in this IS/MND have been considered in conjunction with each other as to their potential to generate other potentially significant effects. The various potential environmental effects of the project would not combine to generate any potentially significant cumulative effects. There are no other known, similar projects with which the project might combine to produce adverse cumulative impacts.

c) Findings on Adverse Effects on Human Beings.

Potential adverse effects on human beings were discussed in Section 3.3, Air Quality (TACs); Section 3.7, Geology and Soils (seismic hazards); Section 3.9, Hazards and Hazardous Materials; Section 3.10, Hydrology and Water Quality (flooding); Section 3.17, Transportation/Traffic (traffic hazards); and Section 3.20, Wildfire. No significant adverse effects were identified in these sections that could not be mitigated to a level that would be less than significant. Project impacts related to potential adverse effects on human beings would be less than significant.

4.0 REFERENCES

4.1 DOCUMENT PREPARERS

This IS/MND was prepared by BaseCamp Environmental, Inc. for use by and under the supervision of the City of Hughson. The following persons were involved in preparation of the IS/MND:

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4.3 PERSONS CONSULTED

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5.0 NOTES ON EVALUATION OF ENVIRONMENTAL IMPACTS

- 1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
- 4) “Negative Declaration: Less Than Significant with Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from “Earlier Analyses,” as described in (5) below, may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration [CEQA Guidelines Section 15063(c)(3)(D)]. In this case, a brief discussion should identify the following:
 - a) Earlier Analyses Used: Identify and state where they are available for review.
 - b) Impacts Adequately Addressed: Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures: For effects that are “Less than Significant with Mitigation Incorporated,” describe the mitigation measures, which were

incorporated or refined from the earlier document, and the extent to which they address site-specific conditions for the project.

- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) The checklist in CEQA Guidelines Appendix G is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify:
 - a) the significance criteria or threshold, if any, used to evaluate each question; and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significance.

APPENDIX A
AIR EMISSIONS REPORT

CPUD Backwash Recycle Summary Report

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- 1. Basic Project Information
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 - 7.3. Overall Health & Equity Scores
 - 7.5. Evaluation Scorecard

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	CPUD Backwash Recycle
Construction Start Date	5/1/2025
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	43.0
Location	38.34322389095229, -120.54304614930138
County	Calaveras
City	Unincorporated
Air District	Calaveras County AQMD
Air Basin	Mountain Counties
TAZ	3008
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.22

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
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General Light Industry	0.05	1000sqft	< 0.005	49.0	0.00	—	—	—
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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.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.15	10.1	10.9	0.02	0.46	5.38	5.84	0.43	2.58	3.01	1,799
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.52	5.14	6.94	0.01	0.22	< 0.005	0.22	0.20	< 0.005	0.20	1,310
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.15	1.48	1.98	< 0.005	0.06	0.03	0.09	0.06	0.01	0.07	371
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.03	0.27	0.36	< 0.005	0.01	0.01	0.02	0.01	< 0.005	0.01	61.4

2.4. Operations 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.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.34

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.31
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.26
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.21

6. Climate Risk Detailed Report

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	4	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
----------------	----------------	-------------------	-------------------------	---------------------

Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	4	1	1	4
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

7. Health and Equity Details

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	28.0
Healthy Places Index Score for Project Location (b)	13.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

Road Construction Emissions Model, Version 9.0.1

Daily Emission Estimates for -> CPUO Backwash Recycle						
Project Phases (Pounds)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)
Grubbing/Land Clearing	0.45	3.89	4.94	0.33	0.17	0.16
Grading/Excavation	0.46	4.90	4.57	0.46	0.26	0.20
Drainage/Utilities/Sub-Grade	0.46	4.90	4.57	0.46	0.26	0.20
Paving	0.31	1.64	3.60	0.12	0.12	0.00
Maximum (pounds/day)	0.46	4.90	4.94	0.46	0.26	0.20
Total (tons/construction project)	0.01	0.07	0.07	0.01	0.00	0.00

Notes:		Project Start Year ->	2025
		Project Length (months) ->	2
		Total Project Area (acres) ->	0
		Maximum Area Disturbed/Day (acres) ->	0
		Water Truck Used? ->	Yes

Phase	Total Material Imported/Exported Volume (yd ³ /day)		Daily VMT (miles/day)			
	Soil	Asphalt	Soil Hauling	Asphalt Hauling	Worker Commute	Water Truck
Grubbing/Land Clearing	0	0	0	0	20	20
Grading/Excavation	8	0	20	0	30	20
Drainage/Utilities/Sub-Grade	8	0	20	0	30	20
Paving	0	0	0	0	10	20

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing the emissions for each GHG.

Total Emission Estimates by Phase for -> CPUO Backwash Recycle						
Project Phases (Tons for all except CO2e. Metric tonnes for CO2e)	ROG (tons/phase)	CO (tons/phase)	NOx (tons/phase)	Total PM10 (tons/phase)	Exhaust PM10 (tons/phase)	Fugitive Dust PM10 (tons/phase)
Grubbing/Land Clearing	0.00	0.01	0.01	0.00	0.00	0.00
Grading/Excavation	0.00	0.04	0.04	0.00	0.00	0.00
Drainage/Utilities/Sub-Grade	0.00	0.02	0.02	0.00	0.00	0.00
Paving	0.00	0.00	0.01	0.00	0.00	0.00
Maximum (tons/phase)	0.00	0.04	0.04	0.00	0.00	0.00
Total (tons/construction project)	0.01	0.07	0.07	0.01	0.00	0.00

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing the emissions for each GHG.

The CO2e emissions are reported as metric tons per phase.

Screenshot

Total	Exhaust	Fugitive Dust					
PM2.5 (lbs/day)	PM2.5 (lbs/day)	PM2.5 (lbs/day)	SOx (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)	N2O (lbs/day)	CO2e (lbs/day)
0.19	0.16	0.03	0.01	1,029.38	0.31	0.02	1,043.10
0.28	0.24	0.04	0.01	796.91	0.20	0.03	810.77
0.28	0.24	0.04	0.01	796.91	0.20	0.03	810.77
0.10	0.10	0.00	0.01	720.66	0.21	0.02	731.08
0.28	0.24	0.04	0.01	1,029.38	0.31	0.03	1,043.10
0.00	0.00	0.00	0.00	13.34	0.00	0.00	13.56

e dust emissions shown in columns J and K.
by summing CO2e estimates over all GHGs.

Total	Exhaust	Fugitive Dust					
PM2.5 (tons/phase)	PM2.5 (tons/phase)	PM2.5 (tons/phase)	SOx (tons/phase)	CO2 (tons/phase)	CH4 (tons/phase)	N2O (tons/phase)	CO2e (MT/phase)
0.00	0.00	0.00	0.00	1.70	0.00	0.00	1.56
0.00	0.00	0.00	0.00	6.57	0.00	0.00	6.07
0.00	0.00	0.00	0.00	3.29	0.00	0.00	3.03
0.00	0.00	0.00	0.00	1.78	0.00	0.00	1.64
0.00	0.00	0.00	0.00	6.57	0.00	0.00	6.07
0.00	0.00	0.00	0.00	13.34	0.00	0.00	12.31

e dust emissions shown in columns J and K.
by summing CO2e estimates over all GHGs.

Road Construction Emissions Model Data Entry Worksheet

Version 9.0.1

Note: Required data input sections have a yellow background.

Optional data input sections have a blue background. Only areas with a yellow or blue background can be modified. Program defaults have a white background.

The user is required to enter information in cells D10 through D24, E28 through G35, and D38 through D41 for all project types.

Please use "Clear Data Input & User Overrides" button first before changing the Project Type or begin a new project.

Clear Data Input & User
Overrides

To begin a new project, click this button to clear data previously entered. This will only work if you opted not to disable macros when loading this spreadsheet.

Input Type

Project Name

CPUD Backwash Recycle

Construction Start Year

2025

Enter a Year between 2014 and 2040 (inclusive)

Project Type

For 4: Other Linear Project Type, please provide project specific off-road equipment population and vehicle trip data

4

- 1) New Road Construction : Project to build a roadway from bare ground, which generally requires more site preparation
- 2) Road Widening : Project to add a new lane to an existing roadway
- 3) Bridge/Overpass Construction : Project to build an elevated roadway, which generally requires some different equipment
- 4) Other Linear Project Type: Non-roadway project such as a pipeline, transmission line, or levee construction

Project Construction Time

1.50

months

Working Days per Month

22.00

days (assume 22 if unknown)

Predominant Soil/Site Type: Enter 1, 2, or 3

(for project within "Sacramento County", follow soil type selection instructions in cells E18 to E20 otherwise see instructions provided in cells J18 to J22)

3

- 1) Sand Gravel : Use for quaternary deposits (Delta/West County)
- 2) Weathered Rock-Earth : Use for Laguna formation (Jackson Highway area) or the lone formation (Scott Road, Rancho Murieta)
- 3) Blasted Rock : Use for Salt Springs Slate or Copper Hill Volcanics (Folsom South of Highway 50, Rancho Murieta)

Project Length

0.21

miles

Total Project Area

0.05

acres

Maximum Area Disturbed/Day

0.01

acres

Water Trucks Used?

1

1. Yes
2. No

Material Hauling Quantity Input

Material Type	Phase	Haul Truck Capacity (yd ³) (assume 20 if unknown)	Import Volume (yd ³ /day)	Export Volume (yd ³ /day)
Soil	Grubbing/Land Clearing	0.00	0.00	0.00
	Grading/Excavation	20.00	7.60	0.00
	Drainage/Utilities/Sub-Grade	20.00	7.60	0.00
	Paving	0.00	0.00	0.00
Asphalt	Grubbing/Land Clearing			
	Grading/Excavation			
	Drainage/Utilities/Sub-Grade			
	Paving			

Screenshot

APPENDIX B
BIOLOGICAL RESOURCES REPORT

MOORE BIOLOGICAL CONSULTANTS

October 14, 2024

Mr. Charlie Simpson
BaseCamp Environmental
802 West Lodi Avenue
Lodi, CA 95240

Subject: CALAVERAS PUBLIC UTILITIES DISTRICT “BACKWASH RECYCLE”
PROJECT, CALAVERAS COUNTY, CALIFORNIA: BIOLOGICAL
ASSESSMENT

Dear Charlie:

Thank you for asking Moore Biological Consultants to prepare a biological assessment for this site at the Calaveras Public Utilities District (CPUD) Water Treatment Plant at Jeff Davis Reservoir, Calaveras County, California (Figures 1 and 2). The purposes of this assessment are to describe existing biological resources in the project site, identify potentially significant impacts to biological resources from the project, and provide recommendations for how to reduce those impacts to a less-than-significant level. The work involved reviewing databases, aerial photographs, and documents, and conducting a field survey to document vegetation communities, potentially jurisdictional Waters of the U.S. and/or wetlands, and potentially suitable habitat for or presence of special-status species. This report details the methodology and results of our investigation.

Project Overview

The project site primarily consists of gravel roads in and around the water treatment plant and mixed coniferous forest vegetation on a slope ascending up to and surrounding the Jeff Davis Reservoir. The project involves constructing a

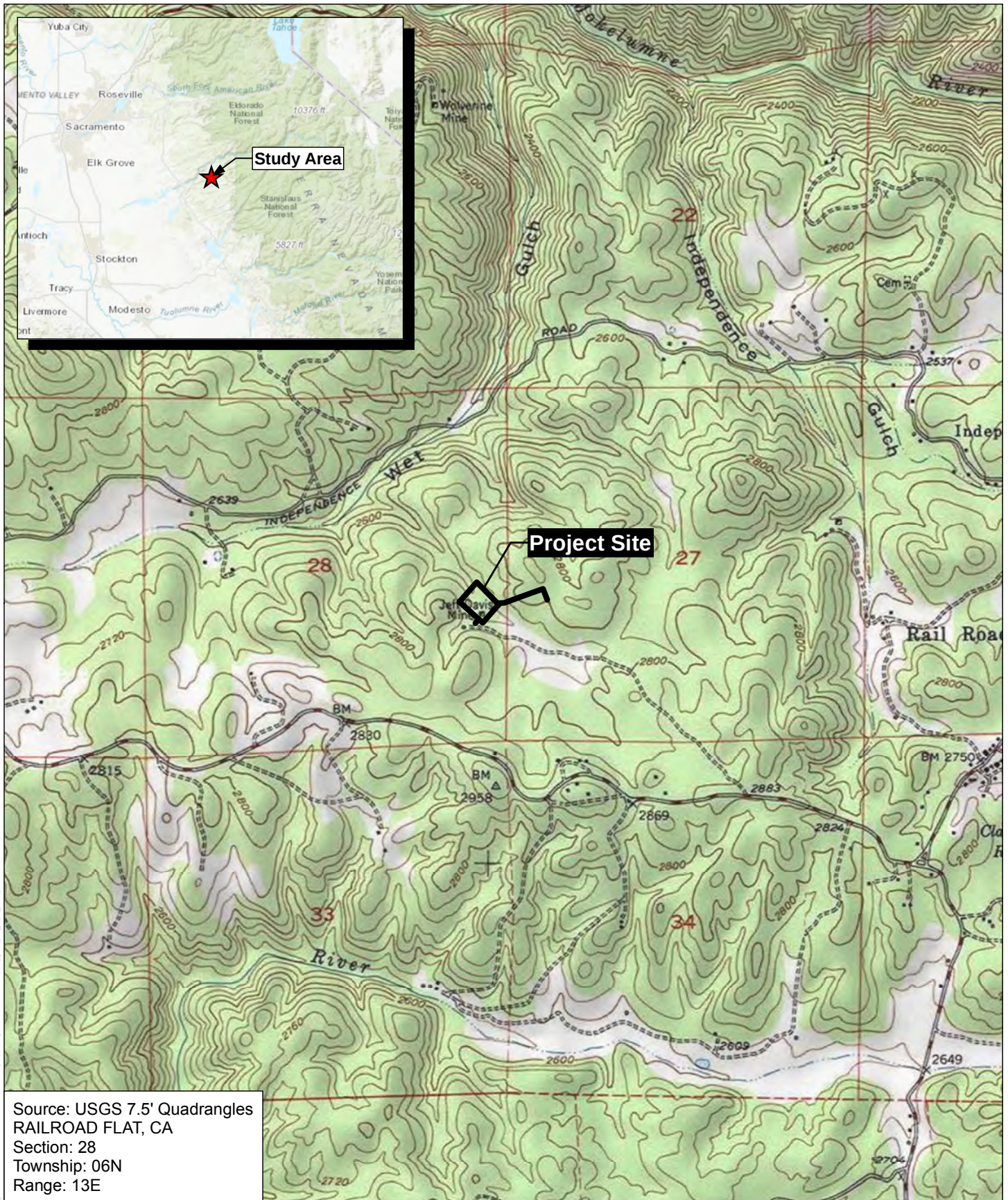
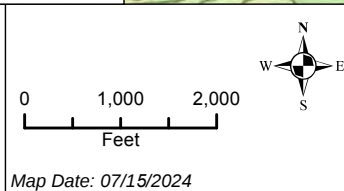


Figure 1

**Moore Biological
Consultants**



USGS

Calaveras PUD Backwash Recycle Project

Calaveras County, CA



Figure 2

**Moore Biological
Consultants**

0 150 300
Feet



Map Date: 07/15/2024
Aerial Source: Google Earth (11/2023)

AERIAL

Calaveras PUD Backwash Recycle Project

Calaveras County, CA

backwash recycle pump station on the northeast side of the existing ponds and installing approximately 1,200 linear feet of 12" force main pipeline from the existing backwash ponds to a new diffuser structure in Jeff Davis Reservoir (see Site Plan in Attachment A). The force main will be trenched underground up the hillside and down toward the reservoir. A few small trees will need to be cleared along the alignment, but no large trees will be removed. The pipe will daylight near the water's edge and will be placed on ground down in to the water.

The project also includes a new weir cross drain between the ponds. Additionally, approximately 380 linear feet of new electrical conduit will be trenched from the backwash recycle pump station to the water treatment plant, and from the plant to the existing PG&E pole near the plant. Finally, after the backwash system is installed, the ponds will be drained, one at a time, and carefully cleaned out in order to keep the clay liners intact. The mucked-out material will be hauled off site for proper disposal.

Methods

Prior to the field survey, we conducted a search of California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDDB, 2024). The CNDDDB search included the USGS 7.5-minute Railroad Flat, Pine Grove, West Point, Devils' Nose, Mokelumne Hill, and Fort Mountain topographic quadrangles, which is an area of approximately 500+/- square miles surrounding the site (Attachment B). The United States Fish and Wildlife Service (USFWS) IPaC Trust Resource Report of Federally Threatened and Endangered species that may occur in or be affected by projects in the project vicinity was also reviewed. This information was used to identify wildlife and plant species that have been documented in the project vicinity or that may have the potential to occur if suitable habitat is present.

The USFWS on-line-maps of designated critical habitat and the National Wetland Inventory (NWI) were also reviewed.

Biologists Diane S. Moore, M.S., and Colleen Laskowski, M.S. conducted a field survey on May 15, 2024. The survey consisted of walking throughout the site making observations of habitat conditions, noting surrounding land uses, habitat types, and plant and wildlife species, and taking representative photographs.

The survey included an assessment of the site for potentially jurisdictional Waters of the U.S. (a term that includes wetlands) as defined by the ACOE, 1987; 2008) and/or Waters of the State, including wetlands.

The site was for searched for special-status species and potentially suitable habitat for special-status species (e.g., wetlands, caves, unusual soils). Trees in and near the site were assessed for the potential to be used by nesting raptors.

A table of “Special-Status Species” pursuant to CEQA was compiled from the results of the database searches. Special-status species include species that are currently listed as threatened or endangered, or species that are candidates for listing at the state or federal level, rare plants, and animals considered sensitive by CDFW, as described above. Common species identified in the CNDDDB were not included the Special-Status Species table.

Results

GENERAL SETTING: The project site is at the CPUD Water Treatment Plant at Jeff Davis Reservoir, approximately 1.5 miles west of Railroad Flat, in Calaveras County, California (Figure 1). The site is in Sections 27 and 28, in Township 28 North, Range 6 East of the USGS 7.5-minute Railroad Flat topographic quadrangle. The site generally slopes down to the northwest and ranges in elevations from approximately 2,700 to 2,800 feet above mean sea level.

Surrounding land uses in this portion of Calaveras County are primarily open space, interspersed with widely scattered residences. There are numerous residences generally south of the reservoir along Ridge Road, while lands to the north and east of the reservoir are primarily mixed coniferous forest open space.

The site includes gravel and a few paved areas in the Water Treatment Plant (WTP), mixed coniferous forest, and some open areas around the reservoir where the forest vegetation has been cleared (Figure 2 and photographs in Attachment C). Some of the forest has been subject to disturbance related to construction, operation, and management of the reservoir and WTP. Portions of the site were also likely disturbed by historical logging and mining.

VEGETATION AND HABITAT TYPES: The Mixed conifer series (Sawyer and Keeler-Wolf, 1995) best describes the woodland habitats in the site. Dominant trees include Ponderosa pine (*Pinus ponderosa*), Douglas fir (*Pseudotsuga menziesii*), and black oak (*Quercus kelloggii*), with lesser numbers of incense cedar (*Calocedrus decurrens*) and sugar pine (*Pinus lambertiana*). The understory is relatively open, with patches of mountain misery (*Chamaebatia foliolosa*), and other plants such as bracken fern (*Pteridium aquilinum*), Bolander's bedstraw (*Galium bolanderi*), dogbane (*Apocynum androsaemifolium*), and goose-foot violet (*Viola purpurea*). Table 1 is a list of plant species observed in the site.

As described above, the mixed coniferous forest vegetation has been cleared around the reservoir, resulting in relatively open areas sparsely vegetated with grasses and weeds, and some small common manzanita (*Arctostaphylos manzanita*) shrubs (see photographs in Attachment C). Red brome (*Bromus rubens*) and silver hairgrass (*Aira caryophyllaea*) are the dominant grasses in the cleared areas. Other grassland species such as long-beaked hawkbit (*Leontodon saxatilis*), rose clover (*Trifolium hirtum*), common catchfly (*Silene gallica*), miner's lettuce (*Claytonia perfoliata*), and broad-leaf filaree (*Erodium botrys*) are intermixed with the grasses.

TABLE 1
PLANT SPECIES OBSERVED IN THE SITE

<i>Aira caryophyllea</i>	silver hairgrass
<i>Anagallis arvensis</i>	scarlet pimpernel
<i>Apocynum androsaemifolium</i>	dogbane
<i>Arctostaphylos manzanita</i>	common manzanita
<i>Avena</i> sp.	oat
<i>Arbutus menziesii</i>	madrone
<i>Bromus diandrus</i>	ripgut brome
<i>Bromus rubens</i>	red brome
<i>Calocedrus decurrens</i>	incense cedar
<i>Calochortus weedii</i>	Weed's mariposa lily
<i>Ceanothus cuneatus</i>	buck brush
<i>Ceanothus integerrimus</i>	deer brush
<i>Cerastium glomeratum</i>	mouse-eared chickweed
<i>Chamaebatia foliolosa</i>	mountain misery
<i>Claytonia perfoliata</i>	miner's lettuce
<i>Cyperus eragrostis</i>	tall flat sedge
<i>Erodium botrys</i>	filaree
<i>Juncus tenuis</i>	slender rush
<i>Galium aparine</i>	sticky willy
<i>Geranium dissectum</i>	cut-leaf geranium
<i>Gnaphalium californicum</i>	California everlasting
<i>Hypochaeris radicata</i>	rough cat's ear
<i>Leontodon saxatilis</i>	long-beaked hawkbit
<i>Lolium perenne</i>	perennial ryegrass
<i>Lythrum hyssopifolium</i>	Hyssop loosestrife
<i>Navarretia pubescens</i>	hairy navarretia
<i>Pinus ponderosa</i>	ponderosa pine

TABLE 1 (Continued)
PLANT SPECIES OBSERVED IN THE SITE

<i>Pinus lambertiana</i>	sugar pine
<i>Plantago lanceolata</i>	English plantain
<i>Polysitchum</i> sp.	sword fern
<i>Pseudotsuga menziesii</i>	Douglas fir
<i>Pteridium aquilinum</i>	bracken fern
<i>Quercus kelloggii</i>	black oak
<i>Silene gallica</i>	common catchfly
<i>Torilis nodosa</i>	torilis
<i>Trifolium dubium</i>	suckling clover
<i>Trifolium hirtum</i>	rose clover
<i>Typha latifolia</i>	broadleaf cattail
<i>Vicia villosa</i>	common vetch
<i>Viola purpurea</i>	goose-foot violet
<i>Vulpia myuros</i>	rat-tail six-weeks grass

WILDLIFE: Only a few birds were observed in the site during the field survey. Turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), mallard (*Anas platyrhynchos*), Canada goose (*Branta canadensis*), American crow (*Corvus brachyrhynchos*), black phoebe (*Sayornis nigricans*), killdeer (*Charadrius vociferous*), and white-breasted nuthatch (*Sitta carolinensis*) were observed in the site. A golden eagle (*Aquila chrysaetos*) was observed flying high over the site, heading north.

Relatively large trees in and near the site are potentially suitable for nesting raptors and it is likely one or more pairs of raptors nest in or near the site during most years. Smaller trees, shrubs, grasslands, and other vegetation in and near the site provide suitable nesting habitats for a variety of common birds, such as

songbirds. Gravel and bare dirt areas in the site, especially the gravel around the ponds, provide suitable habitat for killdeer, which nest on the ground.

Mule (black-tail) deer (*Odocoileus hemionus*) was the only mammal observed in the site during the field survey. The site provides suitable habitat for a few common mammals such as coyote (*Canis latrans*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), and Virginia opossum (*Didelphis virginiana*), and western gray squirrel (*Sciurus griseus*). Mountain lions (*Felis concolor*) and bobcats (*Felis rufus*) may also occur in the area. A number of species of small rodents including mice (*Mus musculus*, *Reithrodontomys megalotis*, and *Peromyscus maniculatus*) and voles (*Microtus californicus*) also likely occur. The trees in the site also provide suitable foraging and/or roosting habitat for a variety of bats. No California ground squirrels (*Otospermophilus beecheyi*) or their burrows were observed in the site.

American bullfrog (*Lithobates catesbeianus*) was the only reptile observed in the site; no amphibians were observed. The site provides potentially suitable habitat for common reptile and amphibian species such as western fence lizard (*Sceloporus occidentalis*), Pacific chorus frog (*Pseudacris regilla*), western terrestrial garter snake (*Thamnophis elegans*), mountain kingsnake (*Lampropeltis zonata*), and western rattlesnake (*Crotalis viridis*).

AQUATIC RESOURCES: Waters of the U.S., including wetlands, are defined under 33 Code of Federal Regulations (CFR) 328 to include navigable waterways, their tributaries, and adjacent wetlands. State and federal agencies regulate these habitats and Section 404 of the Clean Water Act requires that a permit be secured prior to the discharge of dredged or fill materials into any Waters of the U.S. The California Regional Water Quality Control Board (RWQCB) implements Section 401 of the Clean Water Act by issuing 401 Certification in support of 404 permits. Many jurisdictional Waters of the U.S. in California are also Waters of the State, and also fall under the jurisdiction of CDFW.

“Waters of the U.S.”, as defined in 33 CFR 328.4, encompasses Territorial Seas, Tidal Waters, and Non-Tidal Waters; Non-Tidal Waters includes interstate and intrastate rivers and streams, their tributaries, and their adjacent wetlands. The limit of federal jurisdiction of Non-Tidal Waters of the U.S. extends to the “ordinary high water mark” (OHWM). The OHWM is established by physical characteristics such as a natural water line impressed on the bank, presence of shelves, destruction of terrestrial vegetation, or the presence of litter and debris.

Wetlands are vegetated areas that meet specific vegetation, soil, and hydrologic criteria defined by the ACOE *Wetlands Delineation Manual* and Regional Supplement (ACOE, 1987; 2008). Wetlands that are adjacent to and hydrologically very closely associated with jurisdictional lakes, rivers, streams, and tributaries can also fall under ACOE jurisdiction as “adjacent wetlands”. Pursuant to a May 2023 Supreme Court decision, adjacent wetlands must have a continuous surface connection with a jurisdictional Water of the U.S. such that the wetland is indistinguishable from the adjacent water. Geographically and hydrologically isolated wetlands are outside federal jurisdiction, but are regulated by RWQCB as a “Water of the State”.

Jurisdictional Waters of the U.S. and wetlands include, but are not limited to, most perennial and intermittent creeks and lakes, as well as adjacent wetlands such as riparian wetlands along the edges of rivers. Waters of the U.S., wetlands, and other aquatic habitats provide critical habitat components, such as nest sites and a reliable source of water, for a wide variety of wildlife species.

No potentially jurisdictional Waters of the U.S. or wetlands of any type were observed in the site. The woodlands have soils that appear to be well draining and support upland vegetation. The existing ponds were constructed in uplands, and are managed and maintained. The reservoir was also constructed, and is managed and maintained. The reservoir is also hydrologically isolated; there are

no streams flowing in to the reservoir. Water in the reservoir is pumped out of Mokelumne River and conveyed to the reservoir in pipes and tunnels.

Due their history, operation, and maintenance, the reservoir and ponds do not meet the technical and regulatory criteria of Waters of the U.S. or Waters of the State. The constructed and managed reservoir and ponds are also not “streams” or “lakes” that would be subject to potential regulation by CDFW under Fish and Game Code of California Section 1600 – 1616.

Interestingly, the reservoir and ponds are depicted as aquatic resources on USGS topographic map and are mapped in the NWI. The NWI and USGS maps ca not be relied upon for jurisdictional determinations as they depict both natural and created aquatic features, some of which are jurisdictional and some of which are not. Further, many jurisdictional Waters of the U.S. or Waters of the State are not depicted on either USGS maps or the NWI.

SPECIAL-STATUS SPECIES: Special-status species are plants and animals that are legally protected under the state and/or federal endangered species acts or other regulations. The Federal Endangered Species Act (FESA) of 1973 declares that all federal departments and agencies shall utilize their authority to conserve endangered and threatened plant and animal species. The California Endangered Species Act (CESA) of 1984 parallels the policies of FESA and pertains to native California species.

Special-status species also include other species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts, and other essential habitats. The presence of species with legal protection under CESA and/or FESA often represents a major constraint to development, particularly when the species are

wide-ranging or highly sensitive to habitat disturbance and where proposed development would result in a take of these species.

Special-status plants are those which are designated rare, threatened, or endangered and candidate species for listing by the USFWS. Special-status plants also include species considered rare or endangered under the conditions of Section 15380 of the California Environmental Quality Act Guidelines, such as those plant species identified on Lists 1A, 1B and 2 in the Inventory of Rare and Endangered Vascular Plants of California (CNPS, 2024). Finally, special-status plants may include other species that are considered sensitive or of special concern due to limited distribution or lack of adequate information to permit listing or rejection for state or federal status, such as those included on CNPS List 3.

The likelihood of occurrence of listed, candidate, and other special-status species in the site is extremely low. Table 2 provides a summary of the listing status and habitat requirements of special-status species that have been documented in the greater project vicinity or for which there is potentially suitable habitat in the greater project vicinity. This table also includes an assessment of the likelihood of occurrence of each of these species in the site. The evaluation of the potential for occurrence of each species is based on the distribution of regional occurrences (if any), habitat suitability, and field observations.

SPECIAL-STATUS PLANTS: A total of seventeen (17) species of special-status plants were identified in the CNDDDB (2024) search area, most of which are several miles from the site (Table 2 and Attachment A). Three-bracted onion (*Allium tribracteatum*), yellow-lip pansy monkeyflower (*Mimulus pulchellus*), and Stanislaus monkeyflower (*Erythranthe marmorata*) are the only special-status plant species documented in the CNDDDB within 5 miles of the site. No special-status plants are identified on the USFWS IPaC Trust Report.

TABLE 2

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED IN THE GREATER PROJECT VICINITY

Common Name	Scientific Name	Federal Status ¹	State Status ¹	CNPS List ²	Habitat	Potential for Occurrence in the Site
PLANTS						
Three-bracted onion	<i>Allium tribracteatum</i>	None	None	1B	Chaparral, lower montane coniferous forest on volcanic slopes and ridges; blooms from April through August.	Unlikely: the project site provides low quality habitat for three-bracted onion, which was not observed in the site during the seasonally appropriate survey. The nearest occurrence of this species in the CNDDDB (2024) is approximately 4.5 miles northeast of the site.
lone manzanita	<i>Arctostaphylos myrtifolia</i>	T	None	1B	Chaparral and cismontane woodland; on lone formation soils.	Unlikely: the project site does not provide suitable habitat for lone manzanita; there are no lone formation soils in the site. The nearest occurrence of this species in the CNDDDB (2024) is over 5 miles from the site.
Watershield	<i>Brasenia schreberi</i>	None	None	2B	Freshwater marshes and swamps.	Unlikely: there are no marshes or swamps in the site. The nearest occurrence of watershield in the CNDDDB (2024) is over 5 miles from the site.
Pleasant Valley mariposa-lily	<i>Calochortus clavatus</i> var. <i>avius</i>	None	None	1B	Lower montane coniferous forest; often in rocky areas.	Unlikely: the project site provides low quality habitat for this species; this species was not observed in the site during the seasonally appropriate survey. The nearest occurrence of Pleasant Valley Mariposa lily in the CNDDDB (2024) is over 5 miles from the site.
Red Hills soaproot	<i>Chlorogalum grandiflorum</i>	None	None	1B	Serpentine or gabbroic soils within chaparral, cismontane woodland, lower montane coniferous forest.	Unlikely: the project site does not provide suitable habitat for this species; no serpentine or gabbroic soils were observed in the site. The nearest occurrence of Red Hills soaproot in the CNDDDB (2024) is over 5 miles from the site.
Bisbee Peak rush-rose	<i>Crocanthemum suffrutescens</i>	None	None	3	Chaparral; often on gabbroic soils, in disturbed areas, and in burned areas; often on lone formation soils.	Unlikely: the site does not provide suitable habitat for Bisbee Peak rush-rose and is well above the elevation range of this species (CNPS, 2024). The nearest occurrence of this species in the CNDDDB (2024) is over 5 miles from the site.

TABLE 2

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED IN THE GREATER PROJECT VICINITY

Common Name	Scientific Name	Federal Status ¹	State Status ¹	CNPS List ²	Habitat	Potential for Occurrence in the Site
Jepson's dodder	<i>Cuscuta jepsonii</i>	None	None	1B	Upper and lower montane coniferous forest and broadleaved upland forest.	Unlikely: site does not provide suitable habitat for Jepson's dodder and is well below the elevation range of this species (CNPS, 2024). The nearest occurrence of Jepson's dodder in the CNDDDB (2024) is over 5 miles from the site.
Yellow-lip pansy monkeyflower	<i>Diplacus pulchellus</i>	None	None	1B	Meadows and seeps within lower montane coniferous forest.	Unlikely: there are no meadows or seeps in the site. The nearest occurrence of yellow-lip pansy monkeyflower in the CNDDDB (2024) is approximately 1.5 miles east of the site.
Tuolumne button celery	<i>Eryngium pinnatisectum</i>	None	None	1B	Vernal pools and other mesic habitats in cismontane woodland and lower montane coniferous forest.	Unlikely: there are no vernal pools in the site. The nearest occurrence of Tuolumne button celery in the CNDDDB (2024) is over 5 miles from the site.
Stanislaus monkeyflower	<i>Erythranthe marmorata</i>	None	None	1B	Lower montane coniferous forest and cismontane woodland.	Unlikely: the project site provides potentially suitable habitat for Stanislaus monkeyflower, which was not observed in the site during the seasonally appropriate survey. The nearest occurrence of this species in the CNDDDB (2024) is approximately 5 miles northwest of the site.
Parry's horkelia	<i>Horkelia parryi</i>	None	None	1B	Chaparral, and cismontane woodland, almost always lone formation soils.	Unlikely: there is no chaparral habitat in the site and no lone formation soils were observed. The nearest occurrence of Parry's horkelia in the CNDDDB (2024) is over 5 miles from the site.
Copper-flowered bird's-foot trefoil	<i>Hosackia oblongifolia</i> var. <i>cuprea</i>	None	None	1B	Meadows and seeps (edges) and upper montane coniferous forest.	Unlikely: the site does not provide suitable habitat for copper-flowered bird's-foot trefoil and is well below the elevation range of this species (CNPS, 2024). The nearest occurrence of this species in the CNDDDB (2024) is over 5 miles from the site.

TABLE 2

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED IN THE GREATER PROJECT VICINITY

Common Name	Scientific Name	Federal Status ¹	State Status ¹	CNPS List ²	Habitat	Potential for Occurrence in the Site
Dubious pea	<i>Lathyrus sulphureus</i> var. <i>argillaceus</i>	None	None	3	Lower montane coniferous forest, upper montane coniferous forest, cismontane woodland.	Unlikely: the project site provides potentially suitable habitat for this species, which was not observed in the site during the seasonally appropriate survey. The nearest occurrence of dubious pea in the CNDDDB (2024) is over 5 miles from the site.
Stebbins' lomatium	<i>Lomatium stebbinsii</i>	None	None	1B	Lower montane coniferous forest, chaparral; in gravelly clay soils.	Unlikely: the project site provides potentially suitable habitat for Stebbins' lomatium but is well below the elevation range of this species (CNPS, 2024). The nearest occurrence of this species in the CNDDDB (2024) is over 5 miles from the site.
Mi-Wuk navarretia	<i>Navarretia miwukensis</i>	None	None	1B	Lower montane coniferous forest.	Unlikely: the project site is highly disturbed and provides low quality habitat for Mi-Wuk navarretia, which was not observed in the site during the seasonally appropriate survey. The nearest occurrence of this species in the CNDDDB (2024) is over 5 miles from the site.
Patterson's navarretia	<i>Navarretia paradoxiclora</i>	None	None	1B	Meadows and seeps.	Unlikely: there are no meadows or seeps in the site. The nearest occurrence of Patterson's navarretia in the CNDDDB (2024) is over 5 miles from the site.
Prairie wedge grass	<i>Sphenopholis obtusata</i>	None	None	2B	Cismontane woodland (in mesic areas) and meadows and seeps.	Unlikely: there is no suitable aquatic habitat in the site to support prairie wedge grass. The nearest occurrence of this species in the CNDDDB (2024) is over 5 miles from the site.
WILDLIFE						
Mammals						
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	None	SC	N/A	Variety of habitats, most common in mesic sites; roosts in caves, mines, and large buildings, and occasionally in large cavities in trees.	Unlikely: trees in and near the site could potentially provide suitable roost habitat for this species. The nearest occurrence of Townsend's big-eared bat in the CNDDDB (2024) is over 5 miles from the site.

TABLE 2

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED IN THE GREATER PROJECT VICINITY

Common Name	Scientific Name	Federal Status ¹	State Status ¹	CNPS List ²	Habitat	Potential for Occurrence in the Site
Birds						
American goshawk	<i>Accipiter atricapillus</i>	None	SC	N/A	Nests in trees within and in vicinity of coniferous forests.	Unlikely: large trees in and near the site may provide suitable nesting habitat for American goshawk, although this species primarily nests at higher elevation. The nearest occurrence of this species in the CNDDDB (2024) is approximately 5 miles northeast of the site.
California spotted owl	<i>Strix occidentalis</i>	PT	SC	N/A	Nests primarily in old growth or mature second growth coniferous forest stands.	Unlikely: while trees in and near the site may be suitable for nesting, the site is at a lower elevation and along the extreme western boundary of the nesting range of this species. The nearest positive observation of a spotted owl in the Spotted Owl Observation Database (CDFW, 2024) is approximately 1 mile north of the site.
Amphibians						
California red-legged frog	<i>Rana aurora draytonii</i>	T	SC	N/A	Lowlands and foothills in or near permanent sources of water with vegetation.	Unlikely: there is no suitable aquatic habitat in the site for California red-legged frog. There are no occurrences of this species in the CNDDDB (2024) search area.
Southern long-toed salamander	<i>Ambystoma macrodactylum sigillatum</i>	None	SC	N/A	High elevation meadows and lakes in the Sierra Nevada, Cascade, and Klamath Mountains.	Unlikely: the site does not provide suitable habitat for southern long-toed salamander. The nearest occurrence of this species in the CNDDDB (2024) is over 5 miles from the site.
Western spadefoot	<i>Spea hammondi</i>	PT	SC	N/A	Breeds and lays eggs in seasonal water bodies such as deep vernal pools or stock ponds.	Unlikely: the site does not provide suitable habitat for support western spadefoot. There are no occurrences of this species in the CNDDDB (2024) search area.
Western pond turtle	<i>Emys marmorata</i>	PT	SC	N/A	Permanent or semi-permanent bodies of water in a variety of habitats; require basking sites such as logs.	Unlikely: the reservoir provides potentially suitable habitat for western pond turtle, but has a paucity of basking habitat. No turtles were observed basking along the edges of or swimming in the reservoir during the survey. The nearest occurrence of western pond turtle in the CNDDDB (2024) is over 5 miles from the site.

TABLE 2

SPECIAL-STATUS PLANT AND WILDLIFE SPECIES DOCUMENTED IN THE GREATER PROJECT VICINITY

Common Name	Scientific Name	Federal Status ¹	State Status ¹	CNPS List ²	Habitat	Potential for Occurrence in the Site
Sierra Nevada yellow-legged frog	<i>Rana sierrae</i>	E	None	N/A	Lakes, ponds, marshes, meadows and streams in the Sierra Nevada mountains.	Unlikely: the reservoir provides potentially suitable habitat for Sierra Nevada yellow-legged frog, but is below the elevation range of this specie. There are no occurrences of this species in the CNDDDB (2024) search area.
Foothill yellow-legged frog – southern Sierra DPS	<i>Rana boylii pop.5</i>	E	E	N/A	Rocky perennial streams in the Sierra and coastal foothills.	Unlikely: the site does not provide suitable habitat for foothill yellow-legged frog. The nearest occurrence of this species in the CNDDDB (2024) is approximately 3 miles southeast of the site.
INVERTEBRATES						
Crotch bumble bee	<i>Bombus crotchii</i>	None	CE	N/A	Open grassland and scrub habitats; primarily in coastal or southern California.	Unlikely: the site lacks abundant floral resources and does not provide suitable habitat for Crotch bumble bee. The nearest occurrence of this species in the CNDDDB (2024) is over 5 miles from the site.
Western bumble bee	<i>Bombus occidentalis</i>	None	CE	N/A	Meadows and grasslands with abundant floral resources, usually high elevation.	Unlikely: the site lacks abundant floral resources and does not provide suitable habitat for western bumble bee. The nearest occurrence of this species in the CNDDDB (2024) is over 5 miles from the site.
Monarch butterfly	<i>Danaus plexippus</i>	C	None	N/A	Variety of habitats in California; larvae dependent on milkweed. Primarily associated with coastal environments.	Unlikely: monarch butterfly may fly over the site during its migration, but is not expected to occur in the site due to a lack of suitable habitat; no milkweed plants were observed in the site. There are no occurrences of this species in the CNDDDB (2024) search area.

1 E = Endangered; T= Threatened; C = Candidate for listing; SC = Species of Special Concern; CE = Candidate for Endangered Listing; PT = Proposed Threatened.

2 CNPS List 1B includes species, which are rare, threatened, or endangered in California and elsewhere; List 2 includes plants that are rare, threatened or endangered in California but are more common elsewhere; List 3 is a “watch list” that includes species for which there is not enough information known to assign them to one of the other lists or to reject them.

Special-status plants generally occur in relatively undisturbed areas in vegetation communities such as marshes and swamps, meadows and seeps, chaparral, and areas with specialty soils. In contrast, the site consists of unremarkable mixed conifer and oak woodlands, cleared woodland areas around and near the reservoir, and developed areas in and around the plant that provides potentially suitable habitat for very few special-status plant species.

No special-status plants were observed in the site during the May 17, 2024 survey which was scheduled to coincide with the blooming periods of three-bracted onion, yellow-lip pansy monkeyflower, Stanislaus monkeyflower, dubious pea (*Lathyrus sulphureus* var. *argillaceus*), and Mi-Wuk navarretia (*Navarretia miwukensis*). The remaining special-status plant species in Table 2 are either restricted to specific substrates which are not present on the site, occur in habitats that are not present on the site, or occur at elevations that are higher or lower than those at the site.

SPECIAL-STATUS WILDLIFE: The potential for intensive use of habitats within the project site by special-status wildlife species is low. Foothill yellow-legged frog (*Rana boylei* pop. 5) and American goshawk (*Accipiter atricapillus*) are the only special-status wildlife species recorded in the CNDDDB (2024) query within 5 miles of the site (Table 2 and Attachment B). California spotted owl (*Strix occidentalis*), which has been reported near the site in the Spotted Owl Observation Database (CDFW, 2024) is also included in Table 2.

The USFWS IPaC Trust Report also includes foothill yellow-legged frog and California spotted owl, and also includes California red-legged frog (*Rana draytonii*), northwestern pond turtle (*Actinemys marmorata*), California tiger salamander (*Ambystoma californiense*), (*Strix occidentalis*), and monarch butterfly (*Danaus plexippus*) (Attachment B).

While the project vicinity may have provided habitat for one or more special-status wildlife species at some time in the past, historical mining, logging, and reservoir construction, operation, and maintenance have substantially modified natural habitats in the site. Northwestern pond turtle and California spotted owl are the only special-status wildlife species with potential to occur in the site on more than a transitory or occasional basis and are discussed further below.

CALIFORNIA SPOTTED OWL: California spotted owl has recently been proposed as Threatened at the Federal level and is a state listed Species of Special Concern. This species nests primarily in old growth or mature second growth coniferous forest stands at elevations higher than those at the site.

There are potentially suitable nest trees within the project site for California spotted owl. However, the site is at a lower elevation and southwest of where this species generally nests. California spotted owl primarily occurs in a 20+ mile wide band along the mid-elevation Sierra Nevada that is 5+/- to 25+/- miles northeast of the site. California spotted owls may fly through or forage in the site but are unlikely to nest in the site. Further, none of the large trees along the force main alignment, which could potentially be used by California spotted owl will be removed.

WESTERN POND TURTLE: Western pond turtle has recently been proposed as Threatened at the Federal level and is a state listed Species of Special Concern. Western pond turtles are associated with permanent or nearly permanent bodies of water with adequate basking sites such as logs, rocks or open mud banks. Pond turtles construct nests in sandy banks along slow-moving streams and ponds in the spring and the young usually hatch in 2 to 3 months.

Due to reservoir operations and management as well as a lack of basking habitat, the reservoir provides very low-quality potential habitat for western pond turtle. No pond turtles were observed in the reservoir or along the banks of the

reservoir during a focused search with binoculars. There are also no occurrences of western pond turtles in the CNDDDB (2024) search area. Sandy area adjacent to the reservoir provide marginal quality nesting habitat for western pond turtle.

OTHER SPECIAL-STATUS WILDLIFE SPECIES: The site does not provide highly suitable habitat for other special-status wildlife species. Special-status birds may fly over the area on occasion, but would not be expected to nest or roost in or immediately adjacent to the project site, primarily due to lack of habitat. For example, American goshawk may fly over or forage in the site on occasion, but nests in coniferous forests at elevations higher than those at the site.

Townsend's big-eared bat (*Corynorhinus townsendii*) may fly over the site and may potentially roost in large cavities in relatively large trees in the project vicinity. However, this species primarily roosts in caves, mines, and large buildings, and to a lesser extent in large cavities in trees. Further, none of the large trees along the force main alignment, which could potentially be used by roosting bats will be removed.

The site does not provide suitable aquatic habitat for California red-legged frog, western spadefoot (*Spea hammondi*), foothill yellow-legged frog, or Sierra Nevada yellow-legged frog (*Rana sierrae*).

Monarch butterfly may fly over the site during its migration, but this species is more known to occur in coastal environments and would not be expected to utilize the site for overwintering. Crotch bumble bee is more commonly found in southern California and is not be expected to occur in the area.

CRITICAL HABITAT: The site is not in designated critical habitat of any federally listed species (Attachment D).

WILDLIFE MOVEMENT CORRIDORS: Well-developed riparian corridors are often utilized for movement by wildlife species such as deer, coyote, red fox (*Vulpes vulpes*), and bobcat, as well as a variety of amphibians, reptiles, and fish. There are no wildlife movement corridors in the site.

HABITAT CONSERVATION PLANS: The project will not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Conclusions and Recommendations

- The project site primarily consists of gravel roads in and around the water treatment plant and mixed coniferous forest vegetation on a slope ascending up to and surrounding the Jeff Davis Reservoir.
- There are no potentially jurisdictional Waters of the U.S. or wetlands in the site. There are also no areas in the site meeting the criteria of Waters of the State, including wetlands.
- Due to a lack of suitable habitat, it is unlikely that special-status plants occur in the site. No special-status plants were observed and none are expected to occur in the site.
- No special-status wildlife species have much potential to occur in the project site on more than a transitory or very occasional basis.
- The site is not within designated critical habitat for any federally listed species.
- The project will not result in adverse impacts to wildlife movement corridors.

- The project will not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.
- Pre-construction surveys for western pond turtle and their nests are recommended within 48 hours prior to the commencement of construction in the event construction commences between May 1 and October 1. This will involve a search by a qualified biologist for nests in uplands in and around the reservoir. It is recommended a 50-foot buffer area around the nest be staked and work will be delayed in the buffer area until hatching is complete and a qualified biologist confirms the young have left the nest site.
- The trees and grasslands in the site could be used by birds protected by the Migratory Bird Treaty Act and Fish and Game Code of California. If construction commences during the nesting season (March 1 through July 31), a pre-construction survey for nesting birds is recommended. If active nests are found, work in the vicinity of the nests should be delayed until the young fledge.

Please call me at (209) 745-1159 with any questions.

Sincerely,



Diane S. Moore, M.S.
Principal Biologist

References and Literature Consulted

ACOE (U.S. Army Corps of Engineers). 1987. Technical Report Y87-1. U.S. Army Corps of Engineers Waterways Experiment Station, Vicksburg, MI.

ACOE. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region. U.S. Army Engineer Research and Development Center, Vicksburg, MS. September.

CNDDDB (California Natural Diversity Database). 2024. California Department of Fish and Wildlife's Natural Heritage Program, Sacramento, California.

CDFW (California Department of Fish and Wildlife). 2024. Spotted Owl Observation Database. California Department of Fish and Wildlife's Biogeographic Data Branch, Sacramento, California

California Native Plant Society, Rare Plant Program. 2024. Inventory of Rare and Endangered Plants of California (online edition, v9.5). Website <http://www.rareplants.cnps.org>

Sawyer & Keeler-Wolf. 1995. A Manual of California Vegetation. California Native Plant Society, Sacramento. California.

Attachment A

Site Plan



CPUD WATER TREATMENT PLANT

RECYCLE BACKWASH PROJECT EXHIBIT
10/1/2024

Attachment B

CNDDB Summary Report and Exhibits & USFWS

IPaC Trust Report



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad IS (Rail Road Flat (3812035) OR Pine Grove (3812046) OR Mokelumne Hill (3812036) OR Devils Nose (3812044) OR Fort Mountain (3812034) OR West Point (3812045))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Accipiter atricapillus</i> American goshawk	ABNKC12061	None	None	G5	S3	SSC
<i>Accipiter striatus</i> sharp-shinned hawk	ABNKC12020	None	None	G5	S4	WL
<i>Actinemys marmorata</i> northwestern pond turtle	ARAAD02031	Proposed Threatened	None	G2	SNR	SSC
<i>Allium tribracteatum</i> three-bracted onion	PMLIL022D0	None	None	G2	S2	1B.2
<i>Ambystoma macrodactylum sigillatum</i> southern long-toed salamander	AAAAA01085	None	None	G5T4	S2	SSC
<i>Arctostaphylos myrtifolia</i> lone manzanita	PDERI04240	Threatened	None	G1	S1	1B.2
<i>Banksula grubbsi</i> Grubbs' cave harvestman	ILARA14060	None	None	G1	S1	
<i>Bombus caliginosus</i> obscure bumble bee	IIHYM24380	None	None	G2G3	S1S2	
<i>Bombus crotchii</i> Crotch's bumble bee	IIHYM24480	None	Candidate Endangered	G2	S2	
<i>Brasenia schreberi</i> watershield	PDCAB01010	None	None	G5	S3	2B.3
<i>Calochortus clavatus var. avius</i> Pleasant Valley mariposa-lily	PMLIL0D095	None	None	G4T2	S2	1B.2
<i>Chlorogalum grandiflorum</i> Red Hills soaproot	PMLIL0G020	None	None	G3	S3	1B.2
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	AMACC08010	None	None	G4	S2	SSC
<i>Crocانthemum suffrutescens</i> Bisbee Peak rush-rose	PDCIS020F0	None	None	G2?Q	S2?	3.2
<i>Cuscuta jepsonii</i> Jepson's dodder	PDCUS011T0	None	None	G3	S3	1B.2
<i>Diplacus pulchellus</i> yellow-lip pansy monkeyflower	PDSCR1B280	None	None	G2	S2	1B.2
<i>Erethizon dorsatum</i> North American porcupine	AMAFJ01010	None	None	G5	S3	
<i>Eryngium pinnatisectum</i> Tuolumne button-celery	PDAP10Z0P0	None	None	G2	S2	1B.2
<i>Erythranthe marmorata</i> Stanislaus monkeyflower	PDPHR01130	None	None	G2?	S2?	1B.1

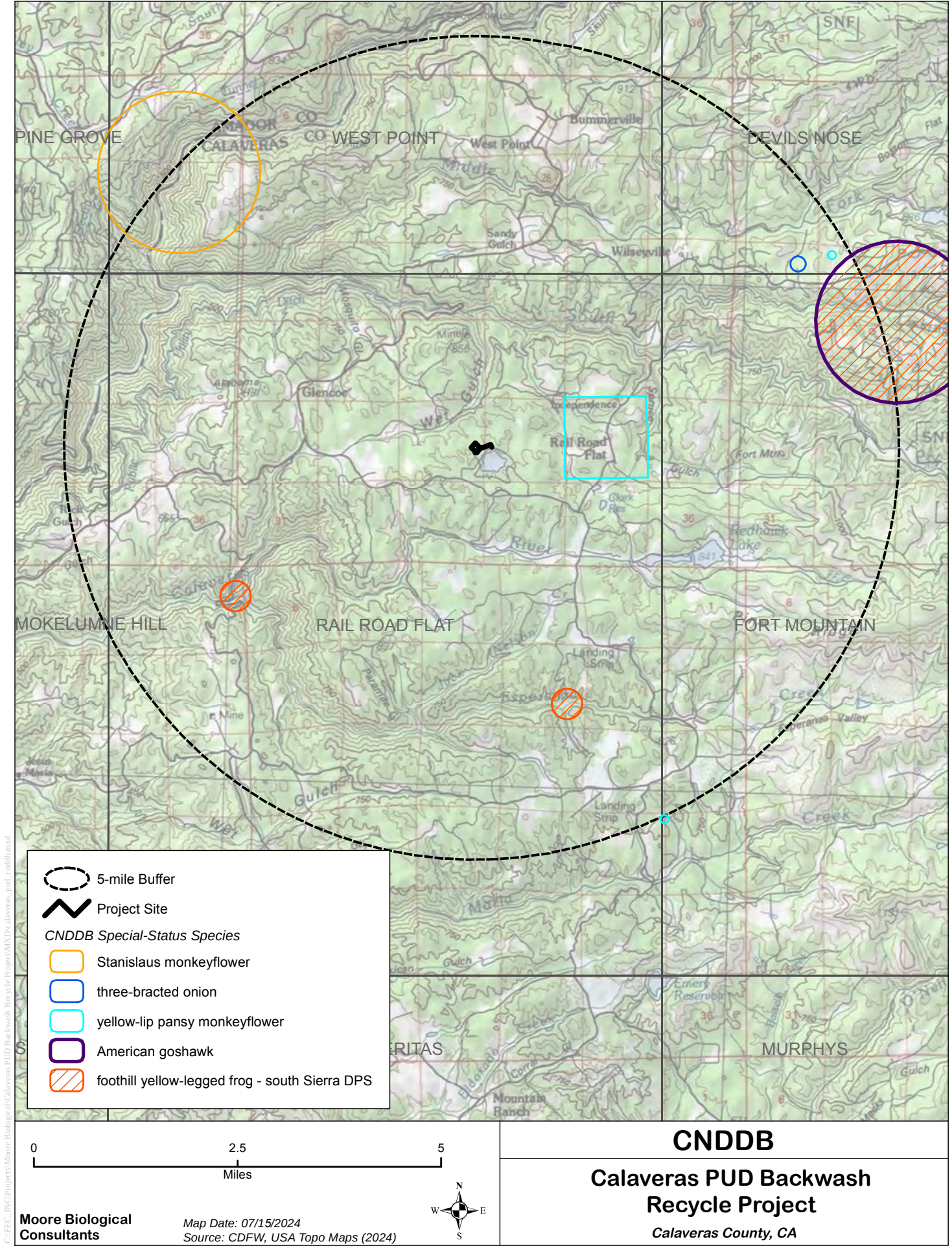


Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Horkelia parryi</i> Parry's horkelia	PDROS0W0C0	None	None	G2	S2	1B.2
<i>Hydroporus leechi</i> Leech's skyline diving beetle	IICOL55040	None	None	G3	S2S3	
<i>Ione Chaparral</i> Ione Chaparral	CTT37D00CA	None	None	G1	S1.1	
<i>Lasionycteris noctivagans</i> silver-haired bat	AMACC02010	None	None	G3G4	S3S4	
<i>Lathyrus sulphureus var. argillaceus</i> dubious pea	PDFAB25101	None	None	G5T1T2Q	S1S2	3
<i>Lomatium stebbinsii</i> Stebbins' lomatium	PDAP11B1V0	None	None	G2	S2	1B.1
<i>Rana boylei pop. 5</i> foothill yellow-legged frog - south Sierra DPS	AAABH01055	Endangered	Endangered	G3T2	S2	
<i>Sphenopholis obtusata</i> prairie wedge grass	PMPOA5T030	None	None	G5	S2	2B.2
<i>Stygobromus gradyi</i> Grady's Cave amphipod	ICMAL05460	None	None	G1	S1	
<i>Stygobromus grahami</i> Graham's Cave amphipod	ICMAL05920	None	None	G2	S2	

Record Count: 29



C:\FEC_ING\Projects\Moore Biological\Calaveras PUD Backwash Recycle Project\MXD\calaveras_pud_cnddmsd

- 5-mile Buffer
- Project Site
- CNDDDB Special-Status Species**
- Stanislaus monkeyflower
- three-bracted onion
- yellow-lip pansy monkeyflower
- American goshawk
- foothill yellow-legged frog - south Sierra DPS

**Moore Biological
Consultants**

Map Date: 07/15/2024
Source: CDFW, USA Topo Maps (2024)



CNDDDB
**Calaveras PUD Backwash
Recycle Project**
Calaveras County, CA

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Calaveras County, California



Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📅 (916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS
California Spotted Owl <i>Strix occidentalis occidentalis</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7266	Proposed Threatened

Reptiles

NAME	STATUS
Northwestern Pond Turtle <i>Actinemys marmorata</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1111	Proposed Threatened

Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> Wherever found There is final critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2891	Threatened
Foothill Yellow-legged Frog <i>Rana boylei</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5133	Endangered

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

There are no documented cases of eagles being present at this location. However, if you believe eagles may be using your site, please reach out to the local Fish and Wildlife Service office.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds
<https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC
<https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

Bald and Golden Eagle information is not available at this time

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project

intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

- Supplemental Information for Migratory Birds and Eagles in IPaC
<https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

Migratory bird information is not available at this time

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of

presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER POND

[PUBKx](#)

LAKE

[L1UBHh](#)

[L2USCh](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or

products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

Attachment C

Photographs



CPUD Water Treatment Plant, looking northwest from the Jeff Davis Reservoir Dam; 05/15/24.



East backwash pond, looking northwest; 05/15/24.



Gravel roads along the edge of the backwash ponds where the backwash recycle pump station will be constructed, looking west; 05/15/24.



Gravel road along the edge of the east backwash pond, looking northwest; 05/15/24.
The first part of the pipeline from the backwash recycle pump station to the reservoir will be trenched in this road.



Pipeline alignment through the forested hillside adjacent to the backwash ponds, looking northeast from the east backwash pond; 05/15/24. Pipeline construction may result in the removal of a few trees.



Pipeline alignment, looking southwest toward the east backwash pond; 05/15/24.



. Pipeline alignment near the upper part of the hill, looking northeast; 05/15/24. The forest becomes less dense near the top of the hill and is primarily oaks.



Pipeline alignment a bit further up on the hill, looking southwest; 05/15/24



Pipeline alignment on the top of the hill, looking southwest from the sharp turn in the pipeline; 05/15/24. This area appears to be periodically cleared of vegetation and supports sparse grassland and small manzanita shrubs.



Pipeline alignment transitioning down to the reservoir, looking south from the sharp turn in the pipeline; 05/15/24.



Gravel road between the backwash ponds, looking northeast; 05/15/24. A weir cross drain and electrical conduit serving the backwash recycle pump station will be trenched in this road.



Water treatment plant, looking southeast; 05/15/24. The electrical conduit serving the backwash recycle pump station will be trenched in this road.

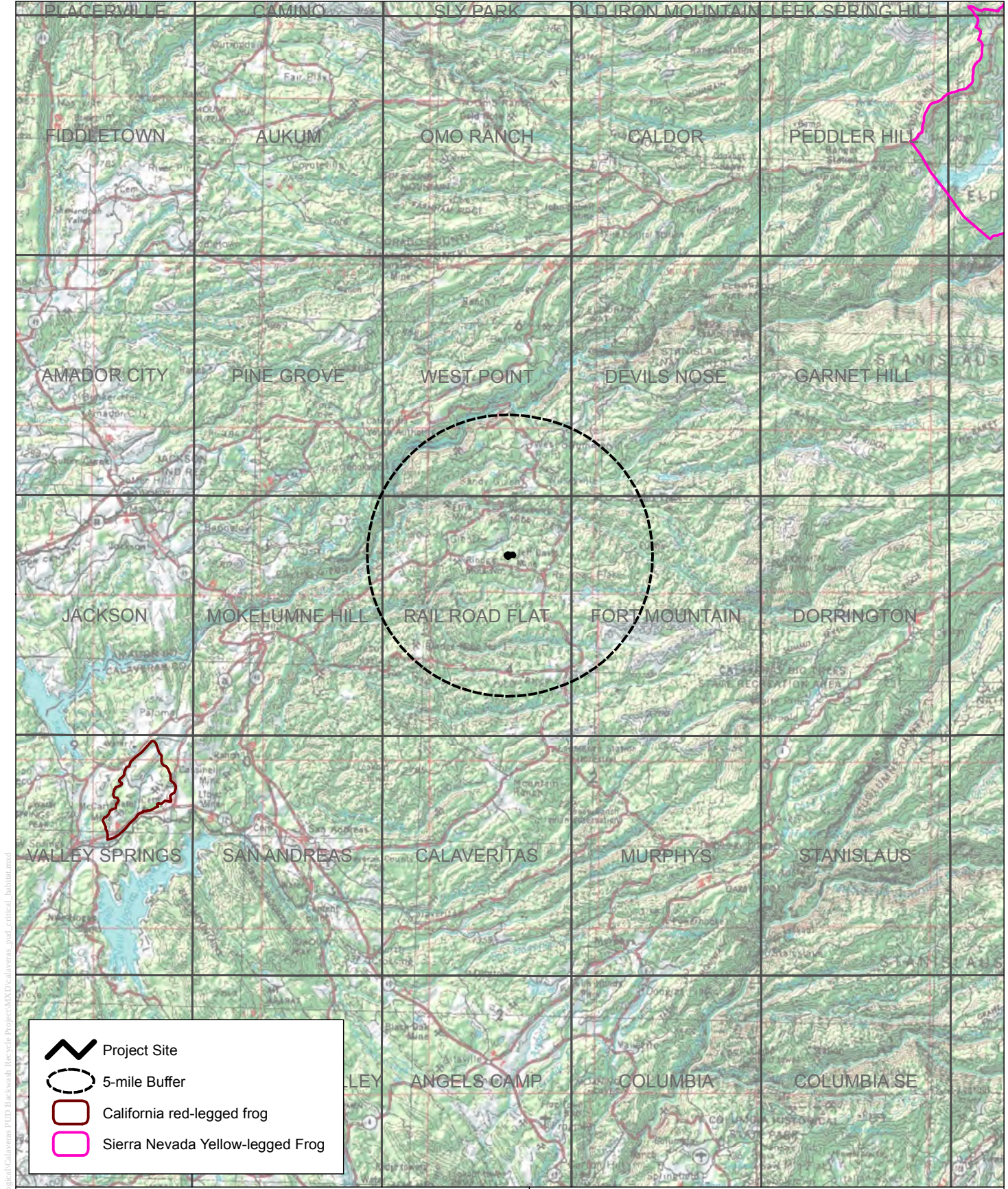


Gravel road and hillside adjacent to the water treatment plant, looking southwest; 05/15/24. New electrical conduit will be trenched between the PG&E service pole (noted) to the water treatment plant.

Appendix

Appendix D

Designated Critical Habitat



CRITICAL HABITAT

Calaveras PUD Backwash
Recycle Project

Calaveras County, CA

C:\FEC_ING\Projects\Moore Biological\Calaveras PUD Backwash Recycle Project\MXD\calaveras_pud_critical_habitat.mxd

Moore Biological
Consultants

Map Date: 07/15/2024
Source: USFWS; NOAA (2024); USA Topo Maps (2024)

APPENDIX C
CULTURAL RESOURCE REPORT

**CULTURAL AND PALEONTOLOGICAL RESOURCES INVESTIGATIONS
FOR THE CALAVERAS PUBLIC UTILITY DISTRICT – BACKWASH RECYCLE
PROJECT, CALAVERAS COUNTY, CALIFORNIA**

BaseCamp Environmental, Inc.
802 West Lodi Avenue
Lodi, CA. 95240

Prepared by:

Lori Harrington, M.A. RPA,
and
Dylan Stapleton, M.A. RPA



NATURAL
INVESTIGATIONS
COMPANY

3104 O Street, #221
Sacramento, CA 95816

USGS 7.5-Minute Quadrangle: Railroad Flat 1948: Township 6N, Range 13E, Section 27,28.

Negative Records Search; Negative Pedestrian Survey; Negative Paleontological survey, Low Buried
Archaeological Site Sensitivity; Inadvertent Discoveries Recommendation; Calaveras County

April 2024

Confidential: Archaeological and traditional property locations are considered confidential and should not be disclosed to the general public or unauthorized persons. This document contains sensitive information regarding the nature and location of archaeological sites. Public access to information regarding the location, character, or ownership of a cultural or heritage resource is restricted by law per Section 304 of the National historic Preservation Act; Section 9(a) of the Archaeological Resources Protection Act; Executive Order 13007; and is exempt from the California Public Records Act under Government Code Section 6254.10.

EXECUTIVE SUMMARY

Natural Investigations Company, Inc. (NIC) was retained to conduct cultural and paleontological resource investigations for a 1.3-acre project area at the Jeff Davis Reservoir. The investigations included a records search conducted by the North Central Information Center (NCIC) at Sacramento State University, a Sacred Lands File (SLF) search conducted by the Native American Heritage Commission (NAHC), geoarchaeological sensitivity analyses, paleontological resource analysis a pedestrian survey of the Project Area of Potential Effects (APE) and completion of a report¹ documenting the results of investigations for the Project that complies with Section 106 of the NHPA.

Within the Project APE, no cultural resources were identified. The SLF search for the Project was negative. Geoarchaeological analysis finds the sensitivity of the Project APE for the presence of undisturbed buried deposits of cultural resources is low. The paleontological Resources search within the Project APE was negative, however, the potential for subsurface paleontological resources is high. Since construction excavations will not impact geologic bedrock units there should be no disturbance of paleontological resources. If, however, paleontological resources are inadvertently discovered then a professional paleontologist should be consulted to reduce adverse impacts on scientifically important paleontological resources to a less than significant level.

Consequently, Natural Investigations determined that a finding of *No Historic Properties Affected* pursuant to 36 CFR § 800.4 (d)(1) is appropriate for the Project. No mitigations are required.

¹ This report will be filed with BaseCamp Environmental, Inc, Lodi CA; the CCIC at California State University, Stanislaus; and Natural Investigations Company in Sacramento. All field notes and other documentation related to the study are on file at the Sacramento office of Natural Investigations.

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APPENDIX A: Sacred Lands File Search Results

INTRODUCTION

Natural Investigations Company, LLC (NIC) was retained by BaseCamp Environmental, Inc. to provide cultural and paleontological resource investigations for the Jeff Davis Reservoir backwash recycle pump station. The project would occur entirely on CPUD property.

Natural Investigations Company, Inc. conducted cultural resource investigations (e.g., CHRIS records search, SLF search, geoarchaeological sensitivity analyses, and pedestrian surface survey) and paleontological research for the Project. The Project is subject to Section 106 of the National Historic Preservation Act 1966, as amended, and its implementing regulations.

PROJECT LOCATION AND DESCRIPTION

The project site is at the Jeff Davis Reservoir in Calaveras County, approximately nine miles northeast of the community of Mokelumne Hill. The project site is shown on the U.S. Geological Survey's Rail Road Flat, California, 7.5-minute quadrangle map as within Sections 27 and 28, Township 6 North, Range 13 East, Mt. Diablo Base, and Meridian.

The proposed project would involve constructing a backwash recycle pump station and force main pipeline from the existing backwash ponds to the Jeff Davis Reservoir. A detailed description of the project follows.

Backwash Recycle Pump Station

The project proposes the construction of a backwash recycle pump station northeast of the settling ponds between the two ponds. The pump station would occupy approximately 49.35 square feet and would be entirely located on the WTP property. No additional property would need to be acquired.

The pump station would consist of two pumps, both inside precast concrete structures. One pump would provide capacity to accommodate precipitation from an average year, 24-hour storm plus the maximum daily backwash volume from one pond, the latter for design purposes estimated at 165,000 gallons (Tyla Daries electronic mail). The second pump would provide additional capacity to accommodate precipitation from a 100-year, 24-hour storm plus the maximum daily backwash volume for both ponds. For design purposes, this volume is approximately 315,593 gallons (Tyla Daries electronic mail).

Backwash water would be delivered to the pumps through a skimming inlet in each settling pond, with each inlet connected to the pump station by 40 linear feet of C900 pipe 12 inches in diameter. The water would be collected in a sump with the two submersible pumps secured at the bottom. Each pump would have 2.8 horsepower and would operate on an electrical current of 4.1 amperes. The design flow for each pump would be 315 gallons per minute (gpm), with a total flow of 630 gpm when both pumps are operating. Pumping would be regulated by float switches on a cable secured at the top and bottom, along with a pressure transducer.

Water from each pump would be sent out of the sump through a pipe containing a ball check valve and an isolation valve. The water from each pipe would be combined into one pipe that connects the pump station to the proposed force main pipeline. The flow in this connecting pipeline would be regulated by a device containing a clean-out with a reducer and an isolation valve.

As noted, the pumps would operate on an electrical current. The project proposes to connect the pump station to existing electrical lines available at the WTP through the installation of 395 linear feet of electrical conduit. The conduit would be installed entirely on the WTP site; no additional property would be affected. The electrical line within the conduit would connect to a control panel at the pump station.

Force Main Pipeline

The project proposes the installation of a force main pipeline that would extend approximately 1,130 linear feet. Pipeline construction would be confined to existing roadway or other CPUD property; no private or other public property would be affected.

The pipeline would be six inches in diameter and would consist of C 900 pipe. The pipeline would be laid along the northeast side of one of the settling ponds, then turn eastward and cut through a forested area to subsequently follow an access road located along the northern shore of Jeff Davis Reservoir. At approximately 1,050 linear feet from the pump station, the pipeline would make a sharp right turn and head to the reservoir. At the reservoir, the pipeline would connect to a diffuser structure constructed to reduce the energy of the discharge. The discharge would enter Jeff Davis Reservoir, becoming part of the water that would eventually be treated at the WTP and sent to CPUD customers.

Along the project alignment, the pipeline would be installed within a trench. The pipeline would lay within a bed of backfill that is a minimum of 12 inches in height and at 90 percent compaction. The pipeline and bed in turn would be covered with backfill and an aggregate base. It is expected that some of this backfill would be soil from trench excavation, while the aggregate base would most likely come from outside the project site. Total depth from the surface to the pipeline would be approximately 36 inches at minimum, with actual depth varying.

At the point where the pipeline turns from the access road toward the reservoir, a combination air/vacuum release valve would be installed (see Figure 2-3). The release valve would ensure that any entrained air in the pipeline is automatically released to maximize pipeline performance. The release valve, installed inside a utility box, would remove air from the pipeline and release it through a small-diameter pipe extending upward from the valve. This pipe would be within an air valve enclosure.

Other Project Features

The project proposes to dredge the existing accumulated sludge from both settling ponds. The sludge is expected to be removed by a private firm with expertise in such removal. It is anticipated that the removed sludge would be applied to lands in accordance with federal and State regulations or would be taken to a landfill that is permitted to receive sludge. The project also proposes to upgrade the existing electrical power connection between the electrical grid and the WTP to accommodate the power requirements of the pump station.

REGULATORY SETTING

Federal Regulations

The current Project was completed under the provisions of Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended) (36 Code of Federal Regulations [CFR] 800). Cultural resources are considered during federal undertakings chiefly under Section 106 of the NHPA through one of its implementing regulations, 36 CFR 800 (Protection of Historic Properties), as well as the National Environmental Policy Act (NEPA). Properties of traditional religious and cultural importance to Native Americans are considered under Section 101(d)(6)(A) of NHPA.

Section 106 of the NHPA (16 United States Code [USC] 470f) requires federal agencies to take into account the effects of their undertakings on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register of Historic Places (NRHP) and to afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings (36 CFR 800.1). Under Section 106, the significance of any adversely affected cultural resource is assessed and

mitigation measures are proposed to reduce any impacts to an acceptable level. Significant cultural resources are those resources that are listed in, or are eligible for listing on the NRHP per the criteria listed at 36 CFR 60.4 (Advisory Council on Historic Preservation 2000) below.

The quality of *significance* in American history, architecture, archaeology, engineering and culture is present in districts, sites, buildings, structures, and objects that possess *integrity* of location, design, setting, materials, workmanship, feeling and association and that:

- A. Are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. Are associated with the lives of persons significant in our past; or
- C. Embody the distinctive characteristics of a type, period, or method of installation, 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.

Impacts to significant cultural resources that affect the characteristics of any resource that qualify it for the NRHP are considered a significant effect on the environment. Impacts to significant cultural resources from the proposed Project are thus considered significant if the Project physically destroys or damages all or part of a resource, changes the character of the use of the resource or physical feature within the setting of the resource which contribute to its significance, or introduces visual, atmospheric, or audible elements that diminish the integrity of significant features of the resource.

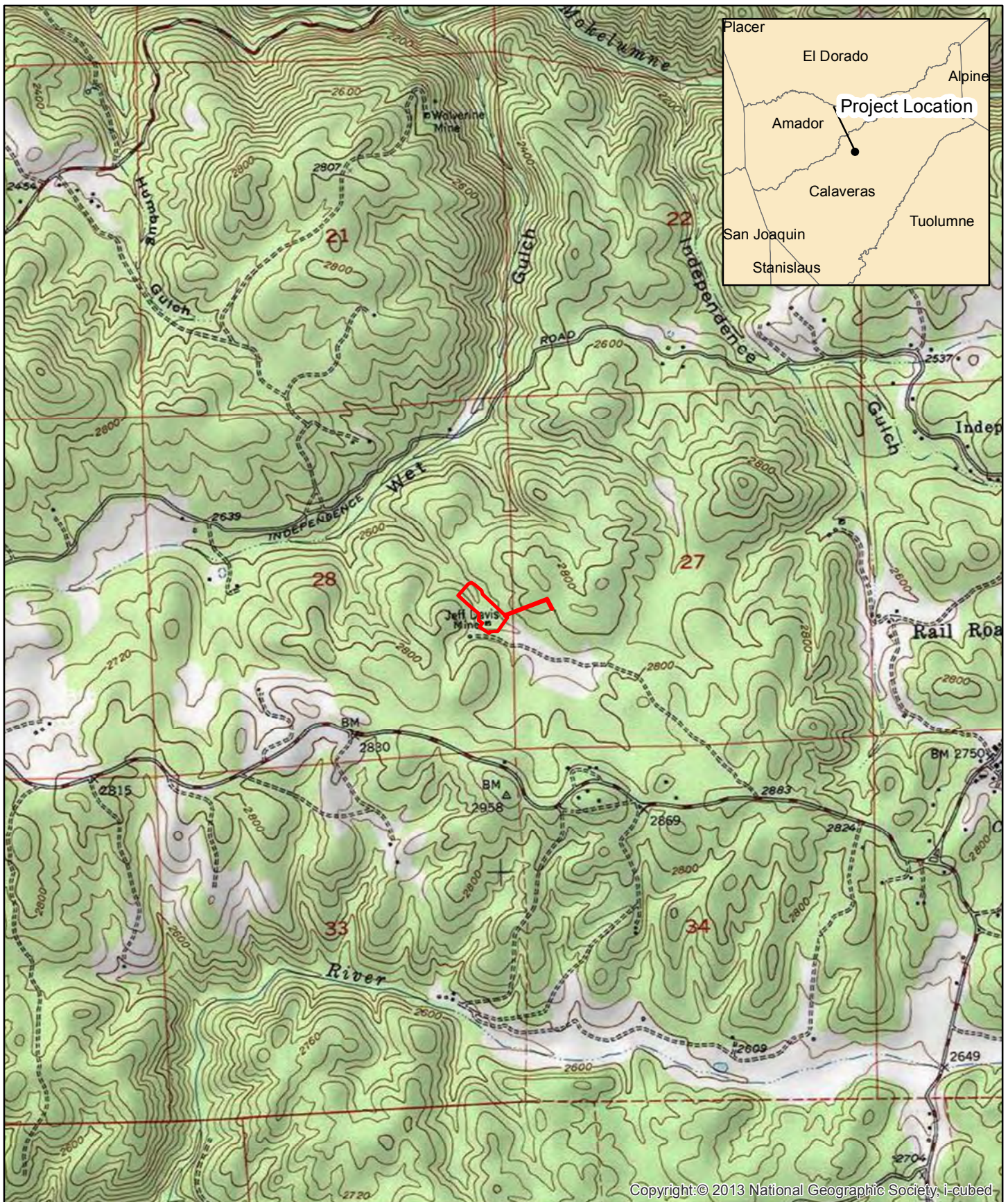
Paleontological Resources

Paleontological resources are limited, non-renewable resources of scientific, cultural, and educational value that are explicitly afforded protection by CEQA, specifically Section VII(f) of Appendix G which addresses the potential for adverse impacts to unique paleontological resources, sites, or geological features. It requires that impacts on such resources be considered in the project review process. While CEQA does not precisely define unique paleontological resources, the treatment of paleontological resources on non-federal lands is usually conducted in accordance with guidance from the criteria established by the Society of Vertebrate Paleontology (SVP). Treatment usually consists of identification, assessment, and mitigation for potential impacts to significant paleontological resources (SVP 2010).

PRC Section 5097.5 states that no person shall “knowingly and willfully” excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Public lands include those “owned by, or under the jurisdiction of, the [S]tate, or any city, county, district, authority, or public corporation, or any agency thereof.” If paleontological resources are identified within a given project site, the lead agency must take those resources into consideration when evaluating project impacts. The level of consideration may vary with the importance of the resource in question.

In accordance with guidelines established by the SVP (2010), an assessment of the scientific significance of fossilized remains is based on whether they can provide data on the taxonomy and phylogeny of ancient organisms, the paleoecology, and nature of paleoenvironments in the geologic past, or the stratigraphy and age of geologic units. Because most vertebrate fossils are rare, they are considered important paleontological resources. Conversely, marine invertebrates are generally common, the fossil record is well developed and well documented, and they are generally not considered important paleontological resources.

Substantial damage to or destruction of significant paleontological resources as defined by the SVP (2010) would represent a significant impact.



APE

0 0.5 1
Kilometers

0 0.5 1
Miles



1:24,000

Calaveras Public Utility District
Backwash Recycle Project
Figure 1 - APE Location



NATURAL
INVESTIGATIONS
COMPANY



Figure 2. Project Design Map

REPORT PREPARATION

Lori Harrington M.A., RPA was the Principal Investigators for the Project and primary author of this report. Ms. Harrington has thirty years of experience in California archaeology and exceeds all requirements of the *Secretary of Interior's Qualifications Standards* at 36 CFR Part 61.

Dylan Stapleton, M.A., RPA performed the pedestrian survey for the Project and prepared the field results section of this report. Mr. Stapleton has twelve years of professional experience in archaeology. The format of this report follows the guidelines in *Archaeological Resource Management Reports: Recommended Contents and Format* prepared by the Office of Historic Preservation (1990).

ENVIRONMENTAL SETTING

GEOLOGY, HYDROLOGY, AND SOILS

Geology, Hydrology and Soils

The Project is located at an elevation ranging from 2,739 to 2,840 feet (835–866 meters) above mean sea level (msl) on the western slope of the Sierra Nevada Mountains in the Sierra Nevada physiographic province (Norris and Webb 1990). The Sierra Nevada is approximately 50 miles wide and extends for 400 miles paralleling California's eastern border south from the Cascade Range to the central Transverse Ranges. The geology of the Sierra Nevada is characterized primarily by igneous and metamorphic rocks of diverse composition and age that also contain gold-bearing veins in the northwest-trending Mother Lode. The Mother Lode region in the Sierra Nevada extends southward from El Dorado County, passes through Calaveras County, and ends in Mariposa County.

A review of the geologic map prepared by Wagner et al. (1981) indicates the Project area is at the interface of two underlying geologic rock units. These are a band of sedimentary rocks and rhyolitic tuff of the Valley Springs Formation (Tvs), which dates to the Late Oligocene/early Miocene (30-20 million years ago) (Bartow 1992), and a small Mehrten Formation outcrop (Tm). The Mehrten Formation is of late Miocene and Pliocene age (12-3 million years) and comprised of both volcanic deposits in the Sierra Nevada and fluvial material reworked from volcanic deposits that outcrop along the eastern edge of the Central Valley (Arkley 1962; Hilton 2009). Undifferentiated metamorphic rocks of Paleozoic age (Pzu; older than 260 million years ago) underlie the area south of Railroad Flat Road around these two rock units.

Three significant rivers are present within Calaveras County—Mokelumne, Calaveras, and Stanislaus—that carry runoff from the western slopes of the Sierra Nevada from east to west across the county and into the Central Valley.

Three specific soils series have been currently mapped by the U.S. Department of Agriculture (USDA) National Resource Conservation Service (NRCS) for this area (California Soil Resource Lab 2015; Soil Survey Staff 2024) Nedsgulch- sites complex 3to 15% slope (8160), Nedsgulch- sites complex 15to 30% slope (8161) and Nedsgulch- sites complex 30 to 60% slope (8162). The Nedsgulch series consists of very deep, well drained soils formed in colluvium and residuum from schist.

CLIMATE, FLORA/FAUNA

The Project vicinity is characterized by hot, dry summers and warm, moist winters. Average precipitation is 20 inches per year in western Calaveras County and 60 inches per year in the northeastern region. The wet season extends from October through May. Winter precipitation in this region falls as rain or snow.

Snow is rare in the foothills but accounts for much of the precipitation in the higher elevations. Average winter temperature is 45 degrees Fahrenheit, and summer temperature highs average 76 degrees Fahrenheit. The current Mediterranean climate is dryer and hotter than the conditions present at the time of California's initial occupation (Major 1988).

The Project vicinity is best described as rural residential within a heavily wooded, sloped landscape. The area has substantial areas of public land with recreational opportunities, farms and ranches, and rural subdivisions. Town centers with limited commercial and community facilities in Rail Road Flat and Glencoe are located approximately 2.5 and 5 miles north and northwest of the Project, respectively. More developed and urban communities are present along the State Route 49 corridor and areas further west.

Historically, the Project vicinity in Calaveras County was characterized by chaparral and scrub, annual grassland, woodland, hardwood forest, conifer forest, and riparian vegetation communities (Monk & Associates 2013). Woodland communities (valley oak, blue oak, and blue-oak digger pine) were dominant in most of the lowlands up to 3,000 feet above msl, while hardwood forests (montane hardwood and montane hardwood-conifer) transitioned from the middle elevations along river and stream drainages on the west slope of the Sierra Nevada, with aspen forests at high elevations. Conifer forest (ponderosa pine, white fir, lodgepole pine, and red fir) formed the dominant vegetation community above 2,500 feet in elevation or the eastern half of Calaveras County. Riparian communities (valley-foothill and montane) were present along all watercourses in the county. This mosaic of ecological communities would have provided a very productive environment. Based on the ethnographic descriptions of the Northern Sierra Mi-wuk who historically occupied this region, their hunting-gathering economy was supported by a variety of large and small mammals, edible plant species, fish, and birds (Kroeber 1925; Levy 1978).

Mule deer, mountain lion, and black bear would have been among the larger mammals inhabiting the Project vicinity (Monk & Associates 2013). A variety of smaller animals, including rabbit, western gray squirrel, gray fox, bobcat, coyote, and pocket gopher, would have also been available for exploitation. Among the variety of birds present in this altitudinal mosaic today are belted kingfisher, great blue heron, willow flycatcher, yellow warbler, and woodpeckers. In addition, the region's rivers once housed a variety of anadromous and freshwater fish species, such as sturgeon, salmon, and rainbow trout/steelhead.

CURRENT LAND USES

Currently, the property is in use as a water treatment plant and has been partially developed with modern holding tanks, ponds, gravel pads, and two-track access roads.

INDIGENOUS OVERVIEW

A recent synthesis of the prehistory of California's Sierran foothill region focuses on local data from more than 100 excavated sites in the watersheds of the Mokelumne, Calaveras, Stanislaus, and Tuolumne rivers (Rosenthal 2006, 2011). The local, site-based synthesis is based on spatial and stratigraphic analyses with over 875 projectile points, nearly 600 shell beads, more than 200 radiocarbon dates, and in excess of 4,000 source-specific obsidian hydration readings. With timeframes adjusted for modern calibration curves for radiocarbon dates, the chronological sequence for this region is divided into five major time periods: Early Archaic (11,500–7000 cal [calibrated] BP [before present]), Middle Archaic (7000–3000 cal BP), Late Archaic (3000–1100 cal BP), Recent Indigenous I (1100–610 cal BP), and Recent Indigenous II (610–100 cal BP). Unless otherwise cited, the following summary for each of these periods is based on Rosenthal (2006, 2011).

Early Archaic Period (11,500–7000 cal BP)

There is little evidence of the Early Archaic period in the named Sierran foothill region watersheds. Stratified cultural deposits at two sites have yielded wide-stemmed and large-stemmed dart points, as well as handstones and milling slabs, cobble core tools, and large percussion-flaked greenstone bifaces. Relatively high frequencies of obsidian from the Bodie Hills, located east of the Sierran crest, were also recovered.

Middle Archaic Period (7000–3000 cal BP)

A number of buried sites have been found in the western Sierran foothills that date to the Middle Archaic Period. The cultural material is primarily distinguished by corner-notched dart points, with an occasional mortar and pestle, as well as the earliest house structures in association with large subterranean storage pits. Various stone pendants, incised slate, and stone beads, as well as soapstone “frying pans” and other vessels first appear in the local archaeological record during this period. The presence of atlatl weights and spurs in these deposits confirms that the dart and atlatl were the primary hunting implements. In foothills sites in Calaveras County (CA-CAL-629/630 and CA-CAL-789), pine nut and acorn remains have been recovered (Rosenthal et al. 2007).

Late Archaic Period (3000–1100 cal BP)

Our understanding of the prehistory of the western Sierran slope benefits from a larger number of sites, many of which occur in buried stratigraphic contexts. Although Late Archaic lifeways, technologies, and subsistence patterns are similar to those of the Middle Archaic, a primary difference is an increase in the use of obsidian. Flaked stone assemblages found above 6,000 feet on the western slope are composed almost entirely of obsidian (greater than 80 percent). The use of chert, which is only available in the foothills of the western Sierra below about 3,000 feet, is more common below 6,000 feet. This pattern suggests that groups who utilized the upper elevations of the western Sierra likely arrived from the east side where obsidian was the primary toolstone.

Recent Indigenous II Period (610–100 cal BP)

During the Recent Indigenous II Period, bedrock milling features are established across the western Sierran landscape, near well-developed residential middens and as isolated features. The common occurrence of bedrock mortars suggests they became an important milling technology by the start of the period. Greater settlement differentiation is also evident during this period, with focused residential sites that often include house depressions and other structural remains, as well as with special-use localities consisting simply of bedrock milling features. Additional specialized technologies associated with the Recent Indigenous II include stone drills and bone awls. The common occurrence of bone awls suggests basketry and other composite implements may have taken on a new importance. Desert Side-notched arrow points, which were likely adopted from Great Basin people to the east, appear in the archaeological record near the beginning of this period. Circular stone shaft-straighteners are also common in Recent Indigenous II sites, consistent with use of the bow and arrow. The increase in sedentism and population growth led to the development of social stratification, with a more elaborate social and ceremonial organization. Imported shell beads from coastal California first appear in appreciable amounts in Recent Indigenous II village sites, as do other rare items such as shell ornaments and bone whistles.

Recent Indigenous I Period (1100–610 cal BP)

The beginning of the Indigenous Period coincides with a region-wide interval of reduced precipitation known as the Medieval Climatic Anomaly. Among the most important changes in the archaeological record of the western slope at this time was the introduction of the bow and arrow at the start of the period. This

innovation appears to have been borrowed from neighboring groups to the north or east. This shift in technology is clearly reflected by the dominance of small stemmed and corner-notched arrow points in Recent Indigenous I sites.

ETHNOGRAPHIC OVERVIEW

The Northern Sierra Mi-wuk (also spelled Miwok) historically occupied the project area (Kroeber 1925; Levy 1978). They are one of four other Mi-wuk groups (Bay, Plains, Central Sierra, and Southern Sierra) whose Eastern Miwok language is a subfamily of the Miwokan branch of the Utian language family, which is regarded as a subgroup of Penutian stock. Prior to Euro-American contact, Northern Sierra Mi-wuk occupied the foothills and mountains of the Mokelumne and Calaveras river drainages (Levy 1978:398). Neighboring groups included the Washoe to the east, Central Sierra and Southern Sierra Mi-wuk to the southeast, Plains Mi-wuk to the west, and Nisenan to the north.

Seasonally mobile hunter-gatherers with semi-permanent villages, the foothills and mountains provided the Northern Sierra Mi-wuk with an abundance of natural resources. Acorns were of particular importance to the diet. Oak trees from which this staple food was gathered annually were carefully preserved by the Sierra Mi-wuk (Heizer and Elsasser 1980:23). The Mi-wuk hunted, gathered or fished antelope, elk, rabbit, salmon, waterfowl, and valley oak acorns at the lower elevations (Heizer and Elsasser 1980:10). Deer, rabbit, salmon, valley quail, gray pine nuts, blue oak acorns, and live oak acorns were obtained in the foothills. At the higher elevations, resources included deer, squirrel, trout, mountain quail, pigeons, nuts of the sugar pine, and black oak acorns.

Political units among the Mi-wuk were structured by similarities in language and ethnicity, and villages were divided into “tribelets” (Levy 1978:410). Tribelets controlled specific lands and the natural resources within that territory. The population size of Sierran Mi-wuk tribelets averaged between 100 and 300 individuals. The territory of each Mi-wuk tribelet typically included a main village and smaller satellite villages. Semi-permanent Northern Sierra Mi-wuk settlements or winter villages were clustered along the Mokelumne and Calaveras river drainages. Traditional houses were made of thatching, tule matting, or slabs of bark over a conical framework of poles (Levy 1978:408–409). Villages also contained acorn granaries, winter grinding houses, and conical sweathouses.

Similar to other California Native American groups, the Mi-wuk employed a variety of tools, implements, and enclosures for hunting and collecting natural resources (Levy 1978:403-406). The bow and arrow, snares, traps, nets, and enclosures or blinds were used for hunting land mammals and birds. For fishing, they made canoes from tule, balsa, or logs, and used harpoons, hooks, nets, and basketry traps. To collect plant resources, they used sharpened digging sticks, long poles for dislodging acorns and pinecones, and a variety of woven tools (seed beaters, burden baskets, and carrying nets).

Foods were processed with a variety of tools, such as bedrock mortars, cobblestone pestles, anvils, and portable stone or wooden mortars that were used to grind or mill acorns and seeds (Levy 1978:403-405). Additional tools and implements included knives, anvils, leaching baskets and bowls, woven parching trays, and woven strainers and winnowers. Prior to processing, the acorns were stored in the village granaries. Earth ovens were used by the Mi-wuk to bake acorn bread.

The Mi-wuk participated in an extensive east-west trade network between the coast and the Great Basin (Levy 1978:411-412). From coastal groups marine shell (*Olivella* and abalone) and steatite moved eastward, while salt and obsidian traveled westward from the Sierras and Great Basin. Basketry, an important trade item, moved in both directions.

The discovery in 1848 of gold in the western Sierra Nevada foothills and the ensuing Gold Rush led to a flood of non-indigenous peoples into Mi-wuk territory. Sierran Mi-wuk remained in rancherias scattered throughout the foothills, but in addition to traditional hunting and gathering, they worked seasonally as paid laborers on foothills farms and ranches (Levy 1978:401). Their reliance on cash income increased as natural resources decreased with the growth of non-Miwukan communities and towns in their traditional territory.

During the first half of the 1900s, the federal government acquired lands and established reservations, or *rancherias*, for the Plains Mi-wuk, Northern Sierra Mi-wuk and Central Sierra Mi-wuk (Levy 1978:401). The U.S. Bureau of Indian Affairs terminated relations with most of these rancherias between 1934 and 1972, but status has been restored to the majority of the rancherias, beginning in 1984. At present, there are seven federally-recognized rancherias (Wilton, Shingle Springs, Jackson, Buena Vista, Sheep Ranch, Tuolumne, and Chicken Ranch) in Amador, Calaveras, El Dorado, Lake, and Tuolumne counties that have primarily or exclusively Eastern Mi-wuk populations (BIA 2015; California Indian Assistance Program 2011).

HISTORIC OVERVIEW

Spanish, Mexican, and American Periods

Post-contact history for the State of California generally is divided into three specific periods: the Spanish Period (1769–1822), the Mexican Period (1822–1848), and the American Period (1848–present). Although there were brief visits by Spanish, Russian, and British explorers from 1529 to 1769, the beginning of Spanish settlement in California occurred in 1769 at San Diego. Between 1769 and 1823, 21 missions were established by the Spanish and the Franciscan Order along the coast between San Diego and San Francisco. The Spanish expeditions into the Central Valley in 1806 and 1808 led by Lieutenant Gabriel Moraga explored along the main rivers, including the American, Calaveras, Cosumnes, Feather, Merced, Mokelumne, Sacramento, San Joaquin, and Stanislaus. In 1813, Moraga led another expedition in the lower portion of the Central Valley and gave the San Joaquin River its name (Hoover et al. 2002:369). The last Spanish expedition into California’s interior was led by Luis Arguello in 1817 and traveled up the Sacramento River, past the future site of the city of Sacramento to the mouth of the Feather River, before returning to the coast (Beck and Haase 1974:18, 20; Gunsby 1989:3-4).

After the end of the Mexican Revolution (1810–1821) against the Spanish crown, the Mexican Period is marked by an extensive era of land grants, most of which were in the interior of the state, as well as by exploration by American fur trappers west of the Sierra Nevada Mountains. Most of the land grants to Mexican citizens in California (*Californios*) were in the interior since the Mexican Republic sought to increase the population away from the more settled coastal areas where the Spanish settlements had been concentrated. The largest land grants in the Sacramento Valley were awarded to John Sutter. In 1839, he founded a trading and agricultural empire called New Helvetia that was headquartered at Sutter’s Fort near the divergence of the Sacramento and American rivers in today’s City of Sacramento (Hoover et al. 2002). One land grant, the majority of which was in neighboring Stanislaus County, was issued within today’s Calaveras County. Awarded in 1843 and located north of the Stanislaus River, the 48,887-acre Rancheria del Rio Estanislao also bordered present-day Tuolumne County to the south (Beck and Haase 1974:32).

The first American trapper to enter California, Jedediah Smith, explored along the Sierra Nevada in 1826 and in 1827, he entered the Sacramento Valley, traveling along the American and Cosumnes rivers. In 1827, Smith also traveled through the San Joaquin Valley. Other trappers soon followed, including employees of the Hudson’s Bay Company in 1832 (Hoover et al. 2002:370). Between 1830 and 1833, and again in 1837, diseases introduced by the non-indigenous explorers, trappers, and settlers, as well as relocation to the

missions, military raids, and settlement by non-native groups, decimated native Californian populations, communities, and tribes in the Sacramento and San Joaquin valleys (Cook 1955).

The American Period was initiated in 1848 with the signing of the Treaty of Guadalupe Hidalgo, which ended the Mexican–American War (1846–1848), and California became a territory of the United States. Gold was discovered at Sutter’s Mill on the American River in Coloma the same year, and by 1849, nearly 90,000 people had journeyed to the gold fields. In 1850, largely as a result of the Gold Rush, California became the thirty-first state. Four years later, the bustling boomtown of Sacramento became the state capital. In contrast to the economic boom and population growth that enabled statehood, the loss of land and territory (including traditional hunting and gathering locales), malnutrition, starvation, and violence further contributed to the decline of indigenous Californians in the Central Valley and all along the Sierra Nevada foothills (Chartkoff and Chartkoff 1984:296; Gunsky 1989).

Local History

Created in 1850 at the time of statehood, Calaveras County is one of the original 27 counties of California (Hoover et al. 2002:43). To the north and south, the county is bordered by two major rivers, Mokelumne and Stanislaus, respectively. Tradition states the name of the county was derived from that of the Calaveras River, so named by Spanish Lieutenant Gabriel Moraga during the expedition of 1808. Other accounts indicate the Spaniards referred to the waterway as Rio San Juan and that *calaveras*, the Spanish word for skulls, was adopted after the discovery of numerous skeletal remains on the river banks by the John Marsh party in 1836/1837 (Gudde 1998:58-59). Maps dated 1841 show both names, but the map produced by John Frémont and Charles Preuss in 1845 shows only Río de las Calaveras. The discovery by the Marsh party may reflect the effect of the malarial epidemics of 1833 and 1837 that decimated indigenous populations, leaving no one to bury the dead (Mace 2002:63).

Located in the central part of the Mother Lode, the history of Calaveras County is deeply tied to the Gold Rush era and the mining of gold as well as copper. Angels Camp, Murphys, and Carson Hill were established as placer gold mining camps by George and Henry Angel, John and Dan Murphy, and James Carson in the summer of 1848 (Mace 2002). Mokelumne Hill and San Andreas were also founded in 1848. By 1849, thousands of gold seekers had traveled to the region, many of them traveling the route followed by today’s State Route 26. Additional communities, such as Calaveritas, Campo Seco, and El Dorado, were established and named after prominent mines or miners, locations, or events. Jenny Lind, once the center of mining operations on the lower Calaveras River, was named after an opera star (Hoover et al. 2002:48). In 1860, an extensive deposit of copper (the second largest in the state) was discovered in the southwestern part of the county at Copperopolis, with more than \$1,600,000 worth of copper shipped east via Stockton during the Civil War era and via the Stockton-Copperopolis Railroad beginning in the early 1870s (Hoover et al. 2002:48; Lewis Publishing Company 1891).

At an elevation of 2,600 feet (792 meters) above msl, the historic mining town of Rail Road Flat (formerly Independence Flat) was named after the primitive mule-drawn ore cars that were used here during the Gold Rush era (Durham 1998:818; Gudde 1998:309; OHP 2015). A center of rich placer and quartz mining, Petticoat Mine was the largest producer. The camp was initially settled in 1849, with a post office established in 1857, closed in 1858, and re-established in 1869. The town’s elementary school was established in 1896. In 1880, the town’s population was decimated by black fever. The Edwin Taylor store built in 1867 and the site of an Indian council house are among present-day attractions. The town, which never had an actual railroad, was registered as a California Historical Landmark (No. 286) on January 8, 1938.

The Project is located in the Railroad Flat mining district within the East Gold Belt, a broad zone extending from 5 to 20 miles east of the Main Gold Belt, which was the true Mother Lode running through Carson

Hill, Angels Camp, and Paloma. Historic maps (1859/1874 GLO Plat; 1948 Mokelumne Hill and Railroad Flat USGS quadrangles) show the Project vicinity near Esperanza Creek north to Railroad Flat as dotted with scattered mine shafts and prospect pits, but none within Section 11. The 1859/1874 GLO Plat also depicts an area of “Placer Diggings” and “Placer Mines” off Gulch Creek (presently Jack Nelson Creek) northwest of the Project. The quartz-rich gravel deposits in the Tertiary-age Fort Mountain channel were mined by placer drift methods at the Lampson Mine. The mine is mapped in Sections 2 and 3 northwest of and outside the Project limits. The mine was first active 1884, with the gravel from the drift mine processed in a two-stamp mill in 1899. By 1902, the mine had a five-stamp mill. Some small-scale mining was also conducted after 1920, but the Lampson Mine was not among the major gold-producing mines of the East Gold Belt (Clark 1970; Clark and Lydon 1962:191, Plate C; Lindgren 1911:211).

The 1859/1873 Government Land Office (GLO) Plat for Township 5 North, Range 13 East shows the “Road from El Dorado” connecting northward to the “Road to Rail Road Flat” in Sections 11 and 14 west of and outside the Project. The present-day route along the ephemeral drainage in Section 11 east of the Project does not follow the historic corridor on the GLO plat. The Road to Rail Road Flat traverses northward through the western third of Section 11. To the east, an unnamed road approximates the alignment of present-day Railroad Flat Road east of the Project. None of the historic maps (1859/1874 GLO Plat; 1948 Mokelumne Hill and Railroad Flat USGS quadrangles) or aerial photographs dating prior to 1998 show any development within the Project limits.

Mokelumne Hill:

Mokelumne is an Indian word, first applied to the nearby river. Earliest settlement was at Happy Valley by French trappers. Gold was discovered by discharged members of Stevenson's Regiment in 1848. Mokelumne Hill was the center of the richest placer mining section of Calaveras County and one of the principal mining towns of California. Corral Flat produced over thirty million in gold. Sixteen feet square constituted a claim. The so-called “French War” for possession of gold mines occurred in 1851. The town was destroyed by fires in 1854, 1864, and 1874. Mokelumne Hill was the county seat of Calaveras County from 1853 to 1866.

RESEARCH METHODS AND FINDINGS

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

A California Historical Resources Information System (CHRIS) records search was conducted by the Central California Information Center (CCIC) of the California Historical Resources Information System at California State University, Stanislaus. to determine whether indigenous or historic cultural resources were previously recorded within the Project APE, the extent to which the Project APE has been previously surveyed, and the number and type of cultural resources within a 0.5-mile radius of the Project APE. The records search included the following sources:

- National Register of Historic Places: listed properties
- California Register of Historical Resources: listed resources
- Historic Property Data File for Placer County
- Archaeological Determinations of Eligibility
- Built Environment Resources Directory
- California Inventory of Historical Resources
- California Historical Landmarks
- California Points of Historical Interest
- Historical GLO land plat maps

Previous Studies

The records search identified nine previous cultural resources surveys in the Project APE and three previous cultural resources surveys in the 0.5-mile record search radius around it (Table 1).

Table 1. Previous Studies in and within 0.5 Miles of the Project APE			
NCIC Report No. CA	Study	Author/Year	In/Out of the Project APE
02344	Archaeological and Historical Resources Survey and Impact Assessment, A Supplemental Report for a Timber Harvesting Plan: Colburn THP.	Lowry, Tom, 1993	In
02602	Archaeological and Historical Survey and Impact Assessment; A Supplemental Report for a Timber Harvesting Plan, Pacini THP #4- 95-20/CAL-4.	Jackson, Patrick C. 1994	Out
02718	Archaeological Survey of Parcel B, Part of the NE 1/4, Section 33, T6N, R13E on Ridge Road, near Railroad Flat, Calaveras County	Stratton, Susan K. 1995	Out
02887	Archaeological and Historical Resources Survey and Impact Assessment; A Supplemental Report for a Timber Harvesting Plan, Independence THP, #4-96-125/CAL-20.	Stickers, Donald E. 1996	Out
03025	Archaeological Addendum-Independence THP Ammedment-3 Acre Conver. Exempt. THP#4-96-125/CAL-20 Ammend# 3.	Stickers, D. E. 1997	Out
03969	Historic Properties Survey Report (Negative) for the Rail Road Flat Water Pipeline and Storage Tank Project, Calaveras Public Utility District, Calaveras County, California	Davis-King, S. 2000	In
04457	Letter Report Regarding Rail Road Flat Extension Historic Properties Survey.	Davis-King, Shelly 2002	Out
05314	Archaeological and Historical Resources Survey and Impact Assessment: A Supplemental Report for a Timber Harvesting Plan; Jenschke THP, 4-94-122/CAL-20.	Hubbell, R. 1994	Out
05616	Cultural Resource Inventory Report, USDI, Bureau of Land Management, Folsom Field Office: Independence Road PG & E Power Line Maintenance Project, CA-018-S-AC- 04/03.	Barnes, J. 2004	Out
05743	An Archaeological Survey Report for the Wet Gulch THP, Calaveras County, California. 4-05-016/CAL-1.	Kral, J. 2005	Out
06000	Cultural Resource Study of a Two-Parcel Property Totaling 86 acres Near Rail Road Flat, Calaveras County, CA (APN 14-010-122 and 14-010-123)	Andolina, D., J. Marvin, and J. Costello. 2006	In

Previously Recorded Resources

The records search identified no previously recorded cultural resources in the Project APE and identified four previously recorded cultural resources in the 0.5-mile radius around it (Table 2).

Table 2. Previously Recorded Sites within 0.5 Miles of the APE			
Primary No. (P-05-)	Brief Description	Recorded By and Year (most recent)	In/Out of the Project APE
001304	AH06 (Water conveyance system) - Clark's Ditch	Patrick GIS Group, Inc. 2017	Out
001870	AH06 (Water conveyance system) - Earthen ditch;	Don Stickers 1997	Out
003081	AH06 (Water conveyance system)	James J. Kral 2005	Out
003280	AH07 (Roads/trails/railroad grades) -	Darren Andolina and Linda Thorpe 2005	Out

SACRED LANDS FILE SEARCH

Natural Investigations requested a Sacred Lands File search from the Native American Heritage Commission to identify any sensitive Native American cultural resources in or near the Project APE and received the results of the NAHC search on March 14, 2024. The results of the SLF search were negative for sensitive Native American cultural resources in the Project area. The NAHC also provided contact information for tribal members and organizations affiliated with the region. Natural Investigations sent letters and maps to all tribal contacts included on the NAHC list on March 15, 2024, informing them of the Project and requesting any information regarding the Project area that they would be willing to share. If no response was received, follow-up phone calls were made on March 29, 2024. See comments and additional information on Native American outreach efforts undertaken for the Project is provided in Appendix A included with this report.

FIELD METHODS AND FINDINGS

METHODS

An intensive-level pedestrian survey was conducted for the approximate 1.3-acre project area by Natural Investigations archaeologist Dylan Stapleton on March 29, 2024 (Figure 1). The 1.3 acres were intensively surveyed using transects spaced no greater than 15 meters apart.

During the pedestrian survey, all visible ground surface within the project area was carefully examined for cultural material (e.g. flaked stone tools, tool-making debris, stone milling tools, or fire-affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions, and features indicative of the former presence of structures or buildings (e.g. postholes, foundations), or historic-era debris (e.g. metal, glass, ceramics). Ground disturbances (e.g. embankment, dirt roads, rodent burrows, etc.) were visually inspected. A digital camera was used to take photographs of the Study Area, a Munsell® Soil Color Chart was used to record soil color, and a handheld BE-5300-GPS global positioning system (GPS) unit with sub-meter accuracy was used to record locational data.

FINDINGS

The 1.3-acre Project Area is located within the plant boundaries of the Jeff Davis Water Treatment Plant. The plant is located in an oak woodland environment and is situated in a foothill topography within a mountain backslope setting.

The Project Area is located at 1601 West Forty Road near the census-designated place of Railroad Flat in Calaveras County, California. The Project Area was accessed from Highway 26, Ridge Road, and West Forty Road. The parcel is bound by undeveloped woodland to the north, south, and west and a reservoir to the east. Elevations within the Project Area ranged from 2,729-2,825 feet above mean sea level. Currently, the property is in use as a water treatment plant and has been partially developed with modern holding tanks, ponds, gravel pads, and two-track access roads. Vegetation was comprised of oak, manzanita, mountain misery, poison oak, and annual grass and forbs.

Visibility at the time of the survey was poor (1-25%) (Photographs 1-8). The slope within the Project Area was moderate at 18%. Soils on the property were a Munsell brown (7.5YR 4/3) moist gravelly loam.



Photograph 1. Overview of survey area. View east.



Photograph 2. Overview of survey area. View east.



Photograph 3. Overview of survey area. View south.



Photograph 4. Overview of survey area. View east.



Photograph 5. Overview of survey area. View south.



Photograph 6. Overview of survey area. View north



Photograph 7. Overview of survey area. View south.



Photograph 8. Overview of two track access road in survey area. View east.



Photograph 9. Overview of P-05-001304. View east.



Photograph 10. Overview of P-05-001304. View south.

No new prehistoric sites, historic sites, features or ethnographic sites were recorded during the survey. One previously recorded historic resource (P-05-001304: water conveyance system) was noted outside the survey area but was not updated.

POTENTIAL FOR BURIED ARCHAEOLOGICAL DEPOSITS

The Project APE rests upon Nedsgulch series soils found on side slopes of high hills and mountains with slopes ranging from 3 to 60 percent. Nedsgulch series are formed in material weathered from tilted slates, shists, and metasedimentary rocks. Buried soils representing former landscapes are not present in this soil series.

CONCLUSIONS AND RECOMMENDATIONS

CULTURAL RESOURCES

No archaeological or built environment resources were newly identified during the survey, and no other cultural resources were previously recorded within the Project area. Thus, the Project does not have the potential to cause a significant impact on any resource that currently qualifies as a historical resource, or that has been recommended as eligible for listing in the NHPA.

Based on the results of the records search, field survey, and assessment of potential direct or indirect Project impacts, no additional cultural resources work is recommended at this time. Considering a portion of the Project area has been disturbed due to the development of a water treatment plant the potential for the discovery of buried archaeological materials within the Project area is low. Construction monitoring of ground-disturbing activity is thus not recommended.

Consequently, Natural Investigations determined that a finding of *No Historic Properties Affected* pursuant to 36 CFR § 800.4 (d)(1) is appropriate for the Project. No mitigations are required.

PALEONTOLOGICAL RESOURCES

A record search of the Museum of Paleontology at the University of California in Berkeley indicated that the Mokelumne Hill area is **highly** sensitive for paleontological resources. Thirty-one paleontological sites have been found within Calaveras County (UCMP 2020). The closest finds were located in the Mokelumne River watershed by East Bay MUD (2021). Recovered species include a two-tusked mastodon, a four-tusked gomphothere, rhinoceros, camel, horse, bird, fish, tortoise, and tapir, among others still to be identified. The high concentration of fossils suggests this area was once made up of multiple river channels with an abundant and diverse grassland and forested ecosystem.

Since construction excavations will not impact geologic bedrock units there should be no disturbance of paleontological resources. If however, paleontological resources are inadvertently discovered then a professional paleontologist should be consulted to reduce adverse impacts on scientifically important paleontological resources to a less than significant level (see Inadvertent Discoveries – Paleontological Resources below).

INADVERTENT DISCOVERIES

Cultural Resources

Regardless of the findings for the Project, it is possible to inadvertently uncover cultural resources during ground-disturbing Project activities. In the event that cultural resources are inadvertently discovered during Project activities, work should be halted within 30 feet of the find and a qualified archaeologist (i.e., an archaeologist that meets the qualifications at 36 CFR Part 61) should be retained to assess its potential significance. Construction activities may continue in other areas, but may not resume in the area of the find until the significance of the find is assessed and it is appropriately treated. If the find is not significant no additional cultural resources investigations are necessary and Project work may resume in the area of the find. If the find is determined significant, additional cultural resources investigations, such as data recovery excavation, may be warranted and would be determined in consultation with the Project applicant, the County, appropriate Tribes, and any other relevant regulatory agencies or interested parties, as appropriate.

Human Remains

Although unlikely, the discovery of human remains is always a possibility. State of California Health and Safety Code Section 7050.5 covers these discoveries, except on federal lands. This code section states that no further disturbance may occur until the County Coroner has made a determination of origin and disposition of the remains pursuant to PRC Section 5097.98. The County Coroner must be notified of the find immediately upon discovery. If the human remains are determined to be of Native American origin, the Coroner will notify the NAHC, which will determine and notify a Most Likely Descendent (MLD). The

MLD must complete an inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

Paleontological Resources

In the event that a paleontological resource is inadvertently discovered during Project-related work, regardless of the depth of work or location, work must be halted within 30 feet of the find and a qualified paleontologist (SVP 2010) notified immediately so that an assessment of its potential significance can be undertaken. If the find is determined to be significant, it should be salvaged following the standards of the SVP (2010) and curated with a certified repository such as the UCMP

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APPENDIX A:
Sacred Lands File Search Results



NATIVE AMERICAN HERITAGE COMMISSION

March 14, 2024

Cindy Arrington
Natural Investigations CompanyVia Email to: Cindy@naturalinvestigations.com

Re: Calaveras PUD-Backwash Recycle #2075 Project, Calaveras County

Dear Ms. Arrington:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Pricilla.Torres-Fuentes@nahc.ca.gov.

Sincerely,

*Pricilla Torres-Fuentes*Pricilla Torres-Fuentes
Cultural Resources Analyst

Attachment

CHAIRPERSON
Reginald Pagaling
ChumashVICE-CHAIRPERSON
Buffy McQuillen
Yokayo Pomo, Yuki,
NomlakiSECRETARY
Sara Dutschke
MiwokPARLIAMENTARIAN
Wayne Nelson
LuiseñoCOMMISSIONER
Isaac Bojorquez
Ohlone-CostanoanCOMMISSIONER
Stanley Rodriguez
KumeyaayCOMMISSIONER
Laurena Bolden
SerranoCOMMISSIONER
Reid Milanovich
CahuillaCOMMISSIONER
VacantEXECUTIVE SECRETARY
**Raymond C.
Hitchcock**
Miwok, NisenanNAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov



March 15, 2024

PROJECT INFORMATION AND COMMENT REQUEST LETTER

TO: Sara Dutschke, Chairperson, Ione Band of Miwok Indians;
Lloyd Mathiesen, Chairperson, Chicken Ranch Rancheria of Me-Wuk Indians;
Monica Fox, Tribal Administrator, Chicken Ranch Rancheria of Me-Wuk Indians;
Bailey Hunter, Environmental & Natural Resource Manager, Chicken Ranch Rancheria of Me-Wuk Indians;
James Smith, Vice Chairman, Chicken Ranch Rancheria of Me-Wuk Indians;
Cosme Valdez, Chairperson, Nashville Enterprise Miwok-Maidu-Nishinam Tribe;
Leland Valdez, Cultural Resources, Nashville Enterprise Miwok-Maidu-Nishinam Tribe;
Gloria Grimes, Chairperson, Calaveras Band of Mi-Wuk Indians;
Debra Grimes, Cultural Resources Specialist, Calaveras Band of Mi-Wuk Indians;
Lawrence Wilson Jr., Cultural Specialist, California Valley Miwok Tribe;
Anthony Wilson, Treasurer, California Valley Miwok Tribe;
Darrel Cruz, Cultural Resources Department, Washoe Tribe of Nevada and California.

EMAIL: Cindy@naturalinvestigations.com

PHONE: (916) 765-9381

PROPOSED PROJECT: Calaveras Public Utility District-Backwash Recycle Project, Calaveras County, California

USGS QUAD: Railroad Flat 7.5-minute Quadrangles: Sections 27, 28 of Township 6 north, Range 13 east of the Mount Diablo Base and Meridian

ACREAGE: ~2

Natural Investigations Company, Inc. (Natural Investigations) was retained to provide cultural resource services in support of the Calaveras Public Utility District-Backwash Recycle Project, in Calaveras County, California. The project location can be found on the attached Figure 1.

Project Description: The applicant, Calaveras Public Utility District, is proposing to install a backwash recycle ability at the Jeff Davis Water Treatment Plant. The project involves installing a precast pump station, 395 linear feet of electrical conduit, an air release/vacuum valve, 1,150 linear feet of 6-inch piping, 40 linear feet of 12-inch piping, and dredging the two existing sludge ponds.

Sacred Lands File Search: The Native American Heritage Commission (NAHC) returned the results of a Sacred Lands File search conducted for the Project, stating that records were negative for the presence of Native American cultural resources in the project vicinity. The NAHC recommended that we contact you for additional information on the potential for Native American cultural resources within or near the Project.

CHRIS File Search: Natural Investigations requested a records search of the California Historical Resources Information System by the Central California Information Center at California State University, Stanislaus to identify any previously recorded prehistoric or historic cultural resources and previously conducted surveys in the project area. The CHRIS search identifies three previous studies (1195-2006) have been conducted in the project area and, nine previous studies have been completed (1994-2005) within a 0.50-mile radius. Additionally, the CHRIS search shows

no previously recorded resources within the project area and four historic-era resources (3-water conveyance ditches and a road) have been identified within the 0.50-mile radius.

We would greatly appreciate any comments that you may have on potential cultural resources in the area and invite you to raise any other concerns relating to the Project should you have them. All information provided regarding specific sites or Native American cultural resources will remain confidential. Please feel free to contact me by phone or email. We would greatly appreciate a response at your earliest convenience.

Thank you for your assistance.

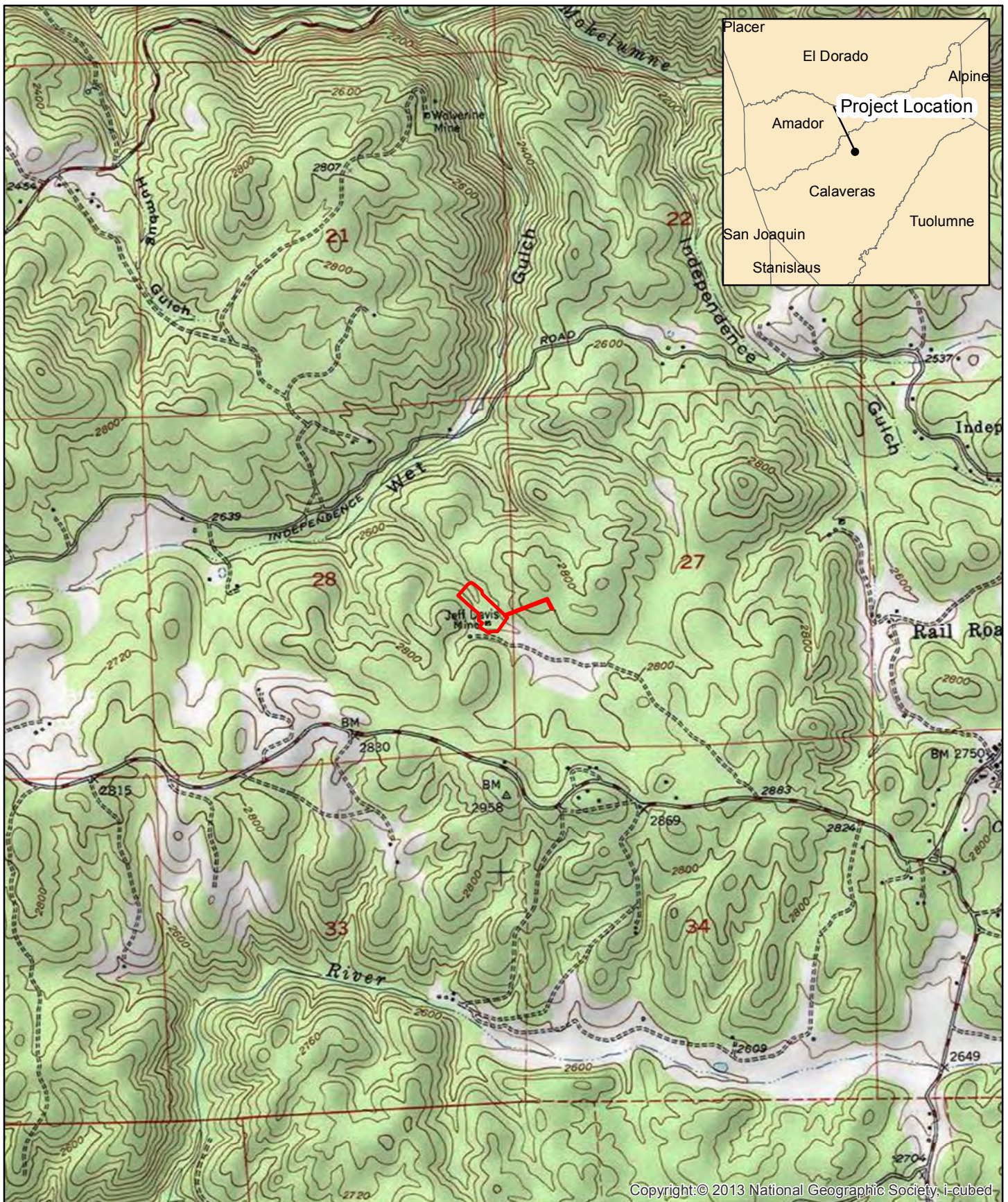
Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'C. Arrington', is positioned above the typed name.

Cindy Arrington, M.S., RPA
Administrator
916-765-9381

Cindy@naturalinvestigations.com

Attachments: Figure 1: Project Location Map



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1

Miles



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Calaveras Public Utility District
Backwash Recycle Project
Figure 1 - APE Location



NATURAL
INVESTIGATIONS
COMPANY



**Native American Contact Tracking Sheet
Calaveras PUD Project
Calaveras County, California**

Contact Name	Date Letter Sent	Date Follow Up	Responses
Ione Band of Miwok Indians Sara Dutschke, Chairperson 9252 Bush Street Plymouth, CA, 95669 Phone: (209) 245-5800 consultation@ionemiwok.net	03/15/2024	03/29/2024	Ms. Dutschke was not available. A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations.
Chicken Ranch Rancheria of Me-Wuk Indians Lloyd Mathiesen, Chairperson P.O. Box 1159 Jamestown, CA, 95327 Phone: (209) 984-9066 lmathiesen@crtribal.com	03/15/2024	03/29/2024	Mr. Mathiesen was not available. A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations
Chicken Ranch Rancheria of Me-Wuk Indians Monica Fox, Tribal Administrator P.O. Box 1159 Jamestown, CA, 95327 Phone: (209) 984-9066 mfox@crbtribal.com	03/15/2024	03/29/2024	Ms. Fox was not available. A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations.
Chicken Ranch Rancheria of Me-Wuk Indians Bailey Hunter, Environmental & Natural Resource Manager P.O. Box 1159 Jamestown, CA, 95327 Phone: (209) 984-9066 bhunter@crbtribal.com	03/15/2024	03/29/2024	Ms. Hunter was not available. A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations.
Chicken Ranch Rancheria of Me-Wuk Indians James Smith, Vice Chairman P.O. Box 1159 Jamestown, CA, 95327 Phone: (209) 984-9066 jsmith@crbtribal.com	03/15/2024	03/29/2024	Mr. Smith was not available. A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations
Nashville Enterprise Miwok-Maidu-Nishinam Tribe Cosme Valdez, Chairperson P.O. Box 580986 Elk Grove, CA, 95758-0017	03/15/2024	03/29/2024	Mr. Valdez was not available. A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to

Phone: (916) 396-1173 valdezcome@comcast.net			please contact Natural Investigations.
Nashville Enterprise Miwok-Maidu-Nishinam Tribe Leland Valdez, Cultural Resources Phone: (916) 429-8047	03/15/2024	03/29/2024	Mr. Valdez was not available. A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations.
Calaveras Band of Mi-Wuk Indians Gloria Grimes, Chairperson P.O. Box 899 West Point, CA, 95255 Phone: (209) 419-5675 calaverasband.miwukindians@gmail.com	03/15/2024	03/29/2024	Ms. Grimes was not available. A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations.
Calaveras Band of Mi-Wuk Indians Chairperson 546 Bald Mountain Road West Point, CA 95255 Phone: (209) 293-2189	03/15/2024	03/29/2024	A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations.
Calaveras Band of Mi-Wuk Indians Debra Grimes, Cultural Resources Specialist P.O. Box 1015 West Point, CA, 95255 Phone: (209) 470-8688 calaverasmiwukpreservation@gmail.com	03/15/2024	03/18/2024	Ms. Grimes sent an email requesting participation for the field survey and asking why the Honorable Silvia Burley was not included on the outreach. The NAHC contact list was sent to Ms. Grimes showing the list of Tribes/individuals to be contacted and that the Honorable Silvia Burley was not listed. The NIC Project Manager, Phil Hanes, was copied on the return email to coordinate field surveys. Mr. Hanes emailed Ms. Grimes to Coordinate field surveys, however that email was not replied to. No further communication was received from Ms. Grimes
California Valley Miwok Tribe Lawrence Wilson Jr., Cultural Specialist P.O. Box 395 West Point, CA, 95255 Phone: (209) 304-2307 l.wilson@yahoo.com	03/15/2024	03/15/2024	Mr. Wilson sent an email asking for a more precise location of the project area. A Google Earth kmz was sent to his email.
California Valley Miwok Tribe Anthony Wilson, Treasurer Phone: (530) 458-1675	03/15/2024	03/29/2024	Mr. Wilson was not available. A voice message was left asking if the

awanata426@gmail.com			Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations.
Washoe Tribe of Nevada and California Darrel Cruz, Cultural Resources Department 919 Highway 395 North Gardneville, NV 89410 Phone: (775) 265-8600 darrel.cruz@washoetribe.us	03/15/2024	03/29/2024	Mr. Cruz was not available. A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations.

From: [Lawrence wilson Jr.](#)
To: cindy@naturalinvestigations.com
Subject: Re: Tribal Outreach - Calaveras County - Project 2075
Date: Friday, March 15, 2024 3:43:35 PM

Hupaease (all is well), I was wondering if you could be a little more precise with the project location.

Lawrence Wilson Jr,

On Friday, March 15, 2024 at 08:50:25 AM PDT, cindy@naturalinvestigations.com
<cindy@naturalinvestigations.com> wrote:

Greetings. Natural Investigations Company was retained to provide cultural resource services in support of the Calaveras Public Utility District-Backwash Recycle Project, in Calaveras County, California. Attached to this email is a project information letter, project map, and the NAHC SLF results. Please let me know if you have any questions.

Kindest regards,

Cindy Arrington, M.S., RPA

Administrator

Natural Investigations Co., Inc.

3104 O Street, #221

Sacramento, CA 95816

Mobile: (916) 765-9381

Email: cindy@naturalinvestigations.com

SB(Micro) Certified

From: [Debra Grimes](#)
To: cindy@naturalinvestigations.com
Subject: Re: Tribal Outreach - Calaveras County - Project 2075
Date: Monday, March 18, 2024 2:59:45 PM

Good Afternoon Cindy,

The Calaveras Band of Mi-Wuk Indians would appreciate full involvement with this project and understanding the high sensitivity of our ancestral area's.

When does your company anticipate to do the survey? I am requesting to be involved in this survey with you folks to identify appropriately of our area.

I would like to further consult on phone with you. Unsure who these folks are claiming California Valley Miwok Tribe but I do not see Honorable Silvia Burley on this email chain and wondering why this has transpired.

Look forward to connecting with you immediately on this project.

Sincerely,

Debra Lynn Grimes, Tribal Cultural Resource Specialist
Calaveras Band of Mi-Wuk Indians

Sent from my iPad

On Mar 15, 2024, at 8:50 AM, cindy@naturalinvestigations.com wrote:

Greetings. Natural Investigations Company was retained to provide cultural resource services in support of the Calaveras Public Utility District-Backwash Recycle Project, in Calaveras County, California. Attached to this email is a project information letter, project map, and the NAHC SLF results. Please let me know if you have any questions.

Kindest regards,

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Administrator
Natural Investigations Co., Inc.
3104 O Street, #221
Sacramento, CA 95816
Mobile: (916) 765-9381
Email: cindy@naturalinvestigations.com

SB(Micro) Certified

<SLF No 2024 Calaveras PUD-Backwash Recycle #2075 Project 3.14.24.pdf>
<Tribal Outreach Letter-Calaveras PUD.pdf>

From: Phil Hanes phil@naturalinvestigations.com
Subject: Re: Tribal Outreach - Calaveras County - Project 2075
Date: March 18, 2024 at 4:17 PM
To: Debra Grimes calaverasmiwukpreservation@gmail.com



Good afternoon Debra, thanks for reaching out. We have not yet scheduled the field survey, but plan to in the coming weeks. We would be happy to have you participate. I am available tomorrow 9-1:30 if you would like to chat and that works for your schedule. let me know
Thank you,
Phil

Phil Hanes, MA, RPA
Principal Archaeologist
(303) 905-6588
phil@naturalinvestigations.com
Natural Investigation CO.
3104 O Street #221
Sacramento, CA 95816

On Mar 18, 2024, at 3:57 PM, <cindy@naturalinvestigations.com> <cindy@naturalinvestigations.com> wrote:

Greetings, Debra. Thank you for the reply. I have attached the NAHC contact list for this project and the Honorable Silvia Burley was not listed. I have copied Phil Hanes, the Principal and Project manager for this project. He will be able to address your questions regarding field schedule and a phone call.

Thank you again for your reply.

Kindest regards,
Cindy

From: Debra Grimes <calaverasmiwukpreservation@gmail.com>
Sent: Monday, March 18, 2024 2:59 PM
To: cindy@naturalinvestigations.com
Subject: Re: Tribal Outreach - Calaveras County - Project 2075

Good Afternoon Cindy,

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Email: cindy@naturalinvestigations.com

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<SLF No 2024 Calaveras PUD-Backwash Recycle #2075 Project 3.14.24.pdf>
<Tribal Outreach Letter-Calaveras PUD.pdf>

<Calaveras PUD-Backwash Recycle #2075 list.xlsx>