Initial Study/
Mitigated Negative Declaration

for

Union Public Utility District Backwash / Recycling and Tank Aeration Project

December 2019

Union Public Utility District
339 Main Street
Murphys, CA 95247

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Appendices

1. Project Information

1. Project Title:

Union Public Utility District, Backwash/ Recycling and Tank Aeration Project

2. Lead Agency Name and Address:

Union Public Utility District
339 Main Street
Murphys, CA 95247

3. Contact Person and Phone Number:

Bill Eltringham, General Manager
Union Public Utility District
Phone: 209/728-9363

4. Project Location:

The Project occurs at three sites within the Union Public Utility District (UPUD) service boundary in unincorporated portions of Calaveras County adjacent to the communities of Murphys and Vallecito. The sites are listed below:

- **Tank Site #1:** Includes portions of the existing Water Treatment Plant, Mount Davis Road, and Seibel Reservoir located east of the community of Murphys
- **Tank Site #2:** This site located approximately 0.84 mile northwest of the community of Murphys. The entire site is located within the fenced water tank facility.
- **Tank Site #3:** is located approximately 1.05 miles south-southwest of the community of Vallecito. The entire site is located within the fenced water tank facility.

5. Description of Project:

The Union Public Utility District (UPUD) is in the process of obtaining a State Water Resources Control Board (SWRCB) Clean Water State Revolving Fund (CWSRF) loan to make backwash/ recycling and tank aeration improvements at three of its existing facilities. The purpose of the Project is to provide the UPUD with the infrastructure needed to address its current and planned future distribution and storage needs and achieve regulatory compliance for trihalomethanes (THMS). Project objectives includes installation of infrastructure to recapture the decanted backwash water for reuse or recirculation into the existing treatment process and aeration improvements to reduce high levels of THMS in its domestic water system. A detailed project description is in Section 3 of this Initial Study.

6. General plan designation:

See table under Item 7 'Zoning' below

7. Zoning:

APN*	Zoning*
TS1	
068-001-102 (Existing UPUD Water Treatment Plant)	Public Service (PS)
068-010-077 (Existing UPUD Water Treatment Plant)	Public Service (PS)
068-010-062 (Existing UPUD Water Treatment Plant)	Single-family Residential-Environmental Protection (R1-X-EP)
068-010-120 (Mt Davis Road/ ROW)	Rural Residential 5 Acre Minimum (RR-5)
068-010-113 (Mt Davis Road/ ROW)	Rural Residential 5 Acre Minimum (RR-5)
068-010-097 (Mt Davis Road/ ROW)	Rural Residential 5 Acre Minimum (RR-5)
068-010-098 (Mt Davis Road/ ROW)	Rural Residential 5 Acre Minimum (RR-5)
068-006-063 (Mt Davis Road/ ROW, tie in point to exiting 21-inch diameter irrigation pipe)	Rural Residential 5 Acre Minimum (RR-5)
068-065-ROW (Woodland Drive ROW	Road ROW
068-065-011 (vacant residential lot)	Rural Residential (RR-X)
068-065-004 (occupied residential lot)	Rural Residential (RR-X)
068-003-005 (Seibel Reservoir)	General Agriculture-Environmental Protection (A1-X-EP)
TS2	
068-011-036 (tank site)	Single-family Residential
TS3	
066-030-002 (tank site)	Unclassified (U)

***** Per Calaveras County Public Web Viewer (https://gisportal.co.calaveras.ca.us/arcgis/apps/webappviewer/index.html?id=40a999f3b65a46f089367b7c095f171e)

8. Surrounding Land Uses and Setting:

The Project is located in a rural area and is bounded by rural residential, undeveloped land, and transportation uses.

9. Other Public Agencies Whose Approval May Be Required (e.g., permits, financing approval, or participation agreement):

The Project may require permits or approvals from the following:

- Central Valley Regional Water Quality Control Board — Coverage under the Construction General Permit (Water Quality Order 2009-0009-DWQ)
- Calaveras County Grading Permit
- Calaveras County Air Quality Management District — Fugitive Dust Prevention and Control Plan Approval
- U.S. Army Corps of Engineers – Section 404 Clean Water Act Permit
- Central Valley Regional Water Quality Control Board (RWQCB) – Section 401 Water Quality Certification
- California Department of Fish and Wildlife (CDFW) – Streambed Alteration Agreement

2. Introduction

The Union Public Utility District (UPUD) is in the process of obtaining a State Water Resources Control Board (SWRCB) Clean Water State Revolving Fund (CWSRF) loan to make backwash/ recycling and tank aeration improvements at three of its existing facilities.

UPUD is the local lead agency and prepared this Initial Study to consider the significance of potential project impacts pursuant to the California Environmental Quality Act (CEQA) of 1970, as amended (Public Resources Code, Section 21000, et seq.). This Initial Study was prepared in accordance with the State CEQA Guidelines (14 California Administrative Code, Section 14000 et seq.).

Based on the results of this Initial Study, UPUD has determined that the Project would have less than significant impacts on the environment with the incorporation of mitigation measures. UPUD may approve the Project with the certification of a Mitigated Negative Declaration (MND).

The remainder of this document is organized into the following sections:

- **Section 3, Project Description:** Provides a detailed description of the proposed Project;
- **Section 4, Initial Study Checklist and Supporting Documentation:** Provides CEQA Initial Study Resource impact checklists and supporting documentation. Identifies the thresholds of significance, evaluates potential impacts, and describes mitigation measures necessary to reduce impact significance;
- **Section 5, Initial Study Findings:** Provides a determination of the District's CEQA findings;
- **Section 6, Supporting Information Sources:** Identifies the personnel responsible for the preparation of this document and provides a list of the references cited throughout the document.
- **Appendix A, Mitigation Monitoring and Reporting Plan**: Contains the Mitigation Monitoring and Reporting Plan prepared for the proposed project. The Mitigation Monitoring and Reporting Plan includes a list of required mitigation measures and includes information regarding the UPUD's policies and procedures for implementation and monitoring of the mitigation measures.

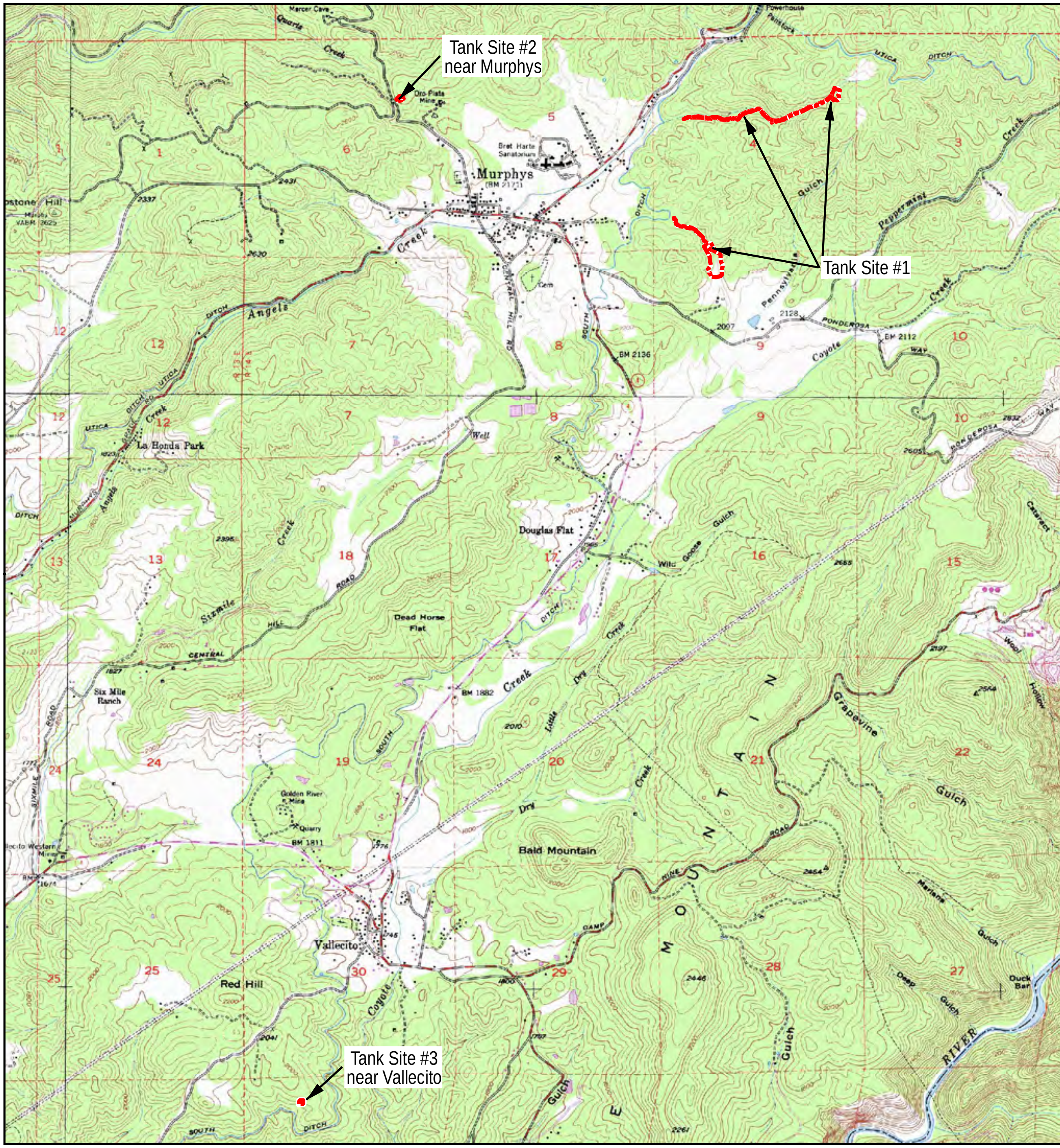
3. Project Description

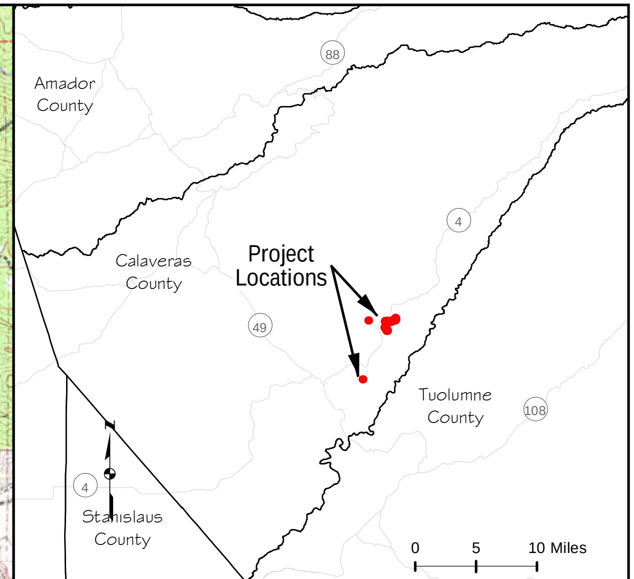
The Union Public Utilities District (UPUD or District) is in the process of obtaining a State Water Resources Control Board (SWRCB) Clean Water State Revolving Fund (CWSRF) loan to make improvement at three existing UPUD facilities.

3.1 Location

The Project occurs at three sites within the Union Public Utility District (UPUD) service boundary (Figure 1). Table 1 lists the APNs involved in the proposed Project.

- **Tank Site #1 (TS1)** is located on the Murphys USGS topographic quad (T3N, R14E, Sections 3, 4, and 9, Mt Diablo Base and Meridian). This site includes portions of the existing Water Treatment Plant, Mt Davis Road, and Seibel Reservoir located east of the community of Murphys. Elevation at TS1 ranges from approximately 2,180 to 2,830 feet. Mt Davis Road is located in a valley between surrounding hillsides. Mt Davis Road, beginning at the water treatment plant, descends approximately 500 feet to its intersection with Crestview Road. The open ditch, beginning at the Woodland Drive cul-de-sac, descends approximately 130 feet prior to reaching Seibel Reservoir. Seibel Reservoir is bound by rolling hills to the west, north and east, and slopes downward to a cleared area on the south side of the reservoir.
- **Tank Site #2 (TS2)** is located on the Murphys USGS topographic quad (T3N, R14E, Section 6, Mt Diablo Base and Meridian). This site is located approximately 0.84-mile northwest of the community of Murphys. The entire site is located within the fenced water tank facility. Elevation at TS2 ranges from approximately 2,400 to 2,415 feet.
- **Tank Site #3 (TS3)** is located on the Columbia USGS topographic quad (T3N, R14E, Section 31, Mt Diablo Base and Meridian) approximately one mile south-southwest of the community of Vallecito. The entire site is located within the fenced water tank facility. Elevation at TS3 ranges from approximately 1,950 to 1,960 feet.





Union Public Utility District Backwash / Recycling
and Tank Aeration Project
Calaveras County, CA
December 2019

Figure 1. Project Location Map

Project Locations

4,000 2,000 0 4,000 Feet

Scale: 1 inch = 4,000 feet

N

SYCAMORE
Environmental
Consultants, Inc.

Murphys, CA (2001)
Columbia, CA (2001)
CASIL California USGS Digital Raster Graphics (DRG),
7.5 Minute (C) Series, Albers Nad83 Mosaics (MrSID)
o_nw0101.sid

15065UPUDTanks_Fig1LocationMap_v3.mxd

Union Public Utility District
Backwash / Recycling and
Tank Aeration Project
Calaveras County, CA
August 2019

Project Locations

SYCAMORE Environmental Consultants, Inc.

Aerial Photograph: 3 September 2016
WV02 Vivid DigitalGlobe Imagery
ESRI ArcGIS Basemap Layer

Figure 2. Aerial Photograph
Tank Site #1 - Alternative 2
Backwash at Seibel Reservoir

15065UPUDTanks_Cademartori_Opt2_Fig2AerialPhoto.mxd

Union Public Utility District
Backwash / Recycling and
Tank Aeration Project,
Calaveras County, CA
December 2019

Biological Study Area (BSA; 0.33 ac)

SYCAMORE
Environmental
Consultants, Inc.

Figure 2. Aerial Photograph
Tank Site #2 near Murphys

Aerial Photograph: 20 June 2016
UC-G Imagery, US-CA-Sacramento, Microsoft
ESRI ArcGIS Basemap Layer

15065UPUDTanks_Murphys_Fig2AerialPhoto.mxd

Union Public Utility District
Backwash / Recycling and
Tank Aeration Project
Calaveras County, CA
December 2019

Biological Study Area (BSA; 0.21 ac)

SYCAMORE
Environmental
Consultants, Inc.

Aerial Photograph: 20 June 2016
UC-G Imagery, US-CA-Sacramento, Microsoft
ESRI ArcGIS Basemap Layer

Figure 2. Aerial Photograph
Tank Site #3 near Vallecito

15065UPUDTanks_Vallecito_Fig2AerialPhoto1.mxd

Table 1. Calaveras County Assessor's Parcel Numbers possibly involved or traversed by Project

APN*	Zoning*
TS1	
068-001-102 (Existing UPUD Water Treatment Plant)	Public Service (PS)
068-010-077 (Existing UPUD Water Treatment Plant)	Public Service (PS)
068-010-062 (Existing UPUD Water Treatment Plant)	Single-family Residential-Environmental Protection (R1-X-EP)
068-010-120 (Mt Davis Road/ ROW)	Rural Residential 5 Acre Minimum (RR-5)
068-010-113 (Mt Davis Road/ ROW)	Rural Residential 5 Acre Minimum (RR-5)
068-010-097 (Mt Davis Road/ ROW)	Rural Residential 5 Acre Minimum (RR-5)
068-010-098 (Mt Davis Road/ ROW)	Rural Residential 5 Acre Minimum (RR-5)
068-006-063 (Mt Davis Road/ ROW, tie in point to exiting 21-inch diameter irrigation pipe)	Rural Residential 5 Acre Minimum (RR-5)
068-065-ROW (Woodland Drive ROW	Road ROW
068-065-011 (vacant residential lot)	Rural Residential (RR-X)
068-065-004 (occupied residential lot)	Rural Residential (RR-X)
068-003-005 (Seibel Reservoir)	General Agriculture-Environmental Protection (A1-X-EP)
TS2	
068-011-036 (tank site)	Single-family Residential
TS3	
066-030-002 (tank site)	Unclassified (U)

***** Per Calaveras County Public Web Viewer (https://gisportal.co.calaveras.ca.us/arcgis/apps/webappviewer/index.html?id=40a999f3b65a46f089367b7c095f171e)

3.1 Project Purpose and Objectives

The purpose of the Project is to provide the UPUD with the infrastructure needed address it current and planned future distribution and storage needs and achieve regulatory compliance for trihalomethanes (THMS). Project objectives includes installation of infrastructure to recapture the decanted backwash water for reuse or recirculation into the existing treatment process and aeration improvements to reduce high levels of THMS in its domestic water system.

3.2 History

The UPUD was formed on July 26, 1946 as an independent special district. The District was formed to provide agricultural and domestic water services that rely on Utica Water & Power Authority (UWPA) for delivery of surface water from the North Fork Stanislaus River to UPUD facilities. The boundaries of the UPUD extend north to the Utica Canal, north of Murphys, and encompass the community of Murphys, Vallecito, and Douglas Flat; then the boundaries extend south the along South Ditch to include the community of Carson Hill. The District has a boundary area of approximately 19.1 square miles.

3.2.1 Existing System

The UPUD water treatment plant is located approximately 1.25 mi northwest of the community of Murphys, approximately one mile east of State Highway 4, and 3 miles west of the Stanislaus River. UWPA is contracted to sell and deliver raw water to UPUD. The current contract allows UPUD to divert 11.75 cubic feet per second (cfs) per day from UWPA system at three separate locations. UWPA allows UPUD to divert 4.7 cfs per day at either the Cademartori Reservoir or the North Ditch delivery points and 7.0 cfs per day at the South Ditch delivery point. These diversions are subject to UWPA's annual water allocation. The District is subject to allocations reductions pursuant to Department of Water Resources from 0% to as much as 48% as determined by the type of water year.

Treatment Plant: The existing facility is a direct filtration surface water treatment plant with a capacity of 2 million gallons per day that draws water from the 140 ac-ft. Cademartori Reservoir. Raw water is piped from the Cademartori Reservoir through an intake structure with a sluice gate into a 12-inch diameter pipe with an inline screen-strainer to a valve box and static mixer where polymers are injected as a primary coagulant. The water passes through a 12-inch line into the treatment plant for filtering and chlorine injection. Additional chemical treatment is added as needed for pH adjustment for pipe corrosion control. The finished water is then piped into a 2 million-gallon storage tank and held for distribution.

Coagulant Feed System: The coagulant feed system consists of liquid cationic polymer (Sterling Water 8809), a chemical feed pump, a booster pump, an in-line 12 inch x 4 ft static mixer and a streaming current monitor. The chemical feed pump is equipped with a LMI Digi-Pulse Flow Monitor which triggers an alarm and shuts down the plant if there is loss of flow. The streaming current monitor automatically adjusts the amount of polymer fed into the water.

Filter System: The filter system consists of three 8 ft x 30 ft tri-media pressure vessels. Each vessel contains two cells with a surface wash and a wedge wire under-drain. The filters are backwashed when the pressure across the filter bed exceeds an operating pressure threshold or when the filtered water exceeds a turbidity threshold. Backwashing the six filter cells occurs sequentially at a rate of approximately 1,800 to 2,000 gallons per minute (GPM) for 15 to 30 minutes. Backwash water is supplied by the other two pressure vessels in service. There are periods of time when the backwash cycle is extended to bring the filter back to within acceptable turbidity levels.

The backwash water is diverted to the backwash tank where it is used to equalize the discharge to each of the two existing onsite backwash ponds. The backwash water is diverted to one pond at time using control valves at the inlet. Backwash water bubbles up through the risers from the bottom of the ponds. The solids in the water settle out and the decanted water is drained off the top water surface through a pipe weir. The weir is connected to the onsite drain system that discharges to an un-named drainage course adjacent to Mt Davis Rd.

Disinfectant Feed System: Chlorine is added to the filtered water in the combined filter effluent line as a disinfectant. The chlorine solution used as the primary disinfectant is 12% sodium hypochlorite. The chlorine solution is fed into the pre- and post-filter water by two chemical feed pumps. The chlorine solution feed is manually controlled and adjusted. Chlorine levels are monitored by two HACH CL-17 Chlorine Analyzers; one post-filter and one post 2-million-gallon water storage tank. Both HACH CL-17 Chlorine Analyzers are equipped with alarms.

Distribution System: The UPUD has a boundary area of approximately 19.1 square miles and extends approximately 58,000 lineal feet from the treatment plant to end of the system at Carson Hill. There are three storage tanks that provide a total storage capacity of 3.60 MG. TS1 includes a 2.0 MG storage tank located at the existing Treatment Plant. TS2 includes a 1.0 MG storage tank, and is located north-northwest of the town of Murphys. TS3 includes a 0.35 MG tank located south-southwest of the community of Vallecito.

Irrigation System: The UPUD controls, operates and maintains an agricultural irrigation system within its boundary that includes approximately 101 irrigation users, irrigating approximately 1,500 acres of land. The irrigation system includes three storage reservoirs to provide both storage as well as equalization for consistent and reliable pressurized irrigation deliveries. The North Ditch System is served by Stephens Reservoir and the South Ditch System is served by the Seibel Reservoir and the Association Reservoir. Irrigation water is delivered to Seibel Reservoir which provides the main storage for the irrigation system. The other two reservoirs are located at the lower end of the system and are filled and drawn from based on the demand in the area. Irrigation water is supplied at two diversion points located at the Murphys Powerhouse forebay located off of Highway 4 at Utica Power House Road. UPUD can divert up to 4.7 cfs per day at the North Ditch diversion (shared with Cademartori Reservoir) and up to 7.0 cfs at the South Ditch diversion. All the irrigation users are delivered water at an average pressure of 40 psi and have metered services.

The North Ditch System relies on the net available water that is not being drawn by the Cademartori Reservoir for domestic purposes. During times when the supply is disrupted, the UPUD can deliver water to the North Ditch system through a pipe inter-tie. Typically, the inter-ties remain closed by gate valves, but in times when one or the other system is shut down for maintenance, the District can continue to provide irrigation service to customers on both systems.

3.2.2 Project Engineers Report

A Project Engineers Report was prepared for the proposed Project (Weber Ghio 2019). The report was prepared to provide data, assumptions, and alternatives for the replacement of the UPUD's existing Water Treatment Plant backwash ponds and means to recapture the decanted water for reuse or recirculation into the treatment process. Additionally, the UPUD has been experiencing high levels of Trihalomethanes (THMS) in its domestic water system that need to be reduced.

Backwash/ Recycling: The Project Engineers Report evaluated two alternatives to provide for existing and future storage of the backwash water from the pressure treatment filters. The first alternative evaluated sending backwash to new storage ponds above the Cademartori Reservoir. Decanted water from the new ponds would then be re-introduced into the raw water delivery system to reservoir. The decanted backwash water would be introduced at rate of 10% or less of supply rate of reservoir as recommended by the EPA.

The second alternative evaluated the backwash water being delivering to the UPUD irrigation system. Backwash water would be delivered from the plant to the South Ditch Irrigation Pipeline, where it would be mixed with the irrigation water that is delivered to Seibel Reservoir. The backwash /irrigation water mix would vary based on the irrigation demand, but it is anticipated that it would not be more than 50% during the backwash cycle.

THMS Removal-Tank Aeration: UPUD has seen high levels of chloroform in water samples from its two sampling stations causing the District to be out of compliance for four annualized quarter between 2014 and 2018. Two alternatives were considered for THMS removal. One considers first stage filtration of the raw water at the headworks of the treatment plant to reduce the organic load to the filters, allowing the existing pressure treatment filters to be more efficient in the removal of the remaining organics in the water. The other alternative considers THMS removal in the water distribution system by providing in tank aeration at each of the system's water storage tanks.

The Project Engineers Report recommends that the Backwash to Seibel Reservoir with spray aeration in storage tanks alternative be carried forward as the preferred Project. The recommended project components are listed below and described in section 3.3 of this document.

- Demolition and removal of existing piping.
- Backfill of existing backwash ponds at the treatment plant.
- Clear & Grub Seibel Reservoir Area.
- Pipeline installation along Mt Davis Road and existing ditch between Woodland Court and Seibel Reservoir.
- Dredge Seibel Reservoir and disposal of material.
- Pipe 200 ft segment of north end of existing ditch leading down to Seibel Reservoir.
- Install floating spray nozzle machines in each of the three system storage tanks.
- Install submersible sprayers in each of the three system storage tanks.
- Install ventilators in each of three system storage tanks.
- Provide electrical service to new THMS equipment at each of the three system storage tanks.

3.3 Project Description

The Backwash to Seibel Reservoir with spray aeration in the storage tanks is the preferred alternative and is described below (Weber Ghio 2019).

3.3.1 Backwash to Seibel Reservoir

Backwash water from the TS1 treatment filters will be piped directly to Seibel Reservoir approximately one mile southwest of the TS1 by gravity flow. The existing backwash tank at the treatment plant is to be retrofitted to discharge directly into a new 18-inch diameter transmission pipe bypassing the existing backwash storage basins. The existing piping and backwash storage basins will be decommissioned, backfilled and paved over with asphalt concrete.

Approximately 4,300 linear feet of new 18-inch diameter pipe will be installed in Mt Davis Road prism from TS1 to the UPUD's existing 21-inch PVC "South Ditch" pipe near the intersection of Mt Davis Road and Crestview Road. At the connection to the "South Ditch" pipe, the backwash will merge with the existing irrigation supply water, and depending on the rate of irrigation flow at the time of backwash, will mix with the irrigation water at a rate between 30 and 60 percent.

Mt Davis Road crosses Carson Creek and several ephemeral channels in the Project area. Installation of the new 18-inch diameter pipe in the Mt Davis Road prism will avoid Carson Creek and the ephemeral

channels. Depending on the depth of the culvert crossing below the road surface one of two methods would be used to avoid impacts to the channels. If there is sufficient depth between the top of the culvert and the existing road surface, the new pipe would be installed in a trench excavated over the top of the culvert. If there is not sufficient depth between the top of the culvert and the existing road surface, the new pipe will be installed via jack and bore (or other similar method) under the existing culverts. The selection of the installation method will be made during final design.

The irrigation/ backwash mixture will continue down the "South Ditch" irrigation pipe, where it flows into an uncontrolled open drainage ditch approximately 1,400 feet upstream from Seibel Reservoir. The ditch is on a relatively mild incline with vegetative side slope and is considered somewhat stable. However, there are is an approximately 200 ft of the ditch that has cut deeply into the adjacent ground, making the side slopes somewhat unstable and subject to collapse. To prevent potential future erosion, approximately 200 linear feet of the open ditch extending downhill from Woodland Drive will be placed in an appropriately sized pipe. Rock slope protection (RSP) would be placed at the outlet of the new pipe for erosion protection.

According to the District, the original design volume for Seibel Reservoir was approximately 15.0 ac-ft. Due to the sediment build up at the head of the reservoir over the years, it is estimated that the reservoir's capacity has reduced by as much as 30%. To improve overall UPUD operations and restore/ enhance the design volume of Seibel Reservoir, the Project will expand the inlet and dredge the northern portion of the reservoir. The inlet will be expanded to provide additional settlement area which will help maintain the reservoir's design capacity once restored. The north portion of the reservoir will be dredged to restore its original design volume. The maximum depth of excavation in Seibel Reservoir would be approximately 10 feet. RSP may be installed at the bottom of the excavated portion of the reservoir for erosion control. Construction staging is anticipated to occur along existing roads and disturbed areas around the Seibel Reservoir.

3.3.2 THMS Removal-Tank Aeration

THMS removal in the water distribution system will be achieved by providing tank aeration at TS1, TS2, and TS3. Installation of aeration units at each tank would include the following components:

- Install a blower/ ventilation to push air into the tank and let air escape; and
- Install a floating and or submersible spray nozzle in the tank to promote rapid aeration and thorough mixing.

This upgrade would involve minor excavation to install electrical conduits and attach to each new aeration unit. Excavations would be approximately 12 to 18 inches deep and limited to existing disturbed areas or gravel roads within the TS1, TS2, and TS3. Construction staging for the three water tanks would be limited to existing disturbed areas and roads.

General construction equipment expected to be used for the overall project includes, but is not limited to: haul trucks, excavators, gradalls, backhoes, dump delivery trucks, and service vehicles.

3.4 Construction Contract

UPUD would retain a construction contractor to construct the proposed improvements. The contractor would be responsible for compliance with all applicable rules, regulations, and ordinances associated with proposed Project activities and for implementing construction-related mitigation measures. UPUD would provide the construction contractor oversight and management and would be responsible for verifying the

implementation of the mitigation measures. The contractor would construct the proposed Project in accordance with the Public Contract Code of the State of California, Project Plans, and any Special Provisions under development by UPUD. The following are a combination of standard and project-specific procedures/requirements applicable to Project construction:

- Contract special provisions will require compliance with Calaveras County Air Pollution Control District Rules 202, 205, and 207 to minimize fugitive dust emissions;
- Contract provisions will require notification of the District and compliance with California Health and Safety Code Section 7050.5 and California Public Resources Code Sections 5097.5, 5097.9 et seq., regarding the discovery and disturbance of cultural materials or human remains should any be discovered during project construction;
- Contract provisions will require implementation of best management practices (BMPs) consistent with the *Calaveras County Grading, Drainage, and Erosion Control Design Manual* (Calaveras County 2012a) and or Caltrans Stormwater Quality Handbooks to protect water quality and minimize the potential for siltation and downstream sedimentation.
- The UPUD or its construction contractors will conduct early coordination with utility service providers, law enforcement and emergency service providers to ensure minimal disruption to service during construction;
- The Project would comply with Section 9.02.060, Chapter 9.02 (Noise Control) of the Calaveras County Code pertaining to construction noise.

3.5 Project Schedule

The Project is anticipated to take approximately 6 months and can be completed in one construction season. While the majority of construction is expected to take place under favorable weather conditions, unforeseen weather delays are possible and would impact the project schedule.

4. Initial Study Checklist and Supporting Documentation

4.1 Initial Study Checklist

This section of the Initial Study incorporates the Environmental Checklist contained in Appendix G of the CEQA Guidelines. Each resource topic section provides a determination of potential impact and an explanation for the checklist impact questions. The following 21 environmental categories are addressed in this section:

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

Each of the above listed environmental categories was fully evaluated and one of the following four determinations was made for each checklist question:

- **"No Impact"** means that no impact to the environment would occur as a result of implementing the Project.
- **"Less than Significant Impact"** means that implementation of the Project would not result in a substantial and/or adverse change to the environment and no mitigation is required.
- **"Potentially Significant Unless Mitigation is Incorporated"** means that the incorporation of one or more mitigation measures would reduce the impact from potentially significant to less than significant.
- **"Potentially Significant Impact"** means that there is either substantial evidence that a project-related effect would be significant or, due to a lack of existing information, could have the potential to be significant.

4.2 Setting, Impacts, and Mitigation Measures

4.2.1 Aesthetics

I. AESTHETICS— Except as provided in Public Resources Code Section 21099 would the project:	*Potentially Significant Impact*	*Potentially Significant Unless 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

Residents and visitors identify Calaveras County's scenic resources as one of its most valued assets. Forests, rolling hills, ranches, agricultural land, historic landscapes, oak woodlands, rock formations and other unique topographical features, river corridors, lakes, and streams are just a few of the County's exceptional scenic resources that contribute to the County's characteristic scenic beauty and unique sense of place.

Ebbetts Pass was designated as a California State Scenic Highway in 1971 and was granted a national designation as the Ebbetts Pass National Scenic Byway by the U.S. Department of Transportation in 2005. The federal designation is meant to preserve the unique scenic, natural, historical, cultural, archaeological, and recreational resources along the scenic byway which encompasses a 58-mile stretch of SR 4 and SR 89 including 24 miles of road within Calaveras County from east of Arnold to the Alpine County line. Other portions of SR 4 and SR 49 are listed as Eligible State Scenic Highways by Caltrans.

The Project sites are located in south central Calaveras County adjacent to the communities of Murphys and Vallecito. TS1 and TS3 are generally not visible to the public from a publicly accessible vantage point. Drivers on Sheep Ranch Road have a brief view of TS2. Mt Davis Road is located in a valley between surrounding hillsides and is generally not visible to the public from a publicly accessible vantage point. Seibel Reservoir may be visible from the private residences immediately to the east. Seibel Reservoir is generally not visible to the public from a publicly accessible vantage point.

The 2019 Calaveras County General Plan includes policies and associated programs that are intended to protect the County's aesthetic resources from the impacts of future development. The Land Use (LU) Element of the 2019 General Plan includes the following goals and policies related to protection of scenic vistas and natural resources:

Goal LU-4 Community Character and Design – High quality, well-designed development that is compatible with surrounding uses and is integrated with the community and the physical environment in which it is located.

> Policy LU 4.1 New development shall be designed to be compatible with the natural, scenic, and historic resources of Calaveras County. (IM LU-4A, LU-4C, and LU-4F)
>
> Policy LU-5.3 Recognize the county's unique recreational, scenic, cultural, historic and agricultural resources as strong economic generators and encourage their retention and expansion. (IM LU-5D)

In addition, the Conservation and Open Space (COS) Element of the Draft General Plan includes the following goals, policies, and implementation measures (IMs) related to scenic vistas and natural resources.

Goal COS-5 Scenic Resources – Abundant scenic resources that preserve rural character, quality of life, and tourism-based economic development, while protecting property rights.

> Policy COS 5.1 Encourage the conservation of natural and historic landscapes and important landmarks as scenic resources important to the County's rural character, scenic beauty and the tourism component of the economy. (IMs COS-6A and COS-6B)
>
> Policy COS 5.2 Maintain scenic resources along designated scenic highways in the County. (IMs COS- 6A and COS-6B)
>
> Policy COS 5.3 Proposed new development shall consider the scenic qualities of the natural resources in the design of the project. (IMs COS-6A and COS-6B)

IM COS-6A Flexible Development Standards – Review and amend, as applicable, the County Code to incorporate flexible development standards that encourage the retention of scenic resources, landmarks, and the natural landscape.

IM COS-6B Hillside and Hilltop Construction Guidelines – Formulate guidelines for hillside and hilltop development facilitating landscape compatible project design. Guidelines should address minimizing grading and the topographical alteration it necessitates, fire-safe construction techniques, vegetation retention, retaining wall enhancement, alternative road construction techniques to reduce cuts and fills, and illustrate techniques for blending new construction with the surrounding hillsides and hilltops.

IM COS-7F Corridor Plans – Participate in comprehensive and regional highway, roadway, creek, river and other corridor planning efforts in cooperation with neighboring jurisdictions to identify opportunities for creating new and integrating existing recreational facilities and achieving other General Plan goals and policies (e.g., facilitating economic development, conserving scenic vistas, preserving water quality).

Potential Environmental Effects

a) ***Less Than Significant Impact.*** The 1988 Murphys & Douglas Flat Community Plan does not identify any scenic vistas in the Project area (Calaveras County 1974). The sole scenic vista identified by the County consists of the Ebbetts Pass National Scenic Byway. The 2019 General Plan EIR identifies the Ebbetts Pass National Scenic Byway as the sole designated scenic vista in the County (Calaveras County 2018). The Ebbetts Pass National Scenic Byway is located approximately 8.5 miles northeast of the Project area.

Installation of aeration equipment on the tanks at TS1, TS2, and TS3 will have no effect on any scenic views. Installation of the 18-inch diameter pipe in the Mt Davis Road would temporarily

disrupt the views of people using road during construction. Mt Davis Road is not a through road and provides access to the UPUD Water Treatment Plant and several rural residences.

Project activities at Seibel Reservoir will include vegetation removal to facilitate dredging to restore the original design capacity of the reservoir. Seibel Reservoir may be visible from the private residences immediately to the east. During construction these residences view of the reservoir may be temporarily altered by project activities. Once complete the improvement will be visible but will blend with and be consistent with the exiting views.

Project activities could temporally affect views for some members of the public. Upon completion of the Project some improvement may be visible but will blend with and be consistent with the exiting views. The Proposed improvements are consistent with the existing land use and aesthetic of the area. Project impacts are less than significant.

b) ***No Impact.*** The eastern portion of SR 4 in Calaveras County is designated as an '*Officially Designated State Scenic Highway.*' This section is also designated the Ebbetts Pass National Scenic Byway (Caltrans 2019). The western portion of SR 4 in Calaveras County is designated '*Eligible State Scenic Highway-Not Yet Designated*' (Caltrans 2019). The Ebbetts Pass National Scenic Byway portion of SR 4 is located approximately 8.5 miles northeast of the Project area. The Project is not visible from Highway 4.

c) ***Less Than Significant Impact.*** See discussion of a) and b) above.

d) ***No Impact***. The Project does not include new or additional outdoor lighting. No impact will occur.

4.2.2 Agricultural and Forestry Resources

II. AGRICULTURE AND FORESTRY—In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project::	*Potentially Significant Impact*	*Potentially Significant Unless 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 area is outside of the area mapped as part of the States Farmland Mapping and Monitoring Program (California Department of Conservation 2019b). No Prime Farmland, Unique Farmland, or Farmland of Statewide Importance occur in the project area. The California Department of Conservation, Calaveras County Williamson Act FY 2012/2013 map indicates that no lands under Williamson Act contract occur in or adjacent to the Project area.

Potential Environmental Effects

a) ***No Impact.*** No Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or lands under Williamson Act contracts occur in the project area.

b) ***No Impact.*** See response for item a).

c) ***No Impact.*** The proposed Project is consistent with the existing zoning and does not include any rezoning activities.

d) ***Less Than Significant Impact.*** Dredging the northern end of Seibel Reservoir could convert a small area of Ponderosa Pine Forest to a non-forest use (reservoir). Ponderosa pine forests surrounding the Project area is extensive, the conversion of a small portion (less than 0.5 ac) is considered less than significant.

e) ***No Impact.*** The Project does not include other activities that could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use.

4.2.3 Air Quality

III. 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*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Environmental Setting

The project area is located in the Mountain Counties Air Basin (MCAB). The San Francisco Bay Area Air Basin and the Sacramento Valley Air Basin are located to the west, and the San Joaquin Valley Air Basin is located to the south. Climate in the MCAB relate to elevation and proximity to the Sierra Ridge. Precipitation is greater and temperatures are lower at higher elevations. Summer temperatures in the project area are in the mid- to upper nineties. Winter temperatures are in the upper thirties to lower forties.

The air quality of a region is determined by the air pollutant emissions (quantities and type of pollutants measured by weight) and by ambient air quality (the concentration of pollutants within a specified volume of air). Air pollutants are characterized as primary and secondary pollutants. Primary pollutants are those emitted directly into the air, for example carbon monoxide (CO), and can be traced to a single pollutant source. Secondary pollutants are those pollutants that form through chemical reactions in the atmosphere, for example reactive organic gasses (ROG) and nitrogen oxides (NO_X) combine to form ground level ozone, or smog.

Congress established much of the basic structure of the Clean Air Act in 1970, and made major revisions in 1977 and 1990. The Federal Clean Air Act established national ambient air quality standards (NAAQS). These standards are divided into primary and secondary standards. Primary standards are designed to protect public health and secondary standards are designed to protect other values. Because of the health-based criteria identified in setting the NAAQS, the air pollutants are termed "criteria" pollutants. California has adopted its own, more stringent, ambient air quality standards (CAAQS). Table 2 lists the MCAB attainment status for federal and state criteria pollutants.

Table 2. Attainment Status for MCAB in Calaveras County

Pollutant	**National Designation**	**State Designation**
Ozone	Nonattainment (8 hr.)	Nonattainment
PM_{10}	Unclassified	Nonattainment
$PM_{2.5}$	Unclassified/ Attainment	Unclassified
CO	Unclassified/ Attainment	Unclassified
NO_2	Unclassified/ Attainment	Attainment
SO_2	Unclassified/ Attainment	Attainment
Sulfates	NA	Attainment
Lead	Unclassified/ Attainment	Attainment
Hydrogen Sulfide	NA	Unclassified
Visibility Reducing Particles	NA	Unclassified

Calaveras County is currently in nonattainment status for the 8-hour ozone NAAQS. The County is in nonattainment status for the ozone and PM10 CAAQS.

The Calaveras County Air Pollution Control District (APCD) administers the state and federal Clean Air Acts in accordance with state and federal guidelines. The APCD regulates air quality through its district rules and permit authority. It also participates in planning review of discretionary project applications and provides recommendations. The following District rules apply to the Project:

- **Rule 202 (Visible Emissions):** Prohibits the discharge of air containments for a period or periods aggregating more than three (3) minutes in any one (1) hour which is as dark or darker in shade as that designated as No. 1 on the Ringlemann Chart or such opacity as to obscure an observer's view to a degree equal to or greater to shade No. 1 on the Ringlemann Chart.
- **Rule 205 (Nuisance):** Prohibits the discharge of air containments which cause injury, detriment, nuisance, or annoyance.
- **Rule 207 (Particulate Matter):** A person shall not release or discharge into the atmosphere from any source or single processing unit, exclusive of sources emitting combustion contaminants only, particulate matter emissions in excess of 0.1 grains per cubic foot of dry exhaust gas at standard conditions.
- **Rule 210 (Specific Contaminants):** Limits the amount of sulfur carbon dioxide released in the atmosphere.

Calaveras County APCD considers a significant cumulative impact to occur if the project requires a change in the existing land use designation (i.e., general plan) and would individually exceed the project-level thresholds of significance. Thresholds of significance for specific pollutants of concern are as follows:

- ROG: 150 lbs/day
- NOx: 150 lbs/day
- PM10: 150 lbs/day

Potential Environmental Effects

a) ***No Impact.*** A project is inconsistent with the applicable air quality plan if it would result in population and/or employment growth that exceeds growth estimated in the applicable air quality plan. The Project includes the installation of the infrastructure needed to address the UPUD's current and planned future distribution and storage needs and to achieve regulatory compliance for trihalomethanes. Therefore, the proposed project would not conflict with or obstruct the implementation of any air quality plan.

b) ***Less Than Significant Impact.*** Calaveras County is in nonattainment status for both federal and state ozone standards and the state PM10 CAAQS.

Project Construction: Project construction would result in temporary increases in ROG, NOx, and PM10 emissions from vehicle and equipment operation. Short-term increases in emissions from the use of heavy equipment that generate dust, exhaust, and tire-wear emissions and from paints and coatings would occur during the model generated 279-day (approximate 9 months of active construction) approximate construction period. Construction emissions were estimated for the Project using CalEEMod v2016.3.2 as recommended in the State Water Resources Control Board, Division of Financial Assistance, Environmental Package Construction application. All default values (e.g. construction phase duration, worker trips, off-road equipment list etc.) in CalEEMod were retained unless noted otherwise. None of the estimated emissions exceed the County's significance thresholds (Table 3).

Dust control requires the submittal of a Dust Control Plan to the Calaveras County APCD for approval prior to surface disturbance larger than one acre, including clearing of vegetation. The

Project may disturb greater than one acre and may require a Fugitive Dust Prevention and Control be prepared, submitted and approved by Calaveras County APCD. The conditions would be included in the General Notes and/or the Grading Plan for the project, under a descriptive heading such as "Dust Control."

Table 3. Estimated maximum construction emissions of pollutants of concern.

	Modeled Emmssions[1, 2]			
Pollutants of Concern	**Winter**	**Summer**	**Calaveras Co. Significance Thresholds (lbs/day)**	**Threshold Exceeded?**
ROG	12.96	12.95	150	**NO**
NO_x	43.01	42.96	150	**NO**
PM10	20.52	20.52	150	**NO**

[1]Units for all values are pounds per day.
[2]Notes: Data entered to emissions model: Project Operational Year: 2020; Project Duration: ± 5 months; Total Soil Imported/Exported (yd^3/day): 50. PM10 estimates assume 50% control of fugitive dust from watering and associated dust control measures. Total PM10 emissions are the sum of *exhaust* and *fugitive dust* emissions.

Project Operation: The Project includes the installation of the infrastructure needed to address the UPUD's current and planned future distribution and storage needs and to achieve regulatory compliance for trihalomethanes. The proposed Project would not increase permanent employment or housing. Once constructed the improvements would be owned and operated by the UPUD. Maintenance of the new improvements will require regular visits by UPUD staff. The number of maintenance visits required is expected to be less than or equal to the existing facilities. The proposed Project would not substantially change current operational emissions, and operational impacts would be less than significant.

Further, the proposed Project would not conflict with the applicable air quality plans, which addresses the cumulative emissions in the MCAB. The proposed Project would not result in a cumulatively considerable increase in emissions of nonattainment pollutants.

c) ***Less Than Significant Impact.*** Sensitive individuals refer to those segments of the population most susceptible to poor air quality (i.e., children, the elderly, and those with pre-existing serious health problems affected by air quality). Sensitive land uses occur where sensitive individuals are most likely to spend time (e.g. schools and schoolyards, parks and playgrounds, day care centers, nursing homes, hospitals, and residential communities). The closest potential sensitive land uses (residential housing) occurs approximately 350 ft or more from the works area at Seibel Reservoir. Adjacent receptors have the potential to be exposed to PM10, PM2.5, CO, ROG, and NOx during construction. These impacts are considered less than significant due to the limited nature of the Project and the short-term construction period.

The Project is not located within an area known to contain naturally occurring asbestos (NOA) or an area "more likely to contain naturally occurring asbestos" (California Department of Conservation 2000).

d) ***Less Than Significant Impact.*** Construction activities would involve the use of construction equipment, which have distinctive odors. Odors from construction activities are considered less than significant because of the limited number of the public affected and the short-term nature of

the emissions. The proposed Project would not result in increased production of odors causing compounds.

CEQA-Plus Evaluation-Clean Air Act-General Conformity: Calaveras County is designated as 'marginal non-attainment' for the 2008 and 2015 8 hour Ozone NAAQS. Under the General Conformity Rule, federal agencies must work with State, Tribal and local governments in an air quality nonattainment or maintenance areas to ensure that federal actions conform to the initiatives established in the applicable SIP or tribal implementation plan. Conformity determinations are required when a department, agency or instrumentality of the Federal Government engages in, supports in any way or provides financial assistance for, license or permit, or approve any activity which does not conform to an applicable implementation plan. Emissions of attainment pollutants are exempt from conformity analyses.

The requirement for conformity determination does not apply to the following Federal actions (FedCenter 2019):

- actions where the total of direct and indirect emissions are below the specified emissions levels;
- actions which would result in no emissions increase or an increase in emissions that is clearly *de minimis;*
- actions where the emissions are not reasonably foreseeable, such as the following:
    - initial Outer Continental Shelf lease sales which are made on a broad scale and are followed by exploration and development plans on a project level;
    - electric power marketing activities that involve the acquisition, sale and transmission of electric energy;
- actions which implement a decision to conduct or carry out a conforming program such as prescribed burning actions which are consistent with a conforming land management plan.

When undertaking Federal actions not related to activities developed, funded, or approved under the Federal Transit Act, a conformity determination is required for each criteria pollutant or precursor where the total of direct and indirect emissions of the criteria pollutant or precursor in a nonattainment or maintenance area caused by a Federal action would equal or exceed any of the following rates (*de minimis* levels):

Rates in nonattainment area (NAA):

- ozone (VOCs or NOX), serious NAA's: 50 tons/yr;
- ozone (VOCs or NOX), severe NAA's: 25 tons/yr;
- ozone (VOCs or NOX), extreme NAA's: 10 tons/yr;
- other ozone NAA's outside an ozone transport region: 50 tons/yr;
- other ozone NAA's inside an ozone transport region, VOC: 50 tons/yr;
- other ozone NAA's inside an ozone transport region, NOX: 100 tons/yr;
- carbon monoxide, all NAA's: 100 tons/yr;
- SO_2 or NO_2, All NAA's: 100 tons/yr;
- PM-10, moderate NAA's: 100 tons/yr;
- PM-10, serious NAA's: 70 tons/year;

- PM 2.5, direct emissions: 100 tons/yr;
- PM 2.5, SO2: 100 tons/yr;
- PM 2.5, NOX (unless determined not to be a significant precursor): 100 tons/yr;
- PM 2.5, VOC or ammonia (if determined to be significant precursor): 100 tons/yr;
- Pb, all NAA's: 25 tons/yr.

Rates in maintenance areas:

- ozone (NOX, SO2, or NO2), all maintenance areas: 100 tons/yr;
- ozone (VOCs), maintenance area inside an ozone transport region: 50 tons/yr;
- ozone (VOCs) maintenance area outside an ozone transport region: 100 tons/yr;
- carbon monoxide, all maintenance areas: 100 tons/yr;
- PM-10, all maintenance areas: 100 tons/yr;
- PM 2.5, direct emissions: 100 tons/yr;
- PM 2.5, SO2: 100 tons/yr;
- PM 2.5, NOX (unless determined not to be a significant precursor): 100 tons/yr;
- PM 2.5, VOC or ammonia (if determined to be significant precursors): 100 tons/yr;
- Pb, all maintenance areas: 25 tons/yr.

As discussed under item a) above the proposed project would not conflict with or obstruct the implementation of any air quality plan. As discussed under item b) above the proposed Project would not substantially change current operational emissions. Any potential change would not equal or exceed any of the *de minimis* emission rates. For comparative purposes the following conversions are provided: 25 ton/ year = ± 140 lbs/day, 50 ton/ year = ± 274 lbs/day, and 100 ton/ year = ± 548 lbs/day. The project would be consistent with the General Conformity rule and no further analysis is required.

4.2.4 Biological Resources

IV. BIOLOGICAL RESOURCES—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US 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 Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Environmental Setting

Potential impacts to biological and wetlands resources were evaluated in the Project's Biological Assessment Report (BA; Sycamore Environmental 2019a) and Aquatic Resource Delineation Report (ARDR; Sycamore Environmental 2019b). The BA concludes the following regarding biological resources:

- The Project area is within the historic range of California red-legged frog (CRLF), but not within the current known range. There are no known populations of CRLF within 1 mile of the Project area. If there are unknown breeding populations nearby, CRLF could use Seibel Reservoir as potential breeding and non-breeding habitat. The open ditch that drains to Seibel Reservoir provides potential non-breeding habitat. However, due to the presence of nonnative predators, CRLF are unlikely to occur in Seibel Reservoir.
- The Project area does not provide habitat for federal-listed plants or anadromous salmonids. The Project area does not occur in essential fish habitat (EFH) for Pacific salmon.
- The Project area provides potential habitat for the following special-status animal species: western pond turtle, bald eagle, birds of prey and migratory birds, and pallid bat.
- The Project area provides habitat for 11 special-status plants ranked by the California Native Plant Society (CNPS). No special-status plants were observed during the biological fieldwork conducted in May 2017 and August 2018. The biological fieldwork along Mt Davis Road and the Seibel Reservoir was conducted outside the evident and identifiable period for eight plant species. None of these species are state or federal listed.
- There are no wetlands or waters at Tank Site #2 or Tank Site #3. Seibel Reservoir and the southern segment of the open ditch that drains to it are potential waters of the U.S. and state in the Project area. Impacts to Seibel Reservoir and the associated southern segment of the open ditch may require a Section 404 permit from the U.S. Army Corps of Engineers (Corps), Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB), and a 1602 Streambed Alteration Agreement from CDFW.

Natural communities present in the Project area are shown in Table 4 (Sycamore Environmental 2019a). Special-status natural communities evaluated in the Project BA are waters, wetlands, riparian communities, and any natural community ranked S1, S2, or S3 by California Department of Fish and

Wildlife (CDFW). Seibel Reservoir and the southern segment of the existing open ditch that drains to the reservoir are potential special-status natural communities in the Project area.

Table 4. Natural Communities in the Project area

Biological Community	Vegetation Alliance [1] CDFW Alliance Code [2]	Rarity Rank [3]	Acreage
Tank Site #1 - Backwash at Seibel Reservoir			
Mt Davis Road Pipeline to Treatment Plant			
Developed	--	--	1.12
Gravel Road	--	--	1.01
Existing Open Ditch to Seibel Reservoir			
Ponderosa Pine Forest	*Pinus ponderosa* (Ponderosa pine forest) Alliance	G5 S4	1.61
Seibel Reservoir	--	--	2.49
Existing Open Ditch – to Seibel Reservoir (northern segment)	--	--	0.02
Existing Open Ditch – to Seibel Reservoir (southern segment)	--	--	0.05
Disturbed / Ruderal	--	--	0.65
Gravel Road	--	--	0.38
		SUBTOTAL	***7.33***
Tank Site #2			
Gravel Roads	--	--	0.16
Developed	--	--	0.17
		SUBTOTAL	***0.33***
Tank Site #3			
Gravel Roads	--	--	0.07
Developed	--	--	0.06
Disturbed / Ruderal	--	--	0.08
		SUBTOTAL	***0.21***
		TOTAL	***13.38***

[1] Vegetation alliances are based on descriptions and classification methods in Sawyer et al. (2009).

[2] Alliance codes from CDFW (2018).

[3] Rarity ranking follows NatureServe's Heritage Methodology and is based on degree of imperilment as measured by rarity, trends, and threats. State (S) ranks of 1-3 are considered highly imperiled (CDFW 2018). Global (G) ranks are as follows: GX – eliminated; GH – presumed eliminated; G1 – critically imperiled; G2 – imperiled; G3 – vulnerable; G4 – apparently secure; G5 – secure.

Potential Environmental Effects

a) ***Potentially Significant Unless Mitigation Incorporated.***

Special-Status Plant Species: The water treatment plant portion of TS1 and the entirety of TS2 and TS3 do not provide habitat for any special status plant species due to the existing level of development/disturbance present at each site.

Potential habitat for special-status plant species is present in the roadside ditches along Mt Davis Road, at Seibel Reservoir, and in the existing open ditch that drains to Seibel Reservoir. These areas provide potential habitat for the following special-status plant species:

- Jepson's Onion (*Allium jepsonii*)
- Big-scale Balsamroot (*Balsamorhiza macrolepis*)

- Pleasant Valley Mariposa Lily (*Calochortus clavatus* var. *avius*)
- Red Hills Soaproot (*Chlorogalum grandiflorum*)
- Yellow-lip Pansy Monkeyflower (*Diplacus pulchellus*)
- Tuolumne Button-celery (*Eryngium pinnatisectum*)
- Spiny-sepaled Button-celery (*Eryngium spinosepalum*)
- Stanislaus Monkeyflower (*Erythranthe marmorata*)
- Tuolomne Fawn Lily (*Erythronium tuolumnense*)
- Parry's Horkelia (*Horkelia parryi*)
- Tuolumne Iris (*Iris hartwegii* ssp. *columbiana*)

Jepson's onion, Tuolumne button-celery, and Parry's horkelia were not observed during the general biological fieldwork conducted during the evident and identifiable period of these species.

The general biological fieldwork was conducted outside of the evident and identifiable period of big-scale balsamroot, Pleasant Valley Mariposa lily, Red Hills soaproot, yellow-lip pansy monkeyflower, spiny-sepaled button-celery, Stanislaus monkeyflower, Tuolomne fawn lily, and Tuolumne iris. These plants are not State or federal listed endangered, threatened, or rare. They are CNPS ranked plants and are evaluated pursuant to CEQA. Suitable habitat that occurs in the Project area has not been surveyed for these species. The Project could impact these species if it is present in the roadside ditches along Mt Davis Road, at Seibel Reservoir, or in the existing open ditch that drains to Seibel Reservoir. Implementation of the measure BIO-1 will reduce potential impacts to these species.

Measure BIO-1 (Special-Status Plants)

- *A focused botanical survey will be conducted during the evident and identifiable blooming period in the roadside ditches along Mt Davis Road from the water treatment plant to its intersection with Crestview Road, at Seibel Reservoir, and the existing open ditch that drains to Seibel Reservoir.*
- *If big-scale balsamroot, Pleasant Valley Mariposa lily, Red Hills soaproot, yellow-lip pansy monkeyflower, spiny-sepaled button-celery, Stanislaus monkeyflower, Tuolomne fawn lily, or Tuolumne lris are not observed, no further action is needed.*
- *If the species listed in the bullet above are identified, they will be included in an Environmentally Sensitive Area (ESA). The ESA non-disturbance buffer will be determined by a qualified botanist. The plant(s) will be clearly delineated using high visibility orange fencing. The ESA fencing will remain in place throughout the duration of the proposed action, while construction activities are ongoing, and will be regularly inspected and fully maintained at all times. Vehicles will not be allowed to park in, nor will equipment be stored in the ESA. No storage of oil, gasoline, or other substances will be permitted in the ESA. No vegetation removal or ground disturbing activities will be permitted in the ESA.*
- *If rare plant populations cannot be protected in place, the UPUD will prepare a transplantation/ propagation plan for the relocation of the rare plant(s). Rare plant relocation will occur in a suitable portion of the Project site. The transplantation/ propagation plan will be sent to CDFW.*

Special-Status Wildlife Species:

Foothill yellow-legged frog (FYLF; *Rana boylii*): The water treatment plant portion of TS1 and the entirety of TS2 and TS3 do not provide habitat for FYLF. TS and Tank Site #3 (Vallecito) do not provide suitable habitat for FYLF. The sites are disturbed/developed and do not provide aquatic habitat. As FYLF is a stream-dwelling species; Seibel Reservoir does not provide suitable habitat.

The open ditch that drains to Seibel Reservoir does not provide habitat for FYLF due to the high flow velocities in the ditch. The open ditch is an isolated feature that emerges from an underground pipe at Woodland Drive and flows downhill to the Seibel Reservoir. The open ditch is not hydrologically connected to permanent streams that could provide habitat for FYLF. USGS topographic maps and aerial photos do not show any streams that flow into the open ditch or Seibel Reservoir. Ephemeral drainages may feed into the open ditch or Seibel Reservoir. Ephemeral drainages do not provide habitat for FYLF. There are no other permanent water sources within 0.25 mile of the open ditch or Seibel Reservoir. The Project will not impact FYLF.

California red-legged frog (CRLF; *Rana draytonii*): The water treatment plant portion of TS1, Mt Davis Road, and the entirety of TS2 and TS3 do not provide habitat for CFLF. The open ditch that drains to Seibel Reservoir provides potential non-breeding habitat for CRLF. Seibel Reservoir provides potential breeding and non-breeding habitat for CRLF; however, due to the presence of nonnative predators (bull frogs), CRLF are unlikely to occur. The closest known record for CRLF is located approximately 5.6 miles south of the Project area, south of the Stanislaus River. There have been no CRLF detections in this area since 1975, and this population is possibly extirpated. The closest known breeding population is located at Youngs Creek, approximately 19 to 20 miles west-northwest of the Project area.

The Project area is within the historic range of CRLF, but not within the current known range. There are no known populations of CRLF within one mile of the Project area. Nearby ponds provide potential breeding habitat for CRLF, but the lack of recent records decreases the likelihood that an unknown population of CRLF occurs nearby. Based on the scarcity of CRLF in the Sierra Nevada and the lack of known nearby breeding populations, it is unlikely that CRLF would occur within the Project area. If there are unknown breeding populations of CRLF nearby, CRLF could use Seibel Reservoir as breeding habitat. Seibel Reservoir may be drawn down and dredged to restore design capacity. An approximately 200 linear ft segment of the open ditch will be placed in an irrigation pipe, with rip rap placed at the outlet.

The Project area does not occur within the CRLF designated critical habitat. The nearest critical habitat unit (CAL-1) is located approximately 16 to 18 miles northwest of the Project area (USFWS 2010). The CAL-1 unit is centered around the Youngs Creek CNDDB record # 671.

Implementation of measure BIO-2 will reduce potential impacts to less than significant. BIO-6 (Waters) will also reduce potential impacts to CRLF.

Measure BIO-2 (California red-legged frog, CRLF)

- *A qualified biologist will conduct a preconstruction survey within 48 hours prior to the start of in-water work or vegetation removal adjacent to or in Seibel Reservoir. If CRLF are found at any time during Project work, construction will stop and USFWS will be contacted for further*

guidance. USFWS will be notified within 24 hours of a CRLF observation. CRLF may not be handled or relocated unless USFWS gives permission for relocation.

- *Prior to construction, environmental awareness training will be conducted for construction personnel to brief them on how to recognize CRLF and other special status species. The training will include a description of CRLF and other special status species, potential habitat within the construction area, and how to proceed if a suspected special-status species is encountered. The training will also describe the specific measures being implemented to avoid adverse effects to species. Construction personnel should also be informed that if CRLF or other special status species are encountered in the work area, construction should stop and the qualified biologist will be contacted for guidance. Education programs will be conducted for appropriate new personnel as they are brought on the job during the construction period. Upon completion of training, employees will sign a form stating that they attended the training and understand all the conservation and protection measures.*
- *A qualified biologist will be available during the construction period to assist the construction inspector if CRLF are found and to answer questions and make recommendations regarding implementation of CRLF avoidance and minimization measures at the direction.*
- *Plastic monofilament netting (erosion control matting) or similar material containing netting shall not be used at the Project site because the CRLF or other animals may become entangled or trapped in it. Acceptable substitutes include coconut coir matting or tackified hydroseeding compounds.*
- *To avoid attracting predators, a litter control program shall be instituted at the entire Project site. All workers will ensure that food scraps, paper wrappers, food containers, cans, bottles, and other trash from the study area are deposited in covered or closed trash containers and removed regularly from the Project area.*
- *To ensure that diseases are not conveyed between work sites by the biologist, the fieldwork code of practice developed by the Declining Amphibian Population Task Force will be followed at all times.*
- *To reduce the spread of invasive plant species, all mud and debris will be washed off construction equipment prior to entering the site.*

Western Pond Turtle (WPT; *Emys marmorata*): WPT were not observed in the Project area during the general biological fieldwork. The water treatment plant portion of TS1, Mt Davis Road, and the entirety of TS2 and TS3 do not provide habitat for WPT. Seibel Reservoir provides potential habitat for WPT. The open ditch that drains to the reservoir provides marginal habitat for WPT due to rapid flows and a lack of basking sites. If WPT were present during construction, the Project could impact WPT. Implementation of measure BIO-3 will reduce potential impacts to less than significant. BIO-2 (CRFL) will also reduce potential impacts to WPT.

Measure BIO-3 (Western Pond Turtle, WPT)

- *A preconstruction survey for WPT shall occur within 48 hours prior to the start of construction activities at Seibel Reservoir and the open ditch that drains to the reservoir.*
- *During construction, if WPT is observed in the active construction zone, construction will cease and a qualified biologist will be notified. Construction may resume when the biologist*

has either relocated the WPT to nearby suitable habitat outside the construction zone, or, after thorough inspection, determined that the species has moved away from the construction zone.

Bald Eagle (*Haliaeetus leucocephalus*): Bald eagle was not observed in the Project area during the general biological surveys. The water treatment plant portion of TS1, Mt Davis Road, and the entirety of TS2 and TS3 do not provide habitat for bald eagle. Bald eagle could nest in the forest communities surrounding Seibel Reservoir. The Seibel Reservoirs provide suitable foraging habitat for bald eagle. Implementation of the BIO-4, below, for migratory birds and birds of prey will also reduce potential impacts to bald eagle.

Nesting Birds Listed Under the MBTA or Regulated by CA Fish and Game Code: The Project area provides potential nesting sites for birds listed under the MBTA and regulated by CA Fish and Game Code. Depending on the species, birds may nest on trees, shrubs, in or on the ground, and on artificial structures such as buildings, bridges, culverts, headwalls, poles, and signs.

Multiple partially-constructed mud nests were observed under the eaves on the southeast side of the utility shed at TS3. Two active barn swallow (*Hirundo rustica*) nests were observed under the eaves of the utility shed structure at TS1. Trees and vegetation in the BSA provide nesting habitat for birds of prey and other birds protected by the MBTA and Fish and Game Code. Implementation of BIO-4 will reduce potential impacts to less than significant.

Measure BIO-4 (MBTA)

Under the MBTA, nests that contain eggs or unfledged young are not to be disturbed during the breeding season. Nesting or attempted nesting by migratory birds and birds-of-prey is anticipated from 15 February to 31 August.

<u>Swallows and Other Bridge/Structure Nesters</u>: In California, bridge/ structure-nesting swallows typically arrive in mid-February, increase in numbers until late March, and remain until October. Nesting begins in April, peaks in June, and continues into August. Black phoebes, another bridge/ structure -nesting species, nest from March to August with peak activity in May. Measures should be taken to prevent establishment of nests on the bridges, culverts, headwalls, and other suitable structures prior to construction. Effective techniques to prevent nest establishment include using exclusion devices and removing and disposing of partially constructed and unoccupied nests of migratory or nongame birds on a regular basis to prevent their occupation. This can be done by:

- *On a weekly or more frequent basis, remove all partially completed nests using either hand tools or high-pressure water; and/or*
- *Hang netting from the bridge/structure before nesting begins. If this technique is used, netting should be in place from late February until project construction begins.*

<u>Birds of Prey and Birds Protected by the Migratory Bird Treaty Act</u>

- *If construction begins outside the 15 February to 31 August breeding season, there will be no need to conduct a preconstruction survey for active nests.*
- *If applicable, trees scheduled for removal should be removed during the non-breeding season from 1 September to 14 February.*
- *If construction is scheduled to begin between 15 February to 31 August, a biologist shall conduct a survey for active bird of prey nests within 500 ft and active MTBA bird nests*

within 100 ft of the Project area from publicly accessible areas within one week prior to construction. The measures listed below shall be implemented based on the survey results.

No Active Nests Found:

- *If no active nest of a bird of prey, MBTA bird, or other CDFW protected bird is found, then no further avoidance and minimization measures are necessary.*

Active Nests Found:

- *If an active nest of a bird of prey, MBTA bird, or other CDFW protected bird is discovered that may be adversely affected by construction activities or an injured or killed bird is found, immediately:*
    1. *Stop all work within a 100-ft radius of the discovery*
    2. *Notify the Engineer*
    3. *Do not resume work within the specified radius of the discovery until authorized.*
- *The biologist shall establish a minimum 500-ft Environmentally Sensitive Area (ESA) around the nest if the nest is of a bird of prey, and a minimum 100-ft ESA around the nest if the nest is of an MBTA bird other than a bird of prey (see Bird Species Protection Areas table below).*

Bird Species Protection Areas

Identification	***Location***
Bird of Prey	*500 ft no-disturbance buffer*
MBTA protected bird (not bird of prey)	*100 ft no-disturbance buffer*

- *Activity in the ESA will be restricted as follows:*
    1. *Do not enter the ESA unless authorized*
    2. *If the ESA is breached, immediately:*
        a. *Secure the area and stop all operations within 60 ft of the ESA boundary*
        b. *Notify the Engineer*
    3. *If the ESA is damaged, the District determines what efforts are necessary to remedy the damage and who performs the remedy.*
- *No construction activity will be allowed in the ESA until the biologist determines that the nest is no longer active, or unless monitoring determines that a smaller ESA will protect the active nest.*
- *The size of an ESA may be reduced if the biologist monitors the construction activities and determines that no disturbance to the active nest is occurring. Reduction of ESA size depends on the species of bird, the location of the nest relative to the project, project activities during the time the nest is active, and other project-specific factors.*

- *Between 15 February and 31 August, if additional trees or shrubs need to be trimmed and/or removed after construction has started, a survey will be conducted for active nests in the area to be affected. If an active nest is found, the above measures will be implemented.*
- *If an active nest is identified in or adjacent to the construction zone after construction has started, the above measures will be implemented to ensure construction is not causing disturbance to the nest.*

Pallid Bat (*Antrozous pallidus*): Pallid bat was not observed in the Project area during the general biological survey. Buildings within the fenced boundaries of TS1, TS2, and TS3 may provide marginal roosting habitat for pallid bat. These buildings are located within an area of regular human disturbance. The buildings will not be impacted by the Project. The water storage tanks TS1, TS2, and TS3 do not provide habitat for Pallid bat. Project activities at TS2 and TS3 will not impact Pallid bat.

Pallid bat could roost in hollow trees or tree cavities located in the ponderosa pine forest community adjacent to Seibel Reservoir and the open ditch that drains into the reservoir. Implementation of measure BIO-5 will reduce potential impacts to Pallid bat.

Measure BIO-5 (Pallid Bat)

The following will be conducted prior to vegetation removal or trimming in the portion of the Project area adjacent to Seibel Reservoir and the open ditch that drains into the reservoir.

- ***Bat Habitat Assessment:** A biologist shall conduct a habitat assessment for bats at work sites where culverts, structures and/or trees would be removed or otherwise disturbed for a period of more than two hours. The habitat assessment shall include a visual inspection of features within 50 feet of the work area for potential roosting features (bats need not be present) no more than 2 weeks prior to disturbance of such features. Habitat features found during the survey shall be flagged or marked.*
- *If any habitat features identified in the habitat assessment will be altered or disturbed by Project activities, the following phased disturbance strategy shall be employed: Non-habitat trees or structural features shall be removed one (1) day prior to removal of habitat features. Personnel shall not attempt to directly disturb (e.g. shake, prod) roosting features, as such disturbance constitutes "harassment" under 14 CCR § 251.1.*
- *Removal or trimming of trees containing an active roost will be avoided between 15 April and 15 September (the maternity period) to avoid impacts on reproductively active females and dependent young.*
- *If bats (individuals or colonies, not just roosting habitat) are detected during the habitat assessment, CDFW shall be immediately notified.*

Essential Fish Habitat (EFH): The Project area is not located in Essential Fish Habitat (EFH). The Project area is located in the Upper Stanislaus hydrologic unit. The upper extent of essential fish habitat (EFH) in this hydrologic unit is the Goodwin Dam, located over 15 miles downslope and southwest of the Project area. No impact will occur.

b) ***Less than Significant.*** Potential jurisdictional waters of the U.S. and state are special-status natural communities in the Project area. Impacts to potential waters of the U.S. and state are discussed under Item c below. No other sensitive natural communities occur in the Project area.

c) ***Potentially Significant Unless Mitigation Incorporated.*** Carson Creek, Ephemeral Channels 1-3, Seibel Reservoir, and the lower portion of the open ditch that drain the reservoir are potential jurisdictional waters of the U.S. and state in the Project area.

Mt Davis Road crosses Carson Creek and several ephemeral channels in the Project area. Installation of the new 18-inch diameter pipe in the Mt Davis Road prism will avoid Carson Creek and the ephemeral channels. Depending on the depth of the culvert crossing below the road surface one of two methods would be used to avoid impacts to the channels. If there is sufficient depth between the top of the culvert and the existing road surface, the new pipe would be installed in a trench excavated over the top of the culvert. If there is not sufficient depth between the top of the culvert and the existing road surface, the new pipe will be installed via jack and bore (or other similar method) under the existing culverts. The selection of the installation method will be made during final design.

To improve overall UPUD operations and restore/ enhance the design volume of Seibel Reservoir, the Project will expand the inlet and dredge the northern portion of the reservoir. The inlet will be expanded to provide additional settlement area which will help maintain the reservoir's design capacity once restored. The north portion of the reservoir will be dredged to restore its original design volume. The maximum depth of excavation in Seibel Reservoir would be approximately 10 feet. RSP may be installed at the bottom of the excavated portion of the reservoir for erosion control. The creation of a forebay and extent of rip rap placement will be determined by the District during final design.

Construction activities will require construction personnel and equipment to work within the OHMW of Seibel Reservoir. Prior to excavating Seibel Reservoir, the reservoir may need to be drawn down approximately 10 feet in autumn or spring when rains subside and irrigation is not in demand. Vegetation removal, including removal of native trees, may be necessary to facilitate construction.

Approximately 200 linear feet of the open ditch extending downhill from Woodland Drive will be placed in a pipe. Rock rip rap will be placed at the outlet of the new pipe for erosion protection. Piping and rip rap installation will result in in temporary and permanent impacts to the open ditch.

Implementation of measure BIO-6 will reduce potential impacts to less than significant.

Measure BIO-6 (Waters)

- *The Project will obtain a Section 404 Clean Water Act (CWA) permit from the U.S. Army Corps of Engineers (Corps); a Section 401 Water Quality Certification (WQC) from the Regional Water Quality Control Board (RWQCB); and a Section 1602 Streambed Alteration Agreement (SAA) from California Department of Fish and Wildlife (CDFW) for fill impacts to Seibel Reservoir and the southern extent of the open ditch. All permit conditions would be implemented.*
- *Prior to construction, Environmentally Sensitive Area (ESA) fencing or equivalent will be placed along the limits of construction in the project area to exclude construction activities*

from avoided habitat. Trucks and other vehicles will not be allowed to park beyond, nor shall equipment be stored beyond, the fencing. No vegetation trimming/mowing or ground-disturbing activities will be permitted beyond the fencing.

- *During construction, water quality will be protected by implementation of BMPs consistent with the Calaveras County Stormwater Management Plan and the Calaveras County Grading, Drainage, and Erosion Control Manual, as applicable.*
- *Riparian vegetation will be avoided and preserved to the maximum extent practicable. The limits of vegetation removal will be marked with temporary fencing or flagging.*
- *Equipment will be refueled and serviced at designated construction staging areas. All construction material will be stored and contained in a designated area that is located away from channels and other wetland or water features to prevent transport of materials into aquatic features. The preferred distance is a minimum 100 feet from riparian habitat or aquatic features. Construction vehicles and equipment will be maintained to prevent contamination of soil and water from external grease and oil and from leaking hydraulic fluid, fuel, oil, and grease.*
- *If dewatering by pumping is proposed, the contractor will prepare a creek dewatering plan that complies with any applicable permit conditions and County guidelines. Intakes shall be completely screened with wire mesh not larger than five millimeters. Upon completion of construction activities, any barriers to flow shall be removed in a manner that would allow flow to resume with the least disturbance to the substrate.*
- *If pumps are used to temporarily dewater the reservoir to facilitate construction, an acceptable fish screen will be used to prevent entrainment or impingement of small fish. A biological monitor will conduct a survey of the area to be dewatered immediately after installation of the dewatering device, prior to the continuation of dewatering activities. The monitor will use a net to capture trapped fish in the area to be dewatered. Captured fish will be released back into Seibel Reservoir, outside of the active construction zone. Capturing of fish will continue during dewatering activities when fish are concentrated and easier to catch.*
- *All disturbed soils in the Project area will undergo erosion control treatment prior to October 15 and/or immediately after construction is terminated at the completion of the Project. Treatment includes seeding and the application of sterile straw mulch. Any disturbed soils on a gradient greater than 30 percent will have erosion control blankets installed. Areas temporarily disturbed on the banks of Seibel Reservoir will be seeded with native herbaceous plant species.*
- *UPUD will implement Best Management Practices outlined in any authorizations or environmental permits issued for the Project.*

d) ***Less Than Significant Impact.*** Construction of the project could temporarily disrupt movement of native wildlife species that occur in or adjacent to the Project area. Daytime construction activities will result in minimal disruption of nocturnal wildlife movement. Although construction disturbance may temporarily hinder wildlife movements within the project area, the impact is less than significant due to its short-term nature.

e) ***No Impact.*** The 2019 Calaveras County General Plan Conservation and Open Space (COS) Element includes the following goals and policies, and implementation measures (IM) intended to protect special-status species.:

Goal COS-3: A diversity of native plants, fish, and wildlife species and their habitats.

Policy COS 3.1: To protect sensitive biological resources, new development shall use site planning techniques, including buffers and setbacks, and encourage other techniques such as clustering of development (Associated IM COS-4B).

Policy COS 3.2 Avoid impacts to habitats that support special status species to the extent practicable. Where impacts cannot be avoided, mitigate impacts in accordance with resource agency (CDFW and/or USFWS) protocols/policies for the species. (Associated IMs COS-3B, COS-4B, COS-4C, COS-4F, COS-4H, COS-4I, COS-4K, COS-4L, COS-4N and COS-4O)

Policy COS 3.3 Require new development to identify and mitigate impacts to wildlife habitat and wetlands, riparian habitats and other aquatic resources consistent with state and federal regulations. (Associated IMs COS-4C COS-4D, COS-4H,

Policy COS 3.4 Identify and protect corridors important to wildlife movement and dispersal. (Associated IMs COS-4C and COS-4E)

Policy COS 3.5 Encourage preservation of oak woodlands in accordance with state law. (Associated IMs COS-4D)

Policy COS 3.6 Conservation easements may be acceptable means to mitigate impacts to protect wildlife habitat, wetland areas, and oak woodlands from new development. (Associated IMs COS-4D, COS-4F, COS-4H, COS-4I, COS-4K, COS-4L, COS-4N and COS-4O)

Policy COS 3.7: Support efforts to eradicate invasive species and encourage practices that reduce their spread. (Associated IMs COS-4G, COS-4J and COS-4K)

Policy COS 3.8: Where practicable, improve the ability of listed species and any native wildlife to safely cross highways and roadways to reduce human injuries and fatalities resulting from vehicle-animal collisions. (Associated IM COS-4O)

Policy COS 3.9: Preserve and enhance healthy woodlands consistent with state law, reasonable development and fire safety considerations (Associated IM COS-4D)

IM COS-4A Database of Biological Resources: Cooperate with the State in maintaining an up-to-date database of biological resources to assist planners in assessing the potential biological sensitivity of project sites and their surroundings, including data from local, state and federal databases and addressing special use areas (corridors, wintering habitat, nesting sites). Where feasible, support efforts to fill in unmapped vegetation data gaps.

IM COS-4B Mitigation Options for Biological Resources: Adopt written guidelines establishing mitigation measures acceptable to Calaveras County for mitigating impacts to sensitive biological resources. Applicants may apply these mitigation options or hire a qualified professional biologist to identify alternative mitigation.

IM COS-4C Habitat Conservation Plan for Amphibians: Subject to available funding and in cooperation with the U.S. Fish and Wildlife Service and California Department of Fish

and Wildlife, pursue a countywide habitat conservation plan to allow incidental take of California tiger salamander and California red-legged frog habitat. Consider expanding the plan to include special status species occupying similar habitats. Consider coordinating the effort with neighboring counties to assist in sharing the costs of preparing the plan and to expand mitigation opportunities.

IM COS-4D Oak Woodlands: Develop local mitigation measures pursuant to PRC §21083.4(b)(4) in addition to the mitigation measures provided in Public Resources Code Section 21083.4(b)(1-3) to facilitate the environmental review process relative to mitigating significant direct and cumulative impacts to oak woodlands in conjunction with discretionary project approval and address pre-development removal of oaks.

In the interim, require development that is subject to a discretionary entitlement and subject to CEQA review to enlist the services of a qualified professional (meaning a qualified biologist, botanist, arborist, or Registered Professional Forester) to survey the property in question for oak woodlands and to recommend options for avoidance and/or mitigation consistent with the provisions of RPC 21083.4 if potentially significant impacts to oak woodlands are identified If a potentially significant impact to oak woodlands is identified, the following shall apply:

- The oak woodland on the project site shall be mapped and the extent of woodland canopy proposed to be removed as a result of the proposed project shall be identified.
- If avoidance is utilized for all or part of the mitigation, the oak woodland to be avoided by the project shall be protected by identifying the dripline of the oak woodland canopy to be preserved on all construction plans and by implementation of best management practices or other measures recommended by the qualified professional to prevent damage to the woodland to be preserved.
- Mitigation consistent with the provisions of PRC 21083.4, other than avoidance, shall be applied at a ratio of 1:1 to 2:1. The ratio and the type(s) of mitigation chosen shall be informed by the recommendations of the qualified professional with respect to providing similar habitat functions and values as the woodland habitat removed as part of the project.
- If mitigation consisting of replacement planting, transplanting and/or identification of off-site mitigation through acquisition of a conservation easement is utilized, it shall be applied based on the recommendations of the qualified professional that the replacement habitat will provide similar habitat functions and values as the woodland habitat removed as a part of the project. Mitigation shall take place in Calaveras County.

IM COS-4E Wildlife Corridors: Consider California Department of Fish and Wildlife data for the purpose of establishing guidelines for protecting important wildlife movement corridors to be applied in conjunction with environmental reviews for discretionary projects.

IM COS-4F Voluntary Biological Resource Conservation Activities: Support efforts where appropriate to identify and acquire high value biological resource areas from willing sellers on private lands for the purpose of mitigating impacts to biological resources.

IM COS-4G Invasive Species: Cooperate with state and Federal agencies and programs and other organizations to control the spread of invasive species. Work to secure funding where available to support these efforts.

IM COS-4H Impacts to Biological Resources: For development that is subject to a discretionary entitlement and subject to environmental review under the CEQA, require project applicants to enlist the services of a qualified biologist and to minimize, avoid and/or mitigate significant impacts to the following special-status species or as otherwise required by State or Federal law:

- Threatened and endangered plant and animal species listed by the Federal Endangered Species Act (FESA).
- Rare, threatened and endangered plant and animal species listed by the California Endangered Species Act (CESA).
- Other special-status species including, but not limited to:
- Federal candidate species for listing under the FESA;
- State candidate species for listing under the CESA;
- California Fully Protected Species (protected pursuant to Fish and Game Code);
- California Species of Special Concern (protected pursuant to CEQA Guideline §15382);
- Plant species listed by the California Native Plant Society as Ranks 1A, 1B, 2A and 2B (protected pursuant to CEQA Guideline §15382);
- Nesting birds (protected pursuant to California Fish and Game Codes §§3503, 3503.5, 3511, and 3513 which prohibit the "take, possession, or destruction of birds, their nests or eggs.");
- Birds of prey. All raptors (that is, hawks, eagles, owls) their nests, eggs, and young are protected under California Fish and Game Code (§3503.5);
- Birds protected pursuant to the federal Migratory Bird Treaty Act;
- Bald eagles and golden eagles as protected pursuant to the federal Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d) and California Fish and Game Code (Section 3503.5).

Mitigation for impacts to special status species and/or their habitats may be accomplished by purchasing species compensation credits from an agency-approved conservation bank with CDFW and/or USFWS approval. For mitigation that includes avoidance on project sites or offsite mitigation preserves established to compensate for a project's effects on CESA/FESA listed species, a qualified biologist shall be required to develop a long-term maintenance and management plan, and a Property Analysis Record (PAR) or PAR-Like Endowment Spreadsheet Analyses for any onsite species avoidance area.

COS-4I Biological Impact Evaluation: Development that is subject to a discretionary entitlement and subject to CEQA review shall be required to evaluate potential impacts to sensitive communities using the methodologies identified below and shall require mitigation for potentially significant and significant impacts.

- Enlist the services of a qualified biologist or botanist to survey the property in question for sensitive plant communities including riparian woodland and Ione chaparral;
- If any sensitive plant community is identified on the proposed property, the qualified biologist or botanist shall map the dripline (canopy) and/or extent of the rare plant community using global positioning system (GPS) technology;
- The dripline/canopy and/or sensitive plant communities that are to be preserved shall be shown on all site development plans, grading plans, and/or engineering drawings so that all contractors are aware that this community is sensitive and as such, impacts must be minimized by project plans to the extent feasible. Riparian drip line impacts require additional scrutiny and may require additional permitting from the CDFW pursuant to Section 1602 of the Fish and Game Code.
- Mitigation for project impacts on the sensitive habitat may include onsite planting mitigation compensation, or offsite mitigation through preservation via recordation of a conservation easement that facilitates the perpetual protection of similar habitat types as those that are impacted, consistent with COS-3.6, as necessary to reduce impacts to a less-than-significant level.

IM COS-4J Landscaping Ordinance: Adopt an ordinance that requires new developments to submit landscape plans that are comprised of more than 50% native California and/or drought tolerant plant species and prohibits landscaping with invasive plant species.

IM COS-4K Invasive Species Control: For development that is subject to a discretionary entitlement and subject to environmental review under the CEQA on properties proposed for development or redevelopment that have been identified by a qualified botanist to support those invasive plant species that are identified on the California Invasive Plant Council inventory as having a ranking of "high" invasiveness (or in the case of the plant, stinkwort, which has a "moderate" ranking), removal efforts should be undertaken. The best means to remove the invasive species (for example, hand-removal or the use of herbicides) would be determined on a property by property basis by the contracted botanist/qualified biologist/restoration ecologist.

COS-4L Streams and Wetlands: For any discretionary permit that will be required for a property that has been identified on any resource map as supporting waters (creeks, rivers, streams, tributaries) and/or wetlands (for example, ponds, marshes, vernal pools), or that constitutes an open space or natural lands conversion, the County will require the land owner/project applicant to contract with a qualified wetlands scientist or biologist to evaluate if the project could result in the fill or hydrologic disruption of waters of the U.S./State (which includes wetlands) onsite or offsite. If a preliminary evaluation determines that a proposed project could adversely affect waters of the U.S./State, then a qualified wetlands scientist or biologist should delineate the extent of regulated waters in accordance with the federal and state policies. The project shall comply with the applicable requirements of Section 404 of the Clean Water Act, appropriate Regional Water Quality Control Board permitting requirements, Streambed Alteration Agreement requirements of California Fish and Game Code Section 1602, and other State and Federal laws.

IM COS-4M Upland Habitat: For development subject to a discretionary entitlement and environmental review under CEQA, work with applicants to preserve or enhance upland habitat for wildlife species to the extent feasible on parcels containing suitable habitat (e.g. areas used for foraging, breeding, dispersal, etc.). Habitat preservation and enhancement shall be encouraged throughout the County in a way that promotes regional connectivity of open space habitats. The County shall work with applicants to design development to be compatible with wildlife movement. Mitigation measures may include installing wildlife friendly fencing or lighting to minimize interference with wildlife movement. If open spaces are to be preserved within developed areas, they shall have connectivity to/with other dedicated or undevelopable open space lands to the extent feasible.

IM COS-4N Riparian Corridors: Adopt an ordinance or resolution conserving riparian corridors. In the interim, for development that is subject to a discretionary entitlement and environmental review under CEQA, buffer areas shall be established along rivers, streams, and intervening lakes and ponds, based on the recommendation of a qualified biologist to avoid any barrier to wildlife movement along the water corridor. The County shall adopt the feasible recommendations of the biologist.

IM COS-4O Wildlife Corridor Road Crossings: Provide information to the public regarding significant wildlife corridors. In areas of the County where a significant wildlife corridor has been identified (e.g., a deer migration corridor, a federally or state listed amphibian migration route), the County and applicants for discretionary projects proposing improvements in these areas, shall prepare and submit any improvement plans that must be approved by the County. Those plans must show properly sized and constructed wildlife passage culverts or other under or over crossing plans that will provide safe passageways over or under constructed, improved or modified roadways. In significant wildlife corridors areas, when feasible, fencing will be used to direct animals to these under crossings or other roadway crossings. Safety signage may also be utilized to alert drivers to specific areas used by mule deer and other large wildlife for roadway crossings.

IM COS-4P Bat Roosting: For development subject to a discretionary entitlement and environmental review under CEQA, a pre-project survey shall be conducted by a qualified biologist to determine if special status bat species are using the site. Should special status bat species be found present on-site, feasible mitigation, such as installing exclusionary devices at the instruction of a qualified biologist and/or construction of replacement roost structures, including bat houses, other structures, or crevices incorporated into bridge design, shall be required prior to the removal of potential bat roosting sites. Replacement roost structures shall be monitored to document bat use.

Calaveras County does not have a specific tree ordinance. Calaveras County does have Voluntary Oak Woodland Management Guidelines (Calaveras County 2007). No oak woodlands occur in the Project area. Ponderosa pine forest occurs in the Project area. Construction access to Seibel Reservoir, placing an approximately 200 ft segment of upper portion of the open ditch in a pipe, and the dredging of Seibel Reservoir will require the trimming or removal of native trees. Disturbed upland areas will be revegetated with native species or sterile non-native species. The Project does not conflict with any local policies or ordinances protecting biological resources.

f) ***No Impact.*** The Project is not located in an area covered by a habitat or natural community conservation plan.

CEQA-Plus Evaluation-Wild and Scenic Rivers Act: No rivers occur in the Project area.

4.2.5 Cultural Resources

V. CULTURAL RESOURCES—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Cause a substantial adverse change in the significance of a historical resource as pursuant to §15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

Environmental Setting

Patrick GIS Group, Inc. conducted a cultural resources study of Project area (Patrick GIS 2019). A cultural resources records search was conducted on 29 June 2017 by the Central California Information Center (CCIC) of the California Historical Resources Information System at California State University, Stanislaus. Two additional CCIC searches were requested, the first in November 2017 the second in August 2018, to expand the radius to one-half mile and incorporate Mt Davis Road and Seibel Reservoir. The results of the records search are summarized below:

- **TS1 (including Seibel Reservoir and Mt Davis Road):** No previously recorded resources were identified in the Project area. Five previously recorded resources associated with the Utica water conveyance system were identified in the one-quarter mile record search boundary and 11 within the one-half mile record search boundary of TS1 and Mt Davis Road. A total of 15 previously recorded resources were identified within the one-half mile record search boundary of Seibel Reservoir.
- **TS2:** The record search identified one previously recorded resource (Murphys Rancheria) intersecting the TS2 project area and two additional previously recorded resources within the one-half mile record search boundary. No evidence of the Murphys Rancheria was identified within the TS2 project area during the pedestrian survey. The resource was likely located on the ridgeline above the current UPUD compound, which has been cut into the hillside. Any features which may have been present are no longer evident. In addition, a glory hole (possibly Pay Rock) and an old road are located to the west of the UPUD yard and the Oro y Plata Mine lies to the east. No evidence of mining activity was identified within the TS2 project area.
- **TS3:** No previously recorded resources were identified in the Project area or one-quarter mile record search boundary.

A formal request to the California Native American Heritage Commission (NAHC) for a Sacred Lands File search was submitted on June 28, 2017 and the NAHC responded on July 7, 2017. The search was

positive for sacred cultural resources (Murphys Rancheria). A letter describing the proposed project and requesting tribal input regarding interest in, or concerns with the Project was sent to the individuals listed on the NAHC list on June 29, 2017. Emails, containing the same documents were sent to the individuals listed on the NAHC list on June 30, 2017. Follow-up letters with additional project information were sent to the individuals listed on the NAHC list on July 7, 2017 and again on August 14, 2017.

The Calaveras Band of Mi-Wuk Indians responded on July 1 and 10, 2017 requesting further consultation and participation in field review. Patrick GIS requested recommendations from the tribe on August 29 and again on October 20, 2017 (following the fieldwork). The Calaveras Band of Mi-Wuk Indians responded on August 29 and October 23, 2017 stating that they would review the field notes and respond. No further response was received. An expanded records search map with a one-half mile radius was sent to the Calaveras Band of Mi-Wuk Indians on December 7, 2017.

The Ione Band of Miwok also responded with information regarding the project area, including the Murphys tank site, and requested further consultation.

Patrick GIS sent an email on August 17, 2017 informing the Native American representatives of the upcoming survey and invited both parties to join the survey effort and discuss concerns regarding the project, to take place on August 25th, 2017. The Ione Band of Miwok was unable to attend the meeting. Patrick GIS provided the results of the field effort to the Ione Band of Miwok.

Calaveras Band of Mi-Wuk representatives met at the UPUD main office. Calaveras Band of Mi-Wuk representatives, UPUD staff, and Patrick GIS participated in the field survey.

An updated request was sent to the NAHC on September 6, 2018 for the Seibel Reservoir/ Mt Davis Road portion of the project area. The NAHC responded on September 11, 2018 with negative findings for sacred sites. Follow-up letters and maps informing those listed on the NAHC contact list were sent on September 11th, 13th and 18th. Mr. Charles Wilson passed away, thus, no letter was sent.

The Ione Band of Miwok Indians confirmed receipt on September 11, 2018. No further correspondence was received.

Ms. Grimes (of the Calaveras Band of Mi-Wuk) responded on September 11, 2018 requesting a hard copy of the cultural report be sent in the mail, the time and date of the survey, and stating they would provide a response regarding the project. Patrick GIS responded the same day informing the Calaveras Band of Mi-Wuk the letters would be mailed out shortly. On October 9, 2018 the Calaveras Band of Mi-Wuk emailed Patrick GIS stating a formal letter had been sent on September 10 addressing the tribe's concerns and the desire to participate in the survey and monitoring. Patrick GIS responded on October 15th stating that no such letter was received, the survey had been completed, and that a site visit could be arranged for Calaveras Band of Mi-Wuk representatives the following week.

Ms. Grimes copied Patrick GIS on an email to the California Valley Miwok Tribe regarding a site visit together. Patrick GIS responded to both with a summary of the project, correspondence, current coordination requirements and again offering a site visit. No response was received.

The California Valley Miwok Tribe initiated communication via two phone calls with Patrick GIS on October 9 and 11, 2018 to discuss internal tribal matters of the California Valley Miwok Tribe and general concerns. No project specific information was provided.

The California Valley Miwok Tribe (aka Sheep Ranch Rancheria) acknowledged receipt of the project information. No comments or concerns were received.

The Ione Band of Miwok informed Ms. Patrick that they are not currently consulting on projects in Calaveras County at this time.

An intensive pedestrian survey was conducted of TS1, TS2, and TS3 on August 25, 2017. A second survey was conducted in September of 2018 to address Seibel Reservoir and Mt Davis Road. The surveys identified one archaeological resource.

To qualify for listing in the California Register of Historic Resources (CRHR) and to be considered a historical resource for the purposes of CEQA, a resource must meet one or more of the criteria set forth in PRC 5024.1 and the California Code of Regulations (CCR Title 14, Chapter 11.5, § 4850 et seq). Criteria include:

- **Criteria 1:** Association with events that have made a significant contribution to broad patterns of local or regional history;
- **Criteria 2:** Association with the lives of persons important to local, California, or national history;
- **Criteria 3:** Embodies the distinctive characteristics of a type, period, or region, has high artistic value, or is the work of master;
- **Criteria 4:** Has potential to yield information important to prehistory or history.

The criteria for the National Register of Historic Places (NRHP) are nearly identical to the California Register. If Project construction were to cause a substantial adverse change in the significance of an archaeological resource eligible for listing on the National or State Register, then the Project would be considered to have a significant effect on the environment.

Potential Environmental Effects

a) ***Less Than Significant Impact*:** The intensive pedestrian survey within the project area identified the Proper/Seibel Placer Mine complex (including Seibel Reservoir) as an archaeological resource. No other archaeological resources were observed at TS1 (including Mt Davis Road), TS2, or TS3.

Seibel Reservoir is within the original Douglas Flat Mining District. Only the portions of the resource within the project boundaries were recorded. The site boundaries include the entirety of Seibel Reservoir, although only the northern end was intensively surveyed.

The resource, the Proper/Seibel Placer Mine, consists of at least 16 features associated with placer mining and water conveyance from two time periods, 1858-1906 and 1947 to current. Archival research indicates this area may have been placer mined in the early years of the Gold Rush, but undoubtedly was active from 1858-1906. Two miners worked the property, Lockwood Proper, who was in business with William McNeese, was assessed for the property in 1858 for the Proper and McNees placer mine. In 1872 the mine transferred to Jacob Sanguenetti, John Seibel, and Antonio Sporta.

Various ditches are present within the recorded site boundaries. Constructed initially for placer mining purposes, many were reused in the later period to provide irrigation water to fields and farms when the placers played out and the lands were superseded for agriculture. The primary ditch, which accessed water from the South Ditch, was reclaimed by UPUD in for the Seibel

Reservoir. The reservoir, built in 1947 is part of a larger complex which distributes water for agriculture and domestic uses.

Mining sites including ditches are ubiquitous features of the Mother Lode region. Although the site is associated with the Gold Rush Era and/or post-boom events, the site is not uniquely associated with an event contributing to history (CRHR Criterion 1); important persons (CRHR Criterion 2); or artistic in value (CRHR Criterion 3). The location and characteristics of the site may provide data on historic mining (CRHR Criterion 4). An archaeological site record has been completed and placed on file with the California Historical Resources Information System (CHRIS) to address CRHR Criterion 4. The Proper/Seibel Placer Mine complex (including Seibel Reservoir) is not recommended as eligible for listing on the CRHR or NRHP. Project impacts are less than significant.

b) ***No Impact.*** The water storage tanks located at TS1, TS2, and TS3 were constructed between 1983 and 2005 and all consist of circular steel tanks, with welded seams, sitting on concrete pads. The tanks do not appear to meet the eligibility criteria for inclusion in the CRHR of NRHP and are not historical resource for the purposes of the CEQA.

c) ***Less Than Significant Impact.*** The Project Cultural Resources Study (Patrick GIS Group 2019) documents that no known cemeteries or burials occur within the project study area. Should human remains be discovered during the excavation portion of the Project, the project description includes contract provisions that will require notification of UPUD and compliance with California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.9 et seq.

4.2.6 Tribal Cultural Resources

VI. Tribal Cultural Resources:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
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:	☐	☐	☐	☒
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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☒

Environmental Setting

UPUD has not received in any requests in writing from California Native American tribes to be notified by through formal notification of proposed projects in the geographic area with which the tribe is traditionally and culturally affiliated.

Potential Environmental Effects

a) ***No Impact (applies to items i and ii).*** Section 4.2.5 (Cultural Resources) discusses UPUD's the Section 106 coordination efforts with Native American individuals/organizations. No tribal cultural resources were identified in the project limits during the cultural resource consultations.

4.2.7 Energy

VII. ENERGY	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

a) ***Less Than Significant.*** All construction equipment would be regulated per the California Air Resources Board (CARB) In-Use Off-Road Diesel Vehicle Regulation. CARB 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.

Project construction would also be required to comply with all applicable Calaveras County APCD rules and regulations. Future maintenance activities (e.g. vegetation control, dredging) would likely involve the use of electric or gas-powered equipment.

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

b) ***No Impact:*** Neither the UPUD or Calaveras County currently have an adopted plan for renewable energy or energy efficiency. In the event that a plan for renewable energy or energy efficiency is adopted prior to the Project receiving its entitlements, the Project would comply with the applicable plan measures.

4.2.8 Geology and Soils

VIII.GEOLOGY AND SOILS—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless 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 a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

Environmental Setting

Calaveras County is located in the Sierra Nevada geomorphic province of California, east of the Great Valley province and west of the Range and Basin provinces. The Sierra Nevada geomorphic province is a tilted fault block almost 400 miles long and extends from the eastern slope to the western slope of the Sierra Nevada. Steep-sided hills and narrow rocky stream channels characterize the Sierra Nevada province. This province consists of Pliocene and older deposits that have been uplifted as a result of plate tectonics, granitic intrusion, and volcanic activity. Subsequent glaciations and additional volcanic activity are factors that led to the east-west orientation of stream channels. The Sierra Nevada geomorphic province overlies metamorphic bedrock that contains gold-bearing veins in the northwest trending Mother Lode. The Mother Lode region in the Sierra Nevada extends from El Dorado County in the north through Calaveras County, terminating in Mariposa County to the south (Calaveras County 2012b).

Seismicity is defined as the geographic and historical distribution of earthquake activity. Seismic activity may result in geologic and seismic hazards including seismically induced fault displacement and rupture, ground shaking, liquefaction, lateral spreading, landslides and avalanches, and structural hazards.

The California Department of Conservation's 2010 Fault Activity Map of California indicates the closest potentially active faults are located approximately 5 miles west of the Project area, and include the Haupt Creek Fault, Ione Fault, Waters Peak Fault, Bear Mountains Fault Zone (Youngs Creek Fault), and the Melones Fault Zone (Poorman Gulch Fault) (California Department of Conservation 2019b). These fault zones pass through the western portion of Calaveras County and are identified near Valley Springs, Mokelumne Hill, south of Melones near Jamestown, and south of Copperopolis (Calaveras County 2012b).

No mapped Alquist-Priolo Earthquake Fault Zones occur in Calaveras County. Surface fault rupture is associated with being located on or within close proximity of an active fault. Because the County is not within, and does not cross, an Alquist-Priolo Earthquake Fault Zone, the risk of surface fault rupture within the County is considered low (Calaveras County 2012b).

Calaveras County is not located in a seismic hazard zone (Alquist-Priolo Earthquake Fault Zone) and is not considered to be at risk from landslides as a result of active faulting. Portions of the County with slopes 20 percent or greater have an increased potential for non-seismic related landslides associated with high rainfall or snowmelt (Calaveras County 2012b). The Project area does not contain slopes 20 percent or greater.

The locations of ultramafic rocks have been mapped by the Division of Mines and Geology in an effort to generally identify areas likely to contain Naturally Occurring Asbestos (NOA). Ultramafic rock occurs within the western portion of Calaveras County and generally trends north to southwest following the Bear Mountain and Melones Fault Zones. Specifically, areas identified as potentially containing NOA include the following: from Pardee Reservoir extending southwest through the Valley Springs area to just southeast of New Hogan Reservoir; north of Copperopolis extending southeast through New Melones Reservoir; and in the Mountain Ranch area (Calaveras County 2012b).

Potential Environmental Effects

a) ***a-i) Less Than Significant Impact.*** Calaveras County does not occur in or adjacent to an Alquist-Priolo Earthquake Fault Zone. Surface fault rupture is associated with being located on or within close proximity of an active fault. Because the County is not within, and does not cross, an Alquist-Priolo Earthquake Fault Zone, the risk of surface fault rupture within the County is considered low (Calaveras County 2012b). Therefore, the Project is not subject to a surface rupture fault mapped on the most recent Alquist-Priolo Earthquake Fault Zoning Map.

a-ii) Less Than Significant Impact. Earthquake shaking hazards are calculated by projecting earthquake rates based on earthquake history and fault slip rates, the same data used for calculating earthquake probabilities (California Department of Conservation 2019a). Calculations of earthquake shaking hazard for California are part of a cooperative project between USGS and California Geologic Survey (CGS), and are part of the National Seismic Hazard Maps. CGS Map Sheet 48 (revised 2016) shows potential seismic shaking based on National Seismic Hazard Map calculations plus amplification of seismic shaking due to the near surface soils. Calaveras County is located in a region '*distant from known, active faults and will experience lower levels of shaking*

less frequently. In most earthquakes, only weaker, masonry buildings would be damaged. However, very infrequent earthquakes could still cause strong shaking here.' The Project is not in a seismic hazard zone.

a-iii) No Impact. No portion of Calaveras County occurs in a Seismic Hazard Zone (i.e., regulatory zones that encompass areas prone to liquefaction and earthquake-induced landslides) based on the Seismic Hazards Mapping Program administered by the CGS. Consequently, Calaveras County and the Project site are not considered to be at risk from liquefaction hazards.

a-iv) Less Than Significant Impact. No portion of Calaveras County occurs in a Seismic Hazard Zone (i.e., regulatory zones that encompass areas prone to liquefaction and earthquake-induced landslides) based on the Seismic Hazards Mapping Program administered by the CGS. Consequently, Calaveras County and the Project site are not considered to be at risk from earthquake-induced landslides. Portions of the County with slopes 20 percent or greater have an increased potential for non-seismic related landslides associated with high rainfall or snowmelt (Calaveras County 2012b). The Project area does not contain slopes 20 percent or greater.

b) ***Less Than Significant Impact.*** Construction of the proposed project could introduce sediments and other contaminants typically associated with construction into stormwater runoff. The SWRCB is responsible for implementing the Clean Water Act and has issued a statewide General Permit (Water Quality Order 2009-0009-DWQ) for construction activities. In the Project area, the Construction General Permit is implemented and enforced by the Central Valley Regional Water Quality Control Board (CVRWQCB). Projects resulting in disturbance of one acre or more are required to obtain coverage under the Construction General Permit. The proposed Project will require coverage under the SWRCB Construction General Permit.

In accordance with the requirements of the Construction General Permit, prior to construction of the proposed project, a risk assessment must be prepared and submitted to the CVRWQCB to determine the project's risk level and associated water quality control requirements. These requirements will, at a minimum, include the preparation and implementation of a SWPPP identifying specific best management practices (BMPs) to be implemented and maintained on the site in order to comply with the applicable effluent standards.

Compliance with the various requirements of the SWRCB statewide general permit for construction will ensure that water quality impacts during the construction phase of the proposed project would be minimized. Measure BIO-6 requires implementation of BMPs consistent with the *Calaveras County Grading, Drainage, and Erosion Control Design Manual* (Calaveras County 2012a) and or the most recent Caltrans Stormwater Quality Handbooks to protect water quality and minimize the potential for siltation and downstream sedimentation. Construction activities will include implementation of stormwater runoff BMPs. Application of these requirements and measures would prevent substantial erosion or topsoil loss.

c) ***Less Than Significant Impact.*** Calaveras County is located in a region '*distant from known, active faults and will experience lower levels of shaking less frequently. In most earthquakes, only weaker, masonry buildings would be damaged. However, very infrequent earthquakes could still cause strong shaking here.*' (CDOC 2019a). Because the County is not within, and does not cross, an Alquist-Priolo Earthquake Fault Zone, the risk of surface fault rupture within the County is considered low (Calaveras County 2012b). 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.

d) ***Less Than Significant Impact.*** The Project is being designed in accordance with Calaveras County Code Title 15 Buildings and Construction; Chapter 15.04 Uniform Codes. Because the project is being designed in accordance with the Title 15 Buildings and Construction; Chapter 15.04 Uniform Codes and will consider and address expansive soils, impacts are considered less than significant.

e) ***No Impact.*** The proposed Project does not include the use of septic tanks or alternative waste water disposal systems.

f) ***Less Than Significant Impact*****:** The Project does not occur in an area containing unique geologic features. The Project would not likely impact paleontological features. There is the possibility of accidental paleontological discoveries during construction-related ground-disturbing activities. This is a less-than-significant impact because the project would implement County policies and state law to protect paleontological resources. These policies include stopping all work in the vicinity of the discovered resources and requiring that a professional paleontologist complete a determination of their significance prior to resuming any work in the area of the discovery.

4.2.9 Greenhouse Gas Emissions

IX. GREENHOUSE GAS EMISSIONS—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless 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

The UPUD and Calaveras County have not yet adopted CEQA significance thresholds for GHG emissions. For the purposes of this CEQA analysis, UPUD is using the Placer APCD thresholds as described below.

On October 13, 2016, the Placer County Air Pollution Control District (Placer APCD) Board of Directors adopted the Review of Land Use Projects under CEQA Policy (Policy). The Policy establishes the thresholds of significance for criteria pollutants as well as greenhouse gases and the review principles which serve as guidelines for the Placer APCD staff when the Placer APCD acts as a commenting agency to review and comment on the environmental documents prepared by the lead agencies. In developing the thresholds, the Placer APCD took into account health-based air quality standards and the strategies to attain air quality standards, historical CEQA project review data in Placer County, statewide regulations to achieve emission reduction targets for GHG, and the special geographic and land use features in Placer County.

The Placer APCD approach to developing significance thresholds for GHG emissions is to identify the emissions level for which a project would be expected to substantially contribute a mass amount of emissions and would conflict with existing statewide GHG emission reduction goal adopted by California

legislation. The Placer APCD has developed a 3-step process for determining significance which includes 1) a bright-line threshold, 2) a De Minimis level, and 3) an efficiency matrix for projects that fall between the Bright-line and the De Minimis level. The Placer APCD District proposed using the bright-line threshold of 10,000 MT CO2e/yr for determining the level of significance for the land use construction phase of a Project. The State of California set the goal to reduce GHG emissions without limiting population and economic growth. The Placer APCD concept is to look for a reasonable threshold which would capture larger–scale projects with significant GHG emission contributions which should implement mitigation. Placer APCD GHG Emissions Significance Thresholds are listed in Table 6.

Table 5. Placer APCD 2016 Approved GHG Emissions Significance Thresholds.

Greenhouse Gas Thresholds			
Bright line threshold 10,000 Metric Tons (MT) CO2e/yr			
Efficiency Matrix			
Residential		**Non-Residential**	
Urban	**Rural**	**Urban**	**Rural**
(MT CO2e/capita)		(MT/CO2e/1,000 sf)	
4.5	**5.5**	**26.5**	**27.3**
De Minimis Level 1,110 (MT) CO2e/yr			

Potential Environmental Effects

a) ***Less Than Significant Impact.*** Construction of the proposed Project would generate short-term emissions of greenhouse gases. CalEEMod v2016.3.2 was utilized to estimate CO2e from the construction of the proposed Project.

Project construction is estimated to produce a total of approximately 276.7 metric tons (MT) of CO2e during the approximately 9-month (279 day) construction period. CO2e associated with construction are temporary. The County has not yet quantified thresholds for construction activities. However, the construction emissions would be well below the Placer APCD De Minimis level of 1,110 (MT) CO2e/yr thresholds.

As discussed in the Air Quality section, it is anticipated that the proposed Project would not change current operational emissions. Project operation is estimated to produce a total of approximately 2,693 metric tons (MT) of CO2e per year. The operational emissions would be approximately 13.47 MT CO2e per 1,000 square foot of development, well below the Placer APCD thresholds for non-residential urban and rural categories (Table 6). Project impacts are considered less than significant.

b) ***Less Than Significant Impact.*** Calaveras Air Quality Management District's has not yet adopted a qualified plan, policy, or regulation to reduce GHG emissions. Therefore, the most applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions is Assembly Bill (AB) 32, which codified the State's future GHG emissions reduction targets.

In 2006, the Legislature passed the California Global Warming Solutions Act of 2006 [Assembly Bill 32 (AB 32)], which created a comprehensive, multi-year program to reduce greenhouse gas (GHG) emissions in California. AB 32 required the California Air Resources Board (ARB) to

develop a Scoping Plan that describes the approach California will take to reduce GHGs to achieve the goal of reducing emissions to 1990 levels by 2020. The Scoping Plan was first approved by the ARB in 2008 and must be updated every five years. The First Update to the Climate Change Scoping Plan was approved by the Board on May 22, 2014. In 2016, the Legislature passed SB 32, which codifies a 2030 GHG emissions reduction target of 40 percent below 1990 levels. With SB 32, the Legislature passed companion legislation AB 197, which provides additional direction for developing the Scoping Plan. ARB is moving forward with a second update to the Scoping Plan to reflect the 2030 target set by Executive Order B-30-15 and codified by SB 32.

The 2006 California Global Warming Solutions Act establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on statewide GHG emissions. CARB's Scoping Plan includes measures to achieve the GHG reductions in California required by the California Global Warming Solutions Act. Measures included in the Scoping Plan would indirectly address GHG emission levels associated with construction activities, including the phasing-in of cleaner technology for diesel engine fleets (including construction equipment) and the development of a low-carbon fuel standard. Policies formulated under the mandate of the California Global Warming Solutions Act that are applicable to construction-related activity, either directly or indirectly, are assumed to be implemented statewide and would affect the proposed project if those are policies are implemented before construction begins. The proposed Project's construction emissions would comply with any mandate or standards set forth by the Scoping Plan. Therefore, it is assumed that project construction would not conflict with the Scoping Plan.

As discussed in the Air Quality section, it is anticipated that the proposed Project would not change current operational emissions. The Project's construction related GHG emissions are well below the Placer APCD De Minimis level of 1,110 (MT) CO2e/yr. The operational emissions would be approximately 13.47 MT CO2e per 1,000 square foot of development, well below the Placer APCD thresholds for non-residential urban and rural categories (Table 6). Implementation of the proposed project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

4.2.10 Hazards and Hazardous Materials

X. HAZARDS AND HAZARDOUS MATERIALS—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless 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

A hazardous material is defined by the California EPA, Department of Toxic Substances Control (DTSC), as a material that poses a significant present or potential hazard to human health and safety or the environment if released because of its quantity, concentration, or physical or chemical characteristics (26 California Code of Regulations (CCR) 25501).

According to Title 22 of the CCR (22 CCR) Section 66261.20, the term "hazardous substance" refers to both hazardous materials and hazardous wastes; both are classified according to four properties: toxicity, ignitability, corrosiveness, and reactivity.

A hazardous material is defined by 22 CCR Section 66261.10 as a substance or combination of substances that may cause or significantly contribute to an increase in serious, irreversible, or incapacitating illness or may pose a substantial presence or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

While public health and safety is potentially at risk whenever hazardous materials are or will be used, the risk is determined by the probability of exposure and to the inherent toxicity of a material. Factors that can influence health effects when human beings are exposed to hazardous materials include the dose the person is exposed to, the frequency of exposure, the duration of exposure, the exposure pathway (route by which a chemical enters a person's body), and the individual's unique biological susceptibility.

Hazardous wastes are hazardous substances that no longer have practical use, such as materials that have been discarded, discharged, spilled, or contaminated or are being stored until they can be disposed of properly (22 CCR Section 66261.10). Soil that is excavated from a site containing hazardous materials is a hazardous waste if it exceeds specific 22 CCR criteria.

Hazardous materials transport within California is subject to various federal, state, and local regulations. The California Highway Patrol (CHP) designates through routes to be used for the transportation of hazardous materials. Transportation of hazardous materials is generally restricted to these routes. Hazardous materials transport within the project area is subject to various federal, state, and local regulations.

The following provisions pertaining to the transportation of hazardous-related materials are included in the California Vehicle Code:

- Inhalation hazards and poison gases are subject to additional safeguards. These materials are highly toxic, spread rapidly, and require rapid and widespread evacuation if there is loss of containment or a fire. The CHP designates through routes to be used for the transportation of inhalation hazards. It may also designate separate through routes for the transportation of inhalation hazards composed of any chemical rocket propellant. (Section 32100 and Section 32102(b))

Potential Environmental Effects

a) ***Less Than Significant Impact.*** Small amounts of hazardous materials would be used during construction and operation activities (i.e., equipment maintenance, fuel, and solvents). Implementation of the proposed 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 is required to comply with federal, state, and local regulations regarding the storage, handling, transportation, disposal, and cleanup of hazardous materials. Use of hazardous materials in accordance with applicable standards ensures that any exposure of the public to hazard materials would have a less-than-significant impact.

b) ***Less Than Significant Impact.*** The proposed Project could potentially result in increased storage and use of hazardous materials beyond current operations and consequently increase the risk of accidental release of hazardous materials. The California Accidental Release Prevention program, administered as part of the Unified Program by the Calaveras County Environmental Health Department, seeks to prevent accidental releases of regulated substances that potentially pose the greatest risk of immediate harm to the public and the environment. The program requires that any owner or operator of a stationary source with more than the threshold quantity of a regulated substance be evaluated to determine the potential for accidental releases. The list of substances regulated by the California Accidental Release Prevention program is located in Title 19, Article 8, Section 2770.5 of the California Code of Regulations. As discussed in item a) above, the use, disposal, and transportation of all hazardous materials associated with the proposed project would require compliance with federal, state, and local regulations regarding hazardous materials. Management of hazardous materials in accordance with applicable standards ensures that any exposure of the public to hazard materials would have a less-than-significant impact.

c) ***No Impact.*** No schools occur within 0.25 mile of the Project sites TS1, TS2, or TS3 (including Seibel Reservoir and Mt Davis Road).

d) ***No Impact.*** A regulatory agency database review for locations included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (‘The Cortese list’) was conducted as part of the Project scoping process (DTSC 2019). No listed hazardous materials or waste sites are reported within TS1, TS2, or TS3 (including Seibel Reservoir and Mt Davis Road) (DTSC 2019). Several LUST (Leaking Underground Storage Tank) cleanup sites are mapped within an approximate 1 mile radius of the Project sites (DTSC 2019). All the LUST sites are identified as ‘Clean Up Status: Completed-Case Closed’ (DTSC 2019). There are no known historic uses of the project site that would indicate the potential for a previously undiscovered hazard, such as buried fuel tanks or contamination from industrial operations.

e) ***No Impact.*** The Project is not located within two miles of a public airport or public use airport and no private air strips occur in close proximity to the Project.

f) ***Less Than Significant Impact.*** Project construction activities would be coordinated with local law enforcement and emergency services providers as applicable.

g) ***Potentially Significant Unless Mitigation Incorporated:*** The completed Project will not expose people or structures to a new or increased significant risk of loss, injury or death involving wildland fires. Project construction would involve the use of heavy equipment, welding, and other activities that have potential to ignite fires. A wildland fire caused by Project construction activities could result in a significant impact. Implementation of Mitigation Measure WILD-1 would reduce this potential impact to less-than-significant.

4.2.11 Hydrology and Water Quality

XI. HYDROLOGY AND WATER QUALITY—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless 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 off-site	☐	☐	☒	☐
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☒	☐
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv. Impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation??	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Environmental Setting

The Project is located in the Upper Stanislaus River Hydrologic Unit (hydrologic unit code 18040010). Section 13240 of the Porter-Cologne Water Quality Control Act requires each Regional Board to formulate and adopt water quality control plans, or basin plans, for all areas within the Region. The Porter-Cologne Act also requires each Regional Board to establish water quality objectives to ensure the reasonable protection of beneficial uses and a program of implementation for achieving water quality objectives within the basin plans. In California, the beneficial uses and water quality objectives are the

State's water quality standards. The Project is subject to the Water Quality Control Plan (Basin Plan) for the Sacramento and San Joaquin River Basins.

The existing beneficial uses of the Stanislaus River identified for the 'sources to New Melones Reservoir are municipal and domestic supply, irrigation, stock watering, power, contact recreation (canoeing and rafting), non-contact recreation, warm and cold freshwater habitat, and wildlife habitat (California Regional Water Quality Control Board 2018). The beneficial uses of underlying groundwater are municipal and domestic water supply, agricultural supply, industrial service supply, and industrial process supply (California Regional Water Quality Control Board 2018).

Potential Environmental Effects

a) ***Less Than Significant Impact.*** Construction of the proposed project could introduce sediments and other contaminants typically associated with construction into stormwater runoff. Stormwater flowing over the project features during construction could carry various pollutants downstream such as sediment, nutrients, bacteria and viruses, oil and grease, heavy metals, organics, pesticides, and miscellaneous waste. These pollutants could originate from soil disturbances, construction equipment, building materials, and workers. Erosion potential and water quality impacts are always present during construction and occur when protective vegetative cover is removed and soils are disturbed. In the case of the proposed Project, it is primarily grading and excavation associated with pipe installation and dredging of Seibel Reservoir.

The SWRCB is responsible for implementing the Clean Water Act and has issued a statewide General Permit (Water Quality Order 2009-0009-DWQ) for construction activities. In the Project area, the Construction General Permit is implemented and enforced by the Central Valley Regional Water Quality Control Board (CVRWQCB). Projects resulting in disturbance of one acre or more are required to obtain coverage under the Construction General Permit. The proposed Project will require coverage under the SWRCB Construction General Permit.

In accordance with the requirements of the Construction General Permit, prior to construction of the proposed project, a risk assessment must be prepared and submitted to the CVRWQCB to determine the project's risk level and associated water quality control requirements. These requirements will, at a minimum, include the preparation and implementation of a SWPPP identifying specific best management practices (BMPs) to be implemented and maintained on the site in order to comply with the applicable effluent standards.

The Construction General Permit requires construction sites are inspected before and after storm events and every 24 hours during extended storm events. Inspections identify any BMP maintenance requirements and determine the effectiveness of the BMPs.

Compliance with the various requirements of the SWRCB statewide general permit for construction would ensure that water quality impacts during the construction phase of the proposed project would be minimized.

b) ***Less Than Significant Impact.*** The Project would not involve any new withdrawals from an aquifer or groundwater table and would not interfere with groundwater recharge.

c) ***Less Than Significant Impact for items c-i through c-iv***. Project grading and excavation are not anticipated to result in any changes in site drainage volume or configuration. The backfilling and paving over of the existing backwash ponds at TS1 would add approximately 0.02 ac (871ft^2) of

new impervious surface to the site. On site drainage is more than sufficient to accommodate the minor increase in impervious surface area. The Project will not contribute to a substantial increase in water runoff from the site. The proposed Project does not include other activities that will change the amount of stormwater runoff.

The statewide General Permit (Water Quality Order 2009-0009-DWQ) for construction activities will require preparation and implementation of a SWPPP identifying specific best management practices (BMPs) to be implemented and maintained through the Project to limit potential erosion and siltation on- and off-site. The Project does not include the placement of any structures that would impede or redirect flood flows.

d) ***No Impact.*** The Project occurs on FEMA/FIRM panel 06009C0450E for unincorporated Calaveras County. The effective date of panel 06009C0450E is 17 December 2010. FEMA/FIRM panel 06009C0450E designates the Project area as Zone X (areas determined to be outside the 0.2% annual chance floodplain).

e) ***Less Than Significant Impact.*** The purpose of the Project is to provide the UPUD with the infrastructure needed to address its current and planned future distribution and storage needs and achieve regulatory compliance for THMS. Project objectives include installation of infrastructure to recapture the decanted backwash water for reuse or recirculation into the existing treatment process and aeration improvements to reduce high levels of THMS in its domestic water system.

As per the *Final California 2014/ 2016 Integrated Report (303(d) List/305(b) Report)* (SWRCB 2018b), no 303(d) List/305(b) water bodies occur at any of the Project sites. The proposed Project would not negatively affect any of the designated beneficial uses for surface and groundwater presented in the Water Quality Control Plan (Basin Plan) for the Sacramento and San Joaquin River Basins.

CEQA-Plus Evaluation-Safe Drinking Water Act, Sole Source Aquifer Protection: There are a total of 77 currently designated sole source aquifers in the U.S. Of the 77, a total 9 occur in United States Environmental Protection Agency (EPA), Region 9. In California a total of 4 sole source aquifers have been designated (EPA 2019):

- Santa Margarita Aquifer, Scotts Valley (Santa Cruz County)
- Fresno County Aquifer - Recharge Area & Streamflow Source Zone (Fresno, Madera, and Tulare County's)
- Campo/Cottonwood Creek (San Diego County)
- Ocotillo-Coyote Wells Aquifer (San Diego and Imperial County's)

The Project, located in Calaveras County, is not located in an area designated by the EPA, Region 9, as a Sole Source Aquifer.

4.2.12 Land Use and Planning

XII. LAND USE AND PLANNING—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless 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 2019 Calaveras County General Plan is the relevant land use plan for the project area. The General Plan designations of the parcels in the Project area are listed in Table 1.

Potential Environmental Effects

a) ***No Impact.*** The Project does not include activities that would result in physically dividing an established community.

b) ***No Impact.*** The proposed Project is consistent with the County General Plan.

CEQA-Plus Evaluation-Coastal Barriers Resources Act: The Project is located in Calaveras County, California. The Coastal Barrier Resources System the Coastal Barrier Resources Act (CBRA) of 1982 which designated relatively undeveloped coastal barriers along the Atlantic and Gulf coasts as part of the John H. Chafee Coastal Barrier Resources System (CBRS), and made these areas ineligible for most new Federal expenditures and financial assistance. The Project will not impact or be located within or near the Coastal Barrier Resources System or its adjacent wetlands, marshes, estuaries, inlets, and near-shore waters.

CEQA-Plus Evaluation-Coastal Zone Management Act: The project is not within the coastal zone.

4.2.13 Mineral Resources

XIII.MINERAL RESOURCES—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless 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. Though mining activity has slowed in recent years, much of the early development in the County revolved around extracting mineral resources such as gold and copper among other minerals. Minerals commonly extracted in more modern times include clay, sand, and gravel. Mineral extraction from mine tailings also is common (Calaveras County 2019).

In Calaveras County, mining activities occur on both public (U.S. Bureau of Land Management and U.S. Forest Service) and private lands. 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. As mineral resources are depleted elsewhere in the state, however, there is an increased likelihood of future designations.

A review of the California Department of Conservation, Division of Mine Reclamations, 'Mines Online' interactive mapper indicates that the McCarty Pit (active sand and gravel pit) and the Cataract Limestone Quarry (idle limestone quarry) occur a minimum of 1.3 miles away from any portion of the Project (CDOC 2019c).

The Calaveras County 2019 General Plan describes the County's goals, policies, and implementation measures pertaining to mineral resources:

Goal RP-4: An effective and comprehensive mining and reclamation program that acknowledges the long history of mining in Calaveras County and encourages the production and conservation of valuable mineral resources.

Policy RP 4.1: Acknowledge the importance of mineral resources as finite and unique natural resources, and that the responsible protection and development of these resources is vital to the economic well-being of the state, the County, and the needs of society. (Associated IM RP-4A, RP-4B and RP-4G)

Policy RP 4.2: Balance the interests of the County's mining industry and County residents and minimize conflicts between existing and planned land uses. (IM RP.4A, RP-4B, RP-4D, RP-4E and RP-4H)

Policy RP 4.3: Conserve potential mineral resource lands for future use of mineral resources. (IM RP-4A, RP-4C and RP-4G)

Policy RP 4.4: Mining activities shall not adversely impact the availability of water for existing users in the vicinity of discretionary mining activity. (IM RP-4F)

Goal RP-5: Mined lands reclaimed to a useable condition readily adaptable for subsequent land uses.: An effective and comprehensive mining and reclamation program that acknowledges the long

RP 5.1: Require reclamation of mined lands to a usable condition readily adaptable for subsequent land uses in conjunction with discretionary reviews of proposed surface and subsurface mining operations; consider recreational, watershed, wildlife, range and forage, and aesthetic values; prevent or minimize adverse environmental effects; and eliminate residual hazards to the public health and safety. (IM RP-4H)

RP 5.2: Implement reclamation planning in a manner that acknowledges the potential for ongoing and/or future mining activities while providing for the subsequent beneficial use of the mined land, providing flexibility in the post-mining uses. (IM RP-4H)

RP 5.3: When reviewing proposed mining applications consider recreational, watershed, wildlife, range and forage, and aesthetic values; prevent or minimize adverse environmental effects; eliminate residual hazards to the public health and safety; and reclaim mined lands to a usable condition readily adaptable for subsequent land uses. (IM RP-4A)

IM RP-4A County Code: Amend the County Code to:

- Address the use and development of geothermal resources
- Update the Mineral Extraction (-ME) combining zone district to be consistent with the State's mineral classification scheme.
- Clarify that a conditional use permit is required for all surface and subsurface mining activity unless specifically exempted pursuant to Section 17.56.040 (or equivalent).
- Include notification procedures for designating mineral reserve areas.

- Continue to use the -ME Combining Zone to designate existing permitted and grandfathered mining operations, to identify lands with commercial mineral potential and to allow owners of land containing commercially valuable mineral resources to apply for mineral extraction permits.
- Address changes to state law and regulations from the State Mining and Geology Board.
- Incorporate California Mineral Land Classifications in Table RP-1.

IM RP-4B Subsurface Mining: Amend the Calaveras County Code to establish permitting procedures and standards for subsurface mining operations and activities that are not addressed pursuant to County Code Section 17.18.030 [i.e., are outside the Mineral Extraction (ME) zone].

IM RP-4C Mineral Resource Information: Adopt a procedure for incorporating new Mineral Classification Reports from the State Geologist into the general plan map land use map to reflect newly classified valuable mineral resources.

IM RP-4D Mining Advisory Committee: Consider establishing a Mineral Advisory Committee to make recommendations to the Board of Supervisors related to the management of mineral reserves countywide, to consider appropriate non-mining uses on mineral reserve lands, to review requests for general plan amendments on lands identified as containing important mineral reserves, and to review other actions related to mining operations in Calaveras County.

RP-4E Abandoned/Historic Mines: Use guidelines from the Abandoned Mine Lands Unit of the Department of Conservation and reference this agency as a source of funding for remediating abandoned/historic mines.

RP-4G Mineral Resource Zones: Petition the State Mining and Geology Board to prioritize additional areas of significant mineral resources in the county for consideration and designation as Mineral Resource Zones. Identify through appropriate zoning important mineral lands identified in State Classification Reports from the State Geologist to assist in their conservation for future use.

RP- 4H Reclamation: Continue to require a reclamation plan and financial assurances, consistent with state law including SMARA and adopted rules and regulations for the implementation of SMARA (California Code of Regulations California Code of Regulations, Title 14, Division 2, Chapter 8, Subchapter 1, and as may be amended), and other applicable state and federal standards, for all mining operations that are not otherwise expressly exempted by state law. In addition to State-mandated requirements, reclamation plans shall:

- When creating or restoring plant or wildlife habitats, aesthetically blend the reclaimed site into the surrounding area or provide an acceptable alternative so far as is reasonably practical.
- Provide for the utilization of existing facilities and/or infrastructure for compatible uses other than those associated with mining or mineral extraction upon the cessation of the mining operation.

The 1988 Murphys-Douglas Flat Community Plan includes the following policy regarding mineral extraction

8-Goal: Preserve land capable of commercial agriculture, grazing, timber production, or mineral extraction.

The 1988 Murphys-Douglas Flat Community Plan also states this regarding mining in the Community Plan Area.

> *"There is one existing active mine in the Community Plan area near Douglas Flat, and several areas that have the potential for mineral extraction. While mining is generally a controversial*

land use near communities, it is the historic basis for the original development of Murphys as a central supply center. It is possible that some of the areas may be mined again in the future. Mineral extraction, with proper environmental considerations, is considered a compatible use within the Rural Community area."

Potential Environmental Effects

a) ***No Impact.*** The Project occurs primarily within existing UPUD easements or in road ROW. The project area could have mineral resources present. The presence of existing infrastructures at all Project sites significantly limits the probability of using the land for mining operations. 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 2016). The Project would not impact the availability of mineral resources that are locally important or would be of value to the state.

b) ***No Impact.*** See response to item a).

4.2.14 Noise

XIV. NOISE—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless 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 ground-borne vibration or ground-borne 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

The 2019 Calaveras County General Plan Noise Element establishes policies and standards for noise exposures at noise sensitive land uses. The Noise Element defines noise sensitive uses as 'Land uses on which noise may have a significant impact include residences, schools, conservation areas, and hospitals or other care facilities.

Section 9.02.060, Chapter 9.02 (Noise Control) of the Calaveras County Code exempts several activities from the requirements of the Noise Control Chapter (Ordinance No. 3013 § III, 9-25-2012). Relevant Project related exemptions to the Noise Control chapter are listed below:

- "*Sound from construction activity, provided that all construction in or adjacent to residential areas, shall be limited to the daytime hours between seven a.m. and six p.m., unless otherwise subject to conditions in a valid discretionary land use permit that addresses construction noise associated with the project.*

Potential Environmental Effects

a) ***(Construction Noise) Less Than Significant Impact.*** 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. These increases would be temporary. Given that the Project contractor would adhere to applicable County construction-related noise standards, this impact considered less than significant.

(Operational Related Noise) Less Than Significant Impact. The post project noise levels in the Project vicinity will be substantially unchanged from the pre-project condition.

b) ***Less Than Significant Impact.*** Project construction includes activities, such as operation of large pieces of equipment (e.g., heavy trucks) which may result in the periodic, temporary generation of ground-borne vibration. The Project does not introduce new sources of ground-borne vibration. Given the nature of any potential ground-borne vibration and given that any impacts would be temporary and periodic, potential impacts are less than significant.

c) ***No Impact.*** The Project is not located within an airport land use plan area or within two miles of a public or public use airport or private air strip. The Calaveras County Airport is located approximately 10 miles west of the Project area.

4.2.15 Population and Housing

XV. POPULATION AND HOUSING—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless 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?	☐	☐	☐	☒

Potential Environmental Effects

a) ***Less Than Significant Impact.*** The purpose of the Project provides the UPUD with the infrastructure needed address it current and planned future distribution and storage needs and achieve regulatory compliance for THMS. Project objectives includes installation of infrastructure to recapture the decanted backwash water for reuse or recirculation into the existing treatment process and measures to reduce high levels of THMS in its domestic water system. The Project does not include activities that would result in substantial unplanned population growth either directly or indirectly.

b) ***No Impact.*** The Project does not include any activities that would result in the displacement of housing or people.

CEQA-Plus Evaluation- Environmental Justice: Adverse environmental effects to minority, low-income, or indigenous populations, tribes or communities are often associated with siting or continued operations involving the use, manufacture, storage, or disposal of hazardous materials. Another frequent cause of adverse environmental effects to minority, low-income, or indigenous populations, tribes, or communities is the development of environmentally beneficial projects that impose aesthetic or use limitation burdens upon these communities. The proposed project does not involve any of the above issues. The purpose of the Project is to provide the UPUD with the infrastructure needed address it current and planned future distribution and storage needs and achieve regulatory compliance for THMS. The proposed project is not likely to be of particular interest to or have particular impact upon minority, low-income, or indigenous populations, or tribes.

4.2.16 Public Services

XVI. PUBLIC SERVICES—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	☐	☐	☐	☒
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Environmental Setting

The purpose of the Project is to provide the UPUD with the infrastructure needed to address its current and planned future distribution and storage needs and achieve regulatory compliance for THMS.

Potential Environmental Effects

a) ***No Impact.*** The Project makes improvements to a public facility. The potential environmental impacts of those improvements are evaluated in this document. No other new or physically altered governmental facilities would be needed.

4.2.17 Recreation

XVII. RECREATION:	*Potentially Significant Impact*	*Potentially Significant Unless 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

No parks or other recreational facilities occur in or immediately adjacent to the Project area.

Potential Environmental Effects

a) ***No Impact.*** The Project does not include activities that would increase the use of existing parks or recreational facilities.

b) ***No Impact.*** See response to item a above.

4.2.18 Transportation

XVIII. TRANSPORTATION/TRAFFIC—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☒	☐
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision	☐	☐	☒	☐
c) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☐	☒	☐
e) Result in inadequate parking capacity?	☐	☐	☐	☒

Environmental Setting

The purpose of the Project is to provide the UPUD with the infrastructure needed address it current and planned future distribution and storage needs and achieve regulatory compliance for THMS. Project objectives include installation of infrastructure to recapture the decanted backwash water for reuse or

recirculation into the existing treatment process and aeration improvements to reduce high levels of THMS in its domestic water system.

Potential Environmental Effects

a) ***Less Than Significant Impact.*** The proposed Project does not include activities that would cause a permanent impact to the circulation system (roads), including transit, roadway, bicycle, and pedestrian facilities. Formal transit, bicycle, and pedestrian facilities do not occur in the Project area. With the exception of Mt Davis Road, all Project activities will occur on UPUD easements or property. Installation of the 18-inch pipe within the existing road prism may temporarily affect circulation on Mt Davis Road. Mt Davis Road provides access to at least three rural residential properties as well as the UPUD Water Treatment Plant. Access will be provided and maintained to all residences adjacent to the Project area during pipe installation.

The Project does not include activities that would conflict with adopted policies, plans, or programs supporting alternative transportation. The 2015 *Calaveras County Regional Bicycle, Pedestrian and Safe Routes to School Master Plan* does not show any existing or proposed bicycle facilities in the Project area (Calaveras Council of Governments 2015).

b) ***Less Than Significant Impact.*** A temporary minor increase in vehicle miles travels (VMT) could occur during Project construction as the result of worker trips to the site, materials delivery, and spoils hauling. Any minor increase in VMT would be temporary. The purpose of the Project is to provide the UPUD with the infrastructure needed to address it's current and planned future distribution and storage needs and achieve regulatory compliance for THMS. The completed Project would not increase VMT.

c) ***No Impact.*** The Project does not include features that introduce or exacerbate any transportation of traffic hazards due to a design feature.

d) ***Less Than Significant Impact.*** Project construction activities would be coordinated with local law enforcement and emergency services providers as applicable.

e) ***No Impact.*** The Project would not result in an increase in demand for parking in the vicinity of the Project.

4.2.19 Utilities/ Service Systems

XIX. UTILITIES AND SERVICE SYSTEMS—Would the project:	*Potentially Significant Impact*	*Potentially Significant Unless Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
a) Require or result in the relocation or construction of new water or expanded waste water treatment or stormwater 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 waste water treatment provider which serves or may serve the project that it has	☐	☐	☐	☒

adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☒
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

Environmental Setting

The UPUD was formed on July 26, 1946 as an independent special district. The District was formed to provide agricultural and domestic water services that rely on Utica Water & Power Authority (UWPA) for delivery of surface water from the North Fork Stanislaus River to UPUD facilities. UPUD receives raw water under a contract with UWPA. The boundaries of the UPUD extend north to the Utica Canal, north of Murphys, and encompass the community of Murphys, Vallecito, and Douglas Flat; then the boundaries extend south the along South Ditch to include the community of Carson Hill. The District has a boundary area of approximately 19.1 square miles.

The current contract allows UPUD to divert 11.75 cubic feet per second (cfs) per day from UWPA system at three separate locations. UWPA allows the District to divert 4.7 cfs per day at either the Cademartori Reservoir or the North Ditch delivery points and 7.0 cfs per day at the South Ditch delivery point.

Existing solid waste facilities and transfer stations within the County include the Rock Creek Solid Waste Facility, as well as transfer stations at Avery, Copperopolis, Paloma, Red Hill, San Andreas, and Wilseyville. The Rock Creek Solid Waste Facility encompasses an active Class II landfill, a transfer station, several recycling programs, and a household hazardous waste facility. Rock Creek accepts garbage, recyclable toxics, household hazardous waste (temporary storage only), and several categories of recyclables. Rock Creek accepts waste only from Calaveras and Alpine county sources.

Potential Environmental Effects

a) ***Less Than Significant Impact.*** The purpose of the Project is to provide the UPUD with the infrastructure needed address it current and planned future distribution and storage needs and achieve regulatory compliance for THMS. Project objectives include installation of infrastructure to recapture the decanted backwash water for reuse or recirculation into the existing treatment process and aeration improvements to reduce high levels of THMS in its domestic water system. This document provides measure to reduce any potential significant impacts resulting form the proposed Project improvements.

b) ***Less Than Significant Impact.*** UPUD receives raw water under a contract with UWPA. The current contract allows UPUD to divert 11.75 cubic feet per second (cfs) per day from UWPA system at three separate locations. UWPA allows the District to divert 4.7 cfs per day at either the Cademartori Reservoir or the North Ditch delivery points and 7.0 cfs per day at the South Ditch delivery point. These diversions are subject to UWPA's annual water allocation. The UPUD is subject to allocation reductions pursuant to Department of Water Resources from 0% to as much as 48% as determined by the type of water year.

c) ***No Impact.*** The Project would not produce waste water.

d) ***No Impact.*** Solid waste generated by the Project would be limited to construction debris. Solid waste disposal would occur in accordance with federal, state, and local regulations. Disposal would occur at permitted landfills, likely the Rock Creek Solid Waste Facility. The Calaveras County Department of Public Works estimates 26.8 years of capacity remains at the Rock Creek Solid Waste Facility. Solid waste and recycling is not considered to be a limiting factor for growth in Calaveras County. The County has ample disposal capacity to accommodate growth (Calaveras County 2018). The Project would not generate the need for new solid waste facilities.

e) ***No Impact.*** The Project would conform to all applicable state and federal solid waste regulations.

4.2.20 Wildfire

XX. 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*	*Potentially Significant Unless 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

The Project is located in a 'very high' Fire Hazard Severity Zone per the 2007 CAL FIRE Fire Hazard Severity Zones State Responsibility Area (SRA) maps (CAL FIRE 2019).

Potential Environmental Effects

a) ***Less than Significant.*** Project activities at TS1, TS2, TS3, and Seibel Reservoir would not impair an adopted emergency response plan or emergency evacuation plan because they do not occur on roads. Installation of the 18-inch diameter pipe beneath Mt Davis Road may require temporary traffic control. Project construction activities would be coordinated with local law enforcement and emergency services providers.

b) ***Potentially Significant Unless Mitigation Incorporated.*** Several factors contribute to susceptibility to wildfire danger in Calaveras County, including climate, winds, steep terrain, and vegetation. CAL FIRE has designated all of the Project area as a Very High Fire Hazard Severity Zone in a SRA. Human activities are the primary reason wildfires start. Project construction

would involve the use of heavy equipment, welding, and other activities that have potential to ignite fires. A wildland fire caused by Project construction activities could result in a significant impact. Implementation of Mitigation Measure WILD-1 would reduce this potential impact to less-than-significant.

Measure WILD-1 (Prepare and Implement a Fire Protection Plan)

The UPUD will require its contractors to coordinate with CAL FIRE to prepare a Fire Protection Plan. CAL FIRE will review, revise if necessary, and approve the plan before construction begins in areas with very high fire hazards. The Fire Protection Plan will include the following measures.

- *Internal combustion engines, stationary and mobile, will be equipped with spark arresters. Spark arresters shall be in good working order.*
- *Contractor will keep all construction sites and staging areas free of grass, brush, and other flammable materials.*
- *Personnel will be trained in the practices of the fire safety plan relevant to their duties.*
- *Work crews shall have fire-extinguishing equipment on hand, as well as emergency numbers and cell phone or other means of contacting the Fire Department. Construction and maintenance personnel shall be trained and equipped to extinguish small fires.*
- *Smoking will be prohibited while operating equipment and shall be limited to paved or graveled areas or areas cleared of all vegetation. Smoking will be prohibited within 30 feet of any combustible material storage area (including fuels, gases, and solvents). Smoking will be prohibited in any location during a Red Flag Warning issued by the National Weather Service for the project area ("Red-Flag Warning" is a term used by fire-weather forecasters to call attention to limited weather conditions of particular importance that may result in extreme burning conditions.)*

c) ***Less than Significant.*** None of the currently proposed Project activities are expected to exacerbate fire risk.

d) ***Less than Significant.*** See response a, c, and c above.

4.2.21 Mandatory Findings of Significance

XXI. MANDATORY FINDINGS OF SIGNIFICANCE (To be filled out by Lead Agency if required)	*Potentially Significant Impact*	*Potentially Significant Unless 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 will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

e) ***Potentially Significant Unless Mitigation Incorporated.*** Through the use of Best Management Practices and the mitigation measures noted previously, the Project will not degrade the quality of the environment.

f) ***Less than Significant.*** The Project is consistent with the General Plan and would not result in individually limited but collectively significant impacts. Therefore, the project would not cause any additional environmental effects or significantly contribute to a cumulative impact.

g) ***Less than Significant.*** The Project would not result in substantial direct or indirect adverse effects from noise, either during project construction or operation, nor would it result in impacts to air quality, water quality or utilities and public services. Therefore, the Project would not cause substantial adverse effects on human beings.

5. Initial Study Findings (Determination)

5.1 Environmental Factors Potentially Affected

This Initial Study has determined that in the absence of mitigation the proposed Project could have the potential to result in significant impacts associated with the factors checked below. Mitigation measures are identified in this Initial Study that would reduce all potentially significant impacts to less-than-significant levels.

___	Aesthetics	___	Land Use and Planning
___	Agricultural Resources	___	Mineral Resources
___	Air Quality	___	Noise
✓	Biological Resources	___	Population and Housing
___	Cultural Resources	___	Public Services
___	Tribal Cultural Resources	___	Recreation
___	Energy	___	Transportation/Traffic
___	Geology and Soils	___	Utilities and Service Systems
___	Greenhouse Gas Emissions	✓	Wildfire
✓	Hazards and Hazardous Materials	✓	Mandatory Findings of Significance
___	Hydrology and Water Quality	___	None Identified

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

Signature: _____ **Date:** 12/12/19

Name and Title: Bill Eltringham, General Manager

6. Supporting Information Sources

6.1 Report Preparation

Union Public Utilities District, CEQA Lead Agency

Bill Eltringham	District Manger

Weber, Ghio & Associates Civil Engineering Consultant

Matt Ospital, PE	President
David Bahr. P.E.	Project Manger

Sycamore Environmental Consultants, Inc.

Jeffery Little	Vice President, Principle In Charge
Leane Dunn, M.F.	Project Manager/ Planner
Aramis Respall	CAD/GIS Analyst

Foothill Resources, LTD.

Judith Marvin	Historian and Architectural Historian

Patrick GIS, Inc.

Melinda Pacheco Patrick	Archeologist

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Appendix A: Mitigation Monitoring and Reporting Plan

DRAFT

MITIGATION MONITORING AND REPORTING PLAN

UNION PUBLIC UTILITY DISTRICT

BACKWASH/ RECYCLING AND TANK AERATION PROJECT

CEQA LEAD AGENCY:

Union Public Utility District

PREPARED:

December 2019

ADOPTED BY UPUD ON: _____

Introduction

Purpose

The Union Public Utilities District (UPUD or District) is in the process of obtaining a State Water Resources Control Board (SWRCB) Clean Water State Revolving Fund (CWSRF) loan to make improvement at three existing UPUD tank sites.

As described in the IS/MND, the Project itself incorporates a number of measures to minimize adverse effects on the environment. The IS/MND also identified several mitigation measures that are required to reduce potentially significant impacts to levels that are less than significant. This Mitigation Monitoring and Reporting Plan (MMRP) describes a program for ensuring that these mitigation measures are implemented in conjunction with the Project. UPUD, as the lead agency under the California Environmental Quality Act (CEQA), is responsible for overseeing the implementation and administration of this MMRP. UPUD will designate a staff member to manage the MMRP. Duties of the staff member responsible for program coordination will include conducting routine inspections and reporting activities, coordinating with the Project construction contractor, coordinating with regulatory agencies, and ensuring enforcement measures are taken.

Regulatory Framework

California Public Resources Code Section 21081.6 and California Code of Regulations Title 14, Chapter 3, Section 15097 require public agencies to adopt mitigation monitoring or reporting plans when they approve projects under a MND. The reporting and monitoring plans must be adopted when a public agency makes its findings pursuant to CEQA so that the mitigation requirements can be made conditions of Project approval.

Format of This Plan

The MMRP summarizes the impacts and mitigation measures identified and described in the Project IS/MND. Each of the impacts discussed within this MMRP is numbered based on the sequence in which they are discussed in the IS/MND. A summary of each impact with the corresponding specific mitigation measures are provided. Mitigation measures are followed by an implementation description, the criteria used to determine the effectiveness of the mitigation, the timeframe for implementation, and the party responsible for monitoring the implementation of the measure.

Implementation of mitigation measures is ultimately the responsibility of the UPUD; during construction, the delegated responsibility is shared by UPUD's contractors. Each mitigation measure in this plan contains a "Verified By" signature line, which will be signed by the UPUD's Project manager when the measure has been fully implemented and no further actions or monitoring are necessary for the implementation or effectiveness of the measure.

Impacts and Associated Monitoring or Reporting Measures

4.2.4. Biological Resources

Impact (a): Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Special-Status Plant Species

Implementation of the measure BIO-1 will reduce potential impacts to less than significant for special status plant species.

Measure BIO-1

- *A focused botanical survey will be conducted during the evident and identifiable blooming period in the roadside ditches along Mt Davis Road from the water treatment plant to its intersection with Crestview Road, at Seibel Reservoir, and the existing open ditch that drains to Seibel Reservoir.*
- *If big-scale balsamroot, Pleasant Valley Mariposa lily, Red Hills soaproot, yellow-lip pansy monkeyflower, spiny-sepaled button-celery, Stanislaus monkeyflower, Tuolomne fawn lily, or Tuolumne lris are not observed, no further action is needed.*
- *If the species listed in the bullet above are identified, they will be included in an Environmentally Sensitive Area (ESA). The ESA non-disturbance buffer will be determined by a qualified botanist. The plant(s) will be clearly delineated using high visibility orange fencing. The ESA fencing will remain in place throughout the duration of the proposed action, while construction activities are ongoing, and will be regularly inspected and fully maintained at all times. Vehicles will not be allowed to park in, nor will equipment be stored in the ESA. No storage of oil, gasoline, or other substances will be permitted in the ESA. No vegetation removal or ground disturbing activities will be permitted in the ESA.*
- *If rare plant populations cannot be protected in place, the UPUD will prepare a transplantation/ propagation plan for the relocation of the rare plant(s). Rare plant relocation will occur in a suitable portion of the Project site. The transplantation/ propagation plan will be sent to CDFW.*

Implementation:	The UPUD will implement the measures as described above.
Effectiveness Criteria:	The UPUD will prepare and keep on file documentation verifying the implementation of the above-referenced measures.
Timing:	Pre-Construction and Construction Phases
Verified By:	_____ Date: _____
	District Project Manager

California red-legged frog (CRLF; *Rana draytonii*)

BIO-2 will be implemented to protect CRLF and will reduce potential impacts to less than significant.

Measure BIO-2

- *A qualified biologist will conduct a preconstruction survey within 48 hours prior to the start of in-water work or vegetation removal adjacent to or in Seibel Reservoir. If CRLF are found at any time during Project work, construction will stop and USFWS will be contacted for further guidance. USFWS will be notified within 24 hours of a CRLF observation. CRLF may not be handled or relocated unless USFWS gives permission for relocation.*
- *Prior to construction, environmental awareness training will be conducted for construction personnel to brief them on how to recognize CRLF and other special status species. The training will include a description of CRLF and other special status species, potential habitat within the construction area, and how to proceed if a suspected special-status species is encountered. The training will also describe the specific measures being implemented to avoid adverse effects to species. Construction personnel should also be informed that if CRLF or other special status species are encountered in the work area, construction should stop and the qualified biologist will be contacted for guidance. Education programs will be conducted for appropriate new personnel as they are brought on the job during the construction period. Upon completion of training, employees will sign a form stating that they attended the training and understand all the conservation and protection measures.*
- *A qualified biologist will be available during the construction period to assist the construction inspector if CRLF are found and to answer questions and make recommendations regarding implementation of CRLF avoidance and minimization measures at the direction.*
- *Plastic monofilament netting (erosion control matting) or similar material containing netting shall not be used at the Project site because the CRLF or other animals may become entangled or trapped in it. Acceptable substitutes include coconut coir matting or tackified hydroseeding compounds.*
- *To avoid attracting predators, a litter control program shall be instituted at the entire Project site. All workers will ensure that food scraps, paper wrappers, food containers, cans, bottles, and other trash from the study area are deposited in covered or closed trash containers and removed regularly from the Project area.*
- *To ensure that diseases are not conveyed between work sites by the biologist, the fieldwork code of practice developed by the Declining Amphibian Population Task Force will be followed at all times.*
- *To reduce the spread of invasive plant species, all mud and debris will be washed off construction equipment prior to entering the site.*

Implementation:	The UPUD will implement the measures as described above.
Effectiveness Criteria:	The UPUD will prepare and keep on file documentation verifying the implementation of the above-referenced measures.
Timing:	Pre-Construction and Construction Phases
Verified By:	_____ Date: _____ District Project Manager

Western Pond Turtle (WPT*; Emys marmorata*)

If WPT were present during construction, the Project could impact WPT. Implementation of measure BIO-3 will reduce potential impacts to less than significant.

Measure BIO-3

- *A preconstruction survey for WPT shall occur within 48 hours prior to the start of construction activities at Seibel Reservoir and the open ditch that drains to the reservoir.*
- *During construction, if WPT is observed in the active construction zone, construction will cease and a qualified biologist will be notified. Construction may resume when the biologist has either relocated the WPT to nearby suitable habitat outside the construction zone, or, after thorough inspection, determined that the species has moved away from the construction zone.*

Implementation:	The UPUD will implement the measures as described above.
Effectiveness Criteria:	The UPUD will prepare and keep on file documentation verifying the implementation of the above-referenced measures.
Timing:	Pre-Construction and Construction Phases
Verified By:	_____ Date: _____ District Project Manager

Bald Eagle (*Haliaeetus leucocephalus*)

The Seibel Reservoirs provide suitable foraging habitat for bald eagle. Implementation of the BIO-4, below, for migratory birds and birds of prey will also reduce potential impacts to bald eagle.

Birds of Prey and Birds Protected by the Migratory Bird Treaty Act

The Project area provides potential nesting habitat for birds of prey and birds listed by the Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711). BIO-4will be implemented to avoid impacts to birds of prey and birds listed by the MBTA.

Measure BIO-4

Under the MBTA, nests that contain eggs or unfledged young are not to be disturbed during the breeding season. Nesting or attempted nesting by migratory birds and birds-of-prey is anticipated from 15 February to 31 August.

Swallows and Other Bridge Nesters: *In California, bridge-nesting swallows typically arrive in mid-February, increase in numbers until late March, and remain until October. Nesting begins in April, peaks in June, and continues into August. Black phoebes, another bridge-nesting species, nest from March to August with peak activity in May. Measures should be taken to prevent establishment of nests on the bridges, culverts, headwalls, and other suitable structures prior to construction. Effective techniques to prevent nest establishment include using exclusion devices and removing and disposing of partially constructed and unoccupied nests of migratory or nongame birds on a regular basis to prevent their occupation. This can be done by:*

- *On a weekly or more frequent basis, remove all partially completed nests using either hand tools or high-pressure water; and/or*
- *Hang netting from the bridge before nesting begins. If this technique is used, netting should be in place from late February until project construction begins.*

Birds of Prey and Birds Protected by the Migratory Bird Treaty Act

- *If construction begins outside the 15 February to 31 August breeding season, there will be no need to conduct a preconstruction survey for active nests.*
- *If applicable, trees scheduled for removal should be removed during the non-breeding season from 1 September to 14 February.*
- *If construction is scheduled to begin between 15 February and 31 August, a biologist shall conduct a survey for active bird of prey nests within 500 ft and active MTBA bird nests within 100 ft of the Project area from publicly accessible areas within one week prior to construction. The measures listed below shall be implemented based on the survey results.*

No Active Nests Found:

- *If no active nest of a bird of prey, MBTA bird, or other CDFW protected bird is found, then no further avoidance and minimization measures are necessary.*

Active Nests Found:

- *If an active nest of a bird of prey, MBTA bird, or other CDFW protected bird is discovered that may be adversely affected by construction activities or an injured or killed bird is found, immediately:*
    4. *Stop all work within a 100-ft radius of the discovery*
    5. *Notify the Engineer*
    6. *Do not resume work within the specified radius of the discovery until authorized.*

- *The biologist shall establish a minimum 500-ft Environmentally Sensitive Area (ESA) around the nest if the nest is of a bird of prey, and a minimum 100-ft ESA around the nest if the nest is of an MBTA bird other than a bird of prey(see Bird Species Protection Areas table below).*

Bird Species Protection Areas

Identification	***Location***
Bird of Prey	*500 ft no-disturbance buffer*
MBTA protected bird (not bird of prey)	*100 ft no-disturbance buffer*

- *Activity in the ESA will be restricted as follows:*
    4. *Do not enter the ESA unless authorized*
    5. *If the ESA is breached, immediately:*
        c. *Secure the area and stop all operations within 60 ft of the ESA boundary*
        d. *Notify the Engineer*
    6. *If the ESA is damaged, the District determines what efforts are necessary to remedy the damage and who performs the remedy.*
- *No construction activity will be allowed in the ESA until the biologist determines that the nest is no longer active, or unless monitoring determines that a smaller ESA will protect the active nest.*
- *The size of an ESA may be reduced if the biologist monitors the construction activities and determines that no disturbance to the active nest is occurring. Reduction of ESA size depends on the species of bird, the location of the nest relative to the project, project activities during the time the nest is active, and other project-specific factors.*
- *Between 15 February and 31 August, if additional trees or shrubs need to be trimmed and/or removed after construction has started, a survey will be conducted for active nests in the area to be affected. If an active nest is found, the above measures will be implemented.*
- *If an active nest is identified in or adjacent to the construction zone after construction has started, the above measures will be implemented to ensure construction is not causing disturbance to the nest.*

Implementation:	The UPUD will implement the measures as described above.
Effectiveness Criteria:	The UPUD will prepare and keep on file documentation verifying the implementation of the above-referenced measures.
Timing:	Pre-Construction and Construction Phases
Verified By:	_____ Date: _____ District Project Manager

Pallid Bat (*Antrozous pallidus*)

Pallid bat could roost in hollow trees or tree cavities located in the ponderosa pine forest community adjacent to Seibel Reservoir and the open ditch that drains into the reservoir. Implementation of measure BIO-5 will reduce potential impacts to Pallid bat.

Measure BIO-5

The following will be conducted prior to vegetation removal or trimming in the portion of the Project area adjacent to Seibel Reservoir and the open ditch that drains into the reservoir.

- ***Bat Habitat Assessment:*** *A biologist shall conduct a habitat assessment for bats at work sites where culverts, structures and/or trees would be removed or otherwise disturbed for a period of more than two hours. The habitat assessment shall include a visual inspection of features within 50 feet of the work area for potential roosting features (bats need not be present) no more than 2 weeks prior to disturbance of such features. Habitat features found during the survey shall be flagged or marked.*
- *If any habitat features identified in the habitat assessment will be altered or disturbed by Project activities, the following phased disturbance strategy shall be employed: Non-habitat trees or structural features shall be removed one (1) day prior to removal of habitat features. Personnel shall not attempt to directly disturb (e.g. shake, prod) roosting features, as such disturbance constitutes "harassment" under 14 CCR § 251.1.*
- *Removal or trimming of trees containing an active roost will be avoided between 15 April and 15 September (the maternity period) to avoid impacts on reproductively active females and dependent young.*
- *If bats (individuals or colonies, not just roosting habitat) are detected during the habitat assessment, CDFW shall be immediately notified.*

Implementation:	The UPUD will implement the measures as described above.
Effectiveness Criteria:	The UPUD will prepare and keep on file documentation verifying the implementation of the above-referenced measures.
Timing:	Pre-Construction and Construction Phases
Verified By:	_____ Date: _____

District Project Manager

Impact (b): Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Potential Waters

Carson Creek, Ephemeral Channels 1-3, Seibel Reservoir, and the lower portion of the open ditch that drain the reservoir are potential jurisdictional waters of the U.S. and state in the Project area. Implementation of BIO-6 will reduce potential impacts to less than significant.

Measure BIO-6

- *The Project will obtain a Section 404 Clean Water Act (CWA) permit from the U.S. Army Corps of Engineers (Corps); a Section 401 Water Quality Certification (WQC) from the Regional Water Quality Control Board (RWQCB); and a Section 1602 Streambed Alteration Agreement (SAA) from California Department of Fish and Wildlife (CDFW) for fill impacts to Seibel Reservoir and the southern extent of the open ditch. All permit conditions would be implemented.*
- *Prior to construction, Environmentally Sensitive Area (ESA) fencing or equivalent will be placed along the limits of construction in the project area to exclude construction activities from avoided habitat. Trucks and other vehicles will not be allowed to park beyond, nor shall equipment be stored beyond, the fencing. No vegetation trimming/mowing or ground-disturbing activities will be permitted beyond the fencing.*
- *During construction, water quality will be protected by implementation of BMPs consistent with the Calaveras County Stormwater Management Plan and the Calaveras County Grading, Drainage, and Erosion Control Manual, as applicable.*
- *Riparian vegetation will be avoided and preserved to the maximum extent practicable. The limits of vegetation removal will be marked with temporary fencing or flagging.*
- *Equipment will be refueled and serviced at designated construction staging areas. All construction material will be stored and contained in a designated area that is located away from channels and other wetland or water features to prevent transport of materials into aquatic features. The preferred distance is a minimum 100 feet from riparian habitat or aquatic features. Construction vehicles and equipment will be maintained to prevent contamination of soil and water from external grease and oil and from leaking hydraulic fluid, fuel, oil, and grease.*
- *If dewatering by pumping is proposed, the contractor will prepare a creek dewatering plan that complies with any applicable permit conditions and County guidelines. Intakes shall be completely screened with wire mesh not larger than five millimeters.*

Upon completion of construction activities, any barriers to flow shall be removed in a manner that would allow flow to resume with the least disturbance to the substrate.

- *If pumps are used to temporarily dewater the reservoir to facilitate construction, an acceptable fish screen will be used to prevent entrainment or impingement of small fish. A biological monitor will conduct a survey of the area to be dewatered immediately after installation of the dewatering device, prior to the continuation of dewatering activities. The monitor will use a net to capture trapped fish in the area to be dewatered. Captured fish will be released back into Seibel Reservoir, outside of the active construction zone. Capturing of fish will continue during dewatering activities when fish are concentrated and easier to catch.*
- *All disturbed soils in the Project area will undergo erosion control treatment prior to October 15 and/or immediately after construction is terminated at the completion of the Project. Treatment includes seeding and the application of sterile straw mulch. Any disturbed soils on a gradient greater than 30 percent will have erosion control blankets installed. Areas temporarily disturbed on the banks of Seibel Reservoir will be seeded with native herbaceous plant species.*
- *UPUD will implement Best Management Practices outlined in any authorizations or environmental permits issued for the Project.*

Implementation:	The UPUD will implement the measures as described above.
Effectiveness Criteria:	The UPUD will prepare and keep on file documentation verifying the implementation of the above-referenced measures.
Timing:	Pre-Construction and Construction Phases
Verified By:	_____ Date: _____ District Project Manager

4.2.10. Hazards and Hazardous Materials

Impact (g): Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Wildfires

Implementation of WILD-1 under the 4.2.20 (Wildfire) below will reduce potential impacts to less than significant.

Implementation:	The UPUD will implement the measures as described above.
Effectiveness Criteria:	The UPUD will prepare and keep on file documentation verifying the implementation of the above-referenced measures.
Timing:	Pre-Construction and Construction Phases
Verified By:	_____ Date: _____ District Project Manager

4.2.20 Wildfire

Impact (b): Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Prepare and Implement a Fire Protection Plan

CAL FIRE has designated all of the Project area as a Very High Fire Hazard Severity Zone in a SRA. A wildland fire caused by Project construction activities could result in a significant impact. Implementation of Mitigation Measure WILD-1 would reduce this potential impact to less-than-significant.

Measure WILD-1

The UPUD will require its contractors to coordinate with CAL FIRE to prepare a Fire Protection Plan. CAL FIRE will review, revise if necessary, and approve the plan before construction begins in areas with very high fire hazards. The Fire Protection Plan will include the following measures.

- *Internal combustion engines, stationary and mobile, will be equipped with spark arresters. Spark arresters shall be in good working order.*
- *Contractor will keep all construction sites and staging areas free of grass, brush, and other flammable materials.*
- *Personnel will be trained in the practices of the fire safety plan relevant to their duties.*
- *Work crews shall have fire-extinguishing equipment on hand, as well as emergency numbers and cell phone or other means of contacting the Fire Department. Construction and maintenance personnel shall be trained and equipped to extinguish small fires.*
- *Smoking will be prohibited while operating equipment and shall be limited to paved or graveled areas or areas cleared of all vegetation. Smoking will be prohibited within 30 feet of any combustible material storage area (including fuels, gases, and solvents). Smoking will be prohibited in any location during a Red Flag Warning issued by the National Weather Service for the project area ("Red-Flag Warning" is a term used by fire-weather forecasters to call attention to limited weather conditions of particular importance that may result in extreme burning conditions.)*

Implementation:	The UPUD will implement the measures as described above.
Effectiveness Criteria:	The UPUD will prepare and keep on file documentation verifying the implementation of the above-referenced measures.
Timing:	Pre-Construction and Construction Phases
Verified By:	_____ Date: _____ District Project Manager