DRAFT INITIAL STUDY / MITIGATED NEGATIVE DECLARATION
JENNY LIND WATER TREATMENT PLANT
PRETREATMENT IMPROVEMENTS PROJECT

(CCWD CIP #11092 / DR-4240-CA PJ#0001)

Prepared by

DUDEK

853 Lincoln Way
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Auburn, California 95603
Contact: Markus Lang

Prepared for

CALAVERAS COUNTY WATER DISTRICT

120 Toma Court
P.O. Box 846
San Andreas, California 95249
209.754.3174
Contact: Charles Palmer, District Engineer

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JANUARY 2018

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TABLE OF CONTENTS

TABLE OF CONTENTS (CONTINUED)

Page No.

APPENDICES

FIGURES

TABLES

ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
AB	Assembly Bill
ADI	Area of Direct Impact
APE	Area of Potential Effect
APN	Assessor's Parcel Number
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
CCR	California Code of Regulations
CCWD	Calaveras County Water District
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CH_4	methane
CNDDB	California Natural Diversity Database
CO	carbon monoxide
CO_2	carbon dioxide
CO_2E	carbon dioxide equivalent
CRHR	California Register of Historical Resources
dBA	A-weighted decibel
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
GHG	Greenhouse Gas
IS	Initial Study
MND	Mitigated Negative Declaration
MT	metric tons
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
ND	Negative Declaration
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
O_3	ozone
PM_{10}	course particulate matter
$PM_{2.5}$	fine particulate matter
SB	Senate Bill
SR	State Route
SWRCB	State Water Resources Control Board
USFWS	U.S. Fish and Wildlife Service

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1 INTRODUCTION

1.1 Project Overview

The Calaveras County Water District (District) owns and operates the Jenny Lind Water Treatment Plant (Jenny Lind Plant) near Valley Springs, California (Figure 1, Regional Vicinity). The plant has a capacity of 6.0 million gallons a day (MGD) and serves approximately 11,250 customers. Raw water supplied from New Hogan reservoir and downstream of the dam is withdrawn through an infiltration gallery in the riverbed. The existing water plant processes include raw water pumps, ozone/ozonation, absorption clarifiers, gravity filters, and disinfection with sodium hypochlorite. Recently, a 70,868-acre wildfire (Butte Fire) occurred in Calaveras and Amador counties, and approximately 50% of the burned area is in the watershed for New Hogan reservoir and upstream of the treatment plant. Due to the local soil conditions, runoff from the burned area will have a major impact on raw water quality and the District's ability to produce drinking water.

To address impacts to water quality, the District proposes to upgrade the Jenny Lind plant with a packaged pretreatment system (plant), which consists of pre-engineered/pre-manufactured treatment units that will be fabricated off-site and shipped to the project site for final installation (proposed project). The District submitted an application and obtained funding through the California Office of Emergency Services (Cal-OES) and Federal Emergency Management Agency (FEMA) Hazard Mitigation Grant Program for the proposed project. As such, the proposed project requires environmental review under the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) to determine whether the proposed project may have significant adverse effects on the environment. This document encompasses a CEQA Initial Study/Negative Declaration (IS/ND); a separate NEPA Environmental Assessment (EA) has been completed by FEMA as the federal lead agency.

1.2 California Environmental Quality Act Compliance

The District will act as the CEQA lead agency for the proposed project, and is responsible for preparing environmental documentation in accordance with the California Environmental Quality Act (Public Resources Code Section 21000 et seq.) to determine if approval of the discretionary actions requested and subsequent construction on the proposed project site could have a significant impact on the environment.

As provided in Public Resources Code Section 21064.5, a Mitigated Negative Declaration may be prepared for a project that is subject to CEQA when an Initial Study has identified potentially significant effects on the environment, but (1) revisions in the project plans or proposals made

by, or agreed to by, the applicant before the proposed Mitigated Negative Declaration and Initial Study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur, and (2) there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment.

Based on the Initial Study (IS) prepared for the proposed project, the District has prepared a Mitigated Negative Declaration (MND) for the proposed project.

The District has prepared a MND in conformance with Section 15070(b) of the State CEQA Guidelines. The purpose of the MND and the Initial Study Checklist (IS/MND) is to identify any potentially significant impacts associated with the proposed project and incorporate mitigation measures into the project as necessary to eliminate the potentially significant effects of the project or to reduce the effects to a level of insignificance.

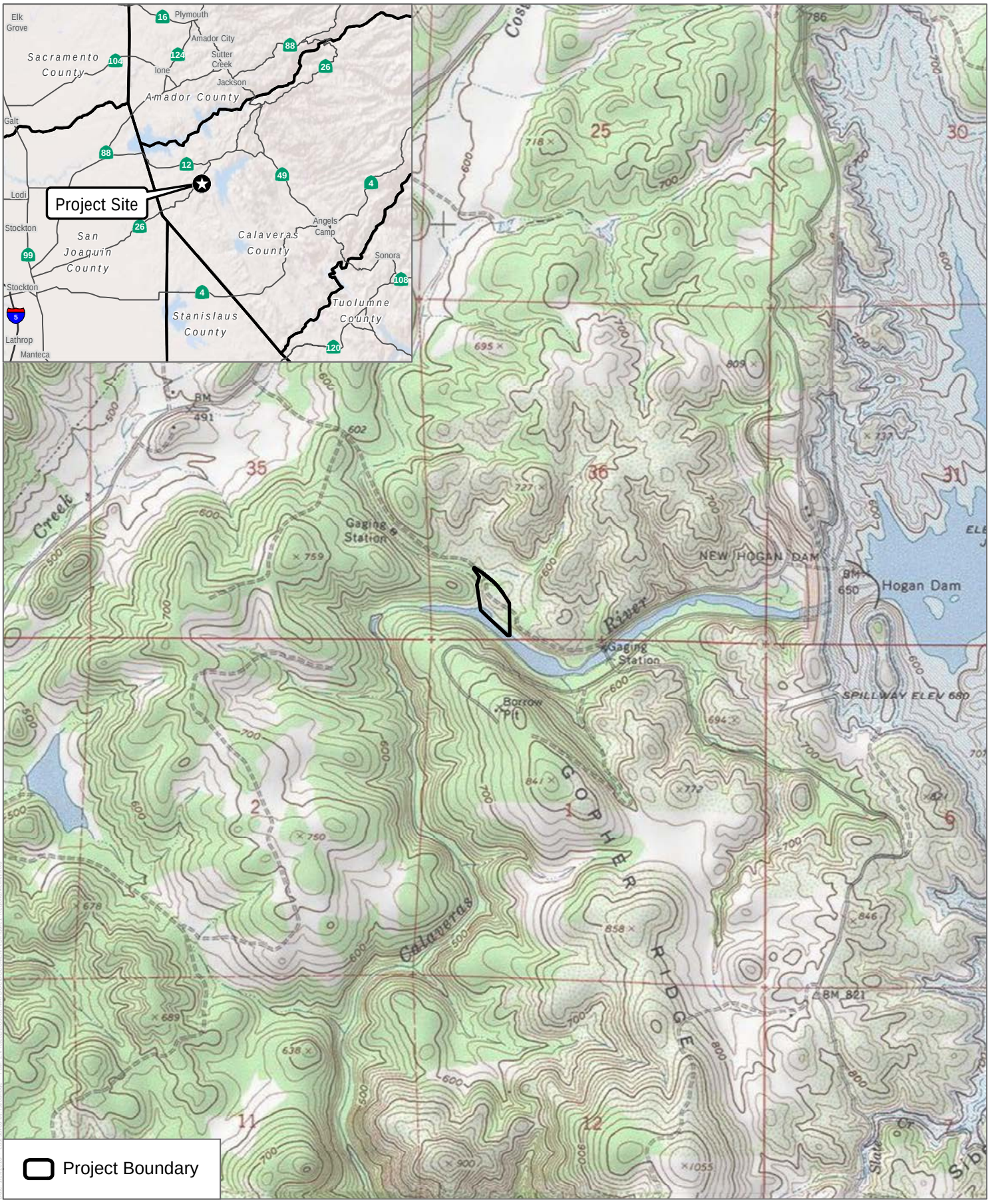
1.3 National Environmental Policy Act

In 1969, Congress enacted NEPA (Section 102, 42 U.S.C. 4332). Section 102 directs that NEPA be used for planning and decision making processes. The intent of NEPA is for Federal agencies to consider the environmental issues for decision making regardless of any requirement for an environmental document. NEPA created the Council on Environmental Quality (CEQ). CEQ has Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR] Parts 1500–1508).

CEQ regulations (40 CFR 1507.3) require that Federal agencies "adopt procedures to ensure that decisions are made in accordance with the policies and purposes of the Act." Agencies are to designate the major decision points in their principal programs and ensure NEPA compliance.

Under NEPA, FEMA will review the proposed project through the preparation of an Environmental Assessment in order to make the following decision on FEMA funded projects: 1) Choose whether to proceed with the proposed project, choose to take No Action at this time, or modify the proposed project; and 2) Determine whether or not a Finding of No Significant Impact (FONSI) can be supported by the environmental analysis.

The NEPA review has been completed separately by FEMA and no additional discussion of the NEPA process or findings is provided as the focus of this document is limited to the analysis of the proposed project under CEQA.



SOURCE: USGS 7.5-Minute Series Valley Springs Quadrangle
Township 4N; Range 10E; Section 36

DUDEK

0 1,000 2,000 Feet

FIGURE 1

Regional Vicinity

Jenny Lind Water Treatment Plant Initial Study

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1.4 Project Location

The proposed project would be located within an approximately 8-acre site located on Silver Rapids Road near the City of Valley Springs in Calaveras County, California (Figure 1, Regional Vicinity). Regional access to the project site is provided via State Route (SR) 26, approximately 0.5 mile to the northwest of the project site.

The project site is bounded on the north and east by Silver Rapids Road, by the Calaveras River on the south, and by Cosgrove Creek on the west (Figure 2, Project Location*).*

1.5 Environmental Setting

The project site is approximately 8.0 acres in size and includes the existing Jenny Lind Water Treatment Plant and associated supporting infrastructure. The primary component of the existing plant is a series of six U.S. Filter Microfloc Trident Model TR-420-A modular treatment units. Associated infrastructure includes pumps, a backup power generator, storage tanks, roadways, parking areas, equipment sheds, four reclaim basins, solids drying beds, administrative support buildings, and electrical infrastructure required to operate the current system. Access to the site is controlled by a locked gate. Portions of the site that do not contain treatment plant components and associated infrastructure are undeveloped and support a mix of native vegetation and landscape plantings including trees.

The site consists of relatively flat areas (less than 3% slopes) as a result of past grading carried out for the existing facilities. On-site elevations ranging from approximately 520 to 550 feet above mean sea level.

Adjacent and Surrounding Land Uses

The surrounding area is largely characterized by rural residential development to the east, north and west, and the Calaveras River and a rock and gravel borrow pit to the south, which is outside the anticipated disturbance area associated with the proposed project. The residences are one to two stories in height, and some support animal pens, with most having vacant/unimproved backyards, or other rural uses. New Hogan Reservoir is approximately 1 mile to the east of the site. Undeveloped areas are intermixed among the adjacent developed properties and support mixed oak trees in upland areas and riparian vegetation adjacent to Cosgrove Creek and the Calaveras River.

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SOURCE: Bing Maps (Accessed 2017); County of Calaveras GIS (2013)

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0 100 200 Feet

FIGURE 2

Project Location

Jenny Lind Water Treatment Plant Initial Study

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2 SUMMARY OF FINDINGS

2.1 Environmental Factors Potentially Affected

This Initial Study analyzes the environmental impacts of the project consistent with the format and analysis prompts provided in Appendix G of the CEQA Guidelines. The analysis identified no impacts that could not be mitigated to less than significant with implementation of mitigation measures identified in this Initial Study.

2.2 Environmental Determination

The analyses conducted in this Initial Study determined that the proposed project could result in potentially significant impacts in several resource topic areas. The Initial Study identifies mitigation measures, provided in Table 1, for each of the impacts that would avoid or reduce the impact to less than significant. Appendix E, the draft mitigation monitoring program, identifies each mitigation measure and assigns responsibility for implementation and monitoring, timing, and performance evaluation criteria to guide effective implementation of mitigation measures identified in Table 1.

Table 1
Mitigation Measures

Topic.#	Mitigation Measure
Mitigation Measure BIO.1	The following avoidance measures shall be implemented to avoid impacts to California red-legged frog (CRLF): 1. Upon period of starting construction, project staff, contractors, and other work crews will receive training, training materials and/or fact sheets regarding habitat sensitivity, identification of California red-legged frogs, their breeding habitats, and required practices. The training will include the general measures that are being implemented to conserve this species, penalties for non-compliance, and boundaries of the project area. A fact sheet or other supporting materials containing this information will be prepared and distributed. 2. All ground disturbing activities will be conducted to avoid the "wet season," which shall be defined as beginning with the first frontal system that results in at least 0.25 inches of precipitation after October 15 (as measured from the closest published location and elevation by the National Weather Service) and shall continue until April 1st. 3. A tightly woven fiber netting or similar material used for erosion control shall be deployed during construction as exclusion fencing between the project area and the adjacent habitat along Cosgrove Creek, if deemed to be necessary by a qualified biologist, to effectively ensure individuals do not stray into the work area. No plastic mono-filament matting will be used for erosion control. 4. The Sacramento Fish and Wildlife Office (SFWO) will be promptly notified of any finding of a listed species or identification of CRLF within the project area. A qualified biologist shall be on-call to confirm such findings/determinations.

Table 1
Mitigation Measures

Topic.#	Mitigation Measure
	5. Fueling and maintenance activities shall be a minimum of 66 feet from riparian or aquatic habitats. 6. Because dusk and dawn are often the times when red-legged frogs are most actively foraging and dispersing, all ground disturbing activities associated with project construction should cease one half hour before sunset and should not begin prior to one half hour before sunrise. 7. Excavations and trenches shall be closed or covered/plated at the end of each workday as a regular daily practice. If excavations will remain open and unattended for greater than 24-hours and the project biologist determines that there is a viable concern animals are at risk, then escape ramps of earth fill and/or wooden planks shall be constructed to allow animals to evacuate/escape the excavation. All excavations shall be checked prior to starting construction each day and before backfilling the holes.
Mitigation Measure BIO.2	A survey shall be completed by a qualified biologist no earlier than two weeks prior to construction to determine if any raptors or other native birds are nesting on or near the project site. If active nests are observed, the biologist will determine a suitable avoidance buffer or avoidance measures, such as a monitor, screening, or other measures, to effectively avoid nesting disturbance and based on species, location, and planned construction activities in the area. These nests shall be flagged and avoided until the chicks have fledged and the nests are no longer active, as determined by the biologist.
Mitigation Measure CUL.1	In consideration of the proximity of planned work relative to CA-CAL-1180/H, a CRHR-eligible resource containing human remains, archaeological monitoring should be conducted during initial ground-disturbing activities to avoid impacts to unanticipated archaeological resources. Prior to initiation of earth-disturbing work associated with the project, an Archaeological Discovery and Monitoring Plan should be prepared that outlines required monitoring efforts, roles and responsibilities, and reporting requirements.
Mitigation Measure CUL.2	In accordance with Section 7050.5 of the California Health and Safety Code, if potential human remains are found the County Coroner shall be immediately notified of the discovery. The Coroner will provide a determination within 48 hours of notification. No further excavation or disturbance of the identified material, or any area reasonably suspected to overlie additional remains, shall occur until a determination has been made. If the County Coroner determines that the remains are, or are believed to be, Native American, they shall notify the Native American Heritage Commission (NAHC) within 24 hours. In accordance with California Public Resources Code Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descendent (MLD) of the deceased Native American. Within 48 hours of their notification, the MLD will recommend to the lead agency their preferred treatment of the remains and associated grave goods.

Table 1
Mitigation Measures

Topic.#	Mitigation Measure
Mitigation Measure HAZ.1	The following measures shall be implemented prior to and during construction and shall be incorporated into project plans and specifications. ▪ All equipment shall be regularly inspected for leaks (e.g., hydraulic fluid, fuel, oil, antifreeze, etc.) and any leaks fixed before equipment use resumes. ▪ Spill kits should be readily available on site and contain appropriate items to absorb, contain, neutralize, or remove hazardous materials. ▪ The lubrication, refueling and repair/maintenance of Contractor's equipment shall occur only in areas designated by the District, which are restricted to public access and as far as practicable from riparian and habitat areas. ▪ The Contractor shall immediately notify CCWD in event of a spill or release of any chemical during construction.

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3 INITIAL STUDY CHECKLIST

1. Project title:

Jenny Lind Water Treatment Plant Pretreatment Improvements Project

2. Lead agency name and address:

Calaveras County Water District
120 Toma Court
P.O. Box 846
San Andreas, California 95249

3. Lead agency contact:

Charles Palmer, District Engineer
209.754.3174
charlesp@ccwd.org

4. Project location:

The proposed project would be located within an approximately 8-acre site located at 3615 Silver Rapids Road near the community of Valley Springs in Calaveras County, California (see Figure 1, Regional Vicinity, and Figure 2, Project Location). The area of potential effect, proposed staging areas, and area of direct impact associated with the proposed project is depicted Figure 3, Area of Potential Effects. State Route 26 is approximately 0.5 mile northwest of the project site. The coordinates of the approximate center of the site are 38°9'1.98" north latitude, 120°49'53.35" west longitude. The site is developed with CCWD's existing Jenny Lind Water Treatment Plant. Calaveras County Assessor's Parcel Numbers (APNs) include the following: 72-044-003, 72-046-001, 002, and 003.

5. Project sponsor's name and address:

Calaveras County Water District
120 Toma Court
P.O. Box 846
San Andreas, California 95249

6. General plan designation:

Rural Residential (Rancho Calaveras Special Plan Area)

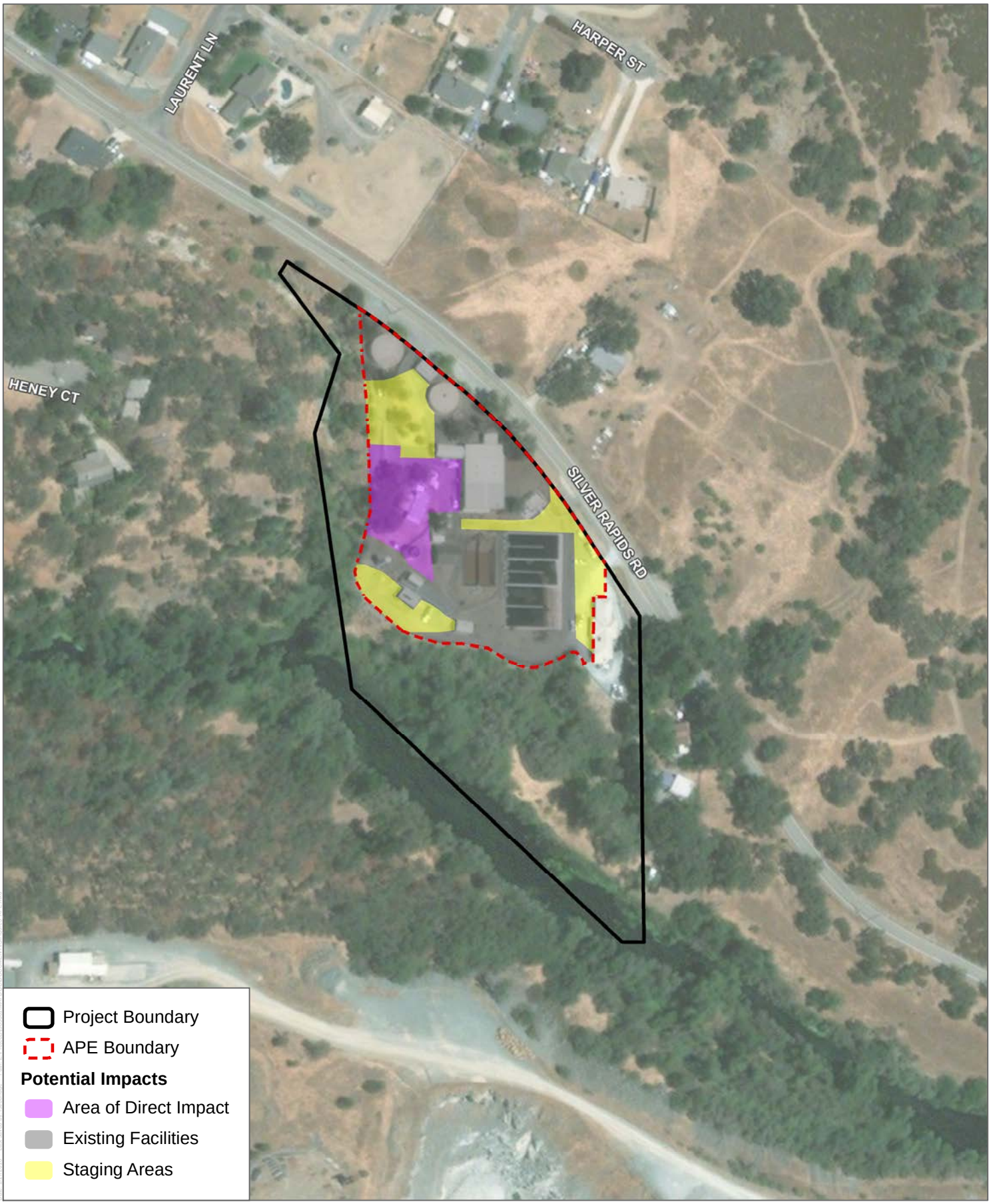
7. Zoning:

Public Service (PS) / Rural Residential 1 (RR-1)

8. Description of project. (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary):

To address impacts to water quality resulting from effects of wildfire in the upstream watershed and reservoir, the District proposes to upgrade the existing Jenny Lind Water Treatment Plant by installing a packaged pretreatment system consisting of pre-engineered/pre-manufactured treatment units that will be fabricated off-site and shipped to the project site for installation. While the plant components will be manufactured off site and shipped to the site for installation, the site must be prepared to install the plant and associated supporting infrastructure. Construction that would occur on site to install the prefabricated plant components includes the following (refer to Appendix A, Site Plan):

- **Demolition and Equipment Replacement.** An existing 900 square-foot metal building (14 feet tall) and associated slab foundation would be demolished. Approximately 3,000 square feet of existing paving would be sawcut and removed, and the existing septic tank would be removed and replaced. An existing 1000 amp main switchboard, existing power distribution sections, and existing 1200 amp automatic transfer switch (ATS) inside the existing generator building would be demolished and removed. A new 1600 amp meter main switchboard (MMS) would be installed in an outdoor enclosure and a new 1600 amp ATS and new power distribution switchboards (PDS-1 & 2) would be installed inside the existing generator building. The existing cast-in-place concrete transformer pad would be demolished and removed and replaced with a standard 106-inch by 90-inch precast pad.
- **New Pretreatment Unit and Associated Equipment.** A new pretreatment unit and ancillary equipment (recirculation pumps, mixers, scrappers, hydrocyclones, sand cone hopper, etc.) would be installed in addition to a new outdoor control panel and outdoor motor control center with three variable frequency drives for process pumps and control CP-200 relay section for the pretreatment unit.
- Three new variable speed, 25-horsepower process pumps, setting pumps and anchoring bases would be installed and 12-inch and 10-inch intake and discharge piping would be installed along with associated fittings, valves, and other appurtenances.
- Construction of coagulant, polymer and permanganate chemical feed systems including a fiberglass building, eyewash, polymer storage tank, polymer blending system, inline mechanical mixer, static mixer (inside underground vault), chemical injection quills, metering pumps, chemical feed tubing, and secondary containment piping.



SOURCE: Bing Maps (Accessed 2017); County of Calaveras GIS (2013)

DUDEK

0 100 200 Feet

FIGURE 3

Area of Potential Effects

Jenny Lind Water Treatment Plant Initial Study

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- New underground and aboveground electrical conduits would be installed to provide power and instrumentation to and from existing electrical buildings to the new packaged plant and new pump station. This would include installing new underground secondary conduits from the transformer to the MMS, and a new 1000 KVA transformer and secondary conductors to the MSS (installed by Pacific Gas & Electric (PG&E)).
- Underground and aboveground installation of process piping, fittings, valves, and other process equipment. The project includes installing 18-inch, 20-inch and 24-inch diameter piping to serve as inlet and outlet lines and to connect the new pretreatment unit for transporting pre-treated raw water from the packaged plant/new pump station/existing piping manifold to filters/filter building to the existing raw water line. Sludge piping would also be installed to connect the pretreatment system or packaged plant waste and drain lines to the existing sludge tank or waste basin (the existing solids thickener center feedwell and decant line0 and would range from 3 inches to 6 inches in diameter.
- The project includes constructing steel reinforced concrete slabs on grade, wetwell, underground footings, vertical walls, equipment pads, vaults and other miscellaneous concrete work as shown on the project drawings for locating the treatment unit and a new pump station.
- Installing and extending sewer service lines to serve the new facility and installing underground site drainage piping and drop inlets. A new retaining wall would also be constructed at the pretreatment unit building.

Excavations, Grading and Paving. It is estimated that 200 cubic yards of material would be excavated on site to provide for all underground work for installation of buried piping, electrical conduits and structural foundations. All trenches and excavations would be backfilled with imported aggregate road base and/or gravel. A gravity block retaining wall would be constructed on site, and approximately 50 cubic yards of imported backfill would be placed behind the wall to balance available native soils from trenches and excavations. Asphalt would be used to surface areas around the pretreatment unit building and vehicle and maintenance access areas.

Best Management Practices. The project will result in a total disturbance area of less than 0.5 acre and therefore coverage under the NPDES general permit for stormwater discharges from construction activities is not required. However, the Contractor would be required to implement standard stormwater best management practices and typical pollution prevention measures. This would include maintaining a concrete waste washout controls area to contain concrete washout waste, erosion control measures, and implementing measures for containment/proper management of hazardous materials.

Project Approvals Required

The following agencies have reviewed the project and authorized construction:

- California Office of Emergency Services (Cal-OES)
- Federal Emergency Management Agency (FEMA)
- California Water Board / Division of Drinking Water / District 10

9. Surrounding land uses and setting:

The project site is developed with CCWD's existing Jenny Lind Water Treatment Plant, which includes maintenance and operations buildings, above and below ground treatment and storage tanks and ponds, and on-site access drives and parking areas. The treatment plant property is bounded on the north and east by Silver Rapids Road, by the Calaveras River on the south, and by Cosgrove Creek on the west (Figure 2, Project Location). The surrounding area is sparsely developed with large lot rural residential land uses.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact," as indicated by the checklist on the following pages.

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

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

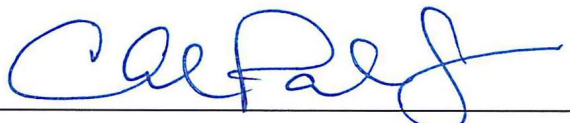
☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

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

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

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

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



Signature Charles Palmer, District Engineer

01-18-18

Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I.	**AESTHETICS –** Would the project**:**				
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b)	Substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐
II.	**AGRICULTURE AND FORESTRY RESOURCES** – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒
III.	**AIR QUALITY** – Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐
IV. BIOLOGICAL RESOURCES – Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the 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 U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c) 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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐
d) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐
VI. GEOLOGY AND SOILS – Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial 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?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GREENHOUSE GAS EMISSIONS – Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐
VIII. HAZARDS AND HAZARDOUS MATERIALS – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site that 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 for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☒	☐
IX. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☒	☐
e) 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?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☒	☐
X. LAND USE AND PLANNING – Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒
XII. NOISE – Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
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 expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
XIII. POPULATION AND HOUSING – Would the project:				
a) Induce substantial 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 housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒
XV. RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
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?	☐	☐	☐	☒
XVI. TRANSPORTATION/TRAFFIC – Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒
XVII. TRIBAL CULTURAL RESOURCES				
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:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☒	☐	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	☒	☐	☐
XVIII. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to 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, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

3.1 Aesthetics

a) Would the project have a substantial adverse effect on a scenic vista?

A scenic vista is generally defined as an expansive view of highly valued landscape observable from a publicly accessible vantage point. In the project vicinity, the primary public view of the project site would be from Silver Rapids Road. The proposed project would be constructed on the site of CCWD's existing Jenny Lind Water Treatment Plant and would result in no substantial change in the overall visual character of the project site as viewed from publicly accessible areas such as Silver Rapids Road. The project site is not located within or near any officially designated scenic vista or widely recognized scenic resource and the Calaveras County General Plan applies no scenic designation to the project area (Calaveras County 1996). Therefore, impacts to scenic vistas would be **less than significant**.

b) Would the project substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

State Route 26, located approximately one mile northeast of the project site, carries no scenic highway designation (Caltrans 2017), and is not viewable from any other state highway. **No impact** would occur from any change in scenic resources within view of a state scenic highway.

c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

The proposed project consists of pre-engineered/pre-manufactured treatment units that will be fabricated off-site and shipped to the project site for final installation. The new pretreatment unit and associated infrastructure would generally be located on the site of an existing 900-square-foot metal maintenance building that would be removed as part of the proposed project (Appendix A, Site Plan). The existing Jenny Lind Wastewater Treatment Plant and associated supporting infrastructure includes roadways, parking lot, equipment and maintenance sheds, four reclaim basins, solids drying beds, storage tanks, administrative support buildings, and electrical infrastructure required to operate the current system. The proposed project would construct new facilities within the footprint of the existing water treatment plant and would result in no substantial change in the existing visual character and quality of the project site or the surroundings. Therefore, impacts would be **less than significant**.

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No additional lighting is proposed as part of the project. The new pretreatment building may require an exterior door light for safety. The existing treatment plant includes some exterior lighting; lighting included in the proposed project would be consistent with existing facility lighting and would not introduce lighting to a currently unlit area. Light/glare impacts would be **less than significant**.

3.2 Agriculture and Forestry Resources

a) Would the project 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?

The existing Jenny Lind Water Treatment Plant (project site) is located on land designated by the California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) as "Urban and Built-up Land" and does not include any prime farmland, unique farmland or Farmland of Statewide Importance (CDC 2016). Furthermore, the project upgrades would be located entirely within the building footprint of the existing water treatment plant. The project would result in **no impact** to farmland.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

Based on a review of the California Department of Conservation's 2012–2013 Williamson Act Map for Calaveras County, the project area does not include land subject to a Williamson Act contract (CDC 2013). The project site is developed with CCWD's existing Jenny Lind Water Treatment Plant facility and is zoned for public services and rural residential uses. No zone change would be required to implement the proposed project. Therefore, the project would have **no impact** related to conflicts with existing zoning or Williamson Act contracts.

c) Would the project 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))?

The project site is developed with CCWD's existing Jenny Lind Water Treatment Plant facility and is zoned for public services and rural residential uses. The proposed project would result in **no impact** resulting from a conflict with zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production land.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

The project site is developed with CCWD's existing Jenny Lind Water Treatment Plant facility. The proposed project includes upgrades to the existing facility and would result in **no impact** from loss of forest land or conversion of forest land to non-forest use.

e) Would the project 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?

The project involves improvements at the CCWD's existing water treatment plant and would result in no other changes in the environment that could result in conversion of Farmland or forest land to other uses. The proposed project would result in **no impact** as a result of conversion of Farmland or forest land to other uses.

3.3 Air Quality

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

The Mountain Counties Air Basin (MCAB) is currently non-attainment for ozone (O_3) (state and federal ambient standards) and particulate matter (PM_{10}) (state ambient standard). Therefore, the pollutants of concern for Calaveras County are O_3 and PM_{10}. The applicable air quality plans are the 2012 Ozone Plan and the 2003 PM_{10} Plan.

The primary means of determining if a project would result in more population growth or vehicle miles traveled (VMT) than anticipated by the existing air quality plan is to determine consistency with the applicable General Plan. If a project is consistent with the General Plan land use designation and density requirements then it will typically be consistent with growth assumptions used in air quality plans for the MCAB.

The proposed project includes construction of a new pretreatment unit and associated equipment to improve treatment quality and efficiency and would not increase the plant's treatment capacity and would therefore facilitate no long-term increase in population or VMT in the region as a result of additional development. The proposed project would result in no change in land use designations that would facilitate new development or change land use designations that govern development density or type of development allowable on the project site or in the project area. The proposed project would be required to comply with all Calaveras County Air Pollution Control District (CCAPCD)

rules and regulations. Additionally, as concluded by the analysis of Impact 3.3 (b), the proposed project would not contribute to an air quality violation because it does not exceed the CCAPCD thresholds of significance for reactive organic gases (ROG), oxides of nitrogen (NO_x), PM_{10}, or $PM_{2.5}$ during both construction and operation. Therefore, the proposed project would not conflict with or obstruct implementation of the applicable air quality plans and impacts would be **less than significant**.

b) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

An area is designated as in attainment when it is in compliance with the National Ambient Air Quality Standards (NAAQS) and/or the California Ambient Air Quality Standards (CAAQS). These standards are set by the United States Environmental Protection Agency (EPA) and the California Air Resources Board (CARB), respectively, for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or the public welfare. The criteria pollutants of primary concern that are considered in this air quality assessment include O_3, PM_{10} and $PM_{2.5}$. Although there are no ambient standards for ROG or NO_x, they are important as precursors to O_3.

As previously discussed, the MCAB has been designated nonattainment for the CAAQS and NAAQS O_3 standards and for the CAAQS PM_{10} standard. Designations for all other ambient air quality standards within the MCAB are unclassified or attainment.

Construction Emissions. Construction of the proposed project would result in emissions of criteria air pollutants for which CARB and the EPA have adopted ambient air quality standards (i.e., the NAAQS and CAAQS). Projects that emit these pollutants have the potential to cause or contribute to violations of these standards. The CCAPCD has adopted significance thresholds, which, if exceeded, would indicate the potential to contribute to violations of the NAAQS or CAAQS. The relevant CCAPCD thresholds are shown in Table 2. Only those thresholds related to potentially significant construction impacts are identified in Table 2, as the proposed project would not generate substantial criteria pollutant emissions or related impacts associated with operation of the proposed project.

Table 2
CCAPCD Air Quality Significance Thresholds

Criteria Pollutant	Mass Daily Construction Thresholds
ROG	150 pounds/day

Table 2
CCAPCD Air Quality Significance Thresholds

Criteria Pollutant	Mass Daily Construction Thresholds
NO_x	150 pounds/day
PM_{10}	150 pounds/day
$PM_{2.5}$[1]	150 pounds/day

Source: CCAPCD 2017.
Notes: CCAPCD = Calaveras County Air Pollution Control District; NO_x = oxides of nitrogen; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; ROG = reactive organic gases.
[1] While the CCAPCD has not established a threshold of significance for $PM_{2.5}$, because $PM_{2.5}$ is a subset of PM_{10}, it is appropriate to also establish a threshold of 150 pounds per day of $PM_{2.5}$

Construction of the proposed project would result in a temporary addition of pollutants to the local airshed caused by combustion pollutants from on-site construction equipment, as well as from worker vehicles, vendor trucks, and off-site trucks transporting construction materials. Emissions from the construction phase of the project were estimated by using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2, available online (www.caleemod.com). It was assumed that construction would occur in 2018 and would last a total of six months. Construction activities would involve approximately 2 to 3 worker trips, 5 haul truck trips during demolition, and various material delivery trips (i.e., vendor truck trips). Table 3 presents the estimated maximum unmitigated daily construction emissions associated with the construction of the proposed project, which includes emissions from on-site sources (construction equipment) and off-site sources (hauling and vendor trucks and worker vehicles).

Table 3
Estimated Maximum Daily Construction Emissions

	ROG	NO_x	PM_{10}	$PM_{2.5}$
	Pounds per Day			
Maximum Daily Emissions (2018)	7.02	71.94	3.41	2.72
CCAPCD threshold	**150**	**150**	**150**	**150**
Threshold Exceeded?	**No**	**No**	**No**	**No**

Source: CCAPCD 2017.
Notes: CCAPCD = Calaveras County Air Pollution Control District; NO_x = oxides of nitrogen; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; ROG = reactive organic gases.
The values shown are the maximum summer or winter daily emissions results from CalEEMod.
See Appendix B for detailed results.

As shown in Table 3, daily construction emissions would not exceed the CCAPCD thresholds for ROG, NO_x, PM_{10}, or $PM_{2.5}$. Due to the limited nature of construction activities in terms of types of equipment, hours of use, duration of construction, truck

trips, and number of construction worker vehicle trips, short-term construction emissions would not violate any air quality standards or contribute substantially to an existing air quality violation. As such, pollutant emissions during construction of the proposed project would be **less than significant**.

Operational Emissions. The proposed project would not increase capacity of the wastewater facility, so no modeling of operational emissions was conducted for the proposed project. Operational activities may include minimal vehicle trips for maintenance of the newly constructed pretreatment unit and associated equipment, but the facility upgrade is expected to require less maintenance overall and therefore generate fewer vehicle trips associated with maintenance or repair needs. As the project would generate no more vehicle trips than the existing condition, it can be conservatively determined that the proposed project would not result in criteria pollutant emissions of ROG, NO_x, PM_{10}, or $PM_{2.5}$ that would exceed the 150 pounds per day significance threshold. Therefore, the operational emissions would not cause an ambient air quality standard violation and operational impacts would be **less than significant**.

c) Would the project 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

The geographic scope of the area for the proposed project cumulative analysis includes Calaveras County and surrounding areas within the MCAB. The MCAB is comprised of the counties of Amador, Mariposa, Calaveras, Nevada, Plumas, Sierra, Tuolumne, Placer (partial), and El Dorado (partial).

Non-attainment pollutants of concern include O_3 and PM_{10}. If a project exceeds the identified thresholds of significance, its emissions would result in significant adverse air quality impacts to the region's existing air quality conditions. The following discussion evaluates the potential for the proposed project's construction and operational emissions to result in a cumulatively considerable contribution of criteria pollutants in the region.

Construction Emissions. The CCAPCD provides preliminary screening thresholds within their Guide used for determining significance of construction-related impacts associated with ROG, NO_x, and PM_{10}. As determined in Impact 3.3 (a), the proposed project would not exceed the CCAPCD significance threshold of 150 pounds per day for ROG, NO_x, PM_{10}, or $PM_{2.5}$. Therefore, the proposed project would result in a **less than significant** impact associated with cumulatively considerable emissions of criteria pollutants and precursors during project construction.

Operational Emissions. The CCAPCD provides preliminary screening thresholds within their Guide used for determining significance of operational-related impacts associated with ROG, NO_x, and PM_{10}. As discussed in Impact 3.3 (a), the proposed project would not generate substantial criteria pollutant emissions or related impacts associated with operational activities. Therefore, the proposed project would result in a **less than significant impact** associated with cumulatively considerable emissions of criteria pollutants and precursors during project operation.

d) Would the project expose sensitive receptors to substantial pollutant concentrations?

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. CARB has identified the following groups who are most likely to be affected by air pollution: children less than 14 years of age, the elderly over 65 years of age, athletes, and people with cardiovascular and chronic respiratory diseases. Sensitive receptors include residences, schools, playgrounds, child care centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. There are residential uses located to the north and west of the project site. As discussed previously, minimal short-term air quality emissions would be generated during construction activities. Additionally, operation of the proposed project would not result in a net increase of vehicle trips per year compared with the existing water treatment plant. Due to the limited nature of construction and operational activities that would generate air quality emissions, the proposed project would result in no substantial increase in localized pollutant concentrations. Impacts to sensitive receptors resulting from the proposed project would therefore be **less than significant**.

e) Would the project create objectionable odors affecting a substantial number of people?

Odors are a form of air pollution that is most obvious to the public. Odors can present significant problems for both the source and surrounding community. Although offensive odors seldom cause physical harm, they can be annoying and cause concern.

It is possible that odors could be released during construction activities of the proposed project. Diesel exhaust and reactive organic compounds would be emitted during construction activities. However, emissions would disperse rapidly from the area where the construction activities would be located, and thus would not reach an objectionable level at the nearest sensitive receptors. In addition, construction activities would be short-term in nature and located in remote areas located away from residences, so a limited number of people would be affected. The potential release of odors associated with

construction equipment would be minor, temporary, and unlikely to impact a substantial number of people. Operation of the proposed project would be similar to the existing operational activities undertaken at the water treatment plant. Additionally, the proposed project would result in no substantial increase in vehicle trips associated with the construction of the new pretreatment unit and associated equipment. Due to the limited nature of these activities and the localization of such sources, impacts associated with odors during project operation would be **less than significant**.

3.4 Biological Resources

A Biological Resources Assessment was prepared for the project site by Dudek in 2017. The assessment, which included a literature search and a field reconnaissance survey, was used to complete this section and is included as Appendix C of this Initial Study.

The project site is characterized as developed, and other than areas that are landscaped with a mix of native and ornamental vegetation including several species of oak trees (*Quercus* sp.), the majority of the site is hardscaped or contains treatment plan facilities and support structures. Representative photographs of the project area are included in Figure 3 in Appendix C.

a) Would the project 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?

Dudek biologists queried the California Department of Fish and Wildlife's California Natural Diversity Database (CNDDB) for reported occurrences of special-status species in the project area. The U.S. Fish and Wildlife Service (USFWS) IPaC Trust Resource Report was also reviewed prior to Dudek's field survey of the site. Results of the CNDDB and USFWS searches revealed 14 special-status wildlife species and 12 special-status plant species have been recorded within a the CNDDB and IPaC search area, although no occurrences have been recorded within the project site. Of these, 13 wildlife species and all plant species were removed from consideration due to lack of suitable habitat or soils on the site, or because the site is outside of the species range.

The remaining species, California red-legged frog (CRLF, *Rana draytonii*) and Townsend's big-eared bat (*Corynorhinus townsendii*) were also determined to have low potential to occur in the project area due to a lack of suitable habitat available for these species. These species are not expected to be present or utilize habitat within the

area of potential effect associated with the proposed project (see Figure 3). However, the uplands and dense vegetative cover associated with the Cosgrove Creek riparian corridor is directly adjacent to the site and could be utilized by CRLF, a federally Threatened and California Species of Special Concern. Implementation of *Mitigation Measure BIO.1* requires monitoring of the construction area, training of construction personnel to recognize and appropriately respond if CRLF are observed within the construction area, measures to prevent CRLF from entering the project area, and measures to ensure that construction activities to not impact adjacent suitable habitat. Implementation of *Mitigation Measure BIO.1* would ensure that impacts to CRLF would remain **less than significant**.

No raptors were observed on or flying over the site during the survey; however, the site provides suitable roosting habitat for several common raptor species found in California such as red-shouldered hawk (*Buteo lineatus*), and roosting, nesting and foraging habitat for common passerine species such as the house wren (*Troglodytes aed*on) and mourning dove (*Zenaida macroura;* Appendix C). All native birds in California are protected by the federal Migratory Bird Treaty Act (MBTA) of 1918 and Section 3503.5 of the California Fish and Game Code, which specifically protects raptors. Implementation of *Mitigation Measure BIO.2*, which requires a nesting bird survey two weeks prior to the onset of construction activity occurring within the nesting period (February 15–August 31), would ensure that nesting birds would not be interrupted by construction activity and potential impacts to special status wildlife would remain **less than significant**.

Results of Dudek's CNDDB and California Native Plant Society (CNPS) searches revealed 12 special-status plant species that have potential to occur in the vicinity of the project area. All were removed from consideration due to lack of suitable habitat. No special-status plants were observed during the field survey, and no special-status plant species are expected to be present within the site due to the highly disturbed nature of the site (Appendix C). Accordingly, impacts to special-status plant species would be **less than significant**.

b) Would the project 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 U.S. Fish and Wildlife Service?

As discussed earlier in this section, vegetation on the site is sparse and limited to landscaped areas consisting of native and non-native trees and shrubs, including several species of oak trees (*Quercus* sp.). There is no riparian habitat or other sensitive natural

communities within the area of potential effect (Figure 3), although there is riparian vegetation adjacent to the project area along Cosgrove Creek and the Calaveras River (Appendix C). Silt fencing placed between the proposed project and adjacent riparian areas per *Mitigation Measure BIO.1* and other stormwater BMPs placed according to project plans would ensure that impacts to adjacent riparian areas from stormwater and sedimentation would be avoided. As such, the proposed project's impacts on riparian habitat or other sensitive natural communities would be **less than significant**.

c) Would the project 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?

There is no aquatic habitat or jurisdictional wetlands or waters of the United States or State of California within the area of potential effects associated with the proposed project (Figure 3)(Appendix C). As such, there would be **no impact** to federal or state wetlands.

d) Would the project 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?

There are no aquatic species on the project site. Therefore, the proposed project activities would not disrupt movement or life cycle of native or migratory fish species. Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for the migration of animals. Habitat linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation; they may be continuous habitat or discrete habitat islands that function as stepping stones for wildlife dispersal. The proposed project site is fenced off from surrounding areas and does not contain native vegetation communities and the majority of the site is hardscaped and developed with the existing treatment plant facilities. As such, construction of the proposed project would result in **no impact** related to interference with the movement of wildlife or migratory wildlife corridors, nor would it impede the use of native wildlife nursery sites (Appendix C).

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Measure COS-4D of the Calaveras County Conservation & Open Space Element (Revised March 10, 2016) requires that the County develop an oak woodland mitigation

program in addition to the mitigation measures provided in the Oak Woodlands Preservation Act of 2014. No Oak Woodlands Preservation Act has been enacted, although this reference is likely intended to address California Assembly Bill 2162 (Oak Woodlands Protection Act), which would add Chapter 6.3 (commencing with Section 1625) to Division 2 of the Fish and Game Code, and repeal Section 21083.4 of the Public Resources Code. Assembly Bill 2162 has also not been enacted; therefore, oak woodland mitigation in the County would rely on the standards outlined in Section 21083.4 of the Public Resources Code, which requires a county to determine whether a project may result in conversion of oak woodlands that will have a significant effect on the environment. As the project area does not contain oak woodlands, and no other policies are applicable there would be no effect and overall construction of the proposed project would result in no conflict with any policies, ordinances, or plans protecting biological resources and there would be **no impact**.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

There is no adopted habitat conservation plan that would conflict with the proposed project. Therefore, **no impact** would occur.

MITIGATION MEASURES

Mitigation Measure BIO.1: The following avoidance measures shall be implemented to avoid impacts to California red-legged frog (CRLF):

1. Upon period of starting construction, project staff, contractors, and other work crews will receive training, training materials and/or fact sheets regarding habitat sensitivity, identification of California red-legged frogs, their breeding habitats, and required practices. The training will include the general measures that are being implemented to conserve this species, penalties for non-compliance, and boundaries of the project area. A fact sheet or other supporting materials containing this information will be prepared and distributed.
2. All ground disturbing activities will be conducted to avoid the "wet season," which shall be defined as beginning with the first frontal system that results in at least 0.25 inches of precipitation after October 15 (as measured from the closest published location and elevation by the National Weather Service) and shall continue until April 1st.
3. A tightly woven fiber netting or similar material used for erosion control shall be deployed during construction as exclusion fencing between the project area and the

adjacent habitat along Cosgrove Creek, if deemed to be necessary by a qualified biologist, to effectively ensure individuals do not stray into the work area. No plastic mono-filament matting will be used for erosion control.

4. The Sacramento Fish and Wildlife Office (SFWO) will be promptly notified of any finding of a listed species or identification of CRLF within the project area. A qualified biologist shall be on-call to confirm such findings/determinations.
5. Fueling and maintenance activities shall be a minimum of 66 feet from riparian or aquatic habitats.
6. Because dusk and dawn are often the times when red-legged frogs are most actively foraging and dispersing, all ground disturbing activities associated with project construction should cease one half hour before sunset and should not begin prior to one half hour before sunrise.
7. Excavations and trenches shall be closed or covered/plated at the end of each workday as a regular daily practice. If excavations will remain open and unattended for greater than 24-hours and the project biologist determines that there is a viable concern animals are at risk, then escape ramps of earth fill and/or wooden planks shall be constructed to allow animals to evacuate/escape the excavation. All excavations shall be checked prior to starting construction each day and before backfilling the holes.

Mitigation Measure BIO.2: A survey shall be completed by a qualified biologist no earlier than two weeks prior to construction to determine if any raptors or other native birds are nesting on or near the project site. If active nests are observed, the biologist will determine a suitable avoidance buffer or avoidance measures, such as a monitor, screening, or other measures, to effectively avoid nesting disturbance and based on species, location, and planned construction activities in the area. These nests shall be flagged and avoided until the chicks have fledged and the nests are no longer active, as determined by the biologist.

3.5 Cultural Resources

a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

Cultural resources investigations completed by GANDA in November 2017 (Confidential Appendix D) did not identify historical built environment resources within the project area of direct impact (ADI), nor are there built environment resources in the surrounding vicinity that could be subject to indirect impacts. Soils within the ADI are underlain by bedrock at shallow depths, and are therefore unlikely to support the presence of

unanticipated historical features or other historical resources. Therefore, the potential for impacts to historical resources would be **less than significant**.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

One CRHR-eligible prehistoric resource (CA-CAL-1180/H) has been documented near, but outside of, the ADI. Previous archaeological excavations at CA-CAL-1180/H resulted in the recovery of significant artifact, faunal, and paleobotanical assemblages that are considered significant for their potential to contribute to our understanding of the prehistory of the central Sierra Foothill region and understanding of other regionally significant sites such as CA-CAL-114/H. In addition to archaeological contributions, reports documenting this resource have added to research on the contact period ethnography of the Calaveras, Mokelumne, and Stanislaus river watersheds. The cultural resources technical study for the project concluded based on the shallow nature of the soils and sediments in the ADI, the extent of previous modern ground disturbances, and the limited extent of planned work, that project activities have a low potential for encountering archaeological deposits associated with CA-CAL-1180/H within the ADI (Confidential Appendix D). However, any archaeological deposits identified within the ADI would be considered potentially significant and should be managed in compliances with regulatory conditions. In consideration of the proximity of planned work relative to this CRHR-eligible resource containing human remains, archaeological monitoring should be conducted to avoid impacts to unanticipated archaeological resources. *Mitigation Measure CUL.1* requires archaeological monitoring and preparation and implementation of an Archaeological Discovery and Monitoring Plan, prior to initiation of earth-disturbing work associated with the project, that outlines required monitoring efforts, roles and responsibilities, and reporting requirements. With this mitigation implemented, the potential for impacts to archaeological resources would be **less than significant**.

c) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Soils in the vicinity are consistent with materials derived from the underlying Gopher Ridge Volcanics formation (Late Jurassic) rocks (Confidential Appendix D). Sediment formation in this location would likely have occurred primarily since the Holocene, generally relating to increased water flows following Pleistocene glaciation (in the last 10,000 years). Gopher Ridge Volcanics formation bedrock underlies the Jenny Lind Water Treatment Plant site at depths ranging from 2 to 10 feet below surface, with bedrock depths rising further away from the Calaveras River. The uppermost portions of bedrock are weathered, meaning the surface is eroding and incorporating into the overlying sediments and soils. These soils are not

suitable to support the process of silicification or other processes required for the preservation of paleontological deposits. In addition, the ADI is within an area where the bedrock is generally shallow and has been subject to significant modern disturbances. Based on these conditions, soils affected by the project are unlikely to support the presence of paleontological resources. Therefore, the potential project impact to paleontological resources would be **less than significant**.

d) Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

Native American human remains were recovered within cultural deposits associated with CA-CAL-1180/H, located outside of the ADI. Given the presence of this material in the vicinity, there remains a chance of encountering human remains. *Mitigation Measure CUL.1* requires specific measures be implemented in the event that human remains are discovered during project activities, including compliance with Section 7050.5 of the California Health and Safety Code and California Public Resources Code Section 5097.98. Compliance with Section 7050.5 of the California Health and Safety Code requires that if potential human remains are found the County Coroner shall be immediately notified of the discovery. The Coroner will provide a determination within 48 hours of notification. No further excavation or disturbance of the identified material, or any area reasonably suspected to overlie additional remains, shall occur until a determination has been made. If the County Coroner determines that the remains are, or are believed to be, Native American, the Coroner shall notify the Native American Heritage Commission (NAHC) within 24 hours. In accordance with California Public Resources Code Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descendent (MLD) from the deceased Native American. Within 48 hours of their notification, the MLD will recommend to the lead agency their preferred treatment of the remains and associated grave goods. In addition, a qualified archaeologist shall be contacted immediately to evaluate the discovery, if a monitor is not already present. If the human remains are Native American in origin, then the Coroner must notify the NAHC within 24 hours of this identification. With implementation of *Mitigation Measure CUL.2*, the potential project impact to human remains would be **less than significant**.

MITIGATION MEASURES

Mitigation Measure CUL.1: In consideration of the proximity of planned work relative to CA-CAL-1180/H, a CRHR-eligible resource containing human remains, archaeological monitoring should be conducted during initial ground-disturbing activities to avoid impacts to unanticipated archaeological resources. Prior to initiation of earth-disturbing work associated with the project, an Archaeological Discovery and Monitoring Plan should be prepared that outlines required monitoring efforts, roles and responsibilities, and reporting requirements.

Mitigation Measure CUL.2: In accordance with Section 7050.5 of the California Health and Safety Code, if potential human remains are found the County Coroner shall be immediately notified of the discovery. The Coroner will provide a determination within 48 hours of notification. No further excavation or disturbance of the identified material, or any area reasonably suspected to overlie additional remains, shall occur until a determination has been made. If the County Coroner determines that the remains are, or are believed to be, Native American, they shall notify the Native American Heritage Commission (NAHC) within 24 hours. In accordance with California Public Resources Code Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descendent (MLD) of the deceased Native American. Within 48 hours of their notification, the MLD will recommend to the lead agency their preferred treatment of the remains and associated grave goods.

3.6 Geology and Soils

a) Would the project expose people or structures to 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.

The project site and surrounding area is considered to have low seismic risk in terms of fault hazard, seismic ground shaking, and liquefaction based on review of the California Department of Conservation Geological Survey mapping of California 2010 Fault Activity and Earthquake Fault Zones (CDC 2000). The project improvements would be constructed in accordance with CCWD's standards, the Uniform Building Code, and California Waterworks Standards. Therefore, the potential project impact related to an increased exposure of persons to geologic hazards would be **less than significant**.

ii) Strong seismic ground shaking?

According to the California Department of Conservation map showing earthquake shaking potential for California, the project site is within the lowest level of earthquake hazard classification, which is applied to areas that are distant from known, active faults and will experience lower levels of shaking less frequently (CDC 2010). All project improvements would be constructed in accordance with CCWD's standards, the Uniform Building Code, California Waterworks Standards and applicable local codes, which take into account potential seismic events. Accordingly, potential impacts related to strong seismic ground shaking at the project site would be **less than significant**.

iii) Seismic-related ground failure, including liquefaction?

Due to the low seismic risk, described above, the project site is not at a significant risk of ground failure or liquefaction as a result of a seismic event. Impacts associated with seismic-related ground failure would be **less than significant**.

iv) Landslides?

Based on review of California Department of Conservation records, the project area is within an area of low landslide susceptibility (CDC 2015). Based on the low landslide susceptibility and the generally flat topography of the site, it is unlikely that the proposed project would be affected by landslides and impacts related to risks associated with potential for landslides would be **less than significant**.

b) Would the project result in substantial soil erosion or the loss of topsoil?

The proposed project would result in up to 0.5 acre of total soil disturbance. As disturbance associated with construction activities would primarily occur in and around the existing water treatment plant facility, it is unlikely that substantial soil erosion would occur as a result of the proposed project. Since the project would result in a total disturbance are of less than 1 acre, the project is not required to obtain coverage or report under the NPDES general permit for stormwater discharges from construction activities. However, the District or District's contractor would be required to implement standard construction site best management practices (BMPs) to prevent and/or minimize soil erosion and to protect stormwater quality during construction activities for the project. Following construction, all disturbed areas would be stabilized by surfacing with asphalt, drain rock, or gravel that would prevent erosion or sediment runoff from the treatment plant site. Construction stormwater and erosion control BMPs and site stabilization and drainage infrastructure

proposed as part of the project would ensure that impacts associated with loss of topsoil and erosion would be **less than significant**.

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

The project is not located on soil or geologic unit that is unstable or otherwise identified as presenting a risk of liquefaction or other failure based on the soils report from the United States Department of Agriculture's Natural Resources Conservation Service Web Soil Survey (USDA 2014). The Calaveras County General Plan identifies the soil within the project site as shallow, very rocky, medium textured soils. In addition, as discussed in item (a) above, risks associated with seismic activity and landslides are considered low and the project would be constructed within the footprint of the existing water treatment plant and in compliance with CCWD's standards, the Uniform Building Code, California Waterworks Standards and applicable local codes. **No impacts** would be expected to result from locating the proposed project on an unstable geologic unit or soil.

d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Based on the soil type identified in the County General Plan, the soil type in the project area is not expansive; therefore, the project would not create substantial risk to life or property. Compliance with applicable building codes and design standards would ensure that risks to life or property as a result of soils conditions on the project site would be **less than significant**.

e) Would the project 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?

The project involves upgrades to CCWD's existing water treatment plant. The proposed project does not include alternative wastewater disposal systems or septic tanks. **No impact** would occur.

3.7 Greenhouse Gas Emissions

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

See discussion in Section 3.7.b, below. Impacts would be **less than significant**.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The California Natural Resources Agency (CNRA) adopted amendments to the CEQA Guidelines on December 30, 2009, which became effective on March 18, 2010. With respect to GHG emissions, the amended CEQA Guidelines state in Section 15064.4(a) that lead agencies should "make a good faith effort, to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions. The CEQA Guidelines note that an agency may identify emissions by either selecting a "model or methodology" to quantify the emissions or by relying on "qualitative analysis or other performance based standards" (14 CCR 15064.4(a)). Section 15064.4(b) states that the lead agency should consider the following when assessing the significance of impacts from GHG emissions on the environment:

- The extent a project may increase or reduce GHG emissions as compared to the existing environmental setting.
- Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4(b)).

In addition, Section 15064.7(c) of the CEQA Guidelines specifies that "[w]hen adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence." Similarly, the revisions to Appendix G, Environmental Checklist Form, which is often used as a basis for lead agencies' selection of significance thresholds, do not prescribe specific thresholds. The CEQA Guidelines do not prescribe specific methodologies for performing an assessment, establish specific thresholds of significance, or mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and

thresholds of significance that are consistent with the manner in which other impact areas are handled in CEQA (CNRA 2009).

The CCAPCD has not adopted GHG thresholds for projects. GHG emissions were quantified for construction activities for informational purposes, as provided in Table 3.7-1. Further discussion is provided, below, to evaluate potential impacts generated by the proposed project related to any potential conflict of the proposed project with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

Construction Emissions. Construction of the proposed project would result in GHG emissions, primarily associated with use of off-road construction equipment, on-road vendor and haul trucks, and worker vehicles. As stated above, the CCAPCD does not have adopted GHG thresholds however; total construction emissions of the proposed project were calculated using CalEEMod to provide estimates of annual GHG emissions that would result based on the construction scenario described in Appendix B Construction of the proposed project is anticipated to commence in 2018, lasting a total of approximately six months. On-site sources of GHG emissions would include off-road equipment and off-site sources include on-road vehicles (haul trucks, vendor trucks, and worker vehicles).

Table 3.7-1
Estimated Annual Construction GHG Emissions

Project Component	CO_2	CH_4	N_2O	CO_2E
	Metric Tons Per Year			
2018	172.96	0.04	0.00	173.90

Notes: CH_4 = methane; CO_2 = carbon dioxide; CO_2E = carbon dioxide equivalent; N_2O = nitrous oxide
See Appendix B for complete results.

As shown in Table 3.7-1, the estimated total GHG emissions during construction of the proposed project would be approximately 174 MT CO_2E over the entire construction period. As with project-generated construction air quality pollutant emissions, GHG emissions generated during construction of the proposed project would be short-term in nature, lasting only for the duration of the construction period, and would not represent a long-term source of GHG emissions. To evaluate whether the proposed project would generate GHG emissions that are cumulatively considerable, a discussion is provided below to evaluate potential for the proposed project to result in any conflict with the state's GHG reduction goals.

Operational Emissions. As previously discussed within the operational criteria air pollutant analysis, above, minimal operational activities would occur after completion of the construction activities. Operation of the three pumps would require only periodic

vehicle trips required for maintenance. It is expected that the proposed project would result in the addition of minimal GHG emissions during operational activities, as the facility upgrade is expected to result in fewer vehicle trips for maintenance and repairs relative to the existing condition.

The primary source of operational GHG emissions would be attributed to electricity consumption of the pumps. It is expected that the annual electricity usage of the three pumps would be less than 288,000 kilowatt-hours (kWh). The amount of GHG emissions attributed to operation of the proposed project would not exceed 73 MT CO_2E per year, which includes emissions generated from operation of the three pumps. The calculation takes into account the procurement of renewable energy by PG&E to meet the required 25% renewable portfolio standard (RPS) in 2016. However, because the CCAPCD does not currently have an adopted GHG threshold, to evaluate whether the proposed project would generate GHG emissions that are cumulatively considerable, a discussion is provided below to evaluate the proposed project's consistency with the state's GHG reduction goals.

Consistency with Executive Order S-3-05 and Senate Bill 32

Executive Order (EO) S-3-05. This executive order establishes the following goals: GHG emissions should be reduced to 2000 levels by 2010, to 1990 levels by 2020, and to 80% below 1990 levels by 2050.

Senate Bill (SB) 32. This bill establishes a statewide GHG emissions reduction target whereby CARB, in adopting rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions, shall ensure that statewide GHG emissions are reduced to at least 40% below 1990 levels by December 31, 2030.

The California Air Resources Board (CARB) has expressed optimism with regard to both the 2030 and 2050 goals. It states in the Scoping Plan First Update that "California is on track to meet the near-term 2020 GHG emissions limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32" (CARB 2014). With regard to the 2050 target for reducing GHG emissions to 80% below 1990 levels, the Scoping Plan First Update (CARB 2014) states the following:

> This level of reduction is achievable in California. In fact, if California realizes the expected benefits of existing policy goals (such as 12,000 megawatts of renewable distributed generation by 2020, net zero energy homes after 2020, existing building retrofits under AB 758, and others) it

> could reduce emissions by 2030 to levels squarely in line with those needed in the developed world and to stay on track to reduce emissions to 80% below 1990 levels by 2050. Additional measures, including locally driven measures and those necessary to meet federal air quality standards in 2032, could lead to even greater emission reductions.

In other words, CARB forecasts that compliance with the current Scoping Plan puts the state on a trajectory of meeting these long-term GHG goals, although the specific path to compliance is unknown. The Scoping Plan Second Update reaffirms that the state is on the path toward achieving the 2050 objective of reducing GHG emissions to 80% below 1990 after the adoption of SB 32 and AB 197 in 2016 (CARB 2017).

The proposed project would not interfere with implementation of any of the GHG reduction goals for 2030 or 2050, since operational GHG emissions would be no more than the existing condition and construction-phase emissions would be temporary and would cease once construction of the facility is complete. Therefore, the proposed project would not impair the achievement or trajectory toward achieving the state's GHG future-year reduction targets. Impacts of the proposed project related to conflicts with a plan, policy or regulation adopted for the purpose of reducing GHG emissions, and meeting the state's goals for the 2030 and 2050 horizon years would be **less than significant**.

3.8 Hazards and Hazardous Materials

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Temporary construction activities associated with the project may involve the transport and use of limited quantities of miscellaneous commercially available products that can be classified as hazardous substances including gasoline, diesel fuel, hydraulic fluid, solvents, oils, paints, and other materials. These materials would be brought onto the site and transported along local and regional roadways in accordance with federal and state laws and the regulations governing the handling, storage and transport of hazardous materials. Except for diesel fuel used to operate the backup generator and heavy equipment, large quantities of these materials would not be stored at or transported to the construction site. By complying with storage and use guidelines included on the packaging and Material Safety Data Sheet (MSDS) of such chemicals, and by proper maintenance of construction vehicles used on site, potential hazards to the public or the environment from use, transport, disposal, upset or spill of hazardous materials used during construction would be minimized. *Mitigation Measure HAZ.1* identifies further measures to avoid spills and reduce the potential for adverse impacts should a spill of

hazardous materials occur during construction. Implementation of *Mitigation Measure HAZ.1* would ensure that hazards associated with release of hazardous materials during construction would be **less than significant**.

Existing plant operations require routine delivery of common water treatment chemicals (e.g., sodium hypochlorite, sodium permanganate, liquid oxygen, and various coagulants) and existing diesel fuel storage for operation of the plant's backup power generator. All chemical uses are pre-existing and chemicals are transported, delivered, and dispensed by qualified, licensed vendors in accordance with applicable laws and regulations. The proposed project would upgrade the existing treatment facility and would introduce no new source of hazardous materials or substantially change the use of hazardous materials required to operate the water treatment plant.

Operational use of chemicals following implementation of the proposed project would be consistent with on-going, current and established practices for water treatment and existing plant operations. Chemicals used for water treatment are handled by trained WWTP operators in accordance with applicable public health laws and regulations and in accordance with MSDS for each product, which includes measures for safe storage, spill prevention, and spill response. It should be noted that the purpose of the proposed project is to ensure ongoing compliance with federal and state water quality regulations regarding treatment requirements for a public, potable water system. CCWD holds all necessary permits issued by the State Water Board, Division of Drinking Water, District 10 to operate the Jenny Lind Water Treatment Plant and has notified the Division of Drinking Water about the proposed project. Potential hazard to the public or environment through the routine transport, use, or storage of hazardous materials during project operation would be **less than significant**.

b) Would the project 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?

The project site is not listed by any federal, state or local database that identifies known hazardous materials sites (DTSC 2017). Project construction would not be expected to result in any hazard associated with disturbance of a known hazardous materials site. See discussion in Section 3.8.a, above, regarding transport, use and containment of hazardous materials on the project site. With implementation of *Mitigation Measure HAZ.1,* impacts would be **less than significant**.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

There are no existing or proposed schools within a one-quarter mile of the proposed project. Jenny Lind Elementary School is approximately 2.23 miles southwest of the water treatment plant. Valley Springs Elementary School is approximately 2.76 miles north of the water treatment plant. **No impact** associated with handling or emissions of hazardous materials within one-quarter mile of an existing or proposed school would occur with implementation of the proposed project.

d) Would the project be located on a site that 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?

The project site is not listed by the California Department of Toxic Substances Control (DTSC) or the U.S. Environmental Protection Agency (EPA) as a hazardous materials site (DTSC 2017 and EPA 2017). Due to the nature of the project, it would not be expected to create a hazard to the public or the environment. **No impact** would occur.

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 for people residing or working in the project area?

The project area is not within an adopted airport land use plan or within two miles of a public airport. The nearest public use airport is the Calaveras County Airport, located approximately 10 miles east from the project site. Therefore, **no impact** would occur.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

The project is not located within two miles of a public or private airport, based on a review of area maps. The project would not create a safety hazard for people residing or working in the project area. Therefore, **no impact** would occur.

g) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Access for all fire and police emergency response vehicles would be maintained on Silver Rapids Road and in the immediate project area throughout the construction period. No off-

site road closures are necessary as part of the proposed project and project operations would result in no change in the existing condition with respect to emergency response or evacuation plans and would not impair or physically interfere with such plans. Therefore, there would be **no impact** on emergency services or evacuation plans.

h) Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

The proposed project would upgrade equipment at CCWD's existing Jenny Lind Water Treatment Plant and would result in no change in the risk of fire hazard associated with operating the facility once construction is complete.

Since all construction would occur within the footprint of the existing water treatment plant and no construction activities would occur within adjacent woodland or grassland areas, temporary construction activities are not expected to result in a substantial increase in the risk of wildfire. However, construction activities would temporarily introduce potential sources of fire ignition as a result of equipment operation and other construction site activities, which would temporarily increase the risk of wildfire. An increased risk of wildfire would represent a significant impact to the environment and surrounding rural residential development. Construction crews would be required to adhere to California Building Code and Fire Code standards for fire prevention during construction activities, which require that fire prevention practices be followed and that basic fire suppression equipment is maintained on site at all times. Through compliance with existing codes, risks associated with an elevated risk of wildfire would be **less than significant**.

MITIGATION MEASURES

Mitigation Measure HAZ.1*:* The following measures shall be implemented prior to and during construction and shall be incorporated into project plans and specifications.

- All equipment shall be regularly inspected for leaks (e.g., hydraulic fluid, fuel, oil, antifreeze, etc.) and any leaks fixed before equipment use resumes.
- Spill kits should be readily available on site and contain appropriate items to absorb, contain, neutralize, or remove hazardous materials.
- The lubrication, refueling and repair/maintenance of Contractor's equipment shall occur only in areas designated by the District, which are restricted to public access and as far as practicable from riparian and habitat areas.

- The Contractor shall immediately notify CCWD in event of a spill or release of any chemical during construction.

3.9 Hydrology and Water Quality

a) Would the project violate any water quality standards or waste discharge requirements?

CCWD holds all required federal and state permits to operate the Jenny Lind Water Treatment Plant. The purpose of the proposed project is to comply with federal and state water quality regulations regarding treatment requirements for a public, potable water system. CCWD holds all necessary permits issued by the State Water Board, Division of Drinking Water, District 10 to operate the water treatment plant. The proposed project would upgrade the plant and improve treatment efficiency and product water quality and would result in **no impact** from a violation of water quality standards or waste discharge requirements applicable to the water treatment plant. For a discussion of stormwater quality and runoff, please refer to the discussion in Section 3.6.b of this Initial Study.

b) Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?

The proposed project would upgrade the treatment plant facility and would result in no change in the capacity of the existing water treatment plant or use of, or demand for, groundwater. The proposed project would result in no change in water sources to the water treatment plant and would not interfere with groundwater or aquifer recharge. Therefore, **no impact** would occur associated with depletion of groundwater sources or interference with recharge.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

The project would result in minor modifications to on-site drainage to accommodate the new pre-treatment unit and associated facilities, including installation and replacement of two 3-foot by 3-foot drainage drop inlets and less than 100 feet 12-inch diameter or smaller drain culvert. The proposed project would result in changes to treatment facilities within the water treatment plant, but would result in no substantial change in the drainage pattern of the site, the area of impervious surfaces within the facility, or the amount of

runoff. The proposed project would not alter the course of any stream or river. As discussed in Section 3.6.b of this Initial Study, standard construction site BMPs for erosion control and stormwater quality protection would be implemented during construction and the site would be stabilized by surfacing when construction activities are complete. Project design and implementation of construction BMPs for erosion control would ensure that impacts associated with erosion and siltation as a result of the proposed project would be **less than significant**.

d) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

As discussed in Section 3.9.c, above, the proposed project would result in minor changes in on-site drainage at CCWD's existing Jenny Lind Water Treatment Plant and would result in no change to the course of a stream or river or result in any substantial change in the amount or rate of surface runoff from the facility. No alteration of Cosgrove Creek or the Calaveras River would occur with implementation of the proposed project. Therefore, the proposed project is not expected to increase the rate or amount of runoff to the extent that on- or off-site flooding would occur. Impacts would be **less than significant**.

e) Would the project 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?

As discussed in Section 3.9.c, above, the proposed project upgrades would be implemented within the footprint of CCWD's existing water treatment plant and only minor modifications to the existing on-site drainage system would occur with project implementation. The proposed project would result in no substantial change in stormwater runoff from the water treatment plant. No drainage capacity issues or additional sources of runoff or polluted runoff would result from implementation of the proposed plant upgrades. Standard construction site BMPs would be implemented to address any temporary soil erosion and/or stormwater quality issues during construction and the site would be stabilized following construction. Impacts associated with increases in stormwater runoff that would exceed the capacity of stormwater drainage systems or substantially increase polluted runoff would be **less than significant**.

f) Would the project otherwise substantially degrade water quality?

The proposed project would improve the performance of CCWD's treatment plant and the quality of the facility's product water. Refer to the analysis provided in Sections 3.9.a, c, d, and e, above. Impacts associated with degradation of water quality would be **less than significant**.

g) Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

The proposed project would not construct housing and is not located within a 100-year floodplain based on a review of a Federal Emergency Management Agency (FEMA) flood map of the project vicinity (FEMA Map No. 06009C0364F; May 16, 2017). **No impact** would occur.

h) Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

The proposed project is not within a 100-year floodplain. **No impact** would occur.

i) Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

The project site is located one mile downstream of New Hogan Dam and reservoir and near the confluence of the Calaveras River and Cosgrove Creek. The project site is outside the 500-year floodplain delineated by FEMA and would not be affected by controlled, emergency releases from the dam spillway. The proposed project would have no impact on dam operations or nearby levees, and would not contribute to flooding in the area or compromise any flood control structures. **No impact** would occur.

j) Inundation by seiche, tsunami, or mudflow?

The proposed project would upgrade the existing water treatment plant facility and would result in no change in the risk of seiche, tsunami, or mudflow at the facility. The inland location of the project site makes the risk of tsunami negligible. The project site is not located on the shore of a lake (New Hogan Reservoir is over 5,250 feet away) and therefore seiche is unlikely to affect the site. The project site and surrounding area are generally flat and risks associated with mudflow are considered low. Risks associated with seiche, tsunami, and mudflow are considered **less than significant.**

3.10 Land Use and Planning

a) Would the project physically divide an established community?

Implementation of the proposed project will not physically divide an established community because the project would be located entirely within the fence line of the existing water treatment plant. Therefore **no impact** would occur.

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

The proposed project includes upgrades to the existing water treatment plant facility within the existing footprint of the facility. The proposed project is consistent with the existing "Rural Residential" land use designation applied to the site and the rest of the Rancho Calaveras planning area by the General Plan (Calaveras County 1996).

The project would maintain existing service and would not conflict with local plans or policies. The proposed project is consistent with the goals of the General Plan regarding public service systems. **No impact** would occur as a result of any conflict with applicable land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect.

c) Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

As previously discussed in Section 3.4.f of this Initial Study, the proposed project would not conflict with any applicable habitat conservation plan or natural community conservation plan. Therefore, **no impact** would occur.

3.11 Mineral Resources

a) Would the project 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?

See discussion in Section 3.11.b, below. **No impact.**

b) Would the project 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?

The proposed project would construct facility upgrades within the footprint of CCWD's existing Jenny Lind Water Treatment Plant. No mineral resources are known to occur within the treatment plant site and no resource extraction or mining activities occur on the site. The Calaveras County General Plan (Calaveras County 1996) identifies no locally important mineral resource areas on the project site. The proposed project would have **no impact** on access to or availability of any mineral resources.

3.12 Noise

Noise levels in the project area are characteristic of rural residential areas and noise sources are typically motor vehicles and residential construction and maintenance activities. The project site is developed with the existing Jenny Lind Water Treatment Plant, which generates noise from operations including vehicle operation and backup alarms, maintenance activities and equipment operation. Except for the rock quarry located approximately 1500 feet to the southeast of the project site, no other land uses that generate high noise levels occur within or in close proximity to the project site. The site is within the boundaries of the Rancho Calaveras Special Plan Area and is governed by policies and regulations contained in the Calaveras County Code of Ordinances and the Calaveras County General Plan. Section 9.02.030 of the Calaveras County Code establishes an exterior noise level standard of 60 A-weighted decibels (dbA) for residential land uses between the hours of 7:00 a.m. and 10:00 p.m. and 50 dbA between the hours of 10:00 p.m. and 7:00 a.m. Approved construction activities that generate temporary noise during normal construction hours (7:00 a.m. to 6:00 p.m.) and sound from existing permitted, industrial uses that are in compliance with applicable laws, rules and regulations and which do not significantly change in the days or daily hours of operation are exempt from noise regulations identified in Chapter 9.02 of the County Code of Ordinances (Calaveras County Code of Ordinances, Section 9.02.060).

a) Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

The proposed project would generate temporary construction noise associated with demolition, earthwork, underground and aboveground utilities installation, and building construction. Noise would be generated by workers, vehicles, and construction equipment, and could intermittently generate sound levels to off-site areas that exceed the 60 dbA noise level standard for residential areas over the anticipated 120-workday

construction period. While noise levels would be elevated, no extreme noise sources such as blasting or pile-driving would be required to construct the proposed project. Noise generated by temporary construction activities is exempt from the County's noise ordinance if generated within normal construction hours (7:00 a.m. to 6:00 p.m.). Temporary project construction activities generating high noise levels would occur between 7:00 a.m. and 6:00 p.m. and would be exempt from noise standards. Project construction activities with no potential to generate noise levels in excess of noise standards, such as site meetings and daily site setup, could occur outside of these hours.

The proposed project will require the District to operate its existing standby power generator continuously for approximately one week while replacing its main PG&E electrical service and transformer. The power generator is permitted as an existing use, equipped with an exhaust noise silencer and periodically runs at nighttime hours during power outages. While extended operation of the generator will be temporary, the associated noise could be detected at nearby residences and considered a nuisance by residents. However, the generator noise levels will be temporary and are expected to be attenuated to levels that meet the County's noise standards at the nearest residence.

The proposed project includes the addition of new pumps that would generate a new source of noise at the treatment facility. Based on the District's knowledge and familiarity with noise levels generated by the proposed equipment, it is anticipated that noise levels generated by the pumps would be attenuated by distance and that noise levels at the nearest noise-sensitive residential use would be in compliance with the County's noise standards.

Therefore, it is anticipated that temporarily elevated noise levels as a result of construction operations, including temporary generator operation, and noise levels generated by new pumps associated with the proposed project would be **less than significant**.

b) Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Substantial ground-borne vibration typically occurs as a result of blasting or pile-driving activities. No such activities would be necessary for the proposed project. Earthwork and construction activities associated with the proposed project would generate **less than significant** impacts associated with ground-borne vibration or noise levels.

c) Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Please refer to the discussion in Section 3.12.a of operational impacts associated with noise generated by new pumps that would be installed as part of the proposed project. Impacts resulting from a substantial permanent increase in ambient noise levels would be **less than significant**.

d) Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Construction activities associated with the proposed project are expected to result in elevated noise levels periodically during the anticipated 120 workdays it would take to construct the project. Noise would be the result of demolition, vehicle and equipment operation, excavation, and other construction activities. Construction activities generating noise in excess of County noise standards would occur only during hours and days when construction activities are exempt from these standards. Noise would also be generated during construction by the existing standby generator at the water treatment plant, which would be operated continuously for one week during construction to allow for replacement of the main PG&E electrical service and transformer. Operation of the proposed project would result in additional noise associated with operating pumps that would be installed as part of the proposed upgrade. As discussed in Section 3.12.a, noise generated by temporary operation of the standby generator during construction and the new pumps (in the operational phase) is not anticipated to exceed County noise standards at noise-sensitive residential uses in the area. Temporary and periodic noise associated with construction and operation of the proposed project would be **less than significant**.

e) Would the project be 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 expose people residing or working in the project area to excessive noise levels?

The project site is not within an adopted airport land use plan or within two miles of a public airport. The nearest public use airport is the Calaveras County Airport, located approximately 10 miles east from the project site. Therefore **no impact** would occur.

f) Would the project be within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

The project site is not in the vicinity of a private airstrip. Therefore **no impact** would occur.

3.13 Population and Housing

a) Would the project induce substantial 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)?

The proposed water treatment plant upgrade project would result in no increase in the capacity of the existing facility. While existing capacity could support planned growth as identified in the General Plan, the proposed project would not facilitate or induce population growth beyond what is provide by the existing facility or allowable under the County's adopted General Plan. Therefore, the project would result in **no impact** associated with inducing population growth within the service area.

b) Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

The proposed project would occur within the footprint of CCWD's existing Jenny Lind Water Treatment Plant; no housing units or people would be displaced and no replacement housing would be required. **No impact** would occur related to displaced housing or people.

c) Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

The proposed project would occur within the footprint of CCWD's existing Jenny Lind Water Treatment Plant; no housing units or people would be displaced and no replacement housing would be required. **No impact** would occur related to displaced housing or people.

3.14 Public Services

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

The proposed project includes upgrades to CCWD's existing water treatment plant located on Silver Rapids Road near the community of Valley Springs, which includes demolition of an existing maintenance building and the addition of a pre-treatment unit

and associated piping and infrastructure. The project would not increase the number of maintenance personnel on site or induce population growth in the service area such that there would be increased demand for fire protection, police protection, public schools, parks, or other public services that would require construction of new public service facilities. The project would not expand the capacity or service area of the existing water system, and would not facilitate population growth in the area that could increase demands for public services, including fire protection, police protection, schools, or parks facilities. The proposed project would result in **no impact** associated with increased demand for public services and construction of new facilities to achieve appropriate service performance levels.

3.15 Recreation

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

See discussion in 3.15.b, below. **No impact.**

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

The project proposes no residential or recreational development, and project implementation would result in no increase in population in the area that would degrade existing recreational facilities, require additional recreation facilities, or generate increased demand for recreational facilities. Provisions of the County's General Plan and Rancho Calaveras Special Plan govern buildout in the area served by the water treatment plant and the proposed plant upgrade would improve treatment efficiency and product water quality for existing customers in the service area and future development that is allowable under the provisions of these adopted plans. The project would therefore have **no impact** associated with accelerated deterioration of existing recreation facilities or construction or expansion of new recreation facilities.

3.16 Transportation and Traffic

a) Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

The primary public access to the project site is from Silver Rapids Road, which is generally accessed from SR 26 to the north. The project does not include elements (i.e., houses or other development) that would generate permanent increases in traffic in the project vicinity; operation of the facility with the proposed treatment upgrade would require no additional operations personnel on site and would generate no new vehicle trips.

Construction activity would temporarily increase the number of vehicles and equipment entering and exiting the project site (existing water treatment plant) and traveling on Silver Rapids Road and other area roadways that provide access to the project site. It is estimated that up to ten construction personnel would be on site at any one time during project construction and would generate an estimated average of 20 vehicle trips per day on Silver Rapids Road during the 6-month construction period. No detours or roadway or lane closures would be required during construction; parking for construction vehicles and materials and equipment staging would be accommodated within the project site. A temporary increase in traffic during the 6-month construction period is considered **less than significant.**

b) Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

The project would result in no increase in vehicle trips in the operational condition and would result in no conflict with congestion management plans or performance standards. As discussed above, construction activity would result in a temporary increase in vehicle trips on Silver Rapids Road and other area roadways that provide access to the project site. It is estimated that project construction would generate an average of 20 vehicle trips per day on Silver Rapids Road during the 6-month construction period. Silver Rapids Road is expected to accommodate this temporary increase in traffic with no change in

level of service standards and impacts associated with a conflict with an applicable congestion management plan or standards would be **less than significant.**

c) Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

The project would not affect air traffic. **No impact** related to a change in air traffic patterns would occur as a result of the project.

d) Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The proposed project involves treatment improvements to CCWD's existing water treatment plant and includes no changes to area roadways and would result in no increase in vehicle trips in the operational phase. The project would result in **no impact** due to increased hazards resulting from design features or incompatible uses.

e) Would the project result in inadequate emergency access?

Access to the project site is provided at a gated entrance on Silver Rapids Road. The project would result in no change in site access, and construction would require no detours or roadway or lane closures that could affect emergency access. Therefore, **no impact** would occur as a result of inadequate emergency access during project construction or operation.

f) Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

The proposed project would result in no change to public roadways and would not increase vehicle or worker trips in the operational phase. The proposed project would result in **no impact** from any conflict with policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities.

3.17 Tribal Cultural Resources

Would the project cause a substantial adverse change in the significance of a tribal culture 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:

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

One CRHR-eligible prehistoric resource (CA-CAL-1180/H) has been documented near, but outside of, the area of disturbance associated with the proposed project. Previous archaeological excavations at CA-CAL-1180/H conducted between 1995 and 1997 resulted in the recovery of significant cultural material and human remains. Based on these findings, a Memorandum of Agreement for treatment and disposition of human remains and associated funerary objects between the CCWD and Central Sierra Me-Wuk Cultural and Historic Preservation Committee for the Jenny Lind Water Treatment Plant Expansion Project was developed and implemented in 1996 (Confidential Appendix D). Following review of previous findings and a pedestrian survey, the cultural resources technical study prepared for the project site concluded that there is a low potential for the proposed project to encounter or disturb archaeological deposits associated with CA-CAL-1180/H due to the observed shallow nature of the soils and sediments within the area of potential disturbance, the extent of previous modern ground disturbances associated with the original construction of the water treatment plant, and the limited extent of excavation planned as part of the proposed upgrade project (Confidential Appendix D). However, as discussed in Section 3.5 Cultural Resources, there is some potential for unanticipated impacts to occur to unknown subsurface resources if they are present in the anticipated area of disturbance. Substantial disturbance of unknown subsurface resources could represent a significant impact since they could be affiliated with CA-CAL-1180/H, which is identified as a tribal cultural resource as discussed below.

AB 52 requires environmental review under CEQA to include analysis of impacts to "tribal cultural resources" (defined by Public Resources Code 21074), and requires the lead agency to notify California Native American groups (if they have previously requested notification) of proposed projects subject to CEQA that fall within their traditionally and culturally affiliated geographic area, and engage in consultation if requested by the Tribe. To date CCWD has received no requests for notification under AB 52.However, with the intent of ensuring Tribal community involvement, CCWD

representatives met with Debra Grimes and Adam Lewis of the Calaveras Band of Mi-Wuk Indians and archaeologists Eric Strother and Barb Siskin of GANDA on January 12, 2016. During this meeting, the Tribal representatives shared their knowledge of the history of the significant Native resources in the area, as well as information regarding prior archaeological investigations and the sensitivity of the resources. Tribal representatives from the Calaveras Band of Mi-Wuk Indians have been regularly updated since this meeting with project developments (Confidential Appendix D). As part of continued efforts to consider any potential impacts to archaeological and tribal cultural resources pursuant to CEQA, CCWD requested that GANDA initiate a Native American Heritage Commission (NAHC) Sacred Lands File search and contact geographically and traditionally affiliated Native American Tribal representatives. The NAHC search results (provided November 20, 2017) identified no Native American cultural resources within the project area (Confidential Appendix D). Barb Siskin, MA, RPA of GANDA conducted follow up correspondence with Debra Grimes of the Calaveras Band of Mi-Wuk Indians. Ms. Siskin indicated that Ms. Grimes, who was also present for the cultural pedestrian survey completed on November 29, 2017, identified CA-CAL-1180/H as a tribal cultural resource.

Debra Grimes of the Calaveras Band of Mi-Wuk Indians was provided a copy of the cultural resources technical study for review. As indicated by Ms. Siskin of GANDA, Ms. Grimes has stated that the Calaveras Band of Mi-Wuk Indians is in agreement with the findings and recommendations provided in the technical study. In consideration of the cultural sensitivity of the resources in the vicinity of the project, CCWD has determined that a Native American monitor and archaeological monitor will be present for earth-disturbing activities to ensure there are no unanticipated impacts associated with the project. *Mitigation Measure CUL.1* requires archaeological monitoring, which will be implemented in accordance with an Archaeological Discovery and Monitoring Plan that is to be prepared prior to initiation of earth-disturbing work associated with the project. This plan will outline required monitoring efforts, roles and responsibilities, and reporting requirements. In consideration of potential impacts to unanticipated tribal cultural resources, this plan will also include provisions for Native American monitoring. With this mitigation implemented, the potential for impacts to tribal cultural resources would be **less than significant**.

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

The anticipated area of disturbance associated with the proposed project is near a known cultural resources site (CA-CAL-1180/H). As described by the cultural resources technical study, this prehistoric site is considered eligible for CRHR listing under Criterion 4 of subsection C; has yielded, or may be likely to yield, information important in prehistory or history (Confidential Appendix D). No additional resources have been identified in the vicinity that would require a determination to be made by the lead agency. *Mitigation Measure CUL.1* requires archaeological monitoring, which will be implemented in accordance with an Archaeological Discovery and Monitoring Plan that is to be prepared prior to initiation of earth-disturbing work associated with the project. This plan will outline required monitoring efforts, roles and responsibilities, and reporting requirements. In consideration of potential impacts to unanticipated tribal cultural resources, this plan will also include provisions for Native American monitoring. With this mitigation implemented, the potential for impacts to tribal cultural resources would be **less than significant**.

3.18 Utilities and Service Systems

a) Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

The proposed water treatment plant upgrade would require no additional operations personnel and would result in no change in wastewater generated at the water treatment plant. The project would result in **no impact** associated with non-compliance with wastewater treatment requirements of the Regional Water Quality Control Board.

b) Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

The purpose of the proposed project is to address water quality treatment objectives rather than increase capacity of the water treatment plant. The proposed project would upgrade an existing water treatment plant facility and would result in no increased

demand for water or wastewater treatment facilities, as it would not generate new demand for treated water or result in increased wastewater generation. The effects of the proposed upgrade to the existing water treatment plant are analyzed in this initial study and mitigation measures have been included, as necessary, to reduce environmental impacts to less than significant levels. Accordingly, impacts resulting from proposed project construction and improvements would be **less than significant.**

c) Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

The proposed project would not result in a significant increase in the amount of impervious areas in the project vicinity and would therefore not require additional storm drainage capacity or facilities beyond on-site drainage improvements included in the proposed project. The impact would be **less than significant.**

d) Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

The District has established, legal entitlements to water stored in New Hogan Reservoir. The proposed project would upgrade an existing water treatment plant and would not increase treatment plant capacity or demand for water supplies. Existing water supplies, sources, and entitlements are sufficient to serve the proposed project. **No impact** would result from the need to establish new or expanded water entitlements or supplies.

e) Would the project result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The proposed project would result in no change in wastewater generation and would not increase the demand for wastewater treatment serving the facility. Therefore, **no impact** would occur.

f) Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Construction of the proposed project would generate solid waste from demolition and other activities. Disposal of construction debris would comply with all federal, state and local regulations with regard to solid waste disposal and all solid waste would be taken to a landfill with permitted capacity to accept the construction waste. In the operational

phase the project would generate solid waste in similar quantities to the existing condition. Disposal of solid waste would comply with all applicable regulations and solid waste would be disposed of at a facility with appropriate permitted capacity. **No impact** would result from lack of solid waste disposal capacity or non-compliance with regulations related to solid waste.

g) Would the project comply with federal, state, and local statutes and regulations related to solid waste?

The project would comply with applicable governmental statutes and regulations, for solid waste disposal. **No impact**.

3.19 Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to 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, 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?	☐	☒	☐	☐

Sections 3.1 through 3.18 of this Initial Study provide an analysis of potential environmental impacts of the proposed project, including adverse effect on human beings. Mitigation measures to avoid, minimize, or compensate for potential impacts identified are included in Section 3.4-Biological Resources, Section 3.5-Cultural Resources, Section 3.8-Hazards and Hazardous Materials, and Section 3.17-Tribal Cultural Resources. With implementation of the mitigation measures identified in this document, the project would result in less than significant impacts associated with degrading the quality of the environment or damaging or eliminating important examples of cultural history or prehistory.

The proposed project would upgrade an existing water treatment plant by constructing a new pretreatment unit and associated building and piping and infrastructure. The construction period for the proposed project would last approximately 6 month (120 workdays) and the project would be constructed within the development footprint of CCWD's existing Jenny Lind Water Treatment Plant. Due to the small scale, disturbed and developed condition of the project site, and short duration of construction activity, the impacts of the proposed project would not be cumulatively considerable when considered with other regional projects. The proposed project is not connected with or adjacent to any other proposed projects and would result in no inconsistencies with adopted land use plans applicable to the project area.

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4 REFERENCES AND PREPARERS

4.1 References Cited

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4.2 List of Preparers

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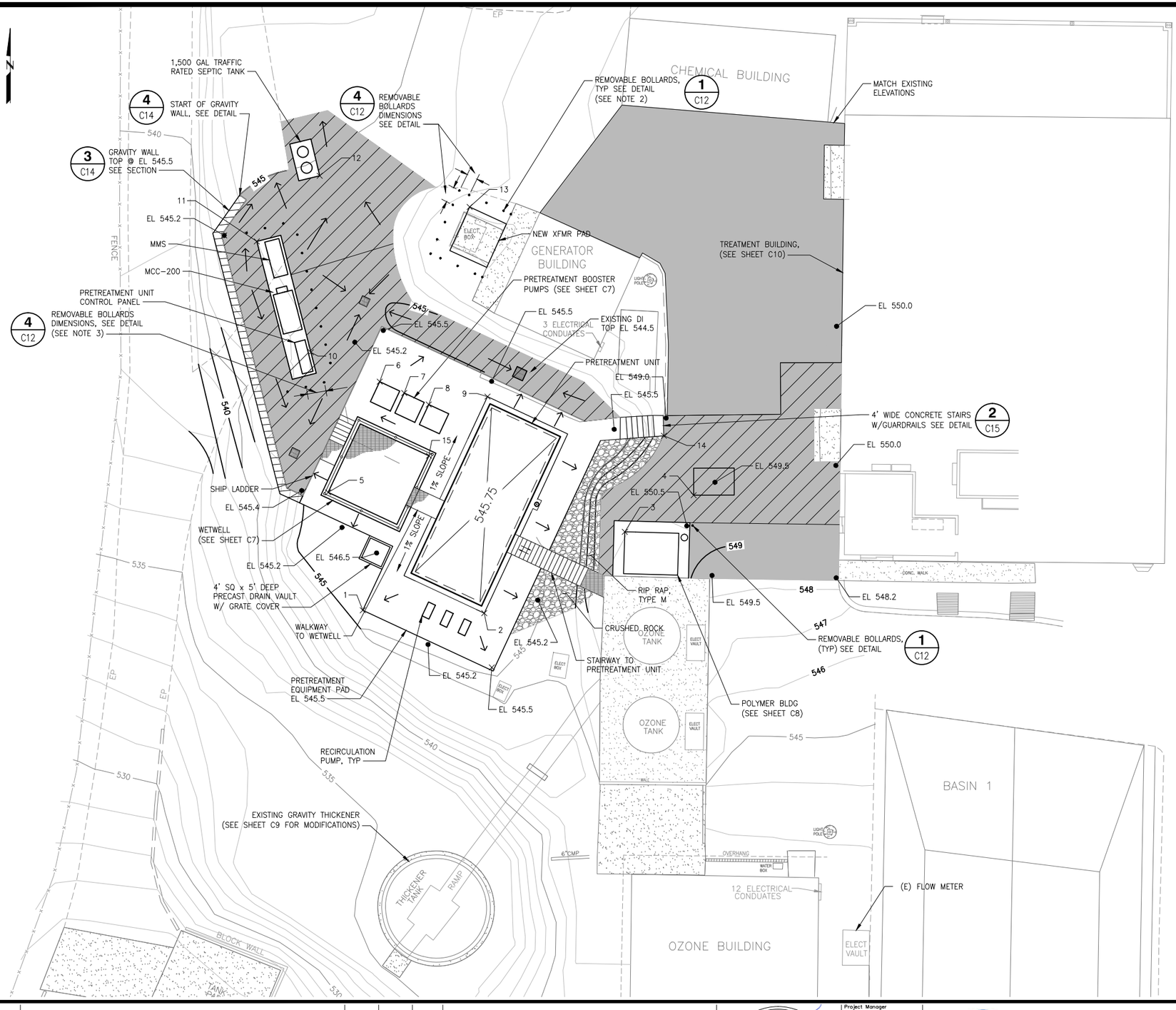
APPENDIX A

Site Plan



COORDINATES		
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2	2241605.34	6466238.91
3	2241620.38	6466264.91
4	2241627.15	6466277.65
5	2241627.66	6466210.08
6	2241648.14	6466219.58
7	2241646.03	6466224.11
8	2241643.92	6466228.64
9	2241645.38	6466239.52
10	2241653.58	6466206.86
11	2241674.07	6466196.85
12	2241686.21	6466208.51
13	2241680.42	6466236.22
14	2241638.13	6466272.15
15	2241634.43	6466228.68

OVERLAY ASPHALT

NEW ASPHALT

NOTE:

1. EXISTING ASPHALT IN AREAS OF OVERLAY ASPHALT SHALL BE GROUND DOWN 1-1/2". APPLY TAC COAT TO EXISTING SURFACE. INSTALL ASPHALT TO MATCH EXISTING GRADE.
2. THE TYPE, NUMBER AND SPACING OF BARRIER POSTS (BOLLARDS) AROUND THE PERIMETER OF THE TRANSFORMER SHALL BE IN CONFORMANCE WITH PG&E GREENBOOK, UG-1: GENERAL, DOCUMENT 051122, FIGURE 10 AND DOCUMENT 045292, FIGURE 12 FOR STYLE IIE-LB PAD (90"x106").
3. BARRIER POST/BOLLARD PLACEMENT IN FRONT OF MAIN SWITCHBOARD AND CONTROL PANELS SHALL NOT CONFLICT WITH WORK SPACE IN FRONT OF THE PANEL AND/OR OBSTRUCT THE FULL OPENING OF PANEL DOORS.

Issue No.	Description	Date	Drwn.	Chkd.
0				

BAR LENGTH ON ORIGINAL DRAWING EQUALS ONE INCH

PETERSON . BRUSTAD . INC
ENGINEERING . CONSULTING
1180 Iron Point Rd. Suite 260
Folsom, CA 95630
PH. 916-608-2212
Fax 916-608-2232

REGISTERED PROFESSIONAL ENGINEER KARL B. BRUSTAD NO. 57869 Exp. 06/30/18 CIVIL STATE OF CALIFORNIA

Project Manager	KBB
Civil	DM/JR
Structural	CYS
Mechanical	DM/JR
Electrical	ATEEM

CALAVERAS COUNTY WATER DISTRICT

JENNY LIND
WATER TREATMENT PLANT
PRETREATMENT

CALAVERAS COUNTY WATER DISTRICT
San Andreas California

SITE GRADING PLAN

Drawn By	Date	Drawing No.	Sheet
Scale 1"=10'	AUGUST 2017	C1	5/69
	Project No. 16055 / Client Contract No. 11092		

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REMOVE APPROXIMATELY 2,000 SQUARE FEET OF (E) PAVEMENT

REMOVE AND DISPOSE OF TREE (TYP OF 5)

REMOVE AND DISPOSE OF (E) 12" CMP

REMOVE AND DISPOSE OF (E) WALKWAY

REMOVE AND DISPOSE OF (E) 4" SEPTIC DRAIN LINE

REMOVE AND DISPOSE OF SEPTIC TANK

REMOVE AND DISPOSE OF (E) 4" SS TO SEPTIC TANK

REMOVE AND SALVAGE (E) CARPORT (NOTE 2)

REMOVE AND DISPOSE OF (E) WALKWAY

REMOVE AND DISPOSE OF (E) DRAIN INLET

REMOVE AND DISPOSE OF (E) WALKWAY

REMOVE AND DISPOSE OF (E) STAIRS AND GUARDRAIL

REMOVE APPROXIMATELY 750 SQUARE FEET OF (E) PAVEMENT

REMOVE AND DISPOSE OF APPROXIMATELY 12 LF OF 18" PIPE

REMOVE AND DISPOSE OF BUILDING AND FOUNDATION (NOTE 2)

REMOVE AND DISPOSE OF A/C PAD

REMOVE AND SALVAGE A/C PAD UNIT

REMOVE AND DISPOSE OF ELECTRICAL BOX

ABANDON (E) KMn04

ABANDON (E) 1-1/2" W

REMOVE AND DISPOSE OF (E) WALKWAY

CHEMICAL BUILDING

GENERATOR BUILDING

3 ELECTRICAL CONDUATES

CARPORT

MAINTENANCE BUILDING

OZONE TANK

OZONE TANK

OZONE TANK

OZONE BUILDING

BASIN 1

12 ELECTRICAL CONDUATES

THICKENER TANK

RAMP

BLOCK WALL

FENCE

CONC. WALK

OVERHANG

ELECT VAULT

LIGHT POLE

NOTES:

1. MAINTENANCE BUILDING IS 41' LONG BY 22' WIDE AND 14' TALL, CONSTRUCTED OF ALUMINUM. REINFORCED CONCRETE FOUNDATION IS 41' LONG BY 22' WIDE AND 12" THICK.
2. CARPORT IS A FREE STANDING METAL STRUCTURE. SALVAGE ON-SITE PER DISTRICT INSTRUCTION

CARPORT AND MAINTENANCE BUILDING TO BE DEMOLISHED
NTS

Issue No.	Description	Date	Drwn.	Chkd.
0				

PETERSON . BRUSTAD . INC
ENGINEERING . CONSULTING

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REGISTERED PROFESSIONAL ENGINEER
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NO. 57869
Exp. 06/30/18
CIVIL
STATE OF CALIFORNIA

Project Manager	KBB
Civil	DM/JR
Structural	CYS
Mechanical	DM/JR
Electrical	ATEEM

CALAVERAS COUNTY WATER DISTRICT

JENNY LIND
WATER TREATMENT PLANT
PRETREATMENT

CALAVERAS COUNTY WATER DISTRICT
San Andreas California

DEMOLITION PLAN

Drawn By	Date: AUGUST 2017	Drawing No.: C2	Sheet: 6/69
Scale: 1"=10'	Project No.: 16055	Client Contract No.: 11092	

BAR LENGTH ON ORIGINAL DRAWING IS ONE INCH.

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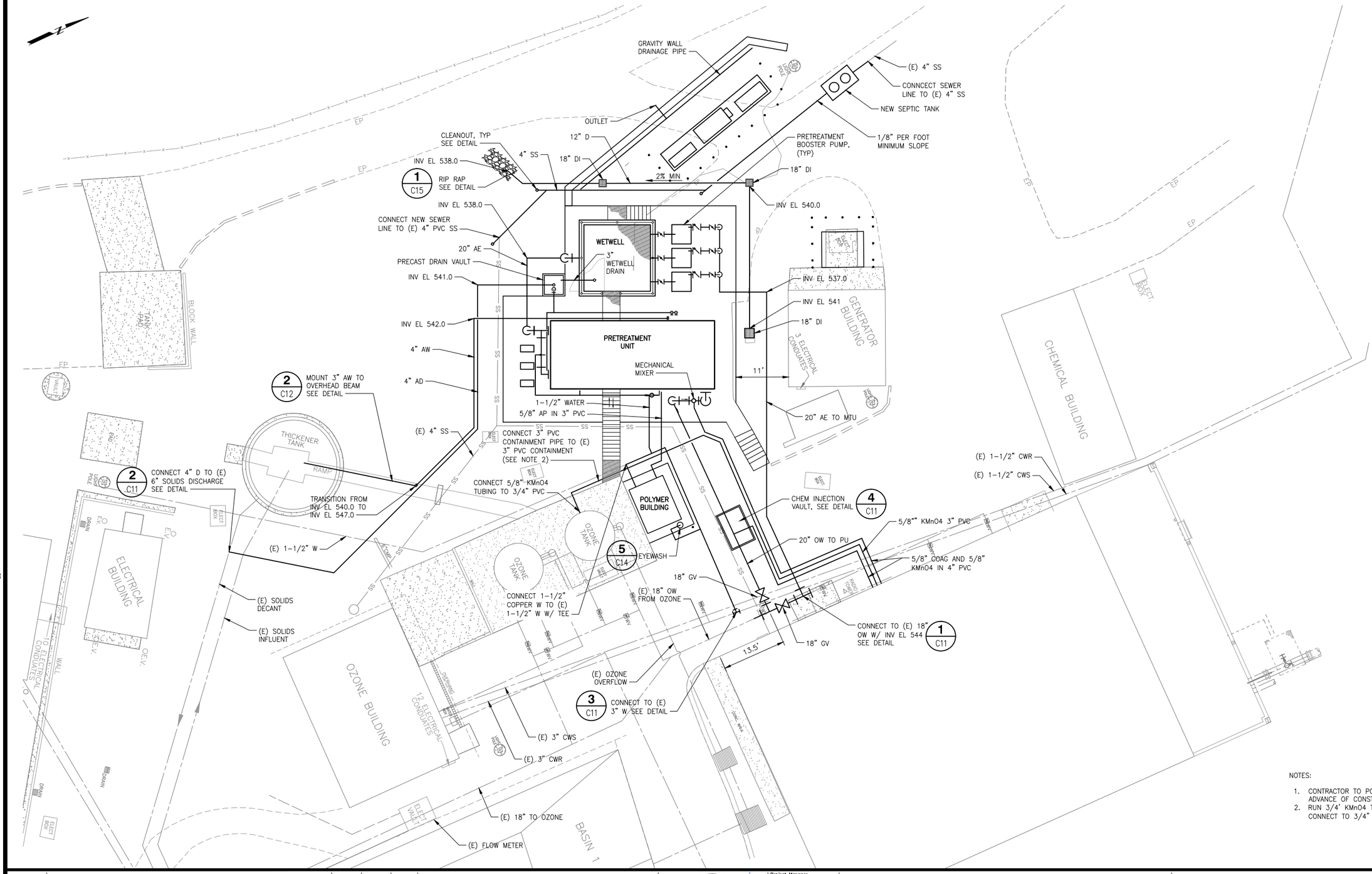

NOTES:

1. CONTRACTOR TO POTHOLE ALL CONNECTION POINTS IN ADVANCE OF CONSTRUCTION.
2. RUN 3/4" KMnO4 TUBING THROUGH (E) 3" PVC AND CONNECT TO 3/4" PVC KMnO4 LINE.

Issue No.	Description	Date	Drwn.	Chkd.
0				

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REGISTERED PROFESSIONAL ENGINEER — KARL B. BRUSTAD — NO. 57869 Exp. 06/30/18 — CIVIL — STATE OF CALIFORNIA

Project Manager	KBB
Civil	DM/JR
Structural	CYS
Mechanical	DM/JR
Electrical	ATEEM

CALAVERAS COUNTY WATER DISTRICT

JENNY LIND
WATER TREATMENT PLANT
PRETREATMENT

CALAVERAS COUNTY WATER DISTRICT
San Andreas California

YARD PIPING PLAN

Drawn By	Date	Drawing No.	Sheet
Scale 1"=10'	AUGUST 2017	C3	7/69
	Project No. 16055 / Client Contract No. 11092		

IF NOT 1" ON ORIGINAL DRAWING SCALE AS APPROPRIATE

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APPENDIX B

Air Quality Modeling Results

CalEEMod Version: CalEEMod.2016.3.2

Date: 11/3/2017 12:09 AM

Jenny Lind

Calaveras County AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	8.00	348,480.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	61
Climate Zone	1			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Jenny Lind Water Treatment Plan Pretreatment Improvements Project. CCAPCD.

Land Use - Project located within 8-acre site.

Construction Phase - Assumed construction to begin by June 2018 over 6-months. Default phase durations assumed.

Off-road Equipment - Equiment based on information from client.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default equipment assumed.

Off-road Equipment - Default construction equipment assumed.

Trips and VMT - Adjusted based on information from client.

On-road Fugitive Dust -

Demolition - 125 tons of debris would be hauled offsite from demolition.

Grading - Assumed balanced onsite.

Construction Off-road Equipment Mitigation - Water twice daily.

Fleet Mix -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	174240	0
tblAreaCoating	Area_Nonresidential_Interior	522720	0
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40
tblConstructionPhase	NumDays	230.00	100.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	20.00	15.00
tblGrading	AcresOfGrading	3.75	5.00
tblLandUse	LandUseSquareFeet	0.00	348,480.00
tblLandUse	LotAcreage	0.00	8.00
tblOffRoadEquipment	HorsePower	84.00	560.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	1.68
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00

tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripNumber	12.00	10.00
tblTripsAndVMT	VendorTripLength	6.60	15.00
tblTripsAndVMT	VendorTripLength	6.60	20.00
tblTripsAndVMT	VendorTripLength	6.60	20.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	57.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	8.00	6.00
tblTripsAndVMT	WorkerTripNumber	13.00	6.00
tblTripsAndVMT	WorkerTripNumber	146.00	6.00
tblTripsAndVMT	WorkerTripNumber	15.00	6.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.1618	1.4918	1.0215	1.8700e-003	0.0338	0.0835	0.1173	0.0149	0.0778	0.0927	0.0000	172.9564	172.9564	0.0377	0.0000	173.8978
Maximum	**0.1618**	**1.4918**	**1.0215**	**1.8700e-003**	**0.0338**	**0.0835**	**0.1173**	**0.0149**	**0.0778**	**0.0927**	**0.0000**	**172.9564**	**172.9564**	**0.0377**	**0.0000**	**173.8978**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.1618	1.4918	1.0215	1.8700e-003	0.0192	0.0835	0.1027	7.7900e-003	0.0778	0.0856	0.0000	172.9562	172.9562	0.0377	0.0000	173.8976
Maximum	**0.1618**	**1.4918**	**1.0215**	**1.8700e-003**	**0.0192**	**0.0835**	**0.1027**	**7.7900e-003**	**0.0778**	**0.0856**	**0.0000**	**172.9562**	**172.9562**	**0.0377**	**0.0000**	**173.8976**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**43.19**	**0.00**	**12.46**	**47.65**	**0.00**	**7.66**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2018	6/14/2018	5	10	Demo of existing asphalt, concrete, and other misc.
2	Grading	Grading	6/15/2018	6/28/2018	5	10	Grading/excavation
3	Building Construction	Building Construction	6/29/2018	11/15/2018	5	100	Installaiton of new pretreatment unit and equipment
4	Paving	Paving	11/16/2018	12/6/2018	5	15	Paving

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	1	8.00	158	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Excavators	1	6.00	158	0.38
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	1.68	560	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	6.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	6.00	0.00	10.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	6.00	2.00	0.00	16.80	15.00	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	6.00	2.00	0.00	16.80	20.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	6.00	2.00	0.00	16.80	20.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.3400e-003	0.0000	1.3400e-003	2.0000e-004	0.0000	2.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.8700e-003	0.0979	0.0569	1.0000e-004		5.1400e-003	5.1400e-003		4.8300e-003	4.8300e-003	0.0000	8.9468	8.9468	2.1600e-003	0.0000	9.0007
Total	**9.8700e-003**	**0.0979**	**0.0569**	**1.0000e-004**	**1.3400e-003**	**5.1400e-003**	**6.4800e-003**	**2.0000e-004**	**4.8300e-003**	**5.0300e-003**	**0.0000**	**8.9468**	**8.9468**	**2.1600e-003**	**0.0000**	**9.0007**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.0000e-005	1.9400e-003	5.1000e-004	0.0000	8.0000e-005	1.0000e-005	1.0000e-004	2.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3939	0.3939	1.0000e-005	0.0000	0.3942
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.6000e-004	3.3500e-003	0.0000	3.7000e-004	0.0000	3.7000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3502	0.3502	3.0000e-005	0.0000	0.3509
Total	**5.3000e-004**	**2.3000e-003**	**3.8600e-003**	**0.0000**	**4.5000e-004**	**1.0000e-005**	**4.7000e-004**	**1.2000e-004**	**1.0000e-005**	**1.4000e-004**	**0.0000**	**0.7441**	**0.7441**	**4.0000e-005**	**0.0000**	**0.7451**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.0000e-004	0.0000	6.0000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.8700e-003	0.0979	0.0569	1.0000e-004		5.1400e-003	5.1400e-003		4.8300e-003	4.8300e-003	0.0000	8.9468	8.9468	2.1600e-003	0.0000	9.0007
Total	**9.8700e-003**	**0.0979**	**0.0569**	**1.0000e-004**	**6.0000e-004**	**5.1400e-003**	**5.7400e-003**	**9.0000e-005**	**4.8300e-003**	**4.9200e-003**	**0.0000**	**8.9468**	**8.9468**	**2.1600e-003**	**0.0000**	**9.0007**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.0000e-005	1.9400e-003	5.1000e-004	0.0000	8.0000e-005	1.0000e-005	1.0000e-004	2.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3939	0.3939	1.0000e-005	0.0000	0.3942
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6000e-004	3.6000e-004	3.3500e-003	0.0000	3.7000e-004	0.0000	3.7000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3502	0.3502	3.0000e-005	0.0000	0.3509
Total	**5.3000e-004**	**2.3000e-003**	**3.8600e-003**	**0.0000**	**4.5000e-004**	**1.0000e-005**	**4.7000e-004**	**1.2000e-004**	**1.0000e-005**	**1.4000e-004**	**0.0000**	**0.7441**	**0.7441**	**4.0000e-005**	**0.0000**	**0.7451**

3.3 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0252	0.0000	0.0252	0.0127	0.0000	0.0127	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.4000e-003	0.1052	0.0534	1.0000e-004		5.1200e-003	5.1200e-003		4.7100e-003	4.7100e-003	0.0000	9.1010	9.1010	2.8300e-003	0.0000	9.1719
Total	**9.4000e-003**	**0.1052**	**0.0534**	**1.0000e-004**	**0.0252**	**5.1200e-003**	**0.0304**	**0.0127**	**4.7100e-003**	**0.0174**	**0.0000**	**9.1010**	**9.1010**	**2.8300e-003**	**0.0000**	**9.1719**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2000e-004	2.4600e-003	7.9000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.6000e-004	4.0000e-005	3.0000e-005	7.0000e-005	0.0000	0.4945	0.4945	1.0000e-005	0.0000	0.4948
Worker	4.6000e-004	3.6000e-004	3.3500e-003	0.0000	3.7000e-004	0.0000	3.7000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3502	0.3502	3.0000e-005	0.0000	0.3509
Total	**5.8000e-004**	**2.8200e-003**	**4.1400e-003**	**1.0000e-005**	**5.0000e-004**	**3.0000e-005**	**5.3000e-004**	**1.4000e-004**	**3.0000e-005**	**1.7000e-004**	**0.0000**	**0.8447**	**0.8447**	**4.0000e-005**	**0.0000**	**0.8458**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0114	0.0000	0.0114	5.7100e-003	0.0000	5.7100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.4000e-003	0.1052	0.0534	1.0000e-004		5.1200e-003	5.1200e-003		4.7100e-003	4.7100e-003	0.0000	9.1010	9.1010	2.8300e-003	0.0000	9.1719
Total	**9.4000e-003**	**0.1052**	**0.0534**	**1.0000e-004**	**0.0114**	**5.1200e-003**	**0.0165**	**5.7100e-003**	**4.7100e-003**	**0.0104**	**0.0000**	**9.1010**	**9.1010**	**2.8300e-003**	**0.0000**	**9.1719**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2000e-004	2.4600e-003	7.9000e-004	1.0000e-005	1.3000e-004	3.0000e-005	1.6000e-004	4.0000e-005	3.0000e-005	7.0000e-005	0.0000	0.4945	0.4945	1.0000e-005	0.0000	0.4948
Worker	4.6000e-004	3.6000e-004	3.3500e-003	0.0000	3.7000e-004	0.0000	3.7000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3502	0.3502	3.0000e-005	0.0000	0.3509
Total	**5.8000e-004**	**2.8200e-003**	**4.1400e-003**	**1.0000e-005**	**5.0000e-004**	**3.0000e-005**	**5.3000e-004**	**1.4000e-004**	**3.0000e-005**	**1.7000e-004**	**0.0000**	**0.8447**	**0.8447**	**4.0000e-005**	**0.0000**	**0.8458**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1252	1.1457	0.7706	1.4000e-003		0.0673	0.0673		0.0628	0.0628	0.0000	130.1878	130.1878	0.0284	0.0000	130.8980
Total	**0.1252**	**1.1457**	**0.7706**	**1.4000e-003**		**0.0673**	**0.0673**		**0.0628**	**0.0628**	**0.0000**	**130.1878**	**130.1878**	**0.0284**	**0.0000**	**130.8980**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5400e-003	0.0306	9.4500e-003	7.0000e-005	1.7900e-003	3.9000e-004	2.1800e-003	5.2000e-004	3.8000e-004	8.9000e-004	0.0000	6.4335	6.4335	1.5000e-004	0.0000	6.4374
Worker	4.5600e-003	3.6100e-003	0.0335	4.0000e-005	3.6900e-003	4.0000e-005	3.7300e-003	9.8000e-004	4.0000e-005	1.0200e-003	0.0000	3.5017	3.5017	3.0000e-004	0.0000	3.5093
Total	**6.1000e-003**	**0.0342**	**0.0429**	**1.1000e-004**	**5.4800e-003**	**4.3000e-004**	**5.9100e-003**	**1.5000e-003**	**4.2000e-004**	**1.9100e-003**	**0.0000**	**9.9353**	**9.9353**	**4.5000e-004**	**0.0000**	**9.9467**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1252	1.1457	0.7706	1.4000e-003		0.0673	0.0673		0.0628	0.0628	0.0000	130.1876	130.1876	0.0284	0.0000	130.8979
Total	**0.1252**	**1.1457**	**0.7706**	**1.4000e-003**		**0.0673**	**0.0673**		**0.0628**	**0.0628**	**0.0000**	**130.1876**	**130.1876**	**0.0284**	**0.0000**	**130.8979**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5400e-003	0.0306	9.4500e-003	7.0000e-005	1.7900e-003	3.9000e-004	2.1800e-003	5.2000e-004	3.8000e-004	8.9000e-004	0.0000	6.4335	6.4335	1.5000e-004	0.0000	6.4374
Worker	4.5600e-003	3.6100e-003	0.0335	4.0000e-005	3.6900e-003	4.0000e-005	3.7300e-003	9.8000e-004	4.0000e-005	1.0200e-003	0.0000	3.5017	3.5017	3.0000e-004	0.0000	3.5093
Total	**6.1000e-003**	**0.0342**	**0.0429**	**1.1000e-004**	**5.4800e-003**	**4.3000e-004**	**5.9100e-003**	**1.5000e-003**	**4.2000e-004**	**1.9100e-003**	**0.0000**	**9.9353**	**9.9353**	**4.5000e-004**	**0.0000**	**9.9467**

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.2500e-003	0.0986	0.0832	1.3000e-004		5.3800e-003	5.3800e-003		4.9500e-003	4.9500e-003	0.0000	11.7065	11.7065	3.6400e-003	0.0000	11.7977
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.2500e-003**	**0.0986**	**0.0832**	**1.3000e-004**		**5.3800e-003**	**5.3800e-003**		**4.9500e-003**	**4.9500e-003**	**0.0000**	**11.7065**	**11.7065**	**3.6400e-003**	**0.0000**	**11.7977**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3000e-004	4.5900e-003	1.4200e-003	1.0000e-005	2.7000e-004	6.0000e-005	3.3000e-004	8.0000e-005	6.0000e-005	1.3000e-004	0.0000	0.9650	0.9650	2.0000e-005	0.0000	0.9656
Worker	6.8000e-004	5.4000e-004	5.0200e-003	1.0000e-005	5.5000e-004	1.0000e-005	5.6000e-004	1.5000e-004	1.0000e-005	1.5000e-004	0.0000	0.5253	0.5253	5.0000e-005	0.0000	0.5264
Total	**9.1000e-004**	**5.1300e-003**	**6.4400e-003**	**2.0000e-005**	**8.2000e-004**	**7.0000e-005**	**8.9000e-004**	**2.3000e-004**	**7.0000e-005**	**2.8000e-004**	**0.0000**	**1.4903**	**1.4903**	**7.0000e-005**	**0.0000**	**1.4920**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.2500e-003	0.0986	0.0832	1.3000e-004		5.3800e-003	5.3800e-003		4.9500e-003	4.9500e-003	0.0000	11.7065	11.7065	3.6400e-003	0.0000	11.7976
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.2500e-003**	**0.0986**	**0.0832**	**1.3000e-004**		**5.3800e-003**	**5.3800e-003**		**4.9500e-003**	**4.9500e-003**	**0.0000**	**11.7065**	**11.7065**	**3.6400e-003**	**0.0000**	**11.7976**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3000e-004	4.5900e-003	1.4200e-003	1.0000e-005	2.7000e-004	6.0000e-005	3.3000e-004	8.0000e-005	6.0000e-005	1.3000e-004	0.0000	0.9650	0.9650	2.0000e-005	0.0000	0.9656
Worker	6.8000e-004	5.4000e-004	5.0200e-003	1.0000e-005	5.5000e-004	1.0000e-005	5.6000e-004	1.5000e-004	1.0000e-005	1.5000e-004	0.0000	0.5253	0.5253	5.0000e-005	0.0000	0.5264
Total	**9.1000e-004**	**5.1300e-003**	**6.4400e-003**	**2.0000e-005**	**8.2000e-004**	**7.0000e-005**	**8.9000e-004**	**2.3000e-004**	**7.0000e-005**	**2.8000e-004**	**0.0000**	**1.4903**	**1.4903**	**7.0000e-005**	**0.0000**	**1.4920**

CalEEMod Version: CalEEMod.2016.3.2

Date: 11/2/2017 11:59 PM

Jenny Lind

Calaveras County AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	8.00	348,480.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	61
Climate Zone	1			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Jenny Lind Water Treatment Plan Pretreatment Improvements Project. CCAPCD.

Land Use - Project located within 8-acre site.

Construction Phase - Assumed construction to begin by June 2018 over 6-months. Default phase durations assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default equipment assumed.

Off-road Equipment - Equiment based on information from client.

Off-road Equipment - Default construction equipment assumed.

Grading - Assumed balanced onsite.

Demolition - 125 tons of debris would be hauled offsite from demolition.

Trips and VMT - Adjusted based on information from client.

On-road Fugitive Dust -

Fleet Mix -

Construction Off-road Equipment Mitigation - Water twice daily.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	174240	0
tblAreaCoating	Area_Nonresidential_Interior	522720	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstructionPhase	NumDays	230.00	100.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	PhaseEndDate	5/31/2018	11/15/2018
tblConstructionPhase	PhaseEndDate	5/31/2018	6/14/2018
tblConstructionPhase	PhaseEndDate	5/31/2018	6/28/2018
tblConstructionPhase	PhaseEndDate	5/31/2018	12/6/2018
tblConstructionPhase	PhaseStartDate	6/1/2018	6/29/2018
tblConstructionPhase	PhaseStartDate	6/1/2018	6/15/2018
tblConstructionPhase	PhaseStartDate	6/1/2018	11/16/2018
tblGrading	AcresOfGrading	3.75	5.00
tblLandUse	LandUseSquareFeet	0.00	348,480.00
tblLandUse	LotAcreage	0.00	8.00
tblOffRoadEquipment	HorsePower	84.00	560.00
tblOffRoadEquipment	OffRoadEquipmentType		Pavers

tblOffRoadEquipment	OffRoadEquipmentType		Paving Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	24.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripNumber	12.00	10.00
tblTripsAndVMT	VendorTripLength	6.60	20.00
tblTripsAndVMT	VendorTripLength	6.60	15.00
tblTripsAndVMT	VendorTripLength	6.60	20.00
tblTripsAndVMT	VendorTripNumber	57.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	146.00	6.00
tblTripsAndVMT	WorkerTripNumber	8.00	6.00
tblTripsAndVMT	WorkerTripNumber	13.00	6.00
tblTripsAndVMT	WorkerTripNumber	15.00	6.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	7.0171	71.8932	37.3176	0.1322	5.1511	2.7814	6.1817	2.5682	2.6910	3.5165	0.0000	14,685.3332	14,685.3332	1.0245	0.0000	14,710.9463
Maximum	**7.0171**	**71.8932**	**37.3176**	**0.1322**	**5.1511**	**2.7814**	**6.1817**	**2.5682**	**2.6910**	**3.5165**	**0.0000**	**14,685.3332**	**14,685.3332**	**1.0245**	**0.0000**	**14,710.9463**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	7.0171	71.8932	37.3176	0.1322	2.3754	2.7814	3.4059	1.1713	2.6910	2.7219	0.0000	14,685.3332	14,685.3332	1.0245	0.0000	14,710.9463
Maximum	**7.0171**	**71.8932**	**37.3176**	**0.1322**	**2.3754**	**2.7814**	**3.4059**	**1.1713**	**2.6910**	**2.7219**	**0.0000**	**14,685.3332**	**14,685.3332**	**1.0245**	**0.0000**	**14,710.9463**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**53.89**	**0.00**	**44.90**	**54.39**	**0.00**	**22.60**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2018	6/14/2018	5	10	Demo of existing asphalt, concrete, and other misc.
2	Grading	Grading	6/15/2018	6/28/2018	5	10	Grading/excavation
3	Building Construction	Building Construction	6/29/2018	11/15/2018	5	100	Installaiton of new pretreatment unit and equipment
4	Paving	Paving	11/16/2018	12/6/2018	5	15	Paving

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Excavators	1	8.00	158	0.38
Paving	Pavers	2	6.00	130	0.42
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Paving Equipment	2	6.00	132	0.36
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Paving	Rollers	2	6.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Excavators	1	6.00	158	0.38
Building Construction	Generator Sets	1	24.00	560	0.74
Grading	Graders	1	6.00	187	0.41
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	7	6.00	2.00	0.00	16.80	20.00	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	3	6.00	0.00	10.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	6.00	2.00	0.00	16.80	15.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	6.00	2.00	0.00	16.80	20.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2675	0.0000	0.2675	0.0405	0.0000	0.0405			0.0000			0.0000
Off-Road	1.9746	19.5708	11.3762	0.0200		1.0277	1.0277		0.9668	0.9668		1,972.4230	1,972.4230	0.4754		1,984.3086
Total	**1.9746**	**19.5708**	**11.3762**	**0.0200**	**0.2675**	**1.0277**	**1.2952**	**0.0405**	**0.9668**	**1.0073**		**1,972.4230**	**1,972.4230**	**0.4754**		**1,984.3086**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0133	0.3746	0.0991	8.4000e-004	0.0174	2.9700e-003	0.0204	4.7500e-003	2.8400e-003	7.6000e-003		87.3875	87.3875	1.9800e-003		87.4370
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0983	0.0637	0.7608	8.5000e-004	0.0766	8.2000e-004	0.0775	0.0203	7.6000e-004	0.0211		84.3424	84.3424	7.4200e-003		84.5278
Total	**0.1115**	**0.4383**	**0.8598**	**1.6900e-003**	**0.0940**	**3.7900e-003**	**0.0978**	**0.0251**	**3.6000e-003**	**0.0287**		**171.7299**	**171.7299**	**9.4000e-003**		**171.9648**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1204	0.0000	0.1204	0.0182	0.0000	0.0182			0.0000			0.0000
Off-Road	1.9746	19.5708	11.3762	0.0200		1.0277	1.0277		0.9668	0.9668	0.0000	1,972.4230	1,972.4230	0.4754		1,984.3086
Total	**1.9746**	**19.5708**	**11.3762**	**0.0200**	**0.1204**	**1.0277**	**1.1481**	**0.0182**	**0.9668**	**0.9851**	**0.0000**	**1,972.4230**	**1,972.4230**	**0.4754**		**1,984.3086**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0133	0.3746	0.0991	8.4000e-004	0.0174	2.9700e-003	0.0204	4.7500e-003	2.8400e-003	7.6000e-003		87.3875	87.3875	1.9800e-003		87.4370
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0983	0.0637	0.7608	8.5000e-004	0.0766	8.2000e-004	0.0775	0.0203	7.6000e-004	0.0211		84.3424	84.3424	7.4200e-003		84.5278
Total	**0.1115**	**0.4383**	**0.8598**	**1.6900e-003**	**0.0940**	**3.7900e-003**	**0.0978**	**0.0251**	**3.6000e-003**	**0.0287**		**171.7299**	**171.7299**	**9.4000e-003**		**171.9648**

3.3 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.0468	0.0000	5.0468	2.5399	0.0000	2.5399			0.0000			0.0000
Off-Road	1.8804	21.0321	10.6802	0.0199		1.0238	1.0238		0.9419	0.9419		2,006.4342	2,006.4342	0.6246		2,022.0500
Total	**1.8804**	**21.0321**	**10.6802**	**0.0199**	**5.0468**	**1.0238**	**6.0706**	**2.5399**	**0.9419**	**3.4818**		**2,006.4342**	**2,006.4342**	**0.6246**		**2,022.0500**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0244	0.4748	0.1519	1.0500e-003	0.0277	5.9500e-003	0.0336	7.9600e-003	5.6900e-003	0.0137		109.5829	109.5829	2.9000e-003		109.6554
Worker	0.0983	0.0637	0.7608	8.5000e-004	0.0766	8.2000e-004	0.0775	0.0203	7.6000e-004	0.0211		84.3424	84.3424	7.4200e-003		84.5278
Total	**0.1226**	**0.5385**	**0.9127**	**1.9000e-003**	**0.1043**	**6.7700e-003**	**0.1111**	**0.0283**	**6.4500e-003**	**0.0347**		**193.9254**	**193.9254**	**0.0103**		**194.1832**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.2711	0.0000	2.2711	1.1430	0.0000	1.1430			0.0000			0.0000
Off-Road	1.8804	21.0321	10.6802	0.0199		1.0238	1.0238		0.9419	0.9419	0.0000	2,006.4342	2,006.4342	0.6246		2,022.0500
Total	**1.8804**	**21.0321**	**10.6802**	**0.0199**	**2.2711**	**1.0238**	**3.2948**	**1.1430**	**0.9419**	**2.0848**	**0.0000**	**2,006.4342**	**2,006.4342**	**0.6246**		**2,022.0500**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0244	0.4748	0.1519	1.0500e-003	0.0277	5.9500e-003	0.0336	7.9600e-003	5.6900e-003	0.0137		109.5829	109.5829	2.9000e-003		109.6554
Worker	0.0983	0.0637	0.7608	8.5000e-004	0.0766	8.2000e-004	0.0775	0.0203	7.6000e-004	0.0211		84.3424	84.3424	7.4200e-003		84.5278
Total	**0.1226**	**0.5385**	**0.9127**	**1.9000e-003**	**0.1043**	**6.7700e-003**	**0.1111**	**0.0283**	**6.4500e-003**	**0.0347**		**193.9254**	**193.9254**	**0.0103**		**194.1832**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.8882	71.2420	36.3735	0.1300		2.7727	2.7727		2.6827	2.6827		14,458.5919	14,458.5919	1.0138		14,483.9364
Total	**6.8882**	**71.2420**	**36.3735**	**0.1300**		**2.7727**	**2.7727**		**2.6827**	**2.6827**		**14,458.5919**	**14,458.5919**	**1.0138**		**14,483.9364**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0307	0.5875	0.1833	1.3600e-003	0.0369	7.8600e-003	0.0448	0.0106	7.5200e-003	0.0181		142.3989	142.3989	3.3300e-003		142.4821
Worker	0.0983	0.0637	0.7608	8.5000e-004	0.0766	8.2000e-004	0.0775	0.0203	7.6000e-004	0.0211		84.3424	84.3424	7.4200e-003		84.5278
Total	**0.1289**	**0.6512**	**0.9441**	**2.2100e-003**	**0.1136**	**8.6800e-003**	**0.1222**	**0.0309**	**8.2800e-003**	**0.0392**		**226.7413**	**226.7413**	**0.0108**		**227.0099**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.8882	71.2420	36.3735	0.1300		2.7727	2.7727		2.6827	2.6827	0.0000	14,458.5919	14,458.5919	1.0138		14,483.9363
Total	**6.8882**	**71.2420**	**36.3735**	**0.1300**		**2.7727**	**2.7727**		**2.6827**	**2.6827**	**0.0000**	**14,458.5919**	**14,458.5919**	**1.0138**		**14,483.9363**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0307	0.5875	0.1833	1.3600e-003	0.0369	7.8600e-003	0.0448	0.0106	7.5200e-003	0.0181		142.3989	142.3989	3.3300e-003		142.4821
Worker	0.0983	0.0637	0.7608	8.5000e-004	0.0766	8.2000e-004	0.0775	0.0203	7.6000e-004	0.0211		84.3424	84.3424	7.4200e-003		84.5278
Total	**0.1289**	**0.6512**	**0.9441**	**2.2100e-003**	**0.1136**	**8.6800e-003**	**0.1222**	**0.0309**	**8.2800e-003**	**0.0392**		**226.7413**	**226.7413**	**0.0108**		**227.0099**

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2328	13.1407	11.0973	0.0171		0.7171	0.7171		0.6597	0.6597		1,720.5665	1,720.5665	0.5356		1,733.9574
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2328**	**13.1407**	**11.0973**	**0.0171**		**0.7171**	**0.7171**		**0.6597**	**0.6597**		**1,720.5665**	**1,720.5665**	**0.5356**		**1,733.9574**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0307	0.5875	0.1833	1.3600e-003	0.0369	7.8600e-003	0.0448	0.0106	7.5200e-003	0.0181		142.3989	142.3989	3.3300e-003		142.4821
Worker	0.0983	0.0637	0.7608	8.5000e-004	0.0766	8.2000e-004	0.0775	0.0203	7.6000e-004	0.0211		84.3424	84.3424	7.4200e-003		84.5278
Total	**0.1289**	**0.6512**	**0.9441**	**2.2100e-003**	**0.1136**	**8.6800e-003**	**0.1222**	**0.0309**	**8.2800e-003**	**0.0392**		**226.7413**	**226.7413**	**0.0108**		**227.0099**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2328	13.1407	11.0973	0.0171		0.7171	0.7171		0.6597	0.6597	0.0000	1,720.5665	1,720.5665	0.5356		1,733.9574
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2328**	**13.1407**	**11.0973**	**0.0171**		**0.7171**	**0.7171**		**0.6597**	**0.6597**	**0.0000**	**1,720.5665**	**1,720.5665**	**0.5356**		**1,733.9574**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0307	0.5875	0.1833	1.3600e-003	0.0369	7.8600e-003	0.0448	0.0106	7.5200e-003	0.0181		142.3989	142.3989	3.3300e-003		142.4821
Worker	0.0983	0.0637	0.7608	8.5000e-004	0.0766	8.2000e-004	0.0775	0.0203	7.6000e-004	0.0211		84.3424	84.3424	7.4200e-003		84.5278
Total	**0.1289**	**0.6512**	**0.9441**	**2.2100e-003**	**0.1136**	**8.6800e-003**	**0.1222**	**0.0309**	**8.2800e-003**	**0.0392**		**226.7413**	**226.7413**	**0.0108**		**227.0099**

CalEEMod Version: CalEEMod.2016.3.2

Date: 11/3/2017 12:04 AM

Jenny Lind

Calaveras County AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	8.00	348,480.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	61
Climate Zone	1			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Jenny Lind Water Treatment Plan Pretreatment Improvements Project. CCAPCD.

Land Use - Project located within 8-acre site.

Construction Phase - Assumed construction to begin by June 2018 over 6-months. Default phase durations assumed.

Off-road Equipment - Default construction equipment assumed.

Off-road Equipment - Default equipment assumed.

Off-road Equipment - Equiment based on information from client.

Off-road Equipment - Default construction equipment assumed.

Grading - Assumed balanced onsite.

Demolition - 125 tons of debris would be hauled offsite from demolition.

Trips and VMT - Adjusted based on information from client.

On-road Fugitive Dust -

Fleet Mix -

Construction Off-road Equipment Mitigation - Water twice daily.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Nonresidential_Exterior	174240	0
tblAreaCoating	Area_Nonresidential_Interior	522720	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	250	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	250	0
tblConstructionPhase	NumDays	230.00	100.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	20.00	10.00
tblConstructionPhase	NumDays	20.00	15.00
tblConstructionPhase	PhaseEndDate	5/31/2018	11/15/2018
tblConstructionPhase	PhaseEndDate	5/31/2018	6/14/2018
tblConstructionPhase	PhaseEndDate	5/31/2018	6/28/2018
tblConstructionPhase	PhaseEndDate	5/31/2018	12/6/2018
tblConstructionPhase	PhaseStartDate	6/1/2018	6/29/2018
tblConstructionPhase	PhaseStartDate	6/1/2018	6/15/2018
tblConstructionPhase	PhaseStartDate	6/1/2018	11/16/2018
tblGrading	AcresOfGrading	3.75	5.00
tblLandUse	LandUseSquareFeet	0.00	348,480.00
tblLandUse	LotAcreage	0.00	8.00
tblOffRoadEquipment	HorsePower	84.00	560.00
tblOffRoadEquipment	OffRoadEquipmentType		Pavers

tblOffRoadEquipment	OffRoadEquipmentType		Paving Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	24.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripNumber	12.00	10.00
tblTripsAndVMT	VendorTripLength	6.60	20.00
tblTripsAndVMT	VendorTripLength	6.60	15.00
tblTripsAndVMT	VendorTripLength	6.60	20.00
tblTripsAndVMT	VendorTripNumber	57.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	146.00	6.00
tblTripsAndVMT	WorkerTripNumber	8.00	6.00
tblTripsAndVMT	WorkerTripNumber	13.00	6.00
tblTripsAndVMT	WorkerTripNumber	15.00	6.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	7.0215	71.9354	37.2359	0.1321	5.1511	2.7814	6.1817	2.5682	2.6911	3.5166	0.0000	14,674.7967	14,674.7967	1.0239	0.0000	14,700.3937
Maximum	**7.0215**	**71.9354**	**37.2359**	**0.1321**	**5.1511**	**2.7814**	**6.1817**	**2.5682**	**2.6911**	**3.5166**	**0.0000**	**14,674.7967**	**14,674.7967**	**1.0239**	**0.0000**	**14,700.3937**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	7.0215	71.9354	37.2359	0.1321	2.3754	2.7814	3.4060	1.1713	2.6911	2.7220	0.0000	14,674.7967	14,674.7967	1.0239	0.0000	14,700.3937
Maximum	**7.0215**	**71.9354**	**37.2359**	**0.1321**	**2.3754**	**2.7814**	**3.4060**	**1.1713**	**2.6911**	**2.7220**	**0.0000**	**14,674.7967**	**14,674.7967**	**1.0239**	**0.0000**	**14,700.3937**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**53.89**	**0.00**	**44.90**	**54.39**	**0.00**	**22.60**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2018	6/14/2018	5	10	Demo of existing asphalt, concrete, and other misc.
2	Grading	Grading	6/15/2018	6/28/2018	5	10	Grading/excavation
3	Building Construction	Building Construction	6/29/2018	11/15/2018	5	100	Installaiton of new pretreatment unit and equipment
4	Paving	Paving	11/16/2018	12/6/2018	5	15	Paving

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Excavators	1	8.00	158	0.38
Paving	Pavers	2	6.00	130	0.42
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Paving Equipment	2	6.00	132	0.36
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Paving	Rollers	2	6.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Excavators	1	6.00	158	0.38
Building Construction	Generator Sets	1	24.00	560	0.74
Grading	Graders	1	6.00	187	0.41
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	7	6.00	2.00	0.00	16.80	20.00	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	3	6.00	0.00	10.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	6.00	2.00	0.00	16.80	15.00	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	6.00	2.00	0.00	16.80	20.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2675	0.0000	0.2675	0.0405	0.0000	0.0405			0.0000			0.0000
Off-Road	1.9746	19.5708	11.3762	0.0200		1.0277	1.0277		0.9668	0.9668		1,972.4230	1,972.4230	0.4754		1,984.3086
Total	**1.9746**	**19.5708**	**11.3762**	**0.0200**	**0.2675**	**1.0277**	**1.2952**	**0.0405**	**0.9668**	**1.0073**		**1,972.4230**	**1,972.4230**	**0.4754**		**1,984.3086**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0137	0.3891	0.1070	8.2000e-004	0.0174	3.0300e-003	0.0204	4.7500e-003	2.9000e-003	7.6500e-003		86.0989	86.0989	2.1400e-003		86.1524
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1018	0.0779	0.6676	7.6000e-004	0.0766	8.2000e-004	0.0775	0.0203	7.6000e-004	0.0211		75.1478	75.1478	6.6000e-003		75.3129
Total	**0.1155**	**0.4670**	**0.7746**	**1.5800e-003**	**0.0940**	**3.8500e-003**	**0.0979**	**0.0251**	**3.6600e-003**	**0.0287**		**161.2467**	**161.2467**	**8.7400e-003**		**161.4653**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1204	0.0000	0.1204	0.0182	0.0000	0.0182			0.0000			0.0000
Off-Road	1.9746	19.5708	11.3762	0.0200		1.0277	1.0277		0.9668	0.9668	0.0000	1,972.4230	1,972.4230	0.4754		1,984.3086
Total	**1.9746**	**19.5708**	**11.3762**	**0.0200**	**0.1204**	**1.0277**	**1.1481**	**0.0182**	**0.9668**	**0.9851**	**0.0000**	**1,972.4230**	**1,972.4230**	**0.4754**		**1,984.3086**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0137	0.3891	0.1070	8.2000e-004	0.0174	3.0300e-003	0.0204	4.7500e-003	2.9000e-003	7.6500e-003		86.0989	86.0989	2.1400e-003		86.1524
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1018	0.0779	0.6676	7.6000e-004	0.0766	8.2000e-004	0.0775	0.0203	7.6000e-004	0.0211		75.1478	75.1478	6.6000e-003		75.3129
Total	**0.1155**	**0.4670**	**0.7746**	**1.5800e-003**	**0.0940**	**3.8500e-003**	**0.0979**	**0.0251**	**3.6600e-003**	**0.0287**		**161.2467**	**161.2467**	**8.7400e-003**		**161.4653**

3.3 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.0468	0.0000	5.0468	2.5399	0.0000	2.5399			0.0000			0.0000
Off-Road	1.8804	21.0321	10.6802	0.0199		1.0238	1.0238		0.9419	0.9419		2,006.4342	2,006.4342	0.6246		2,022.0500
Total	**1.8804**	**21.0321**	**10.6802**	**0.0199**	**5.0468**	**1.0238**	**6.0706**	**2.5399**	**0.9419**	**3.4818**		**2,006.4342**	**2,006.4342**	**0.6246**		**2,022.0500**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0252	0.4950	0.1644	1.0400e-003	0.0277	6.0200e-003	0.0337	7.9600e-003	5.7600e-003	0.0137		108.2411	108.2411	3.0800e-003		108.3181
Worker	0.1018	0.0779	0.6676	7.6000e-004	0.0766	8.2000e-004	0.0775	0.0203	7.6000e-004	0.0211		75.1478	75.1478	6.6000e-003		75.3129
Total	**0.1270**	**0.5729**	**0.8320**	**1.8000e-003**	**0.1043**	**6.8400e-003**	**0.1112**	**0.0283**	**6.5200e-003**	**0.0348**		**183.3889**	**183.3889**	**9.6800e-003**		**183.6310**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.2711	0.0000	2.2711	1.1430	0.0000	1.1430			0.0000			0.0000
Off-Road	1.8804	21.0321	10.6802	0.0199		1.0238	1.0238		0.9419	0.9419	0.0000	2,006.4342	2,006.4342	0.6246		2,022.0500
Total	**1.8804**	**21.0321**	**10.6802**	**0.0199**	**2.2711**	**1.0238**	**3.2948**	**1.1430**	**0.9419**	**2.0848**	**0.0000**	**2,006.4342**	**2,006.4342**	**0.6246**		**2,022.0500**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0252	0.4950	0.1644	1.0400e-003	0.0277	6.0200e-003	0.0337	7.9600e-003	5.7600e-003	0.0137		108.2411	108.2411	3.0800e-003		108.3181
Worker	0.1018	0.0779	0.6676	7.6000e-004	0.0766	8.2000e-004	0.0775	0.0203	7.6000e-004	0.0211		75.1478	75.1478	6.6000e-003		75.3129
Total	**0.1270**	**0.5729**	**0.8320**	**1.8000e-003**	**0.1043**	**6.8400e-003**	**0.1112**	**0.0283**	**6.5200e-003**	**0.0348**		**183.3889**	**183.3889**	**9.6800e-003**		**183.6310**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.8882	71.2420	36.3735	0.1300		2.7727	2.7727		2.6827	2.6827		14,458.5919	14,458.5919	1.0138		14,483.9364
Total	**6.8882**	**71.2420**	**36.3735**	**0.1300**		**2.7727**	**2.7727**		**2.6827**	**2.6827**		**14,458.5919**	**14,458.5919**	**1.0138**		**14,483.9364**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0315	0.6156	0.1948	1.3500e-003	0.0369	7.9200e-003	0.0448	0.0106	7.5800e-003	0.0182		141.0570	141.0570	3.5000e-003		141.1445
Worker	0.1018	0.0779	0.6676	7.6000e-004	0.0766	8.2000e-004	0.0775	0.0203	7.6000e-004	0.0211		75.1478	75.1478	6.6000e-003		75.3129
Total	**0.1333**	**0.6935**	**0.8624**	**2.1100e-003**	**0.1136**	**8.7400e-003**	**0.1223**	**0.0309**	**8.3400e-003**	**0.0393**		**216.2048**	**216.2048**	**0.0101**		**216.4574**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	6.8882	71.2420	36.3735	0.1300		2.7727	2.7727		2.6827	2.6827	0.0000	14,458.5919	14,458.5919	1.0138		14,483.9363
Total	**6.8882**	**71.2420**	**36.3735**	**0.1300**		**2.7727**	**2.7727**		**2.6827**	**2.6827**	**0.0000**	**14,458.5919**	**14,458.5919**	**1.0138**		**14,483.9363**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0315	0.6156	0.1948	1.3500e-003	0.0369	7.9200e-003	0.0448	0.0106	7.5800e-003	0.0182		141.0570	141.0570	3.5000e-003		141.1445
Worker	0.1018	0.0779	0.6676	7.6000e-004	0.0766	8.2000e-004	0.0775	0.0203	7.6000e-004	0.0211		75.1478	75.1478	6.6000e-003		75.3129
Total	**0.1333**	**0.6935**	**0.8624**	**2.1100e-003**	**0.1136**	**8.7400e-003**	**0.1223**	**0.0309**	**8.3400e-003**	**0.0393**		**216.2048**	**216.2048**	**0.0101**		**216.4574**

3.5 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2328	13.1407	11.0973	0.0171		0.7171	0.7171		0.6597	0.6597		1,720.5665	1,720.5665	0.5356		1,733.9574
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2328**	**13.1407**	**11.0973**	**0.0171**		**0.7171**	**0.7171**		**0.6597**	**0.6597**		**1,720.5665**	**1,720.5665**	**0.5356**		**1,733.9574**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0315	0.6156	0.1948	1.3500e-003	0.0369	7.9200e-003	0.0448	0.0106	7.5800e-003	0.0182		141.0570	141.0570	3.5000e-003		141.1445
Worker	0.1018	0.0779	0.6676	7.6000e-004	0.0766	8.2000e-004	0.0775	0.0203	7.6000e-004	0.0211		75.1478	75.1478	6.6000e-003		75.3129
Total	**0.1333**	**0.6935**	**0.8624**	**2.1100e-003**	**0.1136**	**8.7400e-003**	**0.1223**	**0.0309**	**8.3400e-003**	**0.0393**		**216.2048**	**216.2048**	**0.0101**		**216.4574**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2328	13.1407	11.0973	0.0171		0.7171	0.7171		0.6597	0.6597	0.0000	1,720.5665	1,720.5665	0.5356		1,733.9574
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2328**	**13.1407**	**11.0973**	**0.0171**		**0.7171**	**0.7171**		**0.6597**	**0.6597**	**0.0000**	**1,720.5665**	**1,720.5665**	**0.5356**		**1,733.9574**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0315	0.6156	0.1948	1.3500e-003	0.0369	7.9200e-003	0.0448	0.0106	7.5800e-003	0.0182		141.0570	141.0570	3.5000e-003		141.1445
Worker	0.1018	0.0779	0.6676	7.6000e-004	0.0766	8.2000e-004	0.0775	0.0203	7.6000e-004	0.0211		75.1478	75.1478	6.6000e-003		75.3129
Total	**0.1333**	**0.6935**	**0.8624**	**2.1100e-003**	**0.1136**	**8.7400e-003**	**0.1223**	**0.0309**	**8.3400e-003**	**0.0393**		**216.2048**	**216.2048**	**0.0101**		**216.4574**

APPENDIX C

Biological Resources Assessment

DUDEK

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January 17, 2018 9853

Charles Palmer
Calaveras County Water District
P.O. Box 846
120 Toma Court
San Andreas, CA 95249

Subject: ***Biological Resources Assessment for the Jenny Lind Water Treatment Plant Improvements Project, Calaveras County, California***

Dear Mr. Palmer:

On October 28, 2017, Dudek biologist John Spranza conducted a reconnaissance-level biological field survey of an approximately 8 acre parcel (study site or site) in an unincorporated area of Calaveras County near Valley Springs, California (Figure 1-1, Regional Map). The survey was performed to support state and federal environmental permitting documents for the Calaveras County Water District's (CCWD) Jenny Lind Water Treatment Plant Improvements Project (Proposed Project). The focus of the survey was to characterize existing conditions and biological resources on the site, and to summarize potential biological constraints associated with development of the site. A description of the methods and results of the biological survey and related recommendations is described below.

1. SITE LOCATION AND DESCRIPTION

The Proposed Project would be located within an approximately 8-acre site located on Silver Rapids Road near the City of Valley Springs in Calaveras County, California (Figure 1, Regional Map). Regional access to the project site is provided via State Route (SR) 26, approximately 0.5 mile to the northwest of the project site. The project site is bounded on the north and east by Silver Rapids Road, by the Calaveras River on the south, and Cosgrove Creek on the west (Figure 2, Vicinity Map).

The study site is located within the existing 8-acre Jenny Lind Water Treatment Plant parcel (Project Area). The primary component of the existing plant is a series of six U.S. Filter Microfloc Trident Model TR-420-A modular treatment units. Associated infrastructure includes roadways, parking lot, equipment sheds, four reclaim basins, solids drying beds, storage tanks, administrative support buildings, and electrical infrastructure required to operate the current system. Access to

the site is controlled by a locked gate. The small portions of the site that do not contain treatment plant components and associated infrastructure are landscaped and support a mix of native vegetation and landscape plantings including native and non-native trees.

The project site is generally flat and sits at an elevation of approximately 690 feet above mean sea level. The site is situated in Section 36, Township 4 North, and Range 10 East on the Valley Springs 7.5 minute quadrangle. The center of the site location corresponds to 38°9'58" north latitude and 120°51'0" west longitude.

2. METHODS AND SITE EVALUATION

Preliminary Review

Special-status biological resources present or potentially present on the site were identified through a desktop literature search using the following sources: U.S. Fish and Wildlife Service (USFWS) Information, Planning and Conservation (IPaC) Trust Resource Report; California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB); and the California Native Plant Society (CNPS) online Inventory of Rare and Endangered Vascular Plants. The database searches for the CNDDB and CNPS reports included the 7.5' USGS Valley Springs quadrangle and surrounding eight quadrangles. The IPaC search included the project site and a five-mile buffer surrounding the site. California Rare Plant Rank (CRPR) 1 and 2 plant species were included in the CNPS search. The Natural Resources Conservation Service (USDA 2016), Web Soil Survey (WSS) was queried to determine soil types that exist within the boundary of the project site.

Following review of these resources, Dudek determined the potential for each species to occur within the site based on a review of vegetation communities and available land cover types, habitat types, soils, and elevation preferences, as well as the known geographic range of each species (Appendix A). Species were not expected to occur when the site was clearly outside the known geographic range of the species or if there was no habitat for the species on or adjacent to the site.

Field Assessment

The biological reconnaissance survey was performed by Dudek biologist John Spranza on October 28, 2017, and consisted of walking throughout the site and scanning a 100-foot buffer along the periphery of the site. The project site was evaluated for the potential to support wetlands or waters under the jurisdiction of the U.S. Army Corps of Engineers (ACOE), Regional Water Quality Control Board (RWQCB), or CDFW, and special-status plant and wildlife species. Incidental

observations of wildlife or wildlife sign and dominant plant species were recorded, and vegetation communities within the site were characterized.

Dudek performed a constraints-level wetland assessment on the project site, reviewed current and historical aerial photography, and identified potentially jurisdictional features based on aerial signatures and field observations.

The analysis of potentially jurisdictional waters and wetlands was based on criteria provided by the following agencies:

- Waters of the U.S., including wetlands, under the jurisdiction of the ACOE pursuant to Section 404 of the federal Clean Water Act (CWA).
- Wetlands under the jurisdiction of the RWQCB pursuant to Section 401 of the CWA and the Porter-Cologne Water Quality Control Act.
- Wetlands under the jurisdiction of CDFW, pursuant to Section 1602 of the California Fish and Game Code.

Pursuant to the CWA, ACOE- and RWQCB, jurisdictional areas include those supporting all three wetlands criteria described in the ACOE manual: hydric soils, hydrology, and hydrophytic vegetation. RWQCB-jurisdictional areas may also include isolated features that have evidence of surface water inundation pursuant to the state Porter-Cologne Act. These areas generally support at least one of the three ACOE wetlands indicators, but are considered isolated through the lack of surface water hydrology/connectivity downstream. The extent of CDFW-regulated areas typically include areas supporting a predominance of hydrophytic vegetation (i.e., 50% cover or greater) where associated with a stream channel that has a defined bed and bank.

3. RESULTS

Soils

According to the Natural Resources Conservation Service (USDA 2017), no data exists for soils that occur within the project area (Survey Area 630). However, soils observed during the field survey looked similar to sandy or gravelly loam soils.

Vegetation Communities and Land Cover Types

Two land cover types were observed during the field assessment. The facilities associated with the plant are urban/developed and the intermixed areas are ornamental landscaping (Sawyer et al.

2009). Riparian vegetation is adjacent to the project area along Cosgrove Creek and the Calaveras River. Representative photographs of the project area are included in Figure 3.

A total of 16 species of native or naturalized plants, 10 native (63%) and 6 non-native (37%), was recorded on the site (see Appendix B).

Common Wildlife Species

Nineteen wildlife species were observed during the October 28, 2017 survey (see Appendix B). These included American crow (*Corvus brachyrhynchos*), mourning dove (*Zenaida macroura*), black phoebe ((*Sayornis nigricans*), western fence lizard (*Sceloporus occidentalis*) and mule deer (*Odocoileus hemionus*).

Common wildlife species adapted to life in proximity to human disturbance such as raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*) and striped skunk (*Mephitis mephitis*) are likely to move through the site on a regular basis to find food and cover resources. Common native and non-native bird species could use the site for nesting and foraging.

Special-Status Plants and Wildlife

Results of the CNDDB, IPaC and CNPS searches indicated that 14 special-status wildlife species and 12 special-status plant species have been recorded within a the 9-quad CNDDB search area, although no occurrences have been recorded on the site (Appendix A). Of these, 13 wildlife species and all plant species were removed from consideration due to lack of suitable habitat or soils on the site, or because the site is outside of the species range.

No elderberry (*Sambucus* sp.) shrubs were observed during the survey; therefore, valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) was removed from consideration. Delta smelt (*Spirinchus thaleichthys*) were not considered due to lack of habitat on the site; although the adjacent Cosgrove Creek and Calaveras River do provide suitable habitat for Steelhead (*Oncorhynchus mykiss irideus*) and hardhead (*Mylopharodon conocephalus*) the project site does not include those areas and these species were removed from consideration. Aquatic habitat for vernal pool fairy shrimp (*Branchinecta lynchi*), California tiger salamander (*Ambystoma californiense*), western spadefoot (*Spea hammondii*) and western pond turtle (*Actinemys marmorata*) is also absent from the site and these species were removed from consideration. The site lacks open water or nesting trees that would be suitable for use by bald eagles (*Haliaeetus leucocephalus*) and lacks wetlands or marshes, blackberry thickets, or other vegetation that would support nesting or foraging tricolored blackbird (*Agelaius tric*olor). Although suitable foraging habitat exists on the site for Townsend's big-eared bat (*Corynorhinus townsendii)*, suitable

roosting habitat such as caves, mines or buildings that mimic cave-like conditions are not present within or adjacent to the site, therefore Townsend's big-eared bat was removed from consideration.

All 12 special-status plants were removed from consideration due to either a lack of suitable habitat or soils, or the site is outside of the species range. These were Ione manzanita (*Arctostaphylos myrtifolia*), big-scale balsamroot (*Balsamorhiza macrolepis*), Ione buckwheat (*Eriogonum apricum* var. *apricum*), Irish Hill buckwheat (*Eriogonum apricum var. prostratum*), Jepson's coyote thistle (*Eryngium jepsonii*), Tuolumne button-celery (*Eryngium pinnatisectum*), Delta button-celery (*Eryngium racemosum*), Parry's horkelia (*Horkelia parryi*), Legenere (*Legenere limosa*), pincushion navarretia (*Navarretia myersii* ssp. *Myersii*), Patterson's navarretia (*Navarretia paradoxiclara*) and prairie wedge grass (*Sphenopholis obtusata*).

Aquatic habitat does not occur within the project site and although California red-legged frog (*Rana draytonii,* CRLF) is not expected to occur within the project site, the adjacent uplands and dense vegetative cover associated with the Cosgrove Creek riparian corridor is directly adjacent to the site and could be utilized by this species.

Potentially Jurisdictional Wetlands

Review of historic aerial photography and topographic maps indicate that the project site has been extensively disturbed by construction and operation of the treatment plant and no potentially jurisdictional wetlands or aquatic features were observed on site. Cosgrove Creek and the Calaveras River would be state and federally jurisdictional but are not within the project footprint.

4. SUMMARY AND POTENTIAL CONSTRAINTS TO DEVELOPMENT

This section addresses potential impacts to sensitive biological resources that would result from construction of an aquatics and community center on the site.

Vegetation Communities and Land Cover Types

The project site is largely developed and although it does have ornamental landscaping and some native tree species as part of the landscaping, the urban and ornamental landcovers within the project area are not considered sensitive. No oak woodlands are present.

Special-Status Plants and Wildlife

No special-status animals were detected during this survey and only the CRLF has a low potential to occur within the project area. Although presence of this species within the project area is very unlikely due to lack of suitable upland or aquatic habitat, suitable habitat for this species is present

in Cosgrove Creek and its associated upland riparian corridor that is immediately adjacent to the norther portion of the project area.

Potential indirect or accidental direct impacts to CRLF habitat or individuals that could occur in the adjacent Cosgrove Creek include impacts to water quality from erosion and sedimentation of disturbed soils upslope of the creek, accidental direct impacts as a result of grading near the creek, indirect impacts to wildlife habitat values, accidental introduction and spread of noxious weeds and other invasive non-native plants and direct harm if a CRLF were to wander into or through the project's construction area. The latter is considered unlikely, given the low likelihood of CRLF occurrence, however Dudek suggests the following avoidance measures to reduce impacts to this species to less than significant levels:

1. Upon period of starting construction, project staff, contractors, and other work crews will receive training, training materials and/or fact sheets regarding habitat sensitivity, identification of California red-legged frogs, their breeding habitats, and required practices. The training will include the general measures that are being implemented to conserve this species, penalties for non-compliance, and boundaries of the project area. A fact sheet or other supporting materials containing this information will be prepared and distributed.

2. All ground disturbing activities will be conducted to avoid the "wet season," which shall be defined as beginning with the first frontal system that results in at least 0.25 inches of precipitation after October 15 (as measured from the closest published location and elevation by the National Weather Service) and shall continue until April 1st.

3. A tightly woven fiber netting or similar material used for erosion control shall be deployed during construction as exclusion fencing between the project area and the adjacent habitat along Cosgrove Creek, if deemed to be necessary by a qualified biologist, to effectively ensure individuals do not stray into the work area. No plastic mono-filament matting will be used for erosion control.

4. The Sacramento Fish and Wildlife Office (SFWO) will be promptly notified of any finding of a listed species or identification of CRLF within the project area. A qualified biologist shall be on-call to confirm such findings/determinations.

5. Fueling and maintenance activities shall be a minimum of 66 feet from riparian or aquatic habitats.

6. Because dusk and dawn are often the times when red-legged frogs are most actively foraging and dispersing, all ground disturbing activities associated with project

construction should cease one half hour before sunset and should not begin prior to one half hour before sunrise.

7. Excavations and trenches shall be closed or covered/plated at the end of each work day as a regular daily practice. If excavations will remain open and unattended for greater than 24-hours and the project biologist determines that there is a viable concern animals are at risk, then escape ramps of earth fill and/or wooden planks shall be constructed to allow animals to evacuate/escape the excavation. All excavations shall be checked prior to starting construction each day and before backfilling the holes.

All native birds in California are protected by the federal Migratory Bird Treaty Act (MBTA) of 1918 and Section 3503.5 of the California Fish and Game Code, which specifically protects raptors. The site provides suitable roosting habitat for several common raptor species found in California such as red-shouldered hawk (*Buteo lineatus*), and roosting, nesting and foraging habitat for common passerine species the house wren (*Troglodytes aed*on) and mourning dove.

Dudek recommends a nesting bird survey be completed by a qualified biologist no earlier than two weeks prior to any phase of construction that would begin during the nesting season (February 1-September 30) to if any raptors or other native birds are nesting on or near the project site. If active nests are observed, the biologist will determine a suitable avoidance buffer or avoidance measures such as a monitor, screening or other measures to effectively avoid nesting disturbance and based on species, location, and planned construction activities in the area. These nests shall be flagged and avoided until the chicks have fledged and the nests are no longer active, as determined by the biologist. Dudek further recommends removing any potential nesting habitat (i.e. trees and vegetation) outside of the nesting season to avoid impacts to nesting birds.

Wildlife Corridors and Nursery Sites

The project site is not considered a wildlife corridor or nursery site and it is entirely fenced off from the surrounding areas; however, common wildlife species adapted to life in urban environments such as raccoon, Virginia opossum and skunk could move through the site occasionally between patches of habitat in the vicinity of the project site. As the project site is fenced off from surrounding areas and does not contain native vegetation communities but is rather mostly hardscaped and developed with the existing treatment plant facilities construction of the project would not interfere with any movement of any special-status species or act as a wildlife corridor.

Potentially Jurisdictional Wetlands

The project site does not contain any features that would be considered jurisdictional wetlands or waters of the United States or State of California.

If you have any questions about the survey or this report, please feel free to call Markus Lang (Dudek Project Manager) at 530-863-4643 or email mlang@dudek.com.

Sincerely,

Markus Lang
DUDEK
Direct: 530-863-4643
Cell: 805-637-1482
mlang@dudek.com

Att: *Appendix A – Species with Potential to Occur in the Vicinity of the Project Site*
Appendix B – Species Identified within the Project Site

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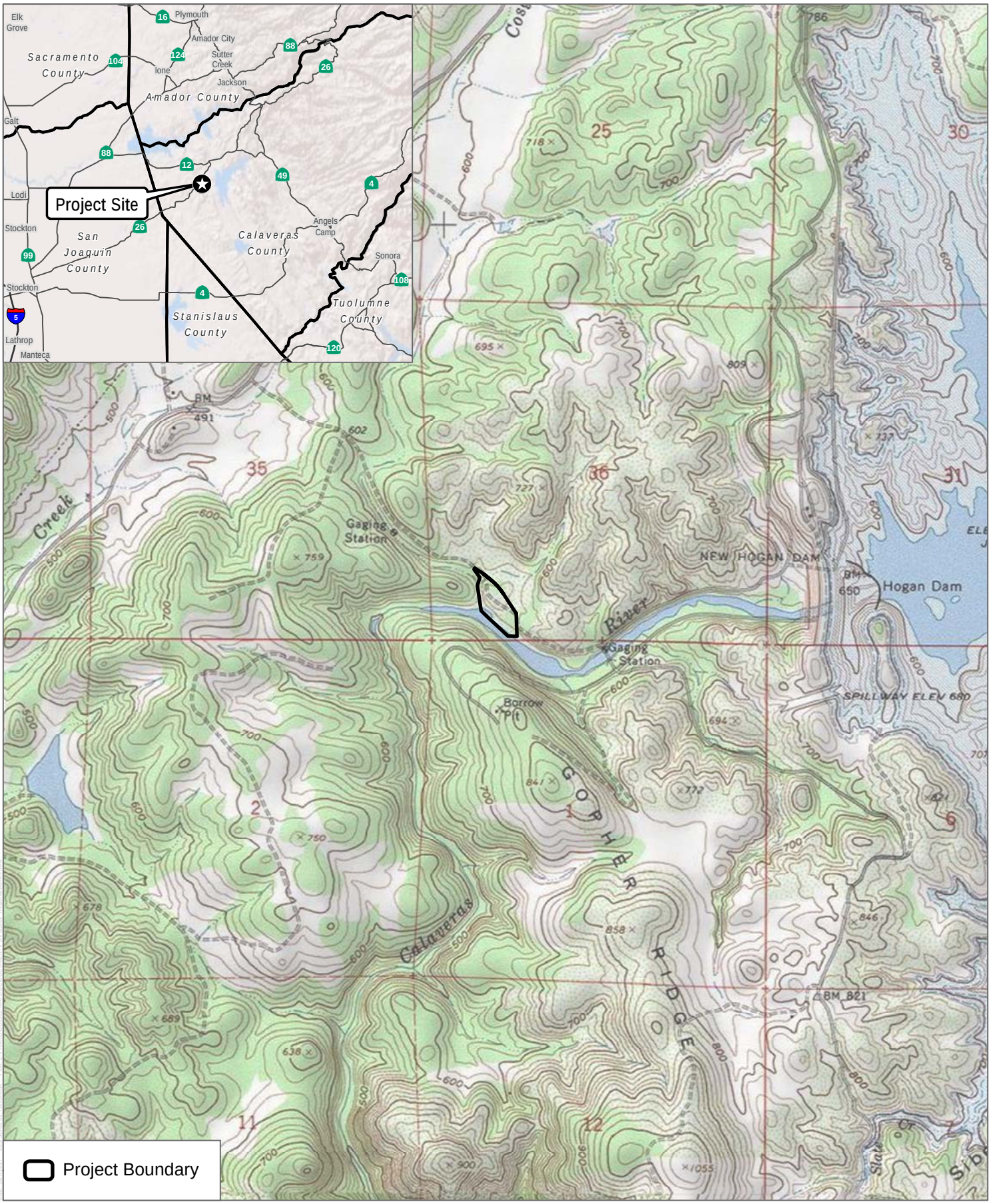

SOURCE: USGS 7.5-Minute Series Valley Springs Quadrangle
Township 4N; Range 10E; Section 36

DUDEK

0 1,000 2,000 Feet

FIGURE 1

Regional Vicinity

Jenny Lind Water Treatment Plant Project Description

SOURCE: Bing Maps (Accessed 2017); County of Calaveras GIS (2013)

DUDEK

0 100 200 Feet

FIGURE 2

Project Location

Jenny Lind Water Treatment Plant Project Description

Figure 3: Representative Photographs of the Project Site

	
1: Looking Southeast	2: Looking East
	
3: Looking North, Cosgrove Creek riparian vegetation is adjacent to the fence.	4. Looking West, towards to Calaveras River

Appendix A – Species with Potential to Occur in the Vicinity of the Project Site

Appendix A. Special-Status Species with Known or Potential Occurrence in the Vicinity of the Jenny Lind Water Treatment Plant Improvements Project in Calaveras County, California.

Common Name	Scientific Name	Federal/State Status	Habitat Associations	Potential to Occur in the Project Area
Invertebrates				
valley elderberry longhorn beetle	*Desmocerus californicus dimorphis*	Threatened/None	The valley elderberry longhorn beetle is completely dependent on its host plant, elderberry (*Sambucus nigra* ssp. *cerulea*), which occurs in riparian and other woodland communities in California's Central Valley and the associated foothills. Female beetles lay their eggs in crevices on the stems or on the leaves of living elderberry plants. When the eggs hatch, larvae bore into the stems. The larval stages last for one to two years. Adults emerge through the emergence holes from late March through June. The short-lived adult beetles forage on leaves and flowers of elderberry shrubs.	No potential to occur within the project area. No elderberry shrubs occur on the project site.
vernal pool fairy shrimp	*Branchinecta lynchi*	Threatened/None	The vernal pool fairy shrimp is adapted to seasonally inundated features and occur primarily in vernal pools, seasonal wetlands that fill with water during fall and winter rains and dry up in spring and summer. Typically the majority of pools in any vernal pool complex are not inhabited by the species at any one time. Different pools within or between complexes may provide habitat for the fairy shrimp in alternative years, as climatic conditions vary.	No potential to occur within the project area. No vernal pool habitat present on site.
Fish				
Central Valley steelhead	*Oncorhynchus mykiss (NMFS)*	Threatened/None	Central Valley steelhead spawn downstream of dams on every major tributary within the Sacramento and San Joaquin River systems. Regardless of life history strategy, for the first year or two of life, rainbow trout and steelhead are found in cool, clear, fast-flowing permanent streams and rivers where riffles predominate over pools, there is ample cover from riparian vegetation or undercut banks, and invertebrate life is diverse and abundant.	No potential to occur within the project area. No suitable habitat present on site. Nearest CNDDB occurrence is immediately adjacent to the site along Cosgrove Creek (CDFW 2017).
delta smelt	*Hypomesus transpacificus*	Threatened/Endangered	Delta smelt are a euryhaline species (tolerant of a wide salinity range). They have been collected from estuarine waters up to 14 ppt (parts per thousand) salinity. For a large part of their one-year life span, delta smelt live along the freshwater edge of the mixing zone (saltwater-freshwater interface), where the salinity is approximately 2 ppt. Shortly before spawning, adults migrate upstream from the brackish-water habitat associated with the mixing zone and disperse widely into river channels and tidally influenced backwater sloughs. They spawn in shallow, fresh or slightly brackish water upstream of the mixing zone. Most spawning happens in tidally influenced backwater sloughs and channel edgewaters.	No potential to occur within the project area. No suitable habitat present within or adjacent to the site.

Common Name	Scientific Name	Federal/State Status	Habitat Associations	Potential to Occur in the Project Area
hardhead	*Mylopharodon conocephalus*	None/SSC	Hardhead can be found in low- to mid-elevation streams in the Sacramento–San Joaquin drainage and Russian River. Spawning occurs in the spring from May-June in the Central Valley and up to August in the Sacramento-San Joaquin drainage.	No potential to occur within the project area. No suitable habitat present on site. Nearest CNDDB occurrence is approximately 9 miles downstream along Cosgrove Creek (CDFW 2017).
Amphibians and Reptiles				
California red-legged frog	*Rana draytonii*	Threatened/SSC	California red-legged frogs occur in different habitats depending on their life stage, the season, and weather conditions. Breeding habitat includes coastal lagoons, marshes, springs, permanent and semi-permanent natural ponds, and ponded and backwater portions of streams. These frogs also breed in artificial impoundments including stock ponds, irrigation ponds, and siltation ponds. Creeks and ponds with dense growths of woody riparian vegetation, especially willows (*Salix* spp.), although the absence of vegetation at an aquatic site does not rule out the possibility of occupancy. Adult frogs prefer dense, shrubby or emergent riparian vegetation near deep [≥2 to 3 feet (0.6 to 0.9 m)], still or slow moving water, especially where dense stands of overhanging willow and an intermixed fringe of cattail (*Typha* sp.) occur adjacent to open water.	Low potential to occur. No suitable upland habitat present on site. However, suitable pool habitat is present within Cosgrove Creek, directly adjacent to the site. Nearest CNDDB occurrence is 5 miles NE (CDFW 2017).
California tiger Salamander	*Ambystoma californiense*	Threatened/SSC	Annual grassland, valley–foothill hardwood, and valley–foothill riparian habitats; vernal pools, other ephemeral pools, and (uncommonly) along stream courses and man-made pools if predatory fishes are absent.	Not expected to occur. No suitable upland habitat present on site. The nearest potential breeding pond is more than 1.2 miles SE of the site.
western pond turtle	*Actinemys marmorata*	None/SSC	Slow-moving permanent or intermittent streams, ponds, small lakes, and reservoirs with emergent basking sites; adjacent uplands used for nesting and during winter.	Not expected to occur. No suitable upland habitat present on site. No CNDDB occurrences within 10 miles of project site (CDFW 2017).
western spadefoot	*Spea hammondii*	None/SSC	Primarily grassland and vernal pools, but also in ephemeral wetlands that persist at least 3 weeks in chaparral, coastal scrub, valley–foothill woodlands, pastures, and other agriculture.	No potential to occur. No suitable habitat present within or adjacent to site.
Birds				
bald eagle	*Haliaeetus leucocephalus*	Delisted, BGEPA/ Endangered, FP	Lives near large bodies of open water such as lakes, marshes, estuaries, seacoasts and rivers, where fish are abundant. Usually nests within one mile of water in tall trees with open branchwork bordering lakes or large rivers.	Not expected to occur. Suitable foraging habitat is within 1 mile of the project site but no suitable nesting habitat within the site. Nearest CNDDB occurrence 1.5 east at New Hogan Lake (CDFW 2017).
Swainson's hawk	*Buteo swainsoni*	None/Threatened	Swainson's hawk spends the breeding season in the Central Valley of California and is commonly found in agricultural areas or open grasslands containing solitary trees for nesting. Diet consists of insects, small mammals and reptiles.	Not expected to occur. No suitable nesting or foraging habitat present within or adjacent to site.
tricolored blackbird	*Agelaius tricolor*	None/Candidate Threatened	Tricolored blackbird is a colonial species found almost exclusively in California. It utilizes wetlands, marshes and agricultural grain fields for foraging and nesting. The tricolored blackbird population has declined significantly in the past 6 years due to habitat loss and harvest of grain fields before young have fledged.	Not expected to occur. No suitable nesting or foraging habitat present within or adjacent to site.

Common Name	Scientific Name	Federal/State Status	Habitat Associations	Potential to Occur in the Project Area
			Mammals	
Townsend's big-eared bat	*Corynorhinus townsendii*	None/SSC	Townsend's big-eared bat can be found throughout most of western North America. Forages along the open edges of forests and riparian habitat. Roosts occur near the entrances of caves, mines, and man-made structures.	Low potential to occur. Although suitable foraging habitat exists near the project site, suitable roosting habitat does not occur within or adjacent to the project site.
			Plants	
Jepson's coyote thistle	*Eryngium jepsonii*	None/None/1B.2	Valley and foothill grassland, Vernal pools; clay/perennial herb/Apr–Aug/5–985	No potential to occur due to lack of suitable habitat.
big-scale balsamroot	*Balsamorhiza macrolepis*	None/None/1B.2	Chaparral, Cismontane woodland, Valley and foothill grassland; sometimes serpentinite/perennial herb/Mar–June/295–5100	No potential to occur due to lack of suitable habitat.
Delta button-celery	*Eryngium racemosum*	None/Endangered/1B.1	Riparian scrub (vernally mesic clay depressions)/annual / perennial herb/June–Oct/5–100	No potential to occur due to lack of suitable habitat and the site is outside of the species' known elevation range.
Ione buckwheat	*Eriogonum apricum var. apricum*	Endangered / Endangered /1B.1	Chaparral (openings, Ione soil)/perennial herb/July–Oct/195–475	No potential to occur due to lack of suitable habitat and the site is outside of the species' known elevation range.
Ione manzanita	*Arctostaphylos myrtifolia*	Threatened /None/1B.2	Chaparral, Cismontane woodland; acidic, Ione soil, clay or sandy/perennial evergreen shrub/Nov–Mar/195–1905	No potential to occur due to lack of suitable habitat.
Irish Hill buckwheat	*Eriogonum apricum var. prostratum*	Endangered / Endangered /1B.1	Chaparral (openings, Ione soil)/perennial herb/June–July/295–395	No potential to occur due to lack of suitable habitat and the site is outside of the species' known elevation range.
legenere	*Legenere limosa*	None/None/1B.1	Vernal pools/annual herb/Apr–June/0–2885	No potential to occur due to lack of suitable vernal pool habitat.
Parry's horkelia	*Horkelia parryi*	None/None/1B.2	Chaparral, Cismontane woodland; Ione formation and other soils/perennial herb/Apr–Sep/260–3510	No potential to occur due to lack of suitable habitat.
Patterson's navarretia	*Navarretia paradoxiclara*	None/None/1B.3	Meadows and seeps; Serpentinite, openings, vernally mesic, often drainages/annual herb/May–June(July)/490–1410	No potential to occur due to lack of suitable habitat.
pincushion navarretia	*Navarretia myersii ssp. myersii*	None/None/1B.1	Vernal pools; often acidic/annual herb/Apr–May/65–1085	Not expected to occur. No suitable habitat present.
prairie wedge grass	*Sphenopholis obtusata*	None/None/2B.2	Cismontane woodland, Meadows and seeps; mesic/perennial herb/Apr–July/980–6560	No potential to occur due to lack of suitable habitat and the site is outside of the species' known elevation range.
Tuolumne button-celery	*Eryngium pinnatisectum*	None/None/1B.2	Cismontane woodland, Lower montane coniferous forest, Vernal pools; mesic/annual / perennial herb/May–Aug/225–3000	No potential to occur due to lack of suitable habitat.

SSC: Species of Special Concern
FP: Fully Protected

The following list of wildlife potentially occurring in the project area was generated from the following resources:

- USFWS IPaC Report (Sacramento Fish and Wildlife Office)
- CDFW CNDDB Report
- CNPS Online Inventory of Rare and Endangered Plants

Appendix B – Species Identified within the Project Site

Appendix B: Jenny Lind Water Treatment Species Lists

PLANT SPECIES

GYMNOSPERMS AND GNETOPHYTES

PINACEAE—PINE FAMILY
Pinus sabiniana—ghost pine

MONOCOTS

POACEAE—GRASS FAMILY
Bromus diandrus—ripgut brome*

EUDICOTS

ANACARDIACEAE—CASHEW FAMILY
Pistacia chinensis—Chinese pistachio tree*

APOCYNACEAE—DOGBANE FAMILY
Nerium oleander—oleander*

ASTERACEAE—SUNFLOWER FAMILY
Cirsium vulgare—bull thistle*

FAGACEAE—OAK FAMILY
Quercus douglasii—blue oak
Quercus wislizeni—interior live oak

LAMIACEAE—MINT FAMILY
Rosmarinus officinalis—Rosemary

OLEACEAE—OLIVE FAMILY
Ligustrum ovalifolium—California privet*

ONAGRACEAE—EVENING PRIMROSE FAMILY
Epilobium canum ssp. *canum*—hummingbird trumpet

RUBIACEAE—MADDER FAMILY
Cephalanthus occidentalis—button willow[1]

ROSACEAE—ROSE FAMILY
Rubus armeniacus—Himalayan black berry*[1]

SALICACEAE—WILLOW FAMILY
Populus fremontii ssp. *fremontii*—Fremont cottonwood[1]

Salix exigua var. *exigua*—narrowleaf willow[1]
Salix laevigata—red willow[1]
Salix lasiandra var. *lasiandra*—Pacific willow[1]

WILDLIFE SPECIES – VERTEBRATES

REPTILES

***IGUANIDAE* – IGUANID LIZARDS**
Sceloporus occidentalis – western fence lizard

BIRDS

FRINGILLIDAE—FRINGILLINE & CARDUELINE FINCHES & ALLIES
Spinus psaltria—lesser goldfinch

TYRANNIDAE—TYRANT FLYCATCHERS
Sayornis nigricans—black phoebe

ACCIPITRIDAE—HAWKS, KITES, EAGLES, & ALLIES
Buteo lineatus—red-shouldered hawk[1]

ARDEIDAE—HERONS, BITTERNS, & ALLIES
Ardea alba—great egret[1]
Ardea herodias—great blue heron[1]

TROCHILIDAE—HUMMINGBIRDS
Calypte anna—Anna's hummingbird[1]

CORVIDAE—CROWS & JAYS
Aphelocoma californica—California scrub-jay
Corvus brachyrhynchos—American crow

COLUMBIDAE—PIGEONS & DOVES
Zenaida macroura—mourning dove

VIREONIDAE—VIREOS
Vireo huttoni—Hutton's vireo[1]

ANATIDAE—DUCKS, GEESE, & SWANS
Anas platyrhynchos—mallard
Branta canadensis—Canada goose

PICIDAE—WOODPECKERS & ALLIES

Colaptes auratus—northern flicker

Melanerpes formicivorus—acorn woodpecker

TROGLODYTIDAE—WRENS

Troglodytes aedon—house wren

PASSERELLIDAE—NEW WORLD SPARROWS

Junco hyemalis—dark-eyed junco

MAMMAL

SCIURIDAE—SQUIRRELS

Sciurus griseus—western gray squirrel

CERVIDAE—DEERS

Odocoileus hemionus—mule deer[1]

* signifies introduced (non-native) species

[1]signifies species observed along fence line but outside of project area

APPENDIX D

Confidential
Cultural Resources Report

APPENDIX E

Draft

Jenny Lind Mitigation Monitoring Program

APPENDIX E
Draft Jenny Lind Mitigation Program

DRAFT JENNY LIND MITIGATION MONITORING PROGRAM

The California Environmental Quality Act (CEQA) requires that when a lead agency adopts a Mitigated Negative Declaration (MND), it shall prepare a monitoring or reporting program (MMRP) for all required mitigation measures (CEQA Guidelines Section 15097). This MMRP identifies the monitoring program for mitigation measures identified by the IS/MND to reduce or avoid impacts associated with implementing the proposed Jenny Lind Water Treatment Plant Improvements Project. The MMRP shall be maintained by the Calaveras County Water District.

Number	Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Mitigation Timing	Performance Evaluation Criteria
BIO.1	The following avoidance measures shall be implemented to avoid impacts to California red-legged frog (CRLF): 1. Upon period of starting construction, project staff, contractors, and other work crews will receive training, training materials and/or fact sheets regarding habitat sensitivity, identification of California red-legged frogs, their breeding habitats, and required practices. The training will include the general measures that are being implemented to conserve this species, penalties for non-compliance, and boundaries of the project area. A fact sheet or other supporting materials containing this information will be prepared and distributed. 2. All ground disturbing activities will be conducted to avoid the "wet season," which shall be defined as	Contractor / CCWD	CCWD	• Prior to and during construction activities	• Measures implemented • Impacts to CRLF avoided

Number	Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Mitigation Timing	Performance Evaluation Criteria
	beginning with the first frontal system that results in at least 0.25 inches of precipitation after October 15 (as measured from the closest published location and elevation by the National Weather Service) and shall continue until April 1st. 3. A tightly woven fiber netting or similar material used for erosion control shall be deployed during construction as exclusion fencing between the project area and the adjacent habitat along Cosgrove Creek, if deemed to be necessary by a qualified biologist, to effectively ensure individuals do not stray into the work area. No plastic mono-filament matting will be used for erosion control. 4. The Sacramento Fish and Wildlife Office (SFWO) will be promptly notified of any finding of a listed species or identification of CRLF within the project area. A qualified biologist shall be on-call to confirm such findings/determinations. 5. Fueling and maintenance activities shall be a minimum of 66 feet from riparian or aquatic habitats. 6. Because dusk and dawn are often the times when red-legged frogs are most actively foraging and dispersing, all ground disturbing activities associated with project construction should cease one half				

Number	Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Mitigation Timing	Performance Evaluation Criteria
	hour before sunset and should not begin prior to one half hour before sunrise. 7. Excavations and trenches shall be closed or covered/plated at the end of each workday as a regular daily practice. If excavations will remain open and unattended for greater than 24-hours and the project biologist determines that there is a viable concern animals are at risk, then escape ramps of earth fill and/or wooden planks shall be constructed to allow animals to evacuate/escape the excavation. All excavations shall be checked prior to starting construction each day and before backfilling the holes.				
BIO.2	A survey shall be completed by a qualified biologist no earlier than two weeks prior to construction to determine if any raptors or other native birds are nesting on or near the project site. If active nests are observed, the biologist will determine a suitable avoidance buffer or avoidance measures, such as a monitor, screening or other measures to effectively avoid nesting disturbance and based on species, location, and planned construction activities in the area. These nests shall be flagged and avoided until the chicks have fledged and the nests are no longer active, as determined by the biologist.	Contractor / CCWD	• Contractor • CCWD	• Within two weeks prior to construction	• Completion of survey • Effective avoidance measures • Nest disturbance avoided

Number	Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Mitigation Timing	Performance Evaluation Criteria
CUL.1	In consideration of the proximity of planned work relative to CA-CAL-1180/H, a CRHR-eligible resource containing human remains, archaeological monitoring should be conducted during initial ground-disturbing activities to avoid impacts to unanticipated archaeological resources. Prior to initiation of earth-disturbing work associated with the project, an Archaeological Discovery and Monitoring Plan should be prepared that outlines required monitoring efforts, roles and responsibilities, and reporting requirements.	Contractor / CCWD	CCWD	• Prior to initiation of earth-disturbing work (plan) • During initial ground disturbance/excavation	• Implementation of an Archaeological Discovery and Monitoring Plan • Monitoring per mitigation measure • Impacts avoided to unanticipated archaeological resources
CUL.2	In accordance with Section 7050.5 of the California Health and Safety Code, if potential human remains are found the County Coroner shall be immediately notified of the discovery. The Coroner will provide a determination within 48 hours of notification. No further excavation or disturbance of the identified material, or any area reasonably suspected to overlie additional remains, shall occur until a determination has been made. If the County Coroner determines that the remains are, or are believed to be, Native American, they shall notify the Native American Heritage Commission (NAHC) within 24 hours. In accordance with California Public Resources Code Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descendent (MLD) of the deceased Native American. Within 48 hours of their notification, the MLD will recommend to the lead agency their preferred treatment of the remains and associated grave goods.	Contractor / CCWD	CCWD	• Throughout construction activity	• Specific mitigation measure to be completed in the event of human remains discovery

Number	Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Mitigation Timing	Performance Evaluation Criteria
HAZ.1	The following measures shall be implemented prior to and during construction and shall be incorporated into project plans and specifications. ▪ All equipment shall be regularly inspected for leaks (e.g., hydraulic fluid, fuel, oil, antifreeze, etc.) and any leaks fixed before equipment use resumes. ▪ Spill kits should be readily available onsite and contain appropriate items to absorb, contain, neutralize, or remove hazardous materials. ▪ The lubrication, refueling and repair/maintenance of Contractor's equipment shall occur only in areas designated by the District, which are restricted to public access and as far as practicable from riparian and habitat areas. The Contractor shall immediately notify CCWD in event of a spill or release of any chemical during construction	Contractor / CCWD	CCWD	• Prior to and during construction	• Appropriate leak and spill prevention • Leaks and spills contained and reported • Appropriate spill response materials available onsite.

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