PUBLIC DRAFT

COLFAX WATER TREATMENT PLANT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

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August 2021

ICF. 2021. *Colfax Water Treatment Plant Initial Study/Mitigated Negative Declaration*. Public Draft. August. ICF 00520.20. Sacramento, CA. Prepared for Placer County Water Agency, Auburn, CA.

Contents

Tables

Figures

Follows Page

Acronyms and Abbreviations

AB	Assembly Bill
ADMP	asbestos dust mitigation plan
APN	Assessor Parcel Number
BP	before present
CAAQS	California ambient air quality standards
Cal/OSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CH_4	methane
CHRIS	California Historic Resources Inventory System
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society's
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CPRR	Central Pacific Railroad
CRHR	California Register of Historic Resources
DDW	Division of Drinking Water
DPM	Diesel particulate matter
EIR	environmental impact report
EO	Executive Order
Fed/OSHA	Federal Occupational Safety and Health Administration
FHWA	Federal Highway Administration
Friant Ranch Decision	California Supreme Court's decision in Sierra Club v. County of Fresno (6 Cal. 5th 502)
Friant Ranch Project	Community Plan Update and Friant Ranch Specific Plan
GHG	greenhouse gases
HFCs	hydrofluorocarbons
HMCP	Hazardous Materials Contingency Plan
hp	horsepower
IS/MND	initial study/mitigation negative declaration
LHMP	Local Hazard Mitigation Plan
LOS	level of service
MCAB	Mountain Counties Air Basin
mgd	million gallons per day
N_2O	nitrous oxide
NAAQS	national ambient air quality standards
NCIC	North Central Information Center
NO_2	nitrogen dioxide

NOA	Naturally occurring asbestos
NO_X	nitrogen oxides
NRHP	National Register of Historic Places
NSR	new source review
OHWM	Ordinary High Water Mark
Pb	lead
PCAPCD	Placer County Air Pollution Control District
PCTPA	Placer County Transportation Planning Agency
PCWA	Placer County Water Agency
PFC	perfluorocarbons
PM10 and PM2.5	particulate matter
PPV	peak particle velocity
project	Colfax Water Treatment Plant Project
ROG	reactive organic gases
RPS	Renewables Portfolio Standard
SACOG	Sacramento Area Council of Governments
SB	Senate Bill
SCADA	Supervisory Control and Data Acquisition
SF_6	sulfur hexafluoride
SFNA	Sacramento Federal Nonattainment Area
SMAQMD	Sacramento Metropolitan Air Quality Management District's
SO_2	sulfur dioxide
SR	State Route
State Water Board	State Water Resources Control Board
TAC	toxic air contaminants
USEPA	U.S. Environmental Protection Agency
USFWS	U.S, Fish and Wildlife Service
USGS	U.S. Geological Survey
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	vehicle miles traveled
WTP	Colfax Water Treatment Plant

Chapter 1
Introduction/Project Description

Overview

This document is the initial study/mitigation negative declaration (IS/MND) for the proposed Placer County Water Agency (PCWA) Colfax Water Treatment Plant (WTP) Project (project) located just north of Colfax in unincorporated Placer County, California. This initial study has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq. and the CEQA Guidelines, California Code of Regulations (CCR) Section 15000 et seq. An initial study is prepared by a lead agency to determine if a project may have a significant effect on the environment. In accordance with CEQA Guidelines Section 15064(a), an environmental impact report (EIR) must be prepared if there is substantial evidence that a project may have a significant effect on the environment. A negative declaration is prepared if the lead agency determines that the proposed project would not have a significant effect on the environment and, therefore, that it would not require the preparation of an EIR (CEQA Guidelines § 15070).

This initial study will be used to examine the potential environmental impacts of the construction and operation of a new water treatment plant. In general, this document describes the project, the existing environment that could be affected, potential impacts from the project, and proposed mitigation measures in compliance with the State CEQA Guidelines (14 CCR 15000 et seq.).

The initial study is divided into three chapters: Chapter 1 includes this introduction and provides a description of the project setting and characteristics; Chapter 2 includes an environmental evaluation/checklist that identifies the potential environmental impacts associated with implementation of the project and a discussion of checklist responses and findings; and Chapter 3 includes references used in the preparation of this report.

Lead Agency

The lead agency is the public agency with primary responsibility over the proposed project. In accordance with CEQA Guidelines Section 15051(b)(1), "the lead agency will normally be the agency with general governmental powers, such as a city or county, rather than an agency with a single or limited purpose…" PCWA is the lead agency for the project.

Project Location

The project site is located in an incorporated area north of the City of Colfax, Placer County and occurs within Assessor Parcel Number (APN) 099-140-030-000 and APN 099-150-003-000 at 25745 Rollins Lake Road in Colfax, California (Figure 1).

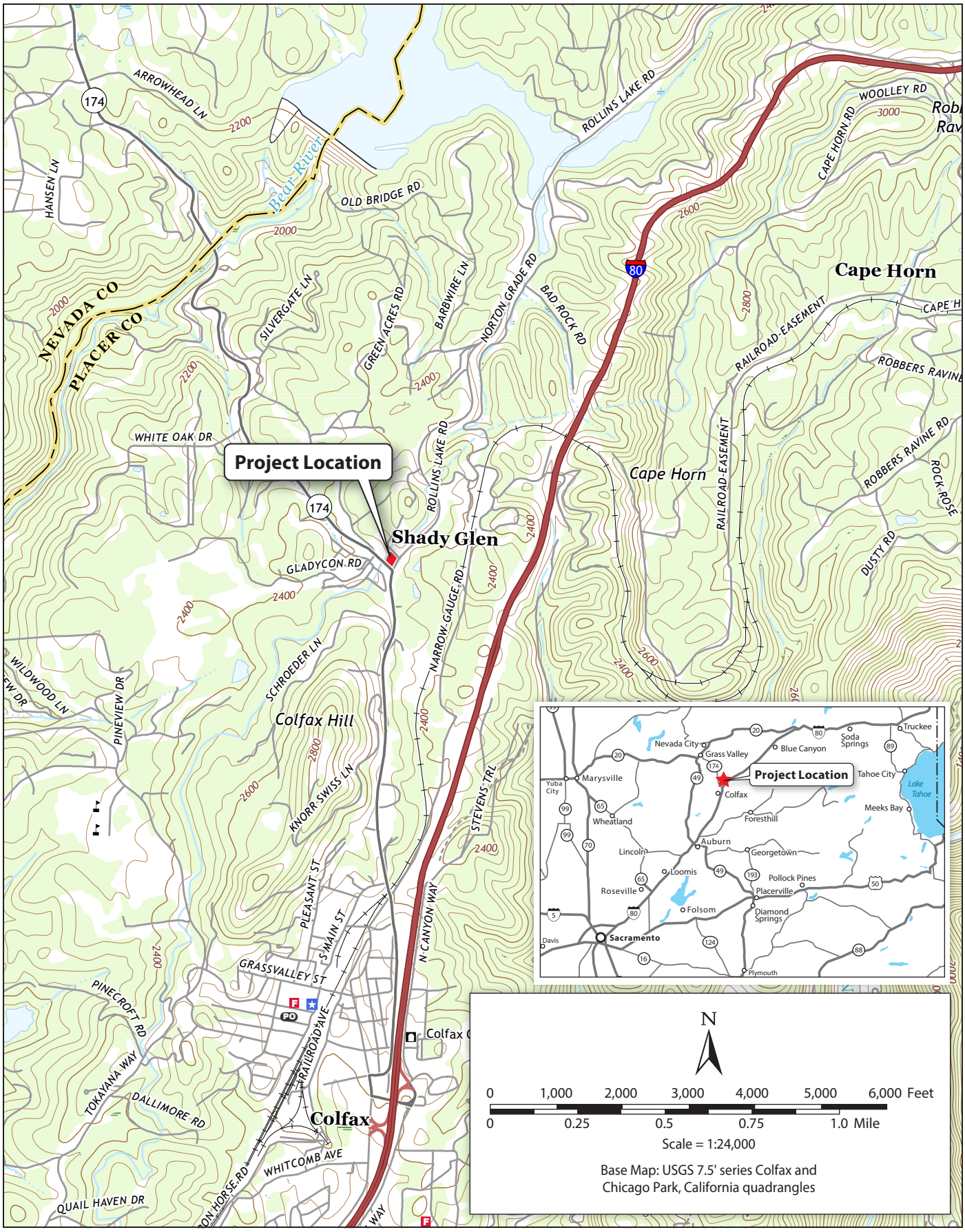

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Figure 1
Project Location

Current Land Use

The project site for the new water treatment plant is mainly used to house a small mobile trailer residence and a small private water treatment facility that serves Shady Glen Estates. The remaining portion of the site is mostly unused, with the exception of a storage yard (approximately 1,200 square feet) in the southwestern portion of the property. Several utility easements are located on the project site.

The water treatment facility serving Shady Glen Estates is located in the northern portion of the project site. The water treatment facility includes a filter room/building, floc tank and control shed, a 20,000-gallon clear well, and an 80,000-gallon holding tank.

Purpose of this Document

Prior to approving the project, PCWA must evaluate the project's potential environmental impacts as required by CEQA. PCWA, as the lead agency under CEQA, will consider the project's environmental impacts when considering whether to approve project implementation. This initial study is an informational document to be used in the local planning and decision-making process; it does not recommend approval or denial of the project.

This initial study will be available for public review for 30 days. PCWA will take into consideration comments received during the public review period and will factor these comments into its assessment of the environmental impacts associated with the project prior to making its decision related to project approval.

Project Description

Project Objectives

PCWA is proposing to construct and operate a new water treatment plant and associated facilities to serve growth in the Colfax service area and to provide improved reliability and more dependable service. The existing Colfax WTP has a treatment capacity of 1.4 million gallons per day (mgd), the new Colfax WTP would have a maximum capacity of about 2.0 mgd. The new Colfax WTP is anticipated to be operational by June 2024.

The project is being proposed to replace the existing Colfax WTP, which is located at 449 Pleasant Street in Colfax. The existing Colfax water treatment plant was constructed in 1958, and some of the facilities at the WTP, including the flocculation and sedimentation basins, possibly predate 1958. Much of the piping and mechanical equipment is over 35 years old. A representative of the State Water Resources Control Board (State Water Board) Division of Drinking Water (DDW) Field Operations Branch conducted an annual inspection on November 1, 2016, and issued an inspection report on January 11, 2017, which stated: "Based on the age of some of the key facilities, it is recommended that Colfax WTP plan for major repairs or replacement of the surface water treatment plant as part of their capital improvement plan." Most of the structural and mechanical equipment is of an age that would be considered near the end of its useful life based on industry standard asset management protocols.

PCWA conducted a WTP location alternatives analysis that included upgrading the existing WTP. A new site is proposed, as the original location is not large enough to accommodate the new WTP facility. PCWA is planning to locate the new WTP on parcel 099-140-030 near the Shady Glen Mobile Home Park that is located at the intersection of State Route (SR) 174 and Rollins Lake Road due to the central location, PCWA raw water supply on the adjacent site, and because it currently holds a small water treatment facility.

Water Treatment Plant Facilities

Facilities that are addressed in this IS/MND are as follows.

- A 12-inch-diameter raw water supply pipeline fed from the nearby Boardman Canal within the site footprint.
- A new WTP (2.0 mgd), which would include possible pretreatment to manage grit or other influent debris, either a package ballasted flocculation or plate settler process units, package multimedia gravity filters, process chemical storage and feed equipment in a pre-engineered treatment facility building, as well as onsite storage facilities.
- A baffled chlorine contact tank/clearwell, treated water booster station, drying beds, backwash tank and pumping station, filter-to-waste tank and pumping station, and concrete drying beds.
- An emergency standby generator, stationed on site only for times of power disruption.
- A new 12-inch ductile iron treated water transmission pipeline. The treated water transmission main would exit the WTP site into Rollins Lake Road, then enter the SR 174, Caltrans right-of-way and travel south to a point of connection with PCWA's existing 12-inch transmission/distribution main to PCWA's existing transmission system near the intersection of SR 174 and Hill Drive.
- Property acquisition for the WTP site, which would be required from a private property owner. PCWA is currently working with the landowner to acquire the property; acquisition is expected to occur in 2021, following adoption of the Final MND and approval of the project by the PCWA Board. Similar to approval of the construction/operation of the project, the acquisition of property is also considered a discretionary action and would require approval by the lead agency (PCWA) under CEQA.

Supervisory Control and Data Acquisition

Supervisory Control and Data Acquisition (SCADA) facilities would be provided as part of the proposed WTP facilities. SCADA provides operational and management personnel with real-time information on the status and performance of a treatment facility both locally and from remote locations. The purpose is to enhance the level of operational intelligence to ensure that all systems are functioning correctly at optimum levels of efficiency and that the production of the facilities is matching water supply needs of the distribution system. It further allows remote surveillance of all monitored parameters from the Foothill WTP, located in Newcastle, where PCWA maintains a centralized SCADA facility.

Building Architecture

Site Buildings and Structures

The WTP would have multiple buildings and structures around the site, including the treatment facility, three pumping stations, three new water tanks with room for one additional tank, and two drying beds (Figure 2).

Treatment Facility

The treatment facility building would be located centrally setback approximately 240-feet from Rollins Lake Road. The building would be two stories and approximately 96-feet long by 60-feet wide. The building would be a pre-engineered metal structure that would be assembled on site during construction. The building would have roll-up doors on the east, north, and west sides of the structure. Heating, ventilation, and air conditioning (HVAC) equipment would be roof/ground mounted.

Pump Stations

- Booster Pump Station/Backwash/Decant Pump Station—To be located in the southwest portion of the property
- Filter to Waste Station—To be located in the northwest central portion of the property
- Decant Reclaimed Water/Sludge Pumping Station—To be located in the north central portion of the property

Water Tanks

- Clearwell—To be located in the south-central portion of the property, adjacent to the existing Clearwell tank painted steel, with a diameter of approximately 34 feet, and a height of approximately 30 feet.
- Backwash Reclamation Tanks 1 and 2—To be located in the southwest portion of the property, painted steel, with a diameter of approximately 25 feet, and a height of approximately 24 feet.
- Filter to Waste Tank—To be located in the northwest central portion of the property, painted steel, with an expected diameter of approximately 12 feet, and a height of approximately 16.5 feet.
- Existing Clearwell—Located in the south-central portion of the property, painted steel, with a diameter of approximately 30 feet, and a height of approximately 20 feet.

Sludge Drying Beds

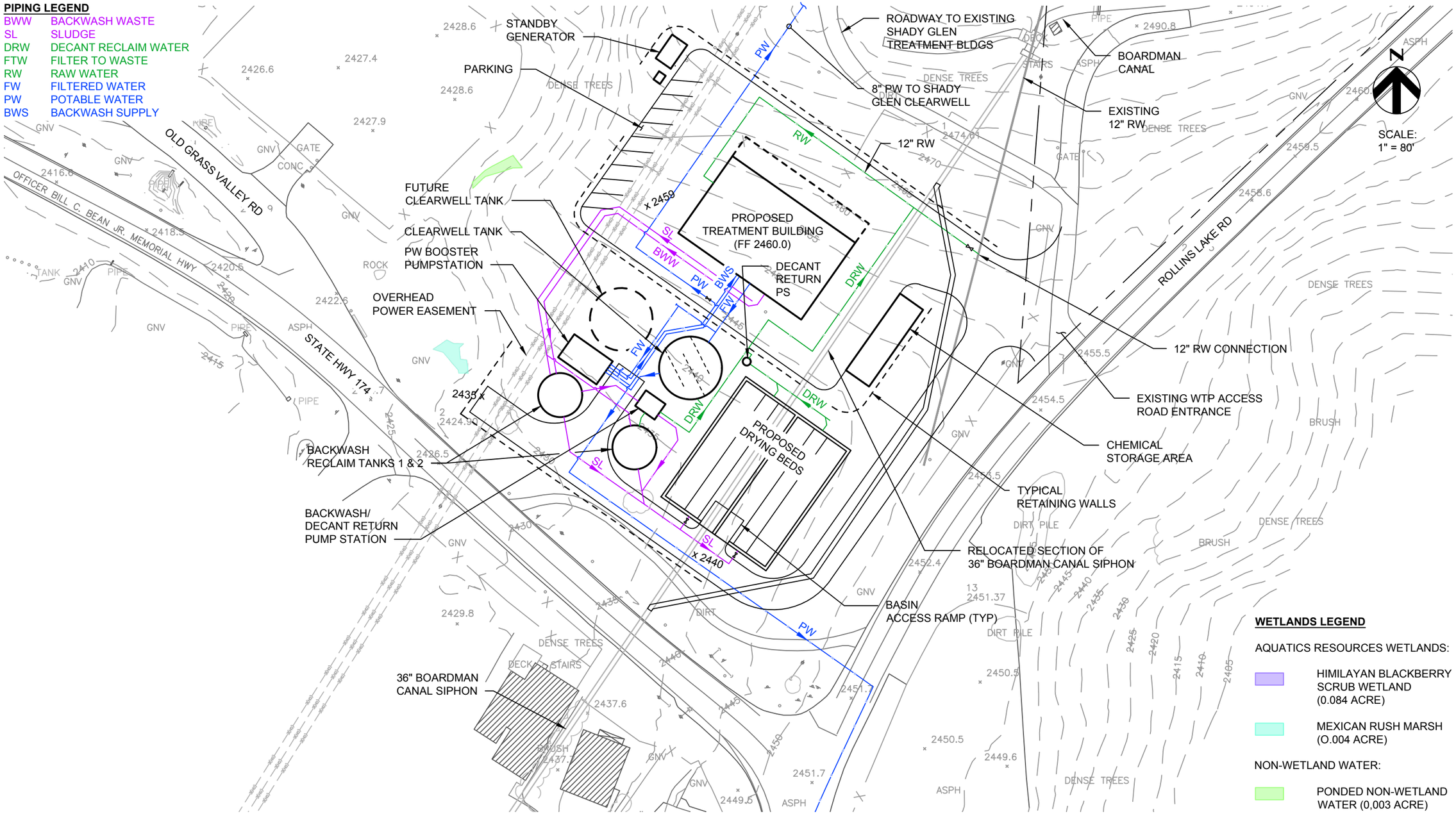
To be located in the southern portion of the property with an approximate 50-foot setback from property lines along SR 174 and Rollins Lake Road. The beds would be at or slightly above grade, and approximately 100 feet by 50 feet.

Security and Access Features

The WTP property would be enclosed in an 8 or 10-foot fence. An automatic sliding or swing type gate with a keypad entry system, a video surveillance camera, an intercom, and traffic loop (exit direction) would be provided at the main entrance. Access to the site would occur via Rollins Lake

PIPING LEGEND

BWW	BACKWASH WASTE
SL	SLUDGE
DRW	DECANT RECLAIM WATER
FTW	FILTER TO WASTE
RW	RAW WATER
FW	FILTERED WATER
PW	POTABLE WATER
BWS	BACKWASH SUPPLY



WETLANDS LEGEND

AQUATICS RESOURCES WETLANDS:

- HIMILAYAN BLACKBERRY SCRUB WETLAND (0.084 ACRE)
- MEXICAN RUSH MARSH (O.004 ACRE)

NON-WETLAND WATER:

- PONDED NON-WETLAND WATER (0,003 ACRE)

Source: HDR, 2021.

Graphics: ...00520.20 (7/9/21) AB

Figure 2
Proposed Water Treatment Plant Site

Road. All internal WTP site roads, including the access driveway from Rollins Lake Road, would be paved with asphalt concrete paving.

Landscaping

Landscaping would be developed to give a finished look to the plant site and to provide partial screening of the major facilities. Landscaping would be concentrated along the northwest property line and along Rollins Lake Road and Highway 174. Use of native plants (xeriscape) and shade trees would be maximized where possible. Trees would be of a canopy-type and shade variety. An irrigation system would be provided for the landscaping using pumped raw water from the downstream end of the raw water stabilization basin or from the existing raw water irrigation service on the property. There would be a buffer of existing trees left along the Rollins Lake Road frontage to the proposed WTP site.

Parking

To satisfy parking demands for PCWA employees and deliveries, a new employee parking area would be constructed along the site's northwest boundary as shown in Figure 2. Additional fill would be added to the site, graded, compacted and paved. Up to four dedicated parking spaces would be created.

Utilities

The estimated annual electricity consumption for the project is 259,400 kilowatt hours (kWh) per year. The project would be replacing the existing Colfax WTP facility, so the net increase in water consumption is minimal. Any water used as part of the treatment process is recycled back into the treatment process. The only water that is not recycled is water to the toilet and sink for the single bathroom planned as part of the project. There is no sewer service in the project area, so a septic system is planned. The amount of solid waste generated for the project is anticipated to be the same as the existing facility; therefore, there would be no net increase of solid waste.

The existing Colfax WTP currently generates approximately 10 tons of sludge annually. This is a dry weight; however, the existing facility does not have the ability to dry the sludge on site. It is, therefore, trucked off wet and is dried at another nearby PCWA facility. Because the new WTP would be able to dry the sludge on site, the project would result in a decrease in truck trips to dispose of the dried sludge compared to the existing facility.

Project Construction

The anticipated construction start date, starting with site preparation, is October 2022. Project construction would end with architectural coating by March 2024. The amount of grading during site preparation is approximately 5 acres. The project cut and fill would balance with zero off-haul or import.

Equipment

The equipment necessary to complete the proposed project likely would include typical excavation and construction equipment, such as the following.

- Site Preparation: Rubber-tired dozers, tractors/loaders/backhoes, water truck.
- Grading: Excavators, graders, rubber-tired dozers, scrapers, tractors/loaders/backhoes, water truck.
- Building Construction: Cranes, forklifts, generators, tractors/loaders/backhoes, welders.
- Paving: Pavers, paving equipment, rollers, water truck.
- Architectural Coating: Air compressors.

This equipment would be operated for various durations during daytime hours (between 7 a.m. and 5 p.m.) on weekdays, excluding holidays.

Site Access and Staging

Access to the project site is provided by Rollins Lake Road and SR 174 from the south. The construction haul route would be from Interstate 80 to Colfax, then SR 174 north from Colfax to the project site. Construction crews would stage equipment and materials within the WTP property. There would be no staging or parking on roadways.

Maintenance

Maintenance of one 500 horsepower (hp) emergency diesel generator includes testing no more than one hour per month and up to 12 hours per year. The generator at the existing Colfax WTP is 175 KW (approximately 250 hp) and is new enough that it would be relocated to the project assuming similar electrical needs.

The treatment plant would regularly receive delivery of treatment chemicals. Seven different treatment chemicals would be used: aluminum chlorohydrate and dry polymer inside the building; and aluminum sulfate, caustic soda, hypochlorite, and lime for use outside the building. These chemicals would be delivered by truck to the site throughout the life of the project.

Chapter 2
Environmental Checklist

1. **Project Title:** Colfax Water Treatment Plant
2. **Lead Agency Name and Address:** Placer County Water Agency
3. **Contact Person and Phone Number:** Heather Trejo, 530. 823.4850
4. **Project Location:** 25745 Rollins Lake Road, Colfax, Placer County, CA; APN 099-140-030-000 and APN 099-150-003-000
5. **Project Sponsor's Name and Address:** Placer County Water Agency
   P.O. Box 6570
   Auburn, CA 95604
6. **General Plan Designation:** High Density Residential/Visitor Commercial
7. **Zoning:** F-B-43 PD (Farm-Building Site Planned Residential Development)/C2-Dc (General Commercial-Design Review)
8. **Description of Project:**

   PCWA is proposing to construct and operate a water treatment plant (WTP) and associated facilities to serve growth in the Colfax service area and to provide improved reliability and more dependable service. The project also includes construction of a parking area.
9. **Surrounding Land Uses and Setting:**

   The WTP would be located on private property to be purchased by Placer County Water Agency (PCWA) in unincorporated Shady Glen north of Colfax. East of the project site is primarily undeveloped lands with the Southern Pacific Railroad and Interstate 80 approximately 0.23 and 0.43 mile away, respectively. To the south are several private residences and undeveloped lands. To the west are private residences, a mobile home park, and undeveloped lands. To the north are rural private residences surrounded by undeveloped lands. Rollins Lake is approximately 1 mile to the north.
10. **Other Public Agencies Whose Approval is Required:**
    - Central Valley Regional Water Quality Control Board (Regional Water Board)—PCWA will require the construction contractor to prepare a stormwater pollution prevention plan (SWPPP) and submit it to the Regional Water Board for approval. In addition, PCWA may need to coordinate with this agency if aquatic resources cannot be avoided and to determine if they are subject to the Porter-Cologne Water Quality Control Act.
    - State Department of Health Services—PCWA will apply for a permit to operate the new WTP.
    - Placer County Air Pollution Control District (PCAPCD)—PCWA will comply with rules concerning fugitive dust and control of fine particulate matter generated by construction activities.
    - Placer County Department of Public Works (PCDPW)—PCWA will require the construction contractor to submit an encroachment permit application to PCDPW for finished-water pipeline work in Rollins Lake Road. California Department of Transportation (Caltrans) – PCWA will require the construction contractor to submit an encroachment permit application to Caltrans for finished-water pipeline work in Highway 174 right of way.

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

PCWA emailed AB 52 consultation letters to Wilton Rancheria and United Auburn Indian Community of the Auburn Rancherία (UAIC) on April 29, 2021. The letters described the project and requested information about Tribal cultural resources that may be on or near the project area.

On May 4, 2021, Anna Starkey of the UAIC, responded that the UAIC is aware of a tribal village site located in the vicinity of the project. Because the site is approximately mapped, she noted that it is possible the site extends into the project footprint. Ms. Starkey also included UAIC's preferred mitigation measures for unanticipated discoveries, a post-ground disturbance site visit, and cultural awareness training. PCWA responded on June 7, 2021, with the draft Tribal Cultural Resources chapter and draft mitigation measures. UAIC has not responded with comments to date. PCWA followed up on June 23, 2021, and indicated it assumed they had no comments on the draft chapter, as they have sent no response.

On May 4, 2021, Mariah Mayberry of the Wilton Rancheria notified PCWA that the Tribe has identified cultural resources near the project footprint and would like to have a Tribal monitor present during all ground disturbing activities. PCWA responded to Wilton Rancheria and UAIC on June 7, 2021. asking for additional information on the identified resource and provided the Tribes the draft Tribal cultural resources analysis with proposed avoidance, protection, and mitigation measures for the project. PCWA followed up on June 23, 2021, with UAIC and indicated it assumed they had no comments on the draft chapter, as they have sent no response. PCWA followed up on June 9, June 11, June 17 because Wilton Rancheria had asked to discuss the project. PCWA provided the Wilton Rancheria with an updated Tribal cultural resources section for review. Their comments on the draft section have been incorporated into the Tribal cultural resources analysis presented in this document. They provided approval of the section via electronic email on August 5, 2021, which concluded AB 52 consultation for the project.

Environmental Factors Potentially Affected

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

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

Determination

On the basis of this initial evaluation:

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

X 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 to 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 an impact on the environment that is "potentially significant" or "potentially significant unless mitigated" 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 project, nothing further is required.

Heather Trejo — 8/11/21

Signature — Date

Heather Trejo — PCWA

Printed Name — For

Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained if it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including offsite as well as on site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (EIR) is required.
4. "Negative Declaration: Less than Significant with Mitigation Incorporated" applies when the incorporation of mitigation measures has reduced an effect from a "Potentially Significant Impact" to a "Less-than-Significant Impact." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less-than-significant level. (Mitigation measures from *Earlier Analyses*, as described in #5 below, may be cross-referenced.)
5. Earlier analyses may be used if, pursuant to tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063(c)(3)(D)). In this case, a brief discussion should identify the following:
    a. Earlier Analysis Used. Identify and state where earlier analyses are available for review.
    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Incorporated," describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, when appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
    a. the significance criteria or threshold, if any, used to evaluate each question; and
    b. the mitigation measure identified, if any, to reduce the impact to a less-than-significant level.

I. Aesthetics

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:					
a.	Have a substantial adverse effect on a scenic vista?				X
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?				X
c.	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			X	
d.	Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?			X	

Affected Environment

The WTP and other facilities would not be located in a scenic vista, on or near a state or federal scenic byway, or in any other officially designated scenic resource. No roads in the project area are designated as scenic highways in California's scenic highway program.

The project site is located north of SR 174 at the intersection of Rollins Lake Road in the unincorporated community of Shady Glen. Elevation of the site ranges from approximately 2,420 to 2,540 feet above sea level and consists of shallow to moderately sloped vegetated rolling foothills. A small trailer residence is located in the north-central portion of the site, along with water treatment infrastructure (i.e., small buildings/sheds and water storage tanks) serving Shady Glen Estates located south of the site. A storage yard (associated with Shady Glen Estates) is located in the southwestern portion of the project site, and a PCWA canal easement is located in the eastern portion of the site.

Views east of the project site include trees and undeveloped lands, with the Southern Pacific Railroad and Interstate 80 approximately 0.23 and 0.43 mile away, respectively. Views to the south include fewer trees, several private residences, and undeveloped lands. Views to the west include trees, private residences, a mobile home park, and undeveloped lands. Views to the north include trees and rural private residences surrounded by undeveloped lands. Rollins Lake is approximately 1 mile north.

Discussion

a. Have a substantial adverse effect on a scenic vista?

A *scenic vista* can be defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. Because there are no scenic vistas in the project area, the project would not block views of any individual scenic vista and would not alter the visual character of the surrounding land uses. Therefore, the project would have no impact on scenic vistas.

b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?

The project site is not located within a state scenic highway and is not visible from a state scenic highway. Although SR 49, several miles west of the project site, is an eligible State Scenic Highway, it is not officially designated as such (California Department of Transportation 2011). Therefore, the project would have no impact on the scenic resources of a state scenic highway.

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

The project site is in a non-urbanized area on the northern portion of APN 099-140-030-000 (comprising approximately 5.6 acres) and the entirety of APN 099-150-003-000 (comprising approximately 2.4 acres) at 25745 Rollins Lake Road. Construction of the project would involve vegetation removal for project facilities and parking areas in the locations as shown on Figure 2. Vegetation removal is not expected to substantially affect the visual character of the project area and its immediate surroundings because views of the construction area are largely screened by surrounding trees and changes in topography. Additionally, the project site has an existing WTP on site so the project would not be dissimilar to existing conditions. Therefore, any visual impacts would affect only a few nearby residences and primarily during construction. Impacts associated with the presence of construction equipment and activities would be temporary. The short-term visual disturbance during construction is not considered substantial because of the rural character of the area and limited visibility of the project site from surrounding areas.

As described in Chapter 2, Section IV, *Biological Resources*, PCWA would implement measures to avoid and minimize impacts on trees. Because of topography and tree cover, views of the project site and tree removal area are limited. In summary, implementation of the project would not permanently degrade the existing visual character or quality of the area and its surroundings. This impact would be less than significant.

d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

The project building and facilities would be lighted with fixtures similar to those on the existing Shady Glen WTP buildings but would be more expansive. Additional light fixtures would be required, but these fixtures would not create a new, substantial source of light or glare because the fixtures would be fully shielded and directed toward plant facilities only. Because project construction would occur during daytime hours, no nighttime lighting would be necessary for construction. This impact is considered less than significant.

II. Agricultural and Forestry Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
In determining whether impacts on 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 on 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 the 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?				X
b. Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?				X
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))?				X
d. Result in the loss of forest land or conversion of forest land to non-forest use?				X
e. Involve other changes in the existing environment that, 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?				X

Affected Environment

There are no agricultural uses on the project site or on adjacent parcels. The northern portion of the project site is zoned F-B-43 PD (Farm-Building Site Planned Residential Development), and the

southern portion is zoned C2-Dc (General Commercial-Design Review). The general plan land use designations on the project site are high density residential and visitor commercial. The project site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance under the California Department of Conservation's Farmland Mapping and Monitoring Program (California Department of Conservation 2016). The project site and surrounding properties are designated Urban and Built-Up Land and Other Land (California Department of Conservation 2016). There are no agricultural preserves (Williamson Act contracts) on the project site or in the project area (Placer County 2020).

Discussion

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?

The project site is not used for agricultural purposes and does not include land designated by the California Farmland Mapping and Monitoring Program as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Implementation of the project would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance and would not interfere with activities on farmlands. Therefore, there would be no impact.

b. Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?

The northern portion of the project site is zoned F-B-43 PD (Farm-Building Site Planned Residential Development), and the southern portion is zoned C2-Dc (General Commercial-Design Review). Public utility facilities such as the project require a Minor Use Permit in the F and C2 zones; therefore, the project would not conflict with zoning for agricultural use. There are no agricultural preserves (Williamson Act contracts) on the project site or in the project area (Placer County 2020). There would be no impact.

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))?

The project site does not include forest land or any land zoned for forest land or timberland. There would be no impact.

d. Result in the loss of forest land or conversion of forest land to non-forest use?

The project site does not include forest land or any land zoned for forest land or timberland. Therefore, implementation of the project would not result in the loss of forest land or the conversion of forest land to a non-forest use. There would be no impact.

e. Involve other changes in the existing environment that, 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 would not involve changes in the existing environment that, because of their location or nature, could result in conversion of farmland to nonagricultural use or forest land to non-forest use. There would be no impact.

III. Air Quality

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:					
a.	Conflict with or obstruct implementation of the applicable air quality plan?			X	
b.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard?			X	
c.	Expose sensitive receptors to substantial pollutant concentrations?		X		
d.	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

Affected Environment

The project site is in unincorporated area Colfax in northern Placer County, which is within the Mountain Counties Air Basin (MCAB). Concentrations of ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), and particulate matter (PM10 and PM2.5) are commonly used as indicators of ambient air quality conditions. These pollutants are known as *criteria pollutants* and are regulated by the U.S. Environmental Protection Agency (USEPA) and California Air Resources Board (CARB) through national ambient air quality standards (NAAQS) and California ambient air quality standards (CAAQS), respectively. The NAAQS and CAAQS define clean air and represent the maximum amount of pollution that can be present in outdoor air without any harmful effects on people and the environment. Other pollutants of concern in the project area are nitrogen oxides (NO_X) and reactive organic gases (ROG), which are precursors to ozone, and toxic air contaminants (TAC), which can cause cancer and other human health effects.

Criteria pollutant concentrations in Placer County and the MCAB are measured at several monitoring stations. The nearest station to the project site is the Colfax-City Hall station, which is approximately 1.5 miles south of the project site. Monitoring data show that the station experienced several violations of the ozone CAAQS and NAAQS during the 2017 and 2019 reporting period (California Air Resources Board 2021). Data collected from monitoring stations throughout the region, including the Colfax-City Hall station, are used to designate Placer County as nonattainment, maintenance, or attainment for the NAAQS and CAAQS. Based on the most recent local monitoring data, the MCAB portion of Placer County is currently classified as nonattainment for the federal and state ozone standards and as nonattainment for the state PM10 standard (California Air Resources Board 2020; U.S. Environmental Protection Agency 2020).

The Placer County Air Pollution Control District (PCAPCD) is responsible for ensuring that the NAAQS and CAAQS are met within Placer County. PCAPCD manages air quality through a comprehensive program that includes long-term planning, regulations, incentives for technical innovation, education, and community outreach. For example, the *2017 Sacramento Regional 8-Hour Attainment and Reasonable Further Progress Plan* (2017 Ozone Plan) outlines strategies to achieve the federal ozone standard throughout the entire Sacramento Valley region, inclusive of the project area. PCAPCD has also adopted rules and regulations applicable to individual projects and emissions generating sources within Placer County. Specific rules applicable to the project may include Rule 202 (Visible Emissions), Rule 205 (Nuisances), Rule 217 (Cutback and Emulsified Asphalt Paving Materials), Rule 228 (Fugitive Dust), and Rule 501 (General Permit Requirements).

PCAPCD's *CEQA Handbook* provides guidance for evaluating project-level air quality impacts, including thresholds to assist lead agencies in evaluating the significance of project generated criteria pollutant and precursor emissions. PCAPCD's thresholds are based on the new source review (NSR) rule, which requires stationary sources to offset emissions in excess of the identified thresholds. PCAPCD (2017) concludes that there is no difference between emissions from stationary sources and those generated by land use uses, and as such, the NSR rule and associated thresholds are equally applicable to all sources. Based on analysis of current regional goals to attain the NAAQS and CAAQS, PCAPCD (2017) has demonstrated that the NSR emission offset requirements are appropriate in addressing the potential air quality impacts from new land use projects in Placer County.

Table 1 outlines PCAPCD's recommended thresholds. The thresholds consider whether a project's emissions would result in a cumulatively considerable adverse contribution to existing air quality conditions. If a project's emissions would be less than these levels, the project would not be expected to result in a cumulatively considerable contribution to the significant project-level and cumulative impact.

Table 1. Placer County Air Pollution Control District Criteria Pollutant and Precursor Thresholds (pounds per day)

	Ozone Precursor Emissions		
Source	**ROG**	**NO_X**	**PM10**
Construction (short-term)	82	82	82
Operational (long-term)	55	55	82

Source: Placer County Air Pollution Control District 2017.

NO_X = nitrogen oxides
PM10 = particulate matter 10 microns or less in diameter
ROG = reactive organic gases

PCAPCD (2017) also considers localized CO emissions to result in significant impacts if concentrations exceed the CAAQS. The air district has adopted the following screening criteria that provide a conservative indication of whether project-generated traffic would cause a potential CO hot spot. If both criteria are met, PCAPCD recommends traffic-generated CO concentrations be modeled and compared with the CAAQS to determine impact significance.

- Vehicle emissions generated by the project exceed 550 pound per day, and

- Either of the following scenarios would occur:
    - Peak-hour level of service (LOS) on one or more streets or at one or more intersections (both signalized and non-signalized) in the project vicinity would be degraded from an acceptable LOS (e.g., A, B, C, or D) to an unacceptable LOS (e.g., E or F), or
    - Project would substantially worsen an already existing unacceptable peak-hour LOS on one or more streets or at one or more intersections in the project vicinity. *Substantially worsen* includes situations where delay would increase by 10 seconds or more when project-generated traffic is included.

PCAPCD has also adopted a threshold to evaluate receptor exposure to TAC. The substantial TAC threshold defined by the PCAPCD is the probability of contracting cancer for the maximum exposed individual exceeding 10 in a million. This risk threshold is used by PCAPCD to evaluate potential risks for both existing and new sources in Placer County (Placer County Air Pollution Control District 2017).

Discussion

a. Conflict with or obstruct implementation of the applicable air quality plan?

PCAPCD is required, pursuant to the NAAQS and CAAQS, to reduce emissions of criteria pollutants for which the County is in nonattainment. The most recent PCAPCD air quality attainment plan applicable to the project area is the *2017 Ozone Plan*. The simplest test to assess project consistency is to determine if the project proposes development that is consistent with the growth anticipated by the relevant land use plans that were used in the formulation of the air quality attainment plans; if so, then the project would be consistent with the attainment plans.

PCAPCD's air quality attainment plans are based, in part, on regional population and employment (and thus vehicle miles traveled [VMT]) growth projections from Sacramento Area Council of Governments (SACOG). Thus, a project's conformance with SACOG's *Metropolitan Transportation Plan/Sustainable Communities Strategy* that was considered in the preparation of the air quality attainment plans would demonstrate that the project would not conflict with or obstruct implementation of plans.

Further, the *Placer County General Plan* is the governing land use document for physical development within the county, so projects that propose development consistent with growth anticipated by the current general plan are considered consistent with the air quality attainment plans. If a project would propose development that is less dense than anticipated within the current general plan, the project would likewise be consistent with the attainment plans because emissions would be less than estimated within the current general plan. If a project proposes development that is greater than that anticipated in the general plan and SACOG's growth projections, the project could be in conflict with the attainment plans and might have a potentially significant impact on air quality because emissions could exceed those estimated for the existing land use plan (i.e., general plan).

The project includes the construction and operation of a WTP and associated facilities to serve growth in the Colfax service area. The project is consistent with the land use goals and policies of the adopted *Placer County General Plan* and would not be inconsistent with any plans or policies adopted for the purpose of avoiding/mitigating an environmental effect. Furthermore, the facility would not induce growth beyond what has been planned for under the adopted general plan. As

such, impacts associated with inconsistency with applicable air quality attainment plans would be less than significant.

b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard?

Construction

The predominant pollutants associated with construction of the proposed project are fugitive dust (PM10) from earthmoving activities and combustion pollutants, particularly ROG and NO_X, from heavy equipment and trucks. ROG would also be generated from paving activities and architectural coatings.

Construction of the project would be short term, occurring between 2022 and 2024. Criteria pollutants and precursors generated by construction were quantified using CalEEMod, and construction activity data provided by PCWA (Trejo pers. comm. [a]). Table 2 summarizes the results of the emissions modeling and compare emissions to the PCAPCD's thresholds. Refer to Appendix A (*Air Quality and GHG Emissions*) for model outputs.

Table 2. Estimated Maximum Daily Criteria Pollutant Emissions from Project Construction (pounds)

Year	ROG	NO_X	PM10
2022	5	45	20
2023	3	33	11
2024	29	1	<1
PCAPCD threshold	*82*	*82*	*82*
Exceed threshold?	*No*	*No*	*No*

NO_X = nitrogen oxides
PCAPCD = Placer County Air Pollution Control District
PM10 = particulate matter 10 microns or less in diameter
ROG = reactive organic gases

As shown in Table 2, construction of the proposed project would not generate ROG, NOx, or PM10 emissions above PCAPCD's thresholds. Therefore, construction of the project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is designated as nonattainment under an applicable federal or state ambient air quality standard. This impact would be less than significant.

Operation

Operation of the new facility will employ one full-time staffer that would report to the site daily. Special maintenance, such as sludging, is expected to occur up to a week yearly and would require three employees daily during that time. These staffing demands are the same as the existing facility that would be decommissioned by the project. Accordingly, the project would not increase vehicle trips or associated mobile source emissions relative to existing conditions. The project would not consume natural gas or result in energy source emissions (Trejo pers. comm. [b]).

One 500-hp emergency generator would be maintained on site to provide backup power in the event of an outage. This generator would replace the 250-hp generator at the existing facility.

Emergency testing under both existing and project conditions was assumed to occur monthly, up to 1 hour per day and 12 hours per year (Trejo pers. comm. [b]).

Criteria pollutants and precursors generated by testing of the emergency generator under existing and project conditions were quantified using CalEEMod. Emissions from area source (e.g., landscaping equipment) at the existing and proposed facility were also quantified. Table 3 summarizes the results of the emissions modeling and compare the net change in emissions from existing conditions to the PCAPCD's thresholds. Refer to Appendix A (*Air Quality and GHG Emissions*) for model outputs.

Table 3. Estimated Criteria Pollutant Emissions from Project Operation (pounds per day)

Source	ROG	NO_X	PM10
Existing facility			
Emergency generator testing	<1	1	<1
Area sources	<1	<1	<1
Project			
Emergency generator testing	1	2	<1
Area sources	7	<1	<1
Net change [a]	7	1	<1
PCAPCD threshold	*55*	*55*	*82*
Exceed threshold?	*No*	*No*	*No*

NO_X = nitrogen oxides
PCAPCD = Placer County Air Pollution Control District
PM10 = particulate matter 10 microns or less in diameter
ROG = reactive organic gases
[a] Project emissions minus existing facility emissions.

As shown in Table 3, operation of the proposed project would not generate ROG, NOx, or PM10 emissions above PCAPCD's thresholds. Therefore, operation of the project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is designated as nonattainment under an applicable federal or state ambient air quality standard. This impact would be less than significant.

c. Expose sensitive receptors to substantial pollutant concentrations?

Sensitive receptors are facilities that house or attract children, the elderly, and people with illnesses, or others who are especially sensitive to the effects of air pollutants. Hospitals, schools, convalescent facilities, and residential areas are examples of sensitive receptors.

The project is surrounded by undeveloped land with scattered private residences. The closest residential receptor is adjacent to the northern project boundary. A mobile home park is located to the west of the project, with the nearest home about 100 feet from the property line. There are no hospitals, schools, or convalescent facilities within 1,000 feet of the project area.

The primary pollutants of concern with respect to health risks to sensitive receptors are criteria pollutants (regional and local) and TAC. Ozone precursors (ROG and NO_X) and particulate matter are considered regional pollutants because they affect air quality on a regional scale. Localized pollutants are deposited and potentially affect population near the emissions source. Because these pollutants dissipate with distance, emissions from individual projects can result in direct and

material health impacts on adjacent sensitive receptors. The localized criteria pollutants of concern that would be generated by the project are particulate matter (fugitive dust) and CO. The TAC of concern are naturally occurring asbestos and DPM.

Regional Criteria Pollutants

PCAPCD develops region-specific CEQA thresholds of significance in consideration of existing air quality concentrations and attainment or nonattainment designations under the NAAQS and CAAQS. Recognizing that air quality is a cumulative problem, PCAPCD typically considers projects that generate criteria pollutants and ozone precursor emissions that are below the thresholds to be minor in nature. Such projects would not adversely affect air quality or exceed the NAAQS or CAAQS. As described previously under response "b," neither construction nor operation of the project would generate ROG, NO_X, or PM10 emissions above PCAPCD's thresholds. As such, the project would not be expected to contribute a significant level of air pollution that would degrade long-term, regional air quality within the MCAB.

The California Supreme Court's decision in *Sierra Club v. County of Fresno* (6 Cal. 5th 502) (hereafter referred to as the *Friant Ranch Decision*) reviewed the long-term, regional air quality analysis contained in the EIR for the proposed *Community Plan Update and Friant Ranch Specific Plan* (Friant Ranch Project). The Friant Ranch Project is a 942-acre master-plan development in unincorporated Fresno County within the San Joaquin Valley Air Basin, an air basin currently in nonattainment under the NAAQS and CAAQS for ozone and PM2.5. The Court found that the EIR's air quality analysis was inadequate because it failed to provide enough detail "for the public to translate the bare [criteria pollutant emissions] numbers provided into adverse health impacts or to understand why such a translation is not possible at this time." The Court's decision clarifies that environmental documents must attempt to connect a project's regional air quality impacts to specific health effects or explain why it is not technically feasible to perform such an analysis.

While regional criteria pollutant emissions generated by implementation of the project would not result in a significant impact, consistent with the Friant Ranch Decision, Table 4 provides a conservative estimate of potential health effects associated with these emissions. The estimates were developed using Sacramento Metropolitan Air Quality Management District's (SMAQMD) Minor Project Health Screening Tool (version 2). The Minor Project Health Screening Tool was developed by SMAQMD, in partnership with other regional air districts in the Sacramento Federal Nonattainment Area (SFNA), including PCAPCD (Ramboll 2020). SMAQMD conducted photochemical and health effects modeling of hypothetical projects throughout the five-air-district SFNA region with NO_X, ROG, and PM2.5 emissions at 82 pounds per day, which corresponds to the highest daily emissions threshold of all SFNA air districts. The tool outputs the estimated health effects at the 82 pound per day emissions rate by spatially interpolating the health effects from the hypothetical projects based on user inputs for the latitude and longitude coordinates of a project.

The results presented in Table 4 are conservative for two reasons. First, they are based on a source generating 82 pounds per day of ROG, NO_X, and PM2.5. As shown in Tables 2 and 3, maximum mitigated daily emissions by construction and operation of the project are well below 82 pounds. Second, the results assume the source would generate emissions 365 days per year. Construction of the project would occur over 2 years. Project operations would occur daily, but ongoing emissions above existing conditions would be limited emergency generator testing and area sources. For these reasons, any increase in regional health risks associated with project-generated emissions would be less than those presented in Table 4, which are already very small increases over the background

incident health effect. As such, related impacts are considered less than significant, and no mitigation is required.

Table 4. Conservative Estimate of Increased Regional Health Effect Incidence Resulting from Implementation of the Project (cases per year)

Health Endpoint[a]	Age Range [b]	Annual Mean Incidences (Model Domain and 5-District Region) [c]	% of Background Incidence (and 5-District Region) [d]	Total # of Health Incidence (and 5-District Region) [e]
PM2.5 Emissions – Respiratory				
Emergency Room Visits, Asthma	0–99	<1	<1%	18,419
Hospital Admissions, Asthma	0–64	<1	<1%	1,846
Hospital Admissions, All Respiratory	65–99	<1	<1%	19,644
PM2.5 Emissions – Cardiovascular				
Hospital Admissions, All Cardiovascular [f]	65–99	<1	<1%	24,037
Acute Myocardial Infarction, Nonfatal	18–24	<1	<1%	4
Acute Myocardial Infarction, Nonfatal	25–44	<1	<1%	308
Acute Myocardial Infarction, Nonfatal	45–54	<1	<1%	741
Acute Myocardial Infarction, Nonfatal	55–64	<1	<1%	1,239
Acute Myocardial Infarction, Nonfatal	65–99	<1	<1%	5,052
PM2.5 Emissions – Mortality				
Mortality, All Cause	30–99	1	<1%	44,766
ROG and NO_X Emissions – Respiratory				
Hospital Admissions, All Respiratory	65–99	<1	<1%	19,644
Emergency Room Visits, Asthma	0–17	<1	<1%	5,859
Emergency Room Visits, Asthma	18–99	<1	<1%	12,560
ROG and NO_X Emissions – Mortality				
Mortality, Non-Accidental	0–99	<1	<1%	30,386

Source: SMAQMD Minor Project Health Screening Tool, version 2, June 2020.

Note: The analysis point is in the center of the project area at 39.119223, -120.949927.

ROG = reactive organic gases

NO_X = nitrogen oxides

PM2.5 = particulate matter less than 2.5 microns in diameter

SMAQMD = Sacramento Metropolitan Air Quality Management District

[a] Importantly, outputs from SMAQMD's tools only include health effects of NO_X, ROG, and PM2.5 that have been researched sufficiently to be quantifiable. As noted in SMAQMD's guidance, research has identified other health effects for both PM2.5 and ozone precursors (ROG and NO_X) (Ramboll 2020). For example, exposure to PM2.5 at certain concentrations can alter metabolism, leading to weight gain and diabetes; cause cognitive decline, brain inflammation, or reduced brain volume; and affect gestation, resulting in low birthweight or preterm birth (Ramboll 2020). Likewise, at high enough doses, exposure to ozone can increase lung permeability, increasing susceptibility to toxins and microorganisms (Ramboll 2020). These and other effects have been documented, but a quantitative correlation to project-generated emissions cannot be accurately established based on published studies (Ramboll 2020).

[b] Affected age ranges are shown. Other age ranges are available, but the endpoints and age ranges shown here are the ones used by the U.S. Environmental Protection Agency in their health assessments. The age ranges are consistent with the epidemiological study that is the basis of the health function.

[c] Health effects are shown in terms of incidences of each health endpoint and how it compares to the base (2035 base year health effect incidences, or "background health incidence") values. Health effects are across the Northern California model domain and 5-air-district region (rounded values are equivalent).

[d] The percent of background health incidence uses the mean incidence. The background health incidence is an estimate of the average number of people that are affected by the health endpoint in a given population over a given period of time. In this case, these background incidence rates cover the 5-air-district region (estimated 2035 population of 3,271,451 persons). Health incidence rates and other health data are typically collected by the government as well as the World Health Organization. The background incidence rates used here are obtained from BenMAP, as reported in SMAQMD's Minor Project Health Screening Tool, version 2.

[e] The total number of health incidences across the 5-air-district region is calculated based on modeling data, as reported in SMAQMD's Minor Project Health Screening Tool, version 2. The information is presented to assist in providing overall health context.

[f] Less Myocardial Infarctions.

Localized Fugitive Dust

During earthmoving activities required for construction, localized fugitive dust would be generated. The amount of dust generated by a project is highly variable and dependent on the size of the disturbed area at any given time, the amount of activity, soil conditions, and meteorological conditions. Dust emissions would be controlled through adherence to PCAPCD's Rule 228 (Fugitive Dust), which requires implementation of best management practices to reduce particulate matter emissions. Accordingly, the proposed project would not expose sensitive receptors to substantial fugitive dust concentrations. This impact would be less than significant, and no mitigation is required.

Localized Carbon Monoxide

Continuous engine exhaust during project operations may elevate localized CO concentrations, resulting in hot spots. Receptors exposed to these CO hot spots may have a greater likelihood of developing adverse health effects, such as fatigue, headaches, confusion, dizziness, and chest pain. CO hot spots are typically observed at heavily congested intersections where a substantial number of gasoline-powered vehicles idle for prolonged durations throughout the day. PCAPCD has developed screening criteria to assist lead agencies in evaluating potential impacts from localized CO. As discussed above, the project would not increase vehicle miles traveled or mobile source emissions, relative to existing conditions. The few vehicle trips that would occur on local roads to the new facility (instead of to the existing facility) during regular operations and for special maintenance would neither degrade peak-hour LOS to an unacceptable level nor substantially worsen delay at affected intersections. Accordingly, the project meets PCAPCD's CO screening criteria and, therefore, would not expose sensitive receptors to substantial CO concentrations. This impact would be less than significant, and no mitigation is required.

Naturally Occurring Asbestos

Naturally occurring asbestos (NOA) is a TAC and is the name given to naturally occurring fibrous silicate minerals. NOA can be released from serpentine and ultramafic rocks when the rock is broken or crushed during construction earthmoving activities. The inhalation of asbestos fibers into the lungs can result in a variety of adverse health effects, including inflammation of the lungs, respiratory ailments, and cancer (e.g., mesothelioma) (U.S. Environmental Protection Agency 2018). Projects located in an area "most likely" to contain NOA are required by PCAPCD to prepare and submit a naturally occurring asbestos dust mitigation plan (ADMP).

According to the California Department of Conservation's (2008) *Natural Occurring Asbestos Hazard* maps, the project site is in an area "most likely" to contain NOA (i.e., serpentine or ultramafic rock) and associated soils. As such, there is the potential for impacts related to NOA emissions during construction activities and the project is required to submit an ADMP. Mitigation Measure AQ-1

requires preparation of an ADMP, consistent with PCAPCD guidance, to control dust during construction and minimize the public's exposure to NOA. With implementation of Mitigation Measure AQ-1, the impact of NOA exposure would be less than significant.

Mitigation Measure AQ-1: Submit and Implement an Asbestos Dust Mitigation Plan

Prior to construction, the PCWA will complete an asbestos dust mitigation plan (ADMP) to be submitted and approved by the County prior to the start of any construction activity. The ADMP must specify dust mitigation practices that will be implemented to ensure that no equipment or operation during construction emits dust that is visible crossing property lines. The ADMP must also include one or more provisions that address each of the topics covered in Appendix D, *Asbestos Dust Mitigation Plan Requirements*, of PCAPCD's ADMP Guidance (Placer County Air Pollution Control District 2014).

Diesel Particulate Matter

Diesel particulate matter (DPM) is a TAC generated by diesel-fueled equipment and vehicles. Short-term exposure to DPM can cause acute irritation (e.g., eye, throat, and bronchial), neurophysiological symptoms (e.g., lightheadedness and nausea), and respiratory symptoms (e.g., cough and phlegm). The potential for project-generated DPM emissions to affect human health is typically assessed in terms of an increase in cancer risk and non-cancer health effects.

DPM would be generated by heavy-duty truck trips required for special maintenance and by testing of emergency generators during project operations. Exposure to DPM from these activities would be infrequent (yearly for maintenance; monthly for generator testing). Accordingly, long-term operation of the project is not expected to result in substantial DPM concentrations or expose receptors to associated health risks. This analysis, therefore, focuses on construction of the project, which would generate DPM emissions from heavy-duty equipment and vehicles.

Analysts performed a health risk assessment (HRA) to quantify receptor exposure to construction-generated DPM and resultant human health impacts. Risks were quantified using the construction emissions inventory (see Table 2), the USEPA's AERMOD model, and guidance from the Office of Environmental Health Hazard Assessment (OEHHA) (2015). Table 5 presents the results of the HRA.

Table 5. Maximum Unmitigated Cancer and Chronic Hazard Risks During Project Construction [a]

Analysis and Receptor	Cancer Risk (cases per million)	Non-Cancer Hazard Index
Maximally Exposed Individual	**33***	<1.0
PCAPCD Threshold	10	1.0
Exceed Threshold?	Yes	No

PCAPCD = Placer County Air Pollution Control District

* **Bold underline** with an asterisk (*) indicates an exceedance of PCAPCD's threshold.

[a] Table presents the highest modeled risk, which occurs at the residential receptor north of the project area. Risks are lower for all other receptor locations and below PCAPCD thresholds.

As shown in Table 5, construction of the project could expose existing receptors to a significant increase in cancer risk. This impact occurs at the single-family home north of the project area. Estimated risks at all other receptor locations are below PCAPCD's thresholds. Mitigation Measure AQ-2 requires offroad equipment used to construct the project to meet USEPA Tier 4 engine emission standards or be retrofitted to use level 3 diesel particulate filters. Table 6 presents

mitigated health risks and demonstrates that construction of the project would not exceed PCAPCD thresholds with implementation of Mitigation Measure AQ-2.

Table 6. Maximum Mitigated Cancer and Chronic Hazard Risks During Project Construction [a, b]

Analysis and Receptor	Cancer Risk (cases per million)	Non-Cancer Hazard Index
Maximally Exposed Individual	5	<1.0
PCAPCD Threshold	10	1.0
Exceed Threshold?	No	No

PCAPCD = Placer County Air Pollution Control District

[a] Table presents the highest modeled risk, which occurs at the residential receptor north of the project area. Risks would be lower for all other receptor locations.

[b] Mitigated emissions account for use of level 3 diesel particulate filters in all offroad equipment, which are estimated to reduce total DPM emissions by 84% (see Appendix A). Tier 4 engines would achieve even greater DPM and, therefore, mitigated risks with Tier 4 engines would be lower than those presented above.

Mitigation Measure AQ-2: Reduce Exhaust Emissions During Construction through Best Available Control Technology

PCWA will employ a tiered approach to reduce sensitive receptor exposure to diesel particulate matter during construction.

1. Use construction equipment with engines meeting EPA Tier 4 or better emission standards.
2. If a particular piece of off-road equipment with Tier 4 Final standards is not commercially available or feasible, then require all construction equipment with engines not meeting EPA Tier 4 or better emission standards to operate with the most effective California Air Resources Board Verified Diesel Emissions Controls available for the engine type (effectively level 3).

d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Although offensive odors rarely cause any physical harm, they can be unpleasant, leading to citizen complaints to local governments and air districts. Diesel-powered equipment operating during construction may generate odors that are evident in the immediately surrounding area. These activities would be intermittent and temporary in duration and, therefore, would not result in nuisance odors. The project does not meet any of the facility types identified by CARB (2005) or PCAPCD (2017) as odor-generating; thus, the project would not generate substantial operational odors. Accordingly, the proposed project would not create objectionable odors affecting a substantial number of people. This impact would be less than significant, and no mitigation is required.

IV. Biological Resources

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:					
a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		X		
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				X
c.	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?		X		
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?			X	
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
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?				X

Affected Environment

Methodology

The study area for biological resources consists of the project area and an additional 250-foot buffer around the project area where private property access was obtained. Prior to conducting field surveys, ICF biologists reviewed the following sources of information.

- California Natural Diversity Database (CNDDB) query of the Colfax, Lake Combie, Grass Valley, Chicago Park, Dutch Flat, Forest Hill, Georgetown, Greenwood, and Auburn U.S. Geological

Survey (USGS) 7.5-minute quadrangles (i.e., the project region) (California Department of Fish and Wildlife 2021).

- California Native Plant Society's (CNPS) 8th Edition *Inventory of Rare and Endangered Plants of California* query of the Colfax and eight surrounding USGS 7.5-minute quadrangles (2021) and electronic updates available at: http://www.rareplants.cnps.org/.
- U.S, Fish and Wildlife Service (USFWS) Information for Planning and Consultation online system list of federally threatened or endangered species for the project area (2021) and electronic updates available at: https://ecos.fws.gov/ipac/location/index.
- Placer County Water Agency *Initial Study Mitigated Negative Declaration for the Long Ravine Pipeline Replacement Project* (PCWA 2016).
- Aerial photographs of the project area (Google Earth 2021).

These resources were used to develop lists of special-status plant and wildlife species and other sensitive biological resources that could be present or are known to occur in the region. Species were included in these lists if they were known to occur in the project region or if their habitats are present in the vicinity of the project study area. For the purpose of this document, special-status species are defined as follows.

- Species that are candidates for possible future listing as threatened or endangered under ESA (84 *Federal Register* 54732 October 10, 2019).
- Species listed or proposed for listing by the State of California as threatened or endangered under CESA (14 CCR 670.5).
- Species that meet the definitions of rare or endangered under CEQA (CEQA Guidelines Section 15380).
- Plants listed as rare under the California Native Plant Protection Act (California Fish and Game Code Section 1900 et seq.).
- Plants that meet the definitions of rare or endangered under CEQA (CEQA Guidelines Section 15380(b), (c), and (d)). Plants that may meet this definition consist of the following:
    - Plants considered by the California Department of Fish and Wildlife (CDFW) to be "rare, threatened, or endangered in California" and assigned a California Rare Plant Rank (CRPR). The CDFW system includes five rarity and endangerment ranks for categorizing plant species of concern.
        - CRPR 1A—Plants presumed to be extinct in California.
        - CRPR 1B—Plants that are rare, threatened, or endangered in California and elsewhere.
        - CRPR 2A—Plants presumed to be extinct in California, but more common elsewhere.
        - CRPR 2B—Plants that are rare, threatened, or endangered in California but more common elsewhere.
        - Plants that may warrant consideration on the basis of local significance or recent biological information (CEQA Guidelines 15380[d]), which may include plants rated CRPR 3 (*Review List*: plants about which more information is needed to determine their status) and CRPR 4 (*Watch List*: plants of limited distribution).

- Animal species that may warrant consideration on the basis of local significance or recent biological information (CEQA Guidelines 15380(d))
- Species that are considered locally significant, that is, a species that is not rare from a statewide perspective but is rare or unique in a local context such as within a county or region (CEQA Guidelines Section 15125 (c)) or is so designated in local or regional plans, policies, or ordinances (CEQA Guidelines, Appendix G).
- Animal species of special concern to CDFW, as identified and defined in the CNDDB.
- Animals fully protected in California (California Fish and Game Code Sections 3511 [birds], 4700 [mammals], and 5050 [amphibians and reptiles]).

Field Surveys

Field surveys were conducted by ICF biologists on November 2, 2020, March 30, 2021, and July 2, 2021. During the surveys, biologists walked the study area to document existing conditions. The purpose of the surveys was to do the following.

- Characterize biological communities and their associated wildlife habitat uses.
- Assess the study area for its potential to contain sensitive biological resources (i.e., sensitive natural communities and aquatic resources).
- Conduct an early season botanical survey (March) and late season survey (July) to confirm the absence of special-status plants.
- Provide biological resource information to PCWA and design engineers for their consideration in project design and planning.

During the March survey, ICF conducted an aquatic resource delineation to determine if potential aquatic resources would be considered waters of the United States or waters of the state. The delineation was conducted in accordance with the C*orps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region* (U.S. Army Corps of Engineers 2010), and *A Guide to Ordinary High Water Mark (OHWM) Delineation for Non-Perennial Streams in the Western Mountains, Valleys, and Coast Region of the United States* (Mersel and Lichvar 2014).

Existing Conditions and Natural Communities

Most of the study area has an overall southwest-facing slope and is located at an elevation of approximately 2,500 feet mean sea level, near the top of a ridge dividing the Bear River and North Fork American River drainages. The study area is east of the small community of Shady Glen and south of a rural residential housing dominated setting. To the east and south, some private residences and businesses are present along with a railroad and Interstate 80. The Boardman Canal flows into a tunnel in the eastern portion of the study area, then under the project site.

Overall, the study area is relatively disturbed and is dominated by medusa head grassland and surrounded by foothill pine woodland. Small inclusions of buck brush chaparral, Mexican rush marsh, and Himalayan blackberry scrub occur in the study area. Each of these communities and associated wildlife habitats is described below.

Medusa Head Grassland

The study area primarily consists of medusa head grassland dominated by medusa head (*Elymus caput-medusae*), dogtail grass (*Cynosurus echinatus*), wild oats (*Avena barbata* and *A. fatua*), and pine grass (*Calamagrostis rubescens*).

Foothill Pine Woodland

In the study area, foothill pine woodland extends along the approximate alignment of the Boardman Canal, and another swath occurs along the study area's western border. A remnant trench, containing an ephemeral drainage, extends along the approximate path of the subsurface canal with the woodland growing along either side. The western edge of the foothill pine woodland contains an eroding gully with shallow sandy and gravelly soils and some exposed bedrock. The foothill pine woodland is dominated by foothill pine (*Pinus sabiniana*), blue oak (*Quercus douglasii*), interior live oak (*Quercus wislizenii*), and valley oak (*Quercus lobata*). In canopy openings, the woody understory is dominated by poison oak (*Toxicodendron diversilobum*), toyon (*Heteromeles arbutifolia*), white leaf manzanita (*Arctostaphylos viscida* ssp. *viscida*), and snowberry (*Symphoricarpos albus* var. *laevigatus*). Herbaceous plant species cover was generally low but included species dominant in the medusa head grassland.

Buck Brush Chaparral

A relatively small area of buck brush chaparral occurs in the northeastern corner of the survey area. The buck brush chaparral was dominated by deer brush (*Ceanothus cuneatus*) associated with white leaf manzanita. Medusa head grassland grows intermixed between the shrubs.

Himalayan Blackberry Scrub

Himalayan blackberry scrub consists of wetland and upland areas. Along the western border of the study area is a steep and gullied landslide scar with emanating seeps and springs that supports 0.084 acre of Himalayan blackberry scrub wetland (see Figure 3). At least some of the seep and spring flow appears to be the result of domestic water apparently being released from a pipe leading from a residence located above the headwall of the apparent landslide. This wetland is dominated by (invasive) Himalayan blackberry (*Rubus armeniacus*) with subdominant wetland species, including arroyo willow (*Salix lasiolepis*), Mexican rush (*Juncus mexicanus*), tall flat sedge (*Cyperus eragrostis),* and lamp rush (*Juncus effusus*). Himalayan blackberry scrub also occurs in upland areas along the study area's northwestern border. Upland areas of blackberry scrub lack wetland subdominant species and are not sustained by the seeps and springs.

Mexican Rush Marsh

An estimated 0.004 acre of Mexican rush marsh (dominated by Mexican rush and lamp rush) occurs in a topographic low in the southwestern corner of the study area (see Figure 3). The marsh appears to be supported by a shallow water table.

Ponded Non-Wetland Water

One area of non-wetland water (0.003 acre) occurs at the base of the hillslope (Figure 3). This feature was unvegetated, ponded at the time of the March survey, and may receive water from the canal leakage and surrounding foothill pine woodland.

Legend

Study Area (4.49 acres)

Aquatic Resources*

Wetlands

Himalayan blackberry scrub wetland (0.084 acre)

Mexican Rush Marsh (0.004 acre)

Non-Wetland Water

Ponded Non-Wetland Water (0.003 acre)

*Note: Aquatic resources would not likely be regulated by the U.S. Army Corps of Engineers because they are isolated from federally jurisdictional aquatic resources.

Source: NAIP Imagery (USDA, 2016)

ICF

N

0 50 100 200 Feet

1:1,200 1 inch equals 100 feet

Figure 3

Aquatic Resources Delineated in the Study Area

Wildlife Habitats

In the study area, the woodland, chaparral, and annual grassland communities provide cover, foraging, and breeding opportunities for a variety of wildlife species. Species common to this habitat complex include western fence lizard (*Sceloporus occidentalis*), California kingsnake (*Lampropeltis getula californiae*), western rattlesnake (*Crotalus oreganus*), acorn woodpecker (*Melanerpes formicivorus*), Nuttall's woodpecker (*Picoides nuttallii*), bushtit (*Psaltriparus minimus*), western scrub jay (*Aphelocoma californica*), red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), great horned owl (*Bubo virginianus*), wild turkey (*Meleagris gallopavo*), western gray squirrel (*Sciurus griseus*), dusky-footed woodrat (*Neotoma fuscipes*), California vole (*Microtus californicus*), deer mouse (*Peromyscus maniculatus*), Columbian black-tailed deer (*Odocoileus hemionus columbianu*), Virginia opossum (*Didelphis virginiana*), bobcat (*Lynx rufus*), and coyote (*Canis latrans*).

In addition, the Himalayan blackberry scrub community provides limited foraging opportunities as well as limited breeding, hiding, and thermal cover for various passerines and small mammals. Himalayan blackberry is an invasive species that provides low value habitat, is difficult to control, and limits native understory plant growth that may be of higher value to native wildlife. Furthermore, persistence of Himalayan blackberry will eventually overtake the remaining native subdominant wetland species, thus further reducing floral and faunal diversity within the study area.

Special-Status Species

Special-Status Plants

Based on a review of existing information (CDFW 2021, CNPS 2021, Natural Resources Conservation Service 2020, USFWS 2021, PCWA 2016), a total of 19 special-status plants were identified as potentially occurring in the project region (Table 7). Overall, the study area has a relatively low potential to support special-status plants due to the existing level of disturbance (i.e., dominance of invasive species in the grassland and construction of Boardman Canal), the study area's relative isolation from undisturbed areas, and the lack of special-status species with potential habitat in the study area that have occurrences within 10 miles of the study area. No special-status plants were identified during the 2021 spring and summer botanical surveys, and none have previously been reported in the study area.

Special-Status Wildlife

ICF biologists conducted a preliminary review of existing data sources to develop a list of special-status wildlife species that have the potential to occur within the study area (Table 8). The list is based on a review of the CNDDB (CDFW 2021), species lists obtained for the project region (USFWS 2021), PCWA (2016) aerial imagery for the study area and surrounding areas, and species distribution and habitat requirements. Based on the presence of suitable habitat and known occurrences in the region, the following special-status wildlife species were identified during the prefield investigation as having the potential to occur in the study area.

- Western bumble bee (*Bombus occidentalis occidentalis*)—California Candidate for Listing as Endangered
- Foothill yellow-legged frog (*Rana boylii*)—California Listed Endangered, CDFW Species of Special Concern

- California red-legged frog (*Rana draytonii*)—federally threatened, CDFW Species of Special Concern
- Blainville's horned lizard (*Phrynosoma blainvillii*)—CDFW Species of Special Concern
- Western pond turtle (*Emys marmorata*)—CDFW Species of Special Concern
- Pallid bat (*Antrozous pallidus*)—CDFW Species of Special Concern

The western bumble bee is a generalist and does not depend on any one flower type. Flowering plants in the study area include yellow star thistle (*Centaurea solstitialis*), thistle (*Cirsium* sp.), and buck brush (*Ceanothus cuneatus*), which may be used by the western bumble bee. However, the most recent occurrence of this species in the study area is from 1951 (California Department of Fish and Wildlife 2020), and no recent sightings in the study area have been reported by the Bumble Bee Watch (Bumble Bee Watch 2021). Due to its long absence in the study area, the western bumble bee is not expected to be present in the study area and would not be affected by the proposed project.

No suitable stream habitat is present within or near the study area for foothill yellow-legged frog. The onsite PCWA canal is a manmade water conveyance structure that could serve as surrogate stream habitat; however, its high velocity flow, steep gunnite-lined banks, and lack of cobble or boulders suitable for egg mass attachment does not provide suitable habitat for foothill yellow-legged frog. Therefore, foothill yellow-legged frog is not expected to be present in the study area and would not be affected by the proposed project.

East of the project site, on the edge of the 250-foot study buffer is a gray water impoundment for the community of Shady Glen. This impoundment provides suitable habitat for California red-legged frog and western pond turtle. Also, the impoundment is physically separated from the project site by Rollins Lake Road. This separation also precludes any hydrological connection between the impoundment and project area. The nearest known occurrence of California red-legged frog and western pond turtle are more than 6-miles southeast and 6 miles north, respectively, of the study area. The waterbodies associated with known occurrences for these two species have no hydrological connection to the study area. Therefore, California red-legged frog and western pond turtle are not likely to occur within the project area and be affected by the proposed project.

One special-status wildlife species, Blainville's horned lizard, has the potential to be present in the study area. One CNDDB occurrence for this species overlaps the study area (CNDDB occurrence # 600). Open (i.e., exposed soils with little shrub overstory) and disturbed areas in the vicinity of the proposed treatment building contain loose friable soils and small mammal burrows, which represent suitable habitat for this species. The preferred diet of horned lizards is harvester ants, which were not observed within the study area. No horned lizards were observed during the November 2, 2020 field survey. The survey was conducted on a warm, sunny day (75°F), during conditions when the species would be expected to be active above ground. Overall, there is a moderate potential for horned lizard to be present in the study area.

Migratory Birds and Raptors

Migratory birds and raptors could nest in or adjacent to the study area. Woodland and chaparral habitat throughout the study area provides suitable tree, shrub, and ground-nesting substrate for migratory birds and raptors. Although these species are not considered special-status wildlife species, their occupied nests and eggs are protected by California Fish and Game Code Sections 3503 and 3503.5 and the federal Migratory Bird Treaty Act (MBTA). The breeding season for most

migratory birds and raptors that could nest within the study area is generally from March 1 to August 31.

Table 7. Special-Status Plant Species Identified as Having the Potential to Occur in the Project Region

Common and *Scientific Names*	Status [a] Federal/ State/CNPS	Geographic Distribution	Habitat Requirements	Blooming/ Identifiable Period	Potential to Occur in Study Area
Jepson's onion *Allium jepsonii*	–/–/1B.2	Northern Sierra Nevada Foothills; One disjunct population in Tuolumne County	Serpentine or (volcanic) basalt outcrops in oak woodland, chaparral, and lower montane coniferous forest, at 980–3,800 feet	April–August	Low–The Cohasset soil series was mapped in the study area, which has volcanic parent material, but and the shallow soils on the margin of the foothill pine woodland could support potential habitat. No CNDDB occurrences within 10 miles of study area.
Nissenan manzanita *Arctostaphylos nissenana*	–/–/1B.2	Northern Sierra Nevada (Placer, El Dorado Counties)	Chaparral or woodland on metamorphic substrates, at 1,475–3,605 feet	February–March (June)	None–The perennial species is identifiable outside of its blooming period and was not observed in the study area. One extant CNDDB occurrence is over 10 miles southeast of study area.
Stebbins' morning-glory *Calystegia stebbinsii*	FE/CE/1B.1	Northern Sierra Nevada foothills (El Dorado and Nevada Counties)	Chaparral or woodland on serpentine or gabbro, at 590–2,380 feet	April–July	None–The study area does not contain serpentine or gabbro soils. Five CNDDB occurrences are approximately 9 to 10 miles west of the study area.
Vanzuuk's morning-glory *Calystegia vanzuukiae*	–/–/1B.3	Northern High Sierra Nevada (El Dorado and Placer Counties)	Mixed serpentine chaparral, at 1,640-3,870 feet	May–August	None–The study area does not contain serpentine soils. Seven occurrences are approximately 9 to 10 miles east of study area.
Sierra arching sedge *Carex cyrtostachya*	–/–/1B.2	Northern Sierra Nevada (Butte, Yuba, El Dorado Counties)	Meadows, seeps, streamsides, and other moist sites in lower montane coniferous forest, at 2,000 to 4,460 feet	May–August	Low–The study area contains potential habitat in the Mexican rush marsh. No CNDDB occurrences within 10 miles of study area.
Carex sheldonii	–/–/2B.2	Northern High Sierra Nevada	Lower montane coniferous forest, along creeks and in wet meadows, at 3,940–6,600 feet	May–August	None–The plant occurs at elevations that exceed the study area. One possibly extirpated occurrence 11 miles northeast of the study area.

Common and *Scientific Names*	Status [a] Federal/ State/CNPS	Geographic Distribution	Habitat Requirements	Blooming/ Identifiable Period	Potential to Occur in Study Area
Chaparral sedge *Carex xerophila*	–/–/1B.2	Sierra Nevada foothills in Placer and El Dorado, Nevada, Butte, and Yuba Counties	Chaparral, Cismontane woodland, lower montane coniferous forest on serpentinite or gabbroic soils, at 1,440 to 2,525 feet	March–June	None–The study area does not contain serpentine or gabbro soils. Three extant CNDDB occurrences are approximately 9 to 10 miles northeast of the study area.
Red Hills soaproot *Chlorogalum grandiflorum*	–/–/1B.2	Northern and central Sierra Nevada foothills (El Dorado, Placer, and Tuolumne Counties)	Chaparral or woodland on serpentine or gabbro, at 985–1,640 feet	May–June	None–The study area does not contain serpentine or gabbro soils. Closest CNDDB occurrence is approximately 4 miles south of the study area.
Brandegee's clarkia *Clarkia biloba* ssp. *brandegeeae*	–/–/4.2	Northern Sierra Nevada Foothills (Butte to El Dorado Counties)	Chaparral, cismontane woodland, lower coniferous forest, often on roadcuts; 75-915 meters	May–July	Moderate–The study area contains marginally suitable habitat in the buck brush chaparral and foothill pine woodland. Two extant CNDDB occurrences are less than one mile north and east of the study area.
Pine Hill flannelbush *Fremontodendron decumbens*	FE/CR/1B.2	Northern Sierra Nevada Foothills (Nevada and El Dorado Counties)	Chaparral, on gabbro or serpentine outcrops, at 1,390 to 2,495 feet	April–July	None–The study area does not contain gabbro or serpentine soils. Three extant CNDDB occurrences are approximately 8 to 10 miles west and northwest of the study area.
Butte County fritillary *Fritillaria eastwoodiae*	–/–/3.2	Sierra Nevada Foothills (from Shasta to El Dorado Counties); also, Oregon	Chaparral, cismontane woodland, openings in lower montane coniferous forest, sometimes on serpentine; 160-4,920 feet	March–June	Low–The study area contains potential habitat in the foothill pine woodland. One extant CNDDB occurrence is approximately 8 miles east of the study area. Not observed during the March 2021 survey.

Common and *Scientific Names*	Status [a] Federal/ State/CNPS	Geographic Distribution	Habitat Requirements	Blooming/ Identifiable Period	Potential to Occur in Study Area
Parry's horkelia *Horkelia parryi*	–/–/1B.2	Sierra Nevada Foothills (from El Dorado County to Mariposa County)	Openings in chaparral or oak woodlands, at 260 to 3,510 feet	April–September	Low–The study area contains potential habitat in the buck brush chaparral and foothill pine woodland. No CNDDB occurrences within 10 miles of the study area.
Finger rush *Juncus digitatus*	–/–/1B.1	Known from three occurrences, two in Shasta County and one in Nevada County	Cismontane woodland (openings), lower montane coniferous forest (openings), vernal pools (xeric), at 2,165 to 2,590 feet	(April)May–June	Low–The study area contains potential habitat in the Mexican rush marsh and foothill pine woodland, but habitats are likely too disturbed. One extant occurrence is 8 miles northwest of the study area.
Layne's ragwort *Packera layneae*	FT/CR/1B.2	El Dorado and Tuolumne Counties	Chaparral or woodland on serpentine or gabbro soils, at 655 to 3,560 feet	April–August	None–The study area does not contain serpentine soils. The closest extant CNDDB occurrence is 9 miles east of the study area.
Stebbins' phacelia *Phacelia stebbinsii*	–/–/1B.2	Northern Sierra Nevada (Placer, El Dorado Counties)	Rock outcrops and gravelly slopes in woodlands and coniferous forest, on metamorphic substrates, at 2,000 to 6,595 feet	May–July	Low–The Mariposa soil series was mapped in the study area, which has metamorphic parent material, but the shallow gravelly soils on the margin of the foothill pine woodland could support potential habitat. One extant CNDDB occurrence is 10 miles northeast of the study area.
Sierra bluegrass *Poa sierrae*	–/–/1B.3	Northern Sierra Nevada foothills, northern and central High Sierra Nevada	Rocky, mesic slopes in montane coniferous forest, at 1,200 to 3,800 feet	April–July	Low–Low quality potential habitat occurs in the foothill pine woodland; surface is not rocky. One extant CNDDB occurrence is approximately 2 miles east of the study area.

Common and *Scientific Names*	Status [a] Federal/ State/CNPS	Geographic Distribution	Habitat Requirements	Blooming/ Identifiable Period	Potential to Occur in Study Area
Brown-beaked rush *Rhynchospora capitellata*	–/–/2B.2	Scattered occurrences in Northwestern California and northern Sierra Nevada foothills	Freshwater marshes and seeps; at 145 to 6,560 feet	July–August	Low–Marginally potential habitat occurs in the Mexican rush marsh. Two extant CNDDB occurrences are approximately 8 to 9 miles northwest of the study area.
Scadden Flat checkerbloom *Sidalcea stipularis*	–/CE/1B.1	Known from two occurrences in proximity to Grass Valley, California	Freshwater montane marshes and swamps, at 2,295 to 2,395 feet	July–August	Low–Potential habitat occurs in the Mexican rush marsh. An extant occurrence with an undisclosed location occurs north of the study area.
Oval-leaved viburnum *Viburnum ellipticum*	–/–/2B.3	Northwest California, San Francisco Bay Area, north and central Sierra Nevada foothills	Chaparral, oak woodlands, lower montane coniferous forest, at 700 to 4,600 feet	May–June	None–No viburnum shrubs were observed in the survey area. Closest extant occurrence is 12 miles south of the study area.

Sources: California Native Plant Society 2021; California Department of Fish and Wildlife 2021.

[a] Status explanations:

Federal

E = Listed as endangered under the Endangered Species Act.

T = Listed as threatened under the Endangered Species Act.

— = No listing status.

State

E = Listed as endangered under the California Endangered Species Act.

R = Listed as rare under the California Endangered Species Act. This category is no longer used for newly listed plants, but some plants previously listed as rare retain this designation.

— = No listing status.

CRPR

1B = CRPR 1B species: rare, threatened, or endangered in California and elsewhere.

2 = CRPR 2 species: rare, threatened, or endangered in California but more common elsewhere.

3 = CRPR 3 species: more information is needed.

4 = CRPR 4 species: limited distribution; species on a watch list.

.1 = Seriously endangered in California (over 80% of occurrences threatened—high degree and immediacy of threat).

.2 = Fairly endangered in California (20–80% occurrences threatened).

Table 8. Special-Status Wildlife Species Identified as Having the Potential to Occur in the Project Region

Common and Scientific Names	Status [a] Federal/ State	Geographic Distribution	Habitat Requirements	Potential for Occurrence in Study Area
Invertebrates				
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	T/–	Streamside habitats on the valley floor and lower foothills from Shasta County in the north to Fresno County in the south; generally, below 500 feet	Riparian and oak savanna habitats with elderberry shrubs; elderberries are the host plant	None—study area is not within the current range.
Western bumble bee *Bombus occidentalis*	–/CE	Historically, this species ranged from the Pacific coast to the Colorado Rocky Mountains; severe population decline west of Sierra-Cascade Crest, population now largely restricted to high elevations in the Sierra Nevada and northern California coast	Nests underground in squirrel burrows, in mouse nests, and in open west-southwest facing slopes bordered by trees. Visits a wide variety of wildflowers. Plant genera it is most commonly associated with are *Cirsium, Eriogonum, Solidago, "Aster," Ceanothus, Centaurea*, and *Penstemon*	Low–Although suitable flowering plants occur, the nearest CNDDB occurrence is approximately 5 miles east of the study area and is from 1951.
Amphibians				
California red-legged frog *Rana draytonii*	T/SSC	Found along the coast and coastal mountain ranges of California from Marin County to San Diego County and in the Sierra Nevada from Tehama County to Fresno County	Permanent and semi-permanent aquatic habitats, such as creeks and cold-water ponds, with emergent and submergent vegetation. May estivate in rodent burrows or cracks during dry periods	None—The graywater impoundment for the community of Shady Glen on the eastern boundary of the study area may provide suitable habitat; however, due to its isolation from known occurrences in the region (nearest CNDDB occurrence is more than 6 miles southeast of the study area in the Georgetown USGS 7.5-minute quadrangle), this species is unlikely to occur in the study area.
Foothill yellow-legged frog *Rana boylii*	–/CE	Occurs in the Coast Range from Oregon south to the Transverse Mountains in Los Angeles County, west of the Cascade crest, and along the western flank of the Sierra Nevada south to Kern County	In or near rocky streams in a variety of habitats from near sea level up to 6,370 ft. Attaches egg masses to gravel or rocks in moving water near stream margins	None—The study area does not contain suitable habitat.

Common and Scientific Names	Status [a] Federal/ State	Geographic Distribution	Habitat Requirements	Potential for Occurrence in Study Area
Reptiles				
Western pond turtle *Actinemys marmorata*	–/SSC	Occurs from the Oregon border of Del Norte and Siskiyou Counties south along the coast to San Francisco Bay, inland through the Sacramento Valley, and on the western slope of Sierra Nevada	Occupies ponds, marshes, rivers, streams, and irrigation canals with muddy or rocky bottoms and with watercress, cattails, water lilies, or other aquatic vegetation in woodlands, grasslands, and open forests	Low—The graywater impoundment for the community of Shady Glen on the eastern boundary of the study area may provide suitable habitat; however, due to its isolation from known occurrences in the region (nearest CNDDB occurrence is more than 6 miles north of the study area on Steephollow Creek, and there is no aquatic connection between the occurrence location and the study area), this species is unlikely to occur in the study area.
Blainville's horned lizard *Phrynosoma blainvillii*	–/SSC	Sierra Nevada foothills from Butte south to Kern County and throughout the central and southern California coast	Found in open sandy areas, washes, flood plains and wind-blown deposits in a wide variety of habitats. Periods of inactivity and winter hibernation are spent burrowed into the soil under logs or rocks, in mammal burrows or in crevices	Moderate—Suitable habitat present in the study area. One CNDDB occurrence overlaps with the study area (California Department of Fish and Wildlife 2021).
Birds				
American peregrine falcon *(Falco peregrinus anatum)*	D/FP	Found throughout California	Nests and roosts on protected ledges of high cliffs, usually adjacent to lakes, rivers, or marshes that support large prey populations; habitats vary from wetlands, woodlands, other forested habitats, and coastal habitats	Low—No suitable nesting habitat is present within or adjacent to the project area. Species could forage or disperse through the study area.

Common and Scientific Names	Status [a] Federal/ State	Geographic Distribution	Habitat Requirements	Potential for Occurrence in Study Area
Bald eagle *Haliaeetus leucocephalus*	D/E	Most breeding territories are in northern California, but scattered locations in the central and southern Sierra Nevada mountains and foothills, in several locations from the central Coast Ranges to inland southern California, and on Santa Catalina Island	Nests and roosts in mountain and foothill coniferous forests within 1 mile of large bodies of water (lake, reservoir, river, or the ocean)	None—No suitable foraging or nesting habitat is present in the study area.
California spotted owl *Strix occidentalis occidentalis*	–/SSC	Occurs in the Sierra Nevada south to the Transverse and Peninsular Ranges	Nests in dense, old-growth, multi-layered mixed conifer, redwood, and Douglas-fir habitats from sea level up to 7,600 feet	None—No suitable nesting habitat is present within the study area.
California black rail *Laterallus jamaicensis coturniculus*	–/T	Permanent resident in the San Francisco Bay and eastward through the Delta into Sacramento and San Joaquin Counties; northern Sierra foothills of Butte, Nevada, and Placer Counties; small populations in Marin, Santa Cruz, San Luis Obispo, Orange, Riverside, and Imperial Counties	Resident of saltwater, brackish, and freshwater marshes with a vegetation structure characterized by high stem density and canopy cover. Typically use wetland zones with shallow water (generally less than 1.2 inches)	None—No suitable habitat is present in the study area.
Black swift *Cypseloides niger*	–/SSC	Local breeder in the Sierra Nevada and Cascade Range, the San Gabriel, San Bernardino, and San Jacinto mountains, and in coastal bluffs and mountains	Nests in moist crevices or caves on sea cliffs above the surf or on cliffs behind or adjacent to waterfalls in deep canyons, does not winter in California	None—No suitable habitat is present in the study area.
Mammals				
Townsend's big-eared bat *Corynorhinus townsendii*	–/SSC	Occurs in inland deserts, moist cool redwood forests, oak woodlands of the inner Coast Ranges and Sierra Nevada foothills, and lower to mid-elevation mixed coniferous forests	Roosts in caves, tunnels, mines, and dark attics of abandoned buildings, gleans prey from brush or trees along habitat edges	None—No suitable roosting habitat is present in the study area.

Common and Scientific Names	Status [a] Federal/ State	Geographic Distribution	Habitat Requirements	Potential for Occurrence in Study Area
Pallid bat *Antrozous pallidus*	–/SSC	Occurs in a variety of habitats from desert to coniferous forest. Most closely associated with oak, mixed conifer, redwood, and giant sequoia habitats in northern California	Day and night roosts include crevices in rocky outcrops and cliffs, caves, mines, basal hollows and exfoliating bark of trees, bridges, barns, and even occupied homes	Low—no suitable roosting habitat is present but may roost nearby and forage in the study area.
Fisher – West Coast DPS *Pekania pennanti*	E/T	Uncommon permanent resident of the Sierra Nevada, Cascades, and Klamath Mountains, and the north Coast Ranges	Intermediate to large-tree stages of coniferous forests and deciduous-riparian habitats with a high percent of canopy closure	None—no suitable habitat is present in the study area and the study area is outside the species geographical range.

Source: California Department of Fish and Wildlife 2021.

[a] Status explanations:

Federal

E = listed as endangered under the Endangered Species Act.

T = listed as threatened under the Endangered Species Act.

C = candidate species for which the U.S. Fish and Wildlife Service has on file sufficient information on biological vulnerability and threat(s) to support issuance of a proposed rule to list, but issuance of the proposed rule is precluded.

– = no listing.

State

E = listed as endangered under the California Endangered Species Act.

T = listed as threatened under the California Endangered Species Act.

FP = fully protected under the California Fish and Game Code.

SSC = species of special concern in California.

– = no listing.

Other

WBWG = Western Bat Working Group 2007. Available: <http://www.wbwg.org/spp_matrix.html>.

Medium priority = species status is unclear because of a lack of data; this designation indicates a level of concern that should warrant (1) closer evaluation and more research of the species and possible threats and (2) conservation actions benefiting the species.

High priority = species are imperiled or at high risk of imperilment.

Aquatic Resources

Aquatic resources (also referred to as wetlands and non-wetland waters) delineated in the project area consist of 0.084 acre of Himalayan blackberry scrub wetland in the northwestern corner and 0.004 acre of Mexican rush marsh at the southwestern border (Figure 3). These aquatic resources are characterized by a prevalence of hydrophytic vegetation, support hydric soils, and exhibit wetland hydrology. Although these aquatic resources meet the three mandatory criteria for wetlands, they would not be regulated by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act because they appear to be isolated and not adjacent to jurisdictional waters. At least some of the seep and spring flow observed in the aquatic resources, especially the Himalayan blackberry scrub wetland, appears to be the result of domestic water being released from a pipe from a residence located above the headwall of the apparent landslide.

In addition to these wetlands, there is a 0.003-acre ponded non-wetland water located along the base of the slope that appears to be hydrologically sustained by upslope runoff and possibly water from the Boardman Canal. This feature appears be human-made and to have been created as a result of previous construction activities. The area contained ponded water and algal crusts during the March site visit, but lacked hydrophytic vegetation.

According to the Navigable Waters Protection Rule, these aquatic resources appear to be isolated and do not have an obvious connection to a navigable waterway. In addition, these features are likely supported or supplemented with artificial hydrology. However, the Himalayan blackberry scrub wetland, ponded non-wetland water, and Mexican rush marsh may be regulated and considered waters of the state by the Regional Water Board per the Porter-Cologne Water Quality Control Act, which regulates surface and ground water effects as part of waste discharge requirements.

Discussion

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

Impact BIO-1: Potential Substantial Adverse Effect on Blainville's Horned Lizard and Habitat

The proposed project could adversely affect Blainville's horned lizard if the species is present within the construction area. Potential direct effects on the species include mortality or injury by equipment, entrapment in open excavations or other project facilities, and removal or disturbance of habitat. Blainville's horned lizard has disappeared from portions of its range and continues to be threatened by development in other portions of its range (Jennings and Hayes 1994:132). Local records for Blainville's horned lizard overlap with the study area (CNDDB occurrence # 600). This species is considered rare in the project region; therefore, loss of individuals resulting from the proposed project would be a significant impact. PCWA will implement Mitigation Measure BIO-1 to reduce this impact to a less-than-significant level.

Mitigation Measure BIO-1: Implement Measures to Avoid and Minimize Potential Impacts on Blainville's Horned Lizard

Through contract specifications, PCWA will require its construction contractor to implement the following measures to avoid and minimize potential project impacts on Blainville's horned lizard.

- Grading and grubbing within natural, undisturbed habitats will be minimized to the extent possible.
- No monofilament plastic mesh or line will be used for erosion control.
- To prevent inadvertent entrapment of horned lizards during construction, all excavations more than 6 inches deep will be provided with one or more escape ramps constructed of earth fill or wooden planks and will be inspected to ensure that no horned lizards are in the excavation prior to being backfilled.
- Work crews or the onsite supervisor will inspect open trenches and pits, and under construction equipment and materials left on site for horned lizards prior to the start of and end of construction each day. Work crews or the onsite supervisor will also perform periodic checks of these areas through each day during construction.

Impact BIO-2: Disturbance of Nesting Migratory Birds and Raptors

Several non–special-status migratory birds and raptors could nest in and adjacent to the study area. The oak woodland and chaparral habitats in the study area contain abundant tree-, shrub-, and ground-nesting areas for migratory bird and raptor species. Implementation of the proposed project could result in removal or disturbance of occupied nests during the breeding season (generally March 1 to August 31). Construction activities during the breeding season that result in death of young or loss of reproductive potential would violate California Fish and Game Code Section 3503 (protects active bird nests) and Section 3503.5 (protects active raptor nests) and the MBTA. This impact would be significant. PCWA would implement Mitigation Measure BIO-2 to reduce this impact to a less-than-significant level.

Mitigation Measure BIO-2: Construct Project Outside of Nesting Season or Conduct Preconstruction Raptor Nesting Surveys

Through contract specifications, PCWA will require its construction contractor to implement the following measure to avoid violating the MBTA and the California Fish and Game Code.

To avoid disturbance of migratory birds and raptor breeding and nesting activity, project activities will be avoided during the typical bird and raptor breeding season of March 1 through August 31, to the extent possible. If construction must take place during the typical breeding season, preconstruction nesting bird surveys will be conducted by a qualified biologist no more than 14 days prior to initiation of proposed activities, including vegetation removal, staging, and grading.

The preconstruction nesting bird surveys will include a search of all trees, shrubs, and ground vegetation that provide suitable nesting substrate in the construction work area. Where access is permitted, a 100-foot area around the construction area will be surveyed for songbirds, and a 500-foot area around the construction area will be surveyed for raptors. In areas where property access is not granted outside the limits of construction, the surveys will consist of

visually scanning adjacent habitat to look for breeding bird behavior from the edge of the construction area. If there is a break in construction activity for more than 14 days during the breeding season, then a follow up survey shall be conducted to confirm that no new nests have been established. If no active nests are detected during these surveys, no additional protection measures will be required.

If an active nest is found in the survey area, a no-disturbance buffer will be established around the nest site to avoid disturbance or destruction of the nest until the end of the breeding season (August 31) or until after a qualified wildlife biologist determines that the young have fledged (this date varies by species). The extent of these buffers will be determined by PCWA's lead project biologist in coordination with CDFW and will likely depend on the level of construction disturbance, line-of-sight between the nest and the disturbance, ambient levels of noise, and other topographical or artificial barriers. Suitable buffer distances may vary between species. Generally, buffer distance will be a minimum of 50 feet for passerines and 300 feet for raptors. If site-specific conditions or the nature of the activity indicate that a smaller buffer could be used, PCWA or the lead project biologist will coordinate with CDFW to determine the appropriate buffer size and identify additional protection measures (such as nest monitoring), as warranted.

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

The study area does not contain riparian habitat or other sensitive natural communities regulated by CDFW or USFWS. There is no impact.

c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?

Impact BIO-3: Potential Substantial Adverse Effect on State Protected Wetlands

The proposed project could result in indirect effects or potential direct removal, filling, or hydrological interruption of 0.091 acre of aquatic resources (0.084-acre Himalayan blackberry scrub wetland,0.004-acre Mexican rush marsh, and 0.003 acre ponded non-wetland water) that may be regulated by the Regional Water Board under the Porter-Cologne Water Quality Control Act. As described previously, these aquatic resources would not likely be considered federally protected and regulated by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act because they appear to be isolated and not connected to a navigable waterway. In addition, the aquatic resources appear to be supplemented with or sustained by artificial hydrology provided by a pipe leading from a residence located upslope of the aquatic resources. Loss or filling of these aquatic resources, if regulated by the Regional Water Board, would be considered a substantial adverse effect to waters of the State.

Implementation of Mitigation Measure BIO-3 will reduce project impacts to a less-than-significant level.

Mitigation Measure BIO-3: Submit an Aquatic Resource Delineation to the USACE and Regional Water Board and Compensate for Potential Substantial Adverse Effects on Protected Wetlands

The current project design indicates that potential direct effects on aquatic resources are avoided. However, the project could result in unanticipated indirect effects on these resources. If PCWA determines that potential indirect effects on aquatic resources cannot be avoided, PCWA will submit an aquatic resources delineation report to the USACE and Regional Water Board to confirm the wetland boundaries with the USACE and determine if the Himalayan blackberry scrub wetland and Mexican rush marsh would be regulated by the Regional Water Board under the Porter-Cologne Water Quality Control Act.

If the Regional Water Board determines that the wetlands are state protected and the wetlands cannot be avoided through project design, PCWA will obtain a waste discharge permit from the Regional Water Board and implement any required compensation for the loss of the state protected wetlands.

d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No habitat (natural creeks or streams) occurs in the study area for fish species; therefore, the project would not affect native resident or migratory fish.

The proposed project could result in the displacement of common wildlife species (e.g., snakes, lizards, mice) unearthed during excavation. These species would be permanently displaced to adjacent lands upon completion (i.e., paving) of access roads and parking areas, and pouring of concrete pads.

Installation of an 8-foot-tall fence around the perimeter of the project site would eliminate passage of larger mammals, such as deer, through the project site. However, due to the small footprint of the project and adjacent open space, it is unlikely to interfere substantially with wildlife movement in the area.

Because of the small area of effects, the proposed project would result in a less-than-significant impact on wildlife use and movement corridors. No mitigation is required.

e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The proposed project would not conflict with any local policies or ordinance protecting biological resources. The project is not within a Placer County tree preservation zone. Construction of water facilities is exempt from the Placer County zoning ordinance and, therefore, is also exempt from the Placer County tree ordinance. There would be no impact, and no mitigation is required.

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?

The proposed project would not conflict with an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan because no such plan has been adopted for the project area. Therefore, there would be no impact, and no mitigation is required.

V. Cultural Resources

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

Affected Environment

This section presents information about what is known about cultural resources in the project area. This section includes summary archaeological, ethnographic, and historic-era contexts for the project area and a summary of cultural resources identification efforts and known cultural resources in the project area.

Archaeological Context

Although humans may have inhabited the Sacramento Valley as early as 10,000 years ago, the evidence for early human use likely is buried by deep alluvial sediments that accumulated rapidly during the late Holocene epoch. Archaeological remains of this early period have been identified in and around the Central Valley, including the Sierra foothills (Johnson 1967; Treganza and Heizer 1953).

The taxonomic framework of Central California, including the Sierra foothills, is described in terms of archaeological patterns (Moratto 1984). A pattern is characterized archaeologically by technology, particular artifacts, economic systems, trade, burial practices, and other aspects of culture. Fredrickson (1973) identified three broad patterns of resource use for the period between 4500 and 3500 B.P.: the Windmiller, Berkeley, and Augustine Patterns.

The Windmiller Pattern (4500–3000 B.P.) shows evidence of a mixed economy of game procurement with use of wild plant foods and materials. The archaeological record contains numerous projectile points associated with a wide range of faunal remains. Hunting was not limited to terrestrial animals, as is evidenced by fishing hooks and spears that have been found in association with the remains of sturgeon, salmon, and other fish (Moratto 1984). Plants were also used, as indicated by ground stone artifacts and clay balls or stones that were used for boiling acorn mush. Settlement strategies during the Windmiller period reflect seasonal adaptations; habitation sites in the valley were occupied during the winter months, but populations moved into the foothills during the summer (Moratto 1984).

The Windmiller Pattern transitioned to a more specialized adaptation labeled the Berkeley Pattern (3500–2500 B.P.). A reduction in the number of manos and metates and an increase in mortars and

pestles indicate a greater dependence on acorns and seeds. Although seasonally harvested plant resources gained importance during this period, the continued presence of projectile points and atlatls (spear-throwers) in the archaeological record indicates that hunting was still an important activity (Fredrickson 1973).

The Berkeley Pattern was superseded by the Augustine Pattern around A.D. 500. The Augustine Pattern reflects a change in subsistence and land use patterns to those of the ethnographically known people (Nisenan) of the historic era. This pattern exhibits an elaboration of ceremonial and social organization, including the development of social stratification. Exchange became well developed, and an even more intensive emphasis was placed on the use of the acorn, as evidenced by the presence in the archaeological record of shaped mortars and pestles and numerous hopper mortars. Other notable elements of the artifact assemblage associated with the Augustine Pattern include flanged tubular smoking pipes, harpoons, clamshell disc beads, and an especially elaborate baked clay industry, which included figurines and pottery vessels (Cosumnes Brownware). The presence of small projectile point types, referred to as the Gunther Barbed series, suggests the use of the bow and arrow. Other traits associated with the Augustine Pattern include the introduction of preinterment burning of offerings in a grave pit during mortuary ritual, increased village sedentism, population growth, and an incipient monetary economy in which beads were used as a standard of exchange (Moratto 1984).

Buried Sites Context

Research was conducted to address the archaeological sensitivity of the project area and the potential for buried archaeological sites. Identified landforms that predate earliest human occupation of the region are considered to have very low potential for buried archaeological sites. Conversely, identified landforms that postdate human occupation are considered to have a higher potential for buried archaeological sites.

The degree of potential for buried sites is directly correlated with the estimated date range of the formation of the landform. The more recent the landform, the more potential for buried sites. The archaeological record indicates that the earliest evidence for human occupation of California dates to the Late Pleistocene, which ended approximately 11,500 years before present. Because of this, it is easy to argue that there is a very low potential for buried sites in landforms dating from the Late Pleistocene and earlier because these contexts are too old to harbor subsurface archaeological deposits. However, if a landform dates to the Middle Holocene or later, there is high potential for subsurface archaeological deposits. Early Holocene landforms generally have a low to moderate sensitivity due to low population levels and an overall dearth of Early Holocene sites in the Central Valley.

According to geologic maps of California (Burnett and Jennings 1965), the majority of the project contains marine sedimentary and metasedimentary rocks of the Jurassic age. These rocks consist of slate, chert, sandstone, shale, and minor conglomerate and pyroclastic rocks. Table 9 summarizes the soil map units, soil association names, and landform ages identified in the project footprint (U.S. Department of Agriculture 2020; Meyer and Rosenthal 2008). The project area has a low probability for buried archaeological sites overall due to the lack of sedimentary soils that would otherwise bury previous archaeological remains as well as the age of landforms (pre-Pleistocene).

Table 9. Soil Series Type and Associated Landform Age in the Project Area

Soil Unit Key	Soil Association	Landform Age	Sensitivity for Buried Archaeological Sites
138	Cohasset cobbly loam, 15 to 30 percent slopes	Pre-Pleistocene	Low Sensitivity
164	Mariposa-Josephine complex, 5 to 30 percent slopes	Pre-Pleistocene	Low Sensitivity
172	McCarthy cobbly sandy loam, 30 to 50 percent slopes	Pre-Pleistocene	Low Sensitivity

Source: U.S. Department of Agriculture 2020; Meyer and Rosenthal 2008

Cultural Resources in the Project Area

A California Historic Resources Inventory System (CHRIS) records search of the project area was conducted on October 30, 2020, at the North Central Information Center (NCIC) (NCIC File No. PLA-20-103). The CHRIS records search covered the project area and an additional a 0.5-mile study radius. A CHRIS results found no reports for studies conducted previously in the project area, and a total of 10 reports for studies conducted previously in the 0.5-mile study radius. Similarly, the CHRIS results found no records for resources recorded previously in the project area, and a total of seven records for resources recorded previously in the 0.5-mile study radius. The resources include historical archaeological features and historic-era built environment structures.

Additional research was conducted using Government Land Office plats, U.S. Geological Survey quadrangle maps, aerial images, and standard historical references such as county histories, ethnographic reports, and both California Office of Historic Preservation and National Parks Service National Register information.

A request was submitted to NAHC for a Sacred Lands File search. A letter was received November 20, 2019 from NAHC, confirming that the Sacred Lands File search did not identify any Sacred Lands within the project area. The NAHC also provided a list of five Native American contacts that may provide information on Native American cultural resources in the area.

Four museums and two historical societies associated with the project area were mailed outreach letters: the Bernhard Museum Complex, the Colfax Area Heritage Museum, the Colfax Area Historical Society, the Gold Country Museum, and the Placer County Historical Society. The letters briefly described the proposed project and requested information about cultural resources in the project area. Follow-up phone calls were made October 9, 2018, with no responses. As of April 27, 2021, no responses have been received. No Certified Local Governments are affiliated with the project area.

A cultural resources survey was conducted on November 2, 2020. One resource, a segment of the Boardman Canal, was identified in the project area. All previous evaluations of the Boardman Canal segments in Placer County recommended the resource ineligible for listing in the California Register and the National Register (Office of Historic Preservation 2020). The canal segment in the project area was recorded and evaluated on DPR 523-series forms, and recommended ineligible for the California Register of Historic Places and National Register of Historic Places (NRHP). The canal segment is also not listed in any local register. Thus, the canal segment is not a CEQA historical resource.

Through these methods and results, this study found that no CEQA historical resources or unique archaeological resources are known to be located in the project area.

Ethnographic Context

The Nisenan, or Southern Maidu, inhabited the project area ethnographically. Nisenan territory comprised the drainages of the Yuba, Bear, and American Rivers, and the lower drainages of the Feather River. The Nisenan, together with the Maidu and Konkow, their northern neighbors, form the Maiduan language family of the Penutian linguistic stock (Shipley 1978). Kroeber (1976) noted three dialects: Northern Hill Nisenan, Southern Hill Nisenan, and Valley Nisenan. Others made finer distinctions (Shipley 1978).

Nisenan territory generally included lands west of the Sacramento River, the crest of the Sierra Nevada to the east, with a northern boundary approximately 10 miles south of the middle fork of the Feather River and a southern boundary a few miles south of the American River (Wilson and Towne 1978).

Nisenan settlement locations depended primarily on elevation, exposure, and proximity to water and other resources. Permanent villages were usually located on low rises along major watercourses. Village size ranged from three houses up to 40 or 50. Houses were domed structures covered with earth and tule or grass and measured 10 to 15 feet in diameter. Brush shelters were used in the summer and at temporary camps during food-gathering rounds. Larger villages often had semisubterranean dance houses, which were covered in earth and tule or brush and had a central smokehole at the top and an entrance that faced east. Another common village structure was a granary used for storing acorns (Wilson and Towne 1978).

The Nisenan occupied permanent settlements, from which specific task groups set out to harvest the seasonal bounty of flora and fauna that the rich valley environment provided. The Valley Nisenan economy involved riparian resources, in contrast to the Hill Nisenan, whose resource base consisted primarily of acorns and game. The only domestic plant was native tobacco (*Nicotiana* sp.), but many wild species were closely husbanded. The acorn crop from blue oaks (*Quercus douglasii*) and black oaks (*Q. kelloggii*) was so carefully managed that it served as the equivalent of an agricultural crop and could be stored against winter shortfalls. Deer, rabbit, and salmon were the chief sources of animal protein in the aboriginal diet, but many other insect and animal species were used when available.

Religion played an important role in Nisenan life. All natural objects were thought to be endowed with supernatural powers. Two kinds of shamans existed: curing shamans and religious shamans. Curing shamans had limited contact with the spirit world and diagnosed and healed illnesses. Religious shamans gained control over the spirits through dreams and esoteric experiences (Wilson and Towne 1978).

Early Nisenan contact with Europeans appears to have been limited to the southern reaches of their territory. Spanish expeditions began to cross Nisenan territory in the early 1800s. Unlike the valley Nisenan, the groups in the foothills remained relatively unaffected by the European presence until the discovery of gold at Coloma in 1848. In the 2 or 3 years following the gold discovery, Nisenan territory was overrun by settlers from all over the world. Gold seekers and the settlements that sprang up to support them were nearly fatal to the native inhabitants. The sudden onslaught of humanity brought disease and violence to the indigenous groups who lived in the area. Survivors worked as wage laborers and domestic help and lived on the edges of foothill towns. Despite severe depredations, descendants of the Nisenan still live in Placer County and have maintained their cultural identity.

Historic Context

Placer County formed in 1851 from parts of Sutter and Yuba Counties. The city of Auburn serves as the county seat. During the Gold Rush, thousands of miners swarmed up the American River and its tributaries into the foothills of Placer County, where they established camps and towns near the sites of major gold discoveries. Colfax was one of a handful of mining and railroad communities built within this gold-rich region, with the nearby Rising Sun Mine first revealing its ore deposits in 1866 (Hoover et al. 1990; Thompson and West 1882:230).

In 1864, the Central Pacific Railroad (CPRR) constructed a line through the region, encouraging communities along the alignment (such as Colfax, Auburn, and Newcastle) to thrive and develop. The CPRR laid out the community of Colfax (named after Vice President Schuyler Colfax Jr.) in September of 1865 and had regular train service by the end of that month. The CPRR sold its stake in the town to investors Kohn and Kind, and individual lots sold by July 1865. Colfax replaced Illinoistown, a prior settlement about 0.5 miles south of the current townsite. With the arrival of the railroad in September 1865, new development quickly replaced the mining camps as farmers and ranchers came to take advantage of the more lucrative agricultural wealth (Hoover et al. 1990; Thompson and West 1882:376–377).

Situated some 54 miles northeast of Sacramento and 18 miles northeast of Auburn, Colfax's moderate climate allowed for area ranches to exploit harvests from apple and peach trees whose quality rivaled those in the valley regions. In addition, the existing mining ditches provided an excellent source of irrigation for orchards. These conditions together created a profitable and marketable fruit-growing area by the 1870s, farmers planted orchards and fruit crops on thousands of acres in the foothills. Fruit grown in the area included strawberries, blackberries, cherries, peaches, apricots, plums, and oranges, which were later replaced with pears. By this time, the CPRR railroad was linked to the Transcontinental Railroad, providing access to the eastern United States, and opening a larger market for fruit. Fruit production escalated, and commercial orchards soon filled the foothills, constituting the chief source of income for the region (Orsi 1975; Thompson and West 1882:377).

Horticulturalists like Arthur Flanders Boardman were instrumental in the expansion of irrigation and water systems into the area for purposes of growing fruit. By the 1880s, the demand for irrigation water in the foothills supplanted the need for water in the mining camps and mines of the Mother Lode. The Boardman Canal was reconstructed from an 1865 mining ditch and expanded for irrigation in the 1890s by the South Yuba Water Company (Coleman 1952). By purchasing small water companies and connecting their ditches into a vast network, this water company created the largest water system in the state, the South Yuba Canal System, that provided not only water for agricultural purposes but formed the basis for hydroelectric power development in northern California. The South Yuba Water Company eventually incorporated as Pacific Gas & Electric Company (Coleman 1952).

In 1874 a fire destroyed much of the original Colfax community. Despite these setbacks, the local community and industry continued to grow. By the late nineteenth century, Colfax hosted about 600 residents and included several grocery and dry goods stores, two hotels, a drug store, bakery, restaurant, meat market, lumberyard, and a variety of other commercial interests (Thompson and West 1882:377).

Placer County's fruit production experienced a gradual decline as it faced orchard diseases and blight, and growing competition from the Sacramento–San Joaquin Delta region as well as Lake,

Fresno, and Tulare Counties, which surpassed the foothill region in fruit production beginning in the late 1950s. Today, agriculture plays only a small part in the economy of Colfax, which, in recent years, has grown into a bedroom community of the greater Sacramento area and a community "lost in time," retaining much of its small-town character (Grace Hubley Foundation 2015).

Discussion

a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

The cultural resources investigation did not identify any historical resources in the project area that meet the criteria of significance under CEQA and would be affected by the proposed project. There would be no impact.

b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

The proposed project would not cause a substantial adverse change in the significance of a unique archaeological resource as defined in section 15064.5 because no archaeological resources were identified in the Project area. However, if previously unknown archaeological resources are encountered during construction of the proposed Project, they could be adversely affected. Implementing Mitigation Measures CUL-1/TCR-1 and CUL-2/TCR-2 would reduce potential impacts on previously unknown archaeological resources to a less than significant level. The following mitigation measures apply to both cultural resources and tribal cultural resources.

Mitigation Measure CUL-1/TCR-1: Pre-Ground Disturbance Tribal Inspection

A minimum of seven days prior to beginning earthwork, clearing and grubbing, or other soil disturbing activities, PCWA will notify Wilton Rancheria and the United Auburn Indian Community (UAIC) with the proposed earthwork start-date and a Tribal Representative or Tribal Monitor will be invited to inspect the project site, including any soil piles, trenches, or other disturbed areas, within the first five days of groundbreaking activity, or as appropriate for the type and size of project. During this inspection, a Tribal Representative or Tribal Monitor may provide an on-site meeting for construction personnel information on TCRs and workers awareness brochure.

If any TCRs are encountered during this initial inspection, or during any subsequent construction activities, work shall be suspended within 100 feet of the find and the measures included in the **MM CUL-2/TCR-2: Discovery of Previously Unknown Cultural or Tribal Cultural Resources** shall be implemented.

Mitigation Measure CUL-2/TCR-2: Discovery of Previously Unknown Cultural or Tribal Cultural Resources

In the event that potential cultural or tribal cultural resources are discovered during Project implementation, all earth-disturbing work within 100 feet of the find shall be temporarily suspended or redirected until a qualified archaeologist and a Tribal Monitor retained by PCWA can adequately assess the find and determine whether the resource requires further study. If the cultural or tribal cultural resource discovery is potentially significant, PCWA and any local, state, or federal agency with approval or permitting authority over the Project that has requested/required notification shall be notified within 48 hours.

For all discoveries known or likely to be associated with Native American heritage (precontact sites and select post contact historic-period sites), A Tribal Representative from a California Native American tribe that is traditionally and culturally affiliated with a geographic area shall be immediately notified and shall determine if the find is a TCR (PRC §21074). If the find is identified as a TCR, the Tribal Representative, in consultation with PCWA and a qualified archaeologist, shall develop a treatment plan in any instance where significant impacts cannot be avoided. The treatment plan shall be prepared in collaboration with consulting Tribes and be submitted to the PCWA and any participating tribe for review and approval prior to its implementation, and additional work in the vicinity of the discovery shall not proceed until the plan is in place.

The location of any such finds must be kept confidential, and measures shall be taken to secure the area from site disturbance and potential vandalism. Impacts on previously unknown significant cultural or tribal cultural resources shall be avoided through preservation in place, if feasible. Damaging effects on tribal cultural resources shall be avoided or minimized following the measures identified in Public Resources Code section 21084.3, subdivision (b), if feasible, unless other measures are mutually agreed to by the lead archaeologist and culturally affiliated tribes that would be as or more effective.

Mitigation Measure CUL-3/TCR-3: Worker Environmental Awareness Program

Prior to beginning construction, PCWA will retain a qualified archaeologist to prepare a Worker Environmental Awareness Program (WEAP). The WEAP will be developed in coordination with representatives of UAIC and Wilton Rancheria and subject to PCWA approval. The training will be given to all construction personnel prior to working on the project, and the training will include, but not be limited to, the following:

- Guidance on identification of potential cultural resources that may be encountered
- Information regarding applicable regulations and consequences of violating State laws and regulations
- The probability of exposing cultural resources
- Clear direction on procedures if a find is encountered

The archaeologist and Tribal representative will provide construction personnel with an orientation including the probability of exposing cultural resources, guidance on recognizing such resources, and direction on procedures if a find is encountered.

c. Disturb any human remains, including those interred outside of dedicated cemeteries?

No human remains are known to be in or near the Project area. However, the possibility always exists that unmarked burials may be unearthed during subsurface construction activities. Consequently, there is the potential for the Project to disturb human remains during construction, including those outside of formal cemeteries. This impact is considered potentially significant but would be reduced to a less than significant level by implementing Mitigation Measure CUL-4/TCR-4.

Mitigation Measure CUL-4/TCR-4: Unanticipated Discovery of Human Remains

If human remains, including Native American remains or burials are encountered, all provisions provided in California Health and Safety Code section 7050.5 and Pub. Resources Code § section

5097.98 shall be followed. Work shall stop within 100 feet of the discovery and the County Coroner shall be immediately contacted by the PCWA on-site construction inspector. If human remains are of Native American origin, the County Coroner shall notify the Native American Heritage Commission (see at http://www.nahc.ca.gov/profguide.html) within 24 hours of this determination, and a Most Likely Descendent shall be identified. No work is to proceed in the discovery area until consultation is complete and procedures to avoid or recover the remains have been implemented.

VI. Energy

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

Affected Environment

The project site is currently undeveloped with no electricity or natural gas facilities. An easement with overhead power lines runs through the site in a northeast-southwest direction.

Discussion

a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

The project would be installed using construction techniques that are consistent with industry standards and that would not be considered wasteful, inefficient, or requiring the unnecessary consumption of energy resources. Since the WTP is replacing the existing facility, the project's annual water consumption would be similar to existing conditions. Any water used as part of the treatment process is recycled back into the treatment process. The only water that is not recycled is water to the toilet and sink planned for the project's single bathroom. There is no sewer service in the project area, so a septic system is planned for the project to accommodate the bathroom.

The amount of electricity used for project operations is anticipated to be similar to existing conditions, which is approximately 259,400 kWh per year. The generator at the existing WTP is 175 KW (approximately 250 hp). It is relatively new and would likely be relocated and used for the project. Because the WTP would require generally the same energy demands as associated with the existing facility, the project would not result in a wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation; therefore, there would be no impact.

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The project includes the construction and operation of a WTP and associated facilities to serve growth in the Colfax service area and to provide improved reliability and more dependable service. The installation and operation of this WTP would not conflict with or obstruct any state or local plan for renewable energy or energy efficiency. There would be no impact.

VII. Geology, Soils, and Paleontological Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1. 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.				X
2. Strong seismic ground shaking?			X	
3. Seismic-related ground failure, including liquefaction?			X	
4. Landslides?				X
b. Result in substantial soil erosion or the loss of topsoil?			X	
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 an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?				X
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?			X	
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?				X
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	

Affected Environment

Geology

The project site is located in the western foothills of the Sierra Nevada. The Sierra Nevada is a large fault block composed of granitic and metamorphic rocks tilted gently from the summit near Donner Lake to the west, where the block dips under sedimentary and alluvial units of the Sacramento

Valley. The project site is immediately underlain by Jurassic marine sedimentary and metasedimentary rocks characterized by shale, sandstone, minor conglomerate, chert, slate, limestone, and minor pyroclastic rocks (California Department of Conservation 2015).

Seismicity

The major regional geologic feature in the project area is the Foothills Fault System, a major zone of faulting in the basement rock in the western Sierra Nevada. The fault system extends from the Melones Fault Zone on the east to the westernmost exposure of metamorphic rocks west of the Bear Mountain Fault Zone. These faults are not considered to be active and the relative risk of earthquakes in this region is considered to be lower than in other areas of the state.

The *Fault Activity Map of California and Adjacent Areas* does not identify Holocene and/or Late Quaternary age faults (displacement within the last 700,000 years) within or adjacent to the project site. The nearest Quaternary age fault is the Giant Gap Fault, located approximately 2.25 miles west of the project site (California Geological Survey 2015). The project site is not within or adjacent to an Alquist–Priolo Earthquake Fault Zone (California Geological Survey 2020).

Soils

The soil on the project site consists of McCarthy cobbly sandy loam to approximately 60 inches below surface grade in the very northeastern portion of the site; Cohasset cobbly loam to approximately 57 inches in the north-central portion of the site; and Mariposa-Josephine complex gravelly loam to approximately 28 inches in the southern portion of the site.

Liquefaction

Liquefaction is a phenomenon where loose, saturated, non-cohesive soils, such as silts, sands, and gravels, undergo a sudden loss of strength during earthquake shaking. Under certain circumstances, seismic ground shaking can temporarily transform an otherwise solid, granular material to a fluid state. Liquefaction is a serious hazard because buildings in areas that experience liquefaction may suddenly subside and suffer major structural damage. Liquefaction is most often triggered by seismic shaking, but it can also be caused by improper grading, landslides, or other factors. In dry soils, seismic shaking may cause soil to consolidate rather than flow, a process known as densification. According to the California Geological Survey's Seismic Hazards Program mapping, the project site is not within an area subject to liquefaction (California Geological Survey 2020).

Discussion

a.1. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: 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.

Surface rupture is an actual cracking or breaking of the ground along a fault during an earthquake. Structures built over an active fault can be torn apart if the ground ruptures. Surface rupture along faults is generally limited to a linear zone a few meters wide. The Alquist-Priolo Act was created to prohibit the location of structures designed for human occupancy across the traces of active faults, thereby reducing the loss of life and property from an earthquake. No Alquist Priolo zones have

been identified in the project area (California Geological Survey 2020). Therefore, ground rupture due to faulting is considered unlikely in the project area. There would be no impact.

a.2. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Strong seismic ground shaking?

Ground shaking occurs as a result of energy released during faulting, which could potentially result in the damage or collapse of buildings and other structures, depending on the magnitude of the earthquake, the location of the epicenter, and the character and duration of the ground motion.

The foothills of the Sierra Nevada are characterized by relatively low risk of seismic activity. Data compiled between 1808 and 1987 show that only 15 earthquakes between a maximum moment magnitude (M) 3.0 and M 4.0 (on the Richter scale) were recorded along the Foothills Fault System between Mariposa and Oroville. Four notable historical earthquakes have been reported in the northern Sierra Nevada. Three seem to have been associated with the northern portion of the Melones Fault Zone near Downieville. The fourth was the M 5.7 Oroville earthquake of August 14, 1975, located about 42 miles northwest of the project site (Douglas Environmental 2019). Due to the relatively low risk of seismic activity in the local area, the project would not be expected to be exposed to significant seismic ground shaking. Therefore, strong seismic ground shaking is considered unlikely in the project area, and the impact would be less than significant.

a.3. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Seismic-related ground failure, including liquefaction?

The primary factors in determining liquefaction potential are soil type, the level and duration of seismic ground motions, and the depth to groundwater. Sandy, loose, or unconsolidated soils are susceptible to liquefaction hazards. Liquefaction and other seismically induced forms of ground movement have historically occurred throughout California during major earthquake events. These phenomena generally consist of lateral movement, flow, or vertical settlement of saturated, unconsolidated soil in response to strong ground motion. Due to the limited seismic activity in the project area, and the fact that the project site is not within an area subject to liquefaction (California Geological Survey 2020), the project would not be adversely affected by liquefaction. Therefore, seismic-related ground failure is considered unlikely in the project area, and the impact would be less than significant.

a.4. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Landslides?

The project site is on gently sloping land not capable of causing substantial adverse effects from a landslide. The project would not include structures for human occupation and would be constructed to California Building Code structural design standards. Therefore, people and structures would not be exposed to adverse effects from landslides. There would be no impact.

b. Result in substantial soil erosion or the loss of topsoil?

Construction of the project would include the excavation of and movement of soils on the site to create flat areas for water treatment plant facilities and parking. During these excavation activities, the excavated soils would be exposed to wind and water erosion that could transport sediments into local drainages. These contaminant sources could degrade the water quality of receiving water bodies, potentially resulting in a violation of water quality standards. This would be considered a significant impact. Because more than 1 acre of ground would be disturbed, a SWPPP would be

prepared for the project with associated best managements practices (BMPs), consistent with Placer County standards. The SWPPP would be designed to protect water quality pursuant to the requirements of the National Pollutant Discharge Elimination System (NPDES) stormwater permit for construction activity (Order 99-08-DWQ, as amended). With implementation of the BMPs identified in the SWPPP, this impact would be less than significant.

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 an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?

Liquefaction and landslide effects are discussed in a.3 and a.4. The project would be constructed to Placer County and California Building Code structural design standards. The project would not include any components or characteristics that would undermine the project site's stability. Therefore, the project would not be located on unstable soil or geologic units and would not cause the site to become unstable. There would be no impact.

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

Expansive soils, also known as shrink-swell soils, refer to the potential of soil to expand when wet and contract when dry. The project site is located on Cohasset and Mariposa series soils. Cohasset soils have a moderate shrink-swell potential (U.S. Department of Agriculture 1980). The proposed structures would be constructed in accordance with the most recent California Building Code standards, which would reduce the potential for adverse effects from being located on expansive soil to an acceptable level. This impact would be less than significant.

e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?

The project area does not have sewer service so a septic system would be constructed to handle the project's wastewater needs. The soils in the project area are capable of supporting the use of septic systems. The septic system would be designed and constructed per county standards and requirements; therefore, there would be no impact.

f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

There are no unique geologic features on the project site. It is possible that underlying soils at the project site could contain unique paleontological resources. Any paleontological resources that may have been previously located on the project site have likely been substantially disturbed or destroyed by prior site grading and disturbance and construction of the original WTP. Therefore, construction and operation of the project would not cause a substantial adverse change in the significance of a paleontological resource, and the impact would be less than significant.

VIII. Greenhouse Gas Emissions

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

Affected Environment

The process known as the *greenhouse effect* keeps the atmosphere near Earth's surface warm enough for the successful habitation of humans and other life forms. The greenhouse effect is created by sunlight that passes through the atmosphere. Some of the sunlight striking Earth is absorbed and converted to heat, which warms the surface. The surface emits a portion of this heat as infrared radiation, some of which is re-emitted toward the surface by greenhouse gases (GHG). Human activities that generate GHGs increase the amount of infrared radiation absorbed by the atmosphere, thus enhancing the greenhouse effect, and amplifying the warming of Earth.

Increases in fossil fuel combustion and deforestation have exponentially increased concentrations of GHGs in the atmosphere since the Industrial Revolution (Intergovernmental Panel on Climate Change 2018). Rising atmospheric concentrations of GHGs more than natural levels result in increasing global surface temperatures—a process commonly referred to as *global warming*. Higher global surface temperatures, in turn, result in changes to Earth's climate system, including increased ocean temperature and acidity, reduced sea ice, variable precipitation, and increased frequency and intensity of extreme weather events (Intergovernmental Panel on Climate Change 2018). Large-scale changes to Earth's system are collectively referred to as *climate change*.

The principal anthropogenic (human-made) GHGs contributing to global warming are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated compounds, including sulfur hexafluoride (SF_6), hydrofluorocarbons (HFC), and perfluorocarbons (PFC). Unlike criteria air pollutants, which occur locally or regionally, the long atmospheric lifetimes of these GHGs allow them to be well mixed in the atmosphere and transported over distances. Within California, transportation is the largest source of GHG emissions (41 percent of emissions in 2018), followed by industrial sources (24 percent) (California Air Resources Board 2021).

There is currently no federal law specifically related to climate change or the reduction of GHGs. California has adopted statewide legislation addressing various aspects of climate change and GHG emissions mitigation. Much of this establishes a broad framework for the state's long-term GHG reduction and climate change adaptation program. Of particular importance is Senate Bill (SB) 32, which establishes statewide target to reduce GHG emissions to 40 percent below 1990 levels by 2030. Although not legislatively adopted, the governor has also issued Executive Order (EO) B-55-

18, which establishes a goal for state agencies to achieve carbon neutrality as soon as possible, and no later than 2045, and to achieve and maintain net negative emissions thereafter.

As discussed in Section III, *Air Quality*, PCAPCD has the primary responsibility for air quality management in Placer County. PCAPCD (2017) has adopted a *de minimis* threshold of 1,100 metric tons carbon dioxide equivalent (CO_2e) for operation of land use development projects. The air district also has a bright line threshold of 10,000 metric tons CO_2e, where development projects in excess of the *de minimis* threshold (1,100 metric tons CO_2e) can be found less than cumulatively considerable if the emission intensity (emissions per capita) meets certain criteria. The 10,000-metric ton CO_2e threshold is also recommended for analyzing construction period emissions.

Discussion

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

Construction of the proposed project would generate emissions of CO_2, CH_4, and N_2O from mobile and stationary construction equipment exhaust and employee and haul truck vehicle exhaust. Emissions were estimated using the methods described in Section III, *Air Quality*; the results are summarized in Table 10. Please refer to Appendix A for complete construction assumptions and calculation spreadsheets.

Table 10. Estimated Greenhouse Gas Emissions from Project Construction (metric tons per year)

Construction Year	CO_2	CH_4	N_2O	CO_2e [a]
2022	326	<1	<1	328
2023	521	<1	<1	524
2024	11	<1	<1	11
PCAPCD threshold	-	-	-	*10,000*
Exceed threshold?	-	-	-	*No*

[a] Refers to carbon dioxide equivalent, which includes the relative warming capacity (i.e., global warming potential) of each greenhouse gas.

CH_4 = methane

CO_2 = carbon dioxide

N_2O = nitrous oxide

PCAPCD = Placer County Air Pollution Control District

The project would replace operations at the existing Colfax WTP. There would be no increase in staff and, therefore, no change in emissions from mobile source (i.e., vehicle trips), water consumption, or waste generation compared to existing conditions. While the project would be significantly more energy efficient than the existing facility, the expanded building footprint will increase overall electricity consumption. Area source (e.g., landscaping equipment) emissions would also increase relative to existing conditions. Finally, one 500-hp emergency generator would be maintained on site to provide backup power in the event of an outage. This generator would replace the 250-hp generator at the existing facility. Emergency testing under both existing and project conditions was assumed to occur monthly, up to 1 hour per day and 12 hours per year (Trejo pers. comm. [b]).

Table 11 summarizes the results of the emissions modeling and compares the net change in emissions from existing conditions to the PCAPCD's threshold. Refer to Appendix A for model outputs.

Table 11. Estimated Greenhouse Gas Emissions from Project Operation (metric tons per year)

Source	CO_2	CH_4	N_2O	CO_2e [a]
Existing facility				
Emergency generator testing	1	<1	<1	1
Electricity consumption	29	<1	<1	29
Area sources	<1	<1	<1	<1
Project				
Emergency generator testing	2	<1	<1	2
Electricity consumption	28	<1	<1	28 [b]
Area sources	4	<1	<1	4
Net change [c]	4	<1	<1	4
PCAPCD threshold	-	-	-	*1,000*
Exceed threshold?	-	-	-	*No*

CH_4 = methane

CO_2 = carbon dioxide

N_2O = nitrous oxide

PCAPCD = Placer County Air Pollution Control District

[a] Refers to carbon dioxide equivalent, which includes the relative warming capacity (i.e., global warming potential) of each greenhouse gas.

[b] While the project will consume more electricity than the existing facility, emissions resulting from the generation and transmission of that electricity in 2024 when the project is operational will be lower than emitted for the existing facility due to increasing penetration of renewable resources in the statewide electrical grid (which reduces the emissions intensity of the electric power sector.

[c] Project emissions minus existing facility emissions.

As shown in Table 10, construction of the project would generate minor amounts of GHGs. These emissions would be short-term and well below PCAPCD's construction threshold. Likewise, long-term operational emissions would not exceed PCAPCD's *de minimis* threshold (see Table 11). Thus, neither construction nor operation of the project would generate substantial GHG emissions, either directly or indirectly, that may be considered to have a significant impact on the environment. This impact would be less than significant, and no mitigation is required.

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

CARB encourages local governments to adopt a reduction goal for municipal operations emissions and move toward establishing similar goals for community emissions that parallel the State's commitment to reducing GHG emissions. The County adopted the *Placer County Sustainability Plan: A Greenhouse Gas Emission Reduction Plan and Adaptation Strategy* (PCSP) in January 2020 (Placer County 2020). The PCSP includes an inventory of baseline (2005) and forecasted emissions in 2020, 2030, and 2050 and identifies reduction targets and strategies to reach those targets. The PCSP includes 46 strategies that apply to municipal operations across the following sectors: energy, transportation, solid waste, forestry and landscaping, and education and awareness.

The proposed project is consistent with all applicable PCSP municipal strategies. For example, with the energy sector, the project includes energy efficient windows, insulation, and other building materials. This is consistent with strategies GO E-1 and E-10, which seek to advance energy-efficient design in new county construction projects. Facility employees would be subject to all County commute trip and waste reduction requirements and programs. End-of-trip facilities, including

changing rooms for employees who bike to work, would also be available at the project site, consistent with Strategy GO T-7. Finally, the project would use native plants (xeriscape) and maximize shade trees, where possible.

With respect to the state's plans and policies to reduce GHG emissions; the 2017 Scoping Plan builds on the programs set in place as part of the previous Scoping Plan that was drafted to meet the 2020 reduction targets per AB 32. The 2017 Scoping Plan proposes meeting the 2030 goal by both accelerating the focus on several existing programs and incorporating new strategies and programs that go beyond existing measures and strategies. Although the measures included in the 2017 Scoping Plan are necessarily broad, the project would be generally consistent with the goals and desired outcomes of the Scoping Plan (see Table 12). As shown in Table 12, state programs require no action at the project level, and benefits to project-related emission sources will be realized over time. For example, the 2017 Scoping Plan incorporates SB 350, which extends the Renewables Portfolio Standard (RPS) to a 50 percent target by 2030 while doubling the energy efficiency savings expected statewide. In addition, CARB expanded the Low Carbon Fuel Standard, aiming to achieve an 18 percent reduction in the carbon intensity of transportation fuels. Furthermore, the Mobile Source Strategy aims to support the transition to 1.5 million zero emission vehicles (plug-in hybrid electric, battery-electric, and hydrogen fuel cell) by 2025 and 4.2 million by 2030, while also ramping up GHG stringency for all light-duty vehicles. Each of these measures will be implemented over time, with eventual benefits to project-related emission sources.

Table 12. Proposed Project Consistency with Scoping Plan Policies

Policy	Primary Objective	Project Consistency Analysis
SB 350 (superseded by SB 100)	Reduce GHG emissions in the electricity sector through the implementation of the 50% RPS, doubling of energy savings, and other actions as appropriate to achieve GHG emissions reductions planning targets in the Integrated Resource Plan process.	**Consistent.** This is a state program that requires no action at the local or project level. Benefits to project-related electricity and water consumption would be realized. The project would be subject to any regulations or actions developed to implement the goals of SB 350.
Low Carbon Fuel Standard	Transition to cleaner/less-polluting fuels that have a lower carbon footprint.	**Consistent.** This is a state program that requires no action at the local or project level. Benefits to project-related vehicle travel would be realized independently.
Mobile Source Strategy (Cleaner Technology and Fuels Scenario)	Reduce GHGs and other pollutants from the transportation sector through transition to zero-emission and low-emission vehicles, cleaner transit systems, and reduction of VMT.	**Consistent.** This is a state program that requires no action at the local or project level. Benefits to project-related vehicle travel would be realized independently.
SB 1383	Approve and implement SLCP strategy to reduce highly potent GHGs.	**Consistent.** This is a state program that requires no action at the local or project level. Benefits to project-related solid waste emissions will be realized.
Post-2020 Cap-and-Trade Program	Reduce GHGs across largest GHG emission sources.	**Consistent.** This a state program that requires no action at the local or project level. This program is not directly applicable to the proposed project because it is not regulated under cap-and-trade proposed.

GHG =greenhouse gas
RPS = Renewables Portfolio Standard
SB = Senate Bill
SLCP = Short-Lived Climate Pollutants
VMT = vehicle miles traveled

Other state regulations, such as the 100 percent carbon-free RPS by 2045 mandated by SB 100; implementation of the state's SLCP Reduction Strategy, including forthcoming regulations for composting and organics diversion; and future updates to the state's Title 24 standards (including requirements for net zero energy buildings), will be necessary to attain the magnitude of reductions required for the state's goals. The proposed project would be required to comply with these regulations in new construction (in the case of updated Title 24 standards) or would be directly affected by the outcomes (e.g., energy consumption would be less carbon intensive due to the increasingly stringent RPSs). Unlike the scoping plans, which explicitly call for additional emissions reductions from local governments and new projects, none of these state regulations identify specific requirements or commitments for new development beyond what is already required by existing regulations or will be required in forthcoming regulation.

Based on this analysis, for the foreseeable future, the proposed project would not conflict with applicable plans and policies adopted at the local and state levels for the purpose of reducing GHG emissions. The project's focus on energy efficiency and compliance with the PCSP supports long-term changes required to achieve the state's long-term decarbonization goals articulated under EO B-55-18. This impact would be less than significant.

IX. Hazards and Hazardous Materials

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:					
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?		X		
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?		X		
c.	Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
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?				X
e.	Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard or excessive noise for people residing or working in the project area?				X
f.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?		X		
g.	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?			X	

Affected Environment

A computer database search of various agency hazardous materials sites lists (i.e., Cortese List) was conducted for the project site to identify any known sites of hazardous material contamination. Search results revealed no known hazardous materials site located on or adjacent to the project site (California Environmental Protection Agency 2020).

The CEQA Guidelines require that ISs and EIRs assess whether a project will emit hazardous air emissions or involve the handling of extremely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school (see Sections 21151.2 and 21151.4 of the Public Resources Code; Appendix G of the CEQA Guidelines). There are no schools within 0.25 mile of the

project site. The closest school to the project site is Colfax High School, approximately 1 mile to the southwest.

Safety hazards associated with airports generally are related to construction of tall structures and the creation of wildlife attractants (e.g., wetlands, golf courses, and waste disposal operations) that could interfere with airplane flight paths. The CEQA Guidelines (Section 21096 of the Public Resources Code) require analysis of airports within 2 miles of a proposed project. There are no airports within 2 miles of the project site.

The Placer County Office of Emergency Services is responsible for maintaining the County's Local Hazard Mitigation Plan (LHMP). Preparation of the LHMP included a risk assessment to determine the county's vulnerability to hazards, which influenced the development of goals and mitigation actions. Placer County and its incorporated communities have a variety of systems and procedures established to protect its residents and visitors to plan for, avoid, and respond to a hazard event including those associated with floods and wildfires. This includes Pre-Disaster Public Awareness and Education information, and specific warning and evacuation systems and procedures include information relative to Warning Systems, ALERT System, dam protocols, evacuation procedures, and sheltering in place (Placer County 2016).

The severity of wildland fires is influenced primarily by vegetation, topography, and weather (temperature, humidity, and wind). The California Department of Forestry and Fire Protection (CAL FIRE) has developed a fire hazard severity scale that considers vegetation, climate, and slope to evaluate the level of wildfire hazard. CAL FIRE designates three levels of Fire Hazard Severity Zones (Moderate, High, and Very High) to indicate the severity of fire hazard in a particular geographical area. Fire hazard zoning is used to indicate both the likelihood for a fire (e.g., prevalence of fuels) and the potential for damage (e.g., proximity to residences). Local fire departments also use these severity zone designations within their jurisdictions. As identified by the Placer County Land Information Search, the project site is located within a Very High Fire Hazard Severity Zone (VHFHSZ) (California Department of Forestry and Fire Protection 2020).

The project site is primarily underlain by ultramafic rock that typically contains naturally occurring asbestos (NOA) minerals. The California Geological Survey, Special Report 190 map identifies NOA in Colfax and vicinity, which includes the project site (California Geological Survey 2006). The project site is in an area considered as "Most Likely" to contain NOA minerals. East of the project site the area is mapped as "Moderately Likely" to contain NOA minerals.

A Phase I Environmental Site Assessment (Phase I ESA) was conducted in September and October of 2020 for the project to identify the potential for hazardous conditions at the site (JJ&A 2020). A review if aerial photographs show a historic pear orchard present in the south-central portion of the project area prior to 1938 and extending through the central portion of the site around 1947. The orchard appears to have been removed between 1962 and 1973. During the reconnaissance visit, remnants of the orchard trees were present. The current property owner indicated that pesticides were used on the orchard. Metal-based pesticides were historically used in apple and pear orchards. Therefore, residual chemical contamination due to agricultural practices may exist in shallow soils. As a result of these findings, a Phase II ESA, including soil sampling, was conducted to evaluate any residual pesticide impacts to soil (JJ&A 2021). Soil sampling testing results were reported according to EPA Regional Screening Levels (RSLs), RWQCB Shallow Soil Environmental Screening Levels (ESLs), and DTSC HERO Note 3 screening levels. These levels are used as a preliminary measure of

the potential impacts to human health in a commercial/industrial setting and/or to exposure by construction workers and to determine if remediation is warranted.

The results of the Phase II soil sampling indicate the following.

- Arsenic concentrations in the soil are above regulatory thresholds.
- Pesticides DDE and DDT were present in soil samples but below the industrial/commercial and construction worker screening levels.
- One soil sample indicated cobalt levels above the screening level for construction workers.
- Two samples of lead and one sample of DDE are above the soluble threshold limit concentration (STLC) screening level for hazardous waste characterization.

Discussion

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

The use, handling, and storage of hazardous materials is regulated by both the Federal Occupational Safety and Health Administration (Fed/OSHA) and the California Occupational Safety and Health Administration (Cal/OSHA). Cal/OSHA is responsible for developing and enforcing workplace safety regulations. Both federal and state laws include special provisions/training in safe methods for handling any type of hazardous substance. These strict regulations ensure that potential hazards associated with construction and operational activities do not create a significant hazard to the public.

During project construction, potentially hazardous liquid materials such as oil, diesel fuel, gasoline, and hydraulic fluid would be used at the project site in construction equipment. These substances are commonly used during construction projects and the risk of a spill that would create a significant hazard to the public or environment would be negligible due to the small quantities of hazardous substances used and the short duration of construction. The use of hazardous materials, such as gasoline and hydraulic fluids, during construction has the potential to create a significant hazard to the public or the environment. Implementation of Mitigation Measure HAZ-1 would reduce impacts to a less-than-significant level.

A WTP is a hazardous materials site, as described in Government Code Section 65962.5, and is listed as such because of the use and generation of hazardous materials as part of water treatment operation. The transportation, storage, and use of hazardous materials at the Colfax WTP would occur above ground, within the treatment plant facilities. Any potentially contaminated areas, if encountered during project construction, would be evaluated by a qualified hazardous materials specialist in the context of applicable local, state, and federal regulations governing hazardous waste. With implementation of Mitigation Measure HAZ-1, this impact would be less than significant.

Mitigation Measure HAZ-1: Prepare a Hazardous Materials Contingency Plan (HMCP)

The contractor will prepare and submit a contingency plan for handling hazardous materials to PCWA, whether found or introduced on site during construction. The plan will include construction measures as specified in local, state, and federal regulations for hazardous materials, removal of onsite debris, and confirmation of presence of pipelines on site. The plan must include the following measures, at a minimum.

- If contaminated soils or other hazardous materials are encountered during any soil moving operation during construction (e.g., trenching, excavation, grading), construction will be halted and the HMCP implemented.
- Instruct workers on recognition and reporting of materials that may be hazardous.
- Minimize delays by continuing performance of the work in areas not affected by hazardous materials operations.
- Identify and contact subcontractors and licensed personnel qualified to undertake storage, removal, transportation, disposal, and other remedial work required by, and in accordance with, laws and regulations.
- File requests for adjustments to contract time and contract price due to the finding of hazardous materials in the work site in accordance with conditions of the contract.

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?

Hazardous Materials Handling

Any handling, transporting, use, or disposal of hazardous or potentially hazardous materials would be required to comply with all applicable federal, state, and local agencies and regulations. Both short-term construction and long-term operation of the project would be required to adhere to the policies and programs set forth by applicable regulatory agencies. This compliance, along with the limited use of hazardous materials during construction, would minimize the potential for the accidental release of hazardous materials into the environment. However, a release of hazardous substances from construction equipment due to a leak or spill could adversely affect the environment and would be considered a significant impact.

The implementation of Mitigation Measure HAZ-1 would minimize this impact by requiring that safety training be conducted during project construction; by requiring the development of emergency response plans; by identifying a Safety Director/Manager responsible for managing the safety, health and environmental risk factors for the contractor; and by requiring the preparation of a HMCP. With the implementation of Mitigation Measure HAZ-1, this impact would be less than significant.

Naturally Occurring Asbestos Minerals

According to the *Naturally Occurring Asbestos Hazard map for Colfax and Vicinity*, the project site is located in an area "most likely to contain NOA, includes ultramafic rock and serpentine rock (serpentinite), and associated soils, which are most likely to contain NOA" (California Geological Survey 2006). The exposure of construction workers and the public to these minerals would be considered a public health hazard and this would be considered a significant impact. However, the implementation of Mitigation Measure HAZ-2 would reduce this impact to a less-than-significant level.

Mitigation Measure HAZ-2: Prepare and Implement a Naturally Occurring Asbestos Plan

Due to the potential presence of naturally occurring asbestos minerals at the project site, the following measures will be implemented during soil excavation and handling activities.

- Periodic observations by a geologist familiar with the identification of naturally occurring asbestos minerals will be conducted as excavation progresses. The frequency of observation will be at the discretion of the PCWA. Testing for naturally occurring asbestos minerals will be conducted on suspect rock, if observed, and as directed by the geologist.
- A dust mitigation plan shall be implemented, in accordance with CARB and PCAPCD requirements, if naturally occurring asbestos minerals is encountered or suspected during grading operations.
- A worker health and safety program will be implemented if naturally occurring asbestos minerals are encountered during trenching activities. The plan will comply with all regulatory requirements.

Agricultural Pesticides

Pesticides, including 4,4-DDE and 4,4-DDT were reported in several soil samples. Arsenic concentrations in soil samples were reported at concentrations greater than one or more environmental screening level values. Cobalt was reported above the screening level in one soil sample. Two lead samples and one sample of 4,4-DDE are above screening levels for hazardous waste characterization. If, during grading or excavation activities, contaminated soils are encountered, construction workers' health could be adversely affected. To prevent exposure of workers and the public to contaminated soils, implementation of Mitigation Measure HAZ-3 would reduce this impact to a less than significant level.

Mitigation Measure HAZ-3: Conduct a Phase III Environmental Site Assessment

Due to the presence of arsenic and organochlorine-based pesticides in soils at the project site, a Phase III ESA will be conducted and will include further testing to determine the extent of contamination and develop a remediation plan for containment or removal of contaminated soils.

Surface soils from potentially contaminated areas will be screened and disposed of appropriately according to Placer County Certified Uniform Program Agency (CUPA) regulatory requirements and the HMCP. The County will also comply with Federal and State regulations regarding the handling and disposal of hazardous wastes. These requirements include consultation with the Department of Toxic Substances Control (DTSC) and State Water Resources Control Board and adherence to the SWPPP. The SWPPP requirement of BMPs designed to minimize the release of hazardous materials would help reduce potential impacts. These measures would reduce the potential of the project to create a significant hazard involving the accidental release of agricultural chemicals and exposure to hazardous materials in contaminated soils.

c. Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

There are no schools within 0.25 mile of the project site. The closest school to the project site is Colfax High School, approximately 1 mile to the southwest. There would be no impact.

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?

A computer database search of various agencies on the Cortese List was conducted for the project site to identify any known sites of hazardous material contamination. Search results revealed no known hazardous materials site located on or adjacent to the project site (California Environmental Protection Agency 2020). There would be no impact.

e. Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard or excessive noise for people residing or working in the project area?

There are no airports within 2 miles of the project site. The closest airport is the Alta Sierra Airport, approximately 5.7 miles to the west. There would be no impact.

f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The project includes the construction and operation of a WTP and associated facilities to serve growth in the Colfax service area and to provide improved reliability and more dependable service. PCWA would require the construction contractor to submit an encroachment permit application to PCDPW for finished-water pipeline work in Rollins Lake Road. Construction activities on Rollins Lake Road could require restricting vehicle traffic to one lane within the construction area. Although a potential lane restriction would be temporary, it would slow vehicle circulation within the area of the activity. This potential lane restriction could also contribute to delayed evacuations if it remained in place during an emergency. This would be considered a potentially significant impact during construction activities. The implementation of Mitigation Measure TRA-1 would minimize this impact by requiring the contractor to have sufficient traffic management resources to maintain safe traffic flow at all times, to ensure that emergency fire, police or medical vehicles are able to access all adjacent areas, and that construction activities do not obstruct or hinder traffic that might be generated during an evacuation. With implementation of Mitigation Measure TRA-1, this impact would be less than significant.

The implementation Mitigation Measure TRA-1 would minimize this impact by requiring the contractor to have sufficient traffic management resources to maintain safe traffic flow at all times, to ensure that emergency fire, police or medical vehicles are able to access all adjacent areas, and that construction activities do not obstruct or hinder traffic that might be generated during an evacuation. The implementation of Mitigation Measure HAZ-1 would also minimize this impact by requiring the contractor to prepare and submit to the County a contingency plan for handling hazardous materials, whether found or introduced on site during construction. The implementation of these mitigation measures would reduce this impact to a less-than-significant level.

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

The project site is located on gently sloping land surrounded by developed and undeveloped lands in a VHFHSZ. However, the project would not include any permanent occupants that could be exposed to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. The project would not introduce any new structures or uses that would increase fuels in the area or contribute to existing fire hazards. The project would provide a more reliable source of water in the

Colfax area and would not exacerbate wildfire risks. Project implementation would not substantially increase the risk of loss, injury, or death involving wildland fires. The impact would be less than significant.

X. Hydrology and Water Quality

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:					
a.	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?		X		
b.	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				X
c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:				
	1. Result in substantial erosion or siltation on or off site;			X	
	2. Substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site;			X	
	3. Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or			X	
	4. Impede or redirect flood flows?				X
d.	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X
e.	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				X

Affected Environment

The project site is located within the northern portion of the Sacramento River Hydrological Region, as defined by the California Department of Water Resources (DWR). The Sacramento River Hydrological Region covers approximately 17.4 million acres (27,200 square miles). Annual precipitation averages 44 inches, 90 percent of which falls from November through April. Average summer temperatures range from a low of 60˚F to a high of 90˚F, with temperatures in excess of 100˚F being fairly common.

Surface water on the project site generally flows as sheet flow to the southwest to a series of water conveyance systems. Water then flows to the Bear River and ultimately drains to Lake Combie. A pond is located approximately 300 feet east of the site, and a forested/shrub waterway originates south of SR 174, near the intersection of Old Grass Valley Road, approximately 100 feet downgradient of the project site. The PCWA canal is identified as riverine habitat and terminates in the central portion of the site, before originating again approximately 550 feet south of the project site (JJ&A 2020).

Stormwater runoff pollutants vary with land use, topography, and the amount of impervious surface, as well as the amount and frequency of rainfall and irrigation practices. The project site is undeveloped. Runoff on undeveloped land has time to interact with the vegetation and flow into and through depressions on site, which allows for some pollutant treatment through filtration and settling.

No Federal Emergency Management Agency designated floodplains are located in the project area (Federal Emergency Management Agency 2018). The project site is located in Zone X, which means area of minimal flood hazard. There are no drainages immediately adjacent to the project site that would directly receive surface runoff.

Discussion

a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

The project would not violate Regional Water Board water quality standards or waste discharge requirements. Construction activities resulting from the project would require excavation, grading and other general construction practices. However, only relatively small areas of ground disturbance would be required. Because more than one acre of ground would be disturbed, a SWPPP would be prepared for the project with associated BMPs, consistent with Placer County standards. The SWPPP would be designed to protect water quality pursuant to the requirements of the NPDES stormwater permit for construction activity (Order 99-08-DWQ, as amended). Furthermore, the majority of ground-disturbing construction would take place in the dry summer months, further minimizing any discharges into waterways. With implementation of the BMPs identified in the SWPPP, this impact would be less than significant.

Hazardous materials associated with the project consist of those substances associated with construction equipment, such as petroleum products and lubricants, and the treatment chemicals discussed in Chapter 1, *Introduction/Project Description*. Mitigation Measure HAZ-1 would be implemented to submit to the County a contingency plan for handling hazardous materials, whether found or introduced on site during construction to prevent such substances from entering a body of water. With implementation of Mitigation Measure HAZ-1, the impact would be less than significant.

b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

The Colfax WTP is replacing the existing WTP, so there is no net increase in water consumption. Any water used as part of the treatment process would be recycled back into the treatment process. The only water that would not be recycled is water to the toilet and sink for the single bathroom planned as part of the project. Temporary dewatering activities may be necessary if perched groundwater is

encountered during excavation/trenching activities. However, the dewatering activities would not be expected to affect long-term groundwater supplies. There would be no impact.

c.1. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would: Result in substantial erosion or siltation on or off site?

Construction of the project would include the excavation of soil that, due to exposure to wind and water erosion, could be transported into local drainages. This would be considered a potentially significant impact during construction activities. There will be an increase in impervious surfaces caused by project components due to an increase in paved area and structures. However, this increase would not result in substantial erosion or siltation on site or off site or substantially increase the rate or amount of surface runoff in a manner that would result in substantial erosion or siltation on site or off site. All paved areas would be designed to drain into existing stormwater collection systems. This impact would be reduced by requiring the contractor to develop and implement a SWPPP and applicable BMPs, which would substantially reduce offsite sediment transport and associated water quality degradation. With the implementation of BMPs from the SWPPP, this impact would be less than significant.

c.2. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would: Substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site?

No aspect of the project would alter the course of a stream or river. The project would not substantially alter the existing drainage pattern of the project site. There would be an increase in the amount of impervious surface area caused by project components due to an increase in paved area and structures. However, this increase would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on site or off site. All paved areas would be designed to drain into stormwater collection systems pursuant to county and state requirements. By adhering to county and state stormwater requirements, stormwater runoff would not exceed the capacity of existing or planned stormwater drainage systems in a manner that would result in flooding on site or off site. Containment of hazardous materials, as described in Section IX, *Hazards and Hazardous Materials*, would prevent the project from contributing substantial sources of polluted runoff. This impact would be less than significant.

c.3. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would: Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Implementation of the project would not physically alter adjacent roadways or the drainage along adjacent roadways. Once the project is constructed and the potable water line is connected to the line in Rollins Lake Road, the excavated trench would be repaved and the roadway would be returned to its pre-existing condition. As noted above, all paved areas of the project site would be designed to drain into stormwater collection systems pursuant to county and state requirements. By adhering to county and state stormwater requirements, stormwater runoff would not exceed the capacity of existing or planned stormwater drainage systems in a manner that would result in substantial sources of polluted runoff. The impact would be less than significant.

c.4. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would: Impede or redirect flood flows?

Implementation of the project would not physically alter the adjacent roadways. The project does not entail construction of housing units or other structures that would impede or redirect flood flows. The project site is not located in a mapped flood hazard area. Therefore, there would be no impact.

d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

The project would not include any construction or operational features that would contribute to inundation of the project area by seiche, tsunami, or mudflow; therefore, there would be no impact.

e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Due to the project's limited area of impact, it would not be expected to conflict with or obstruct implementation of the water quality control plan or a sustainable groundwater management plan. There would be no impact.

XI. Land Use and Planning

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:					
a.	Physically divide an established community?				X
b.	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				X

Affected Environment

The project site is located on APNs 099-140-030 and 099-150-003 at 25745 Rollins Lake Road just north of Colfax in Shady Glen. The project site is zoned F-B-43 PD (Farm-Building Site Planned Residential Development)/C2-Dc (General Commercial-Design Review), with a *Placer County General Plan* land use designation of High Density Residential/Visitor Commercial.

East of the project site is primarily undeveloped lands with the Southern Pacific Railroad and Interstate 80 approximately 0.23 and 0.43 mile away, respectively. To the south are several private residences and undeveloped lands. To the west are private residences, a mobile home park and undeveloped lands. To the north are rural private residences surrounded by undeveloped lands.

Discussion

a. Physically divide an established community?

Implementation of the project would not result in the physical division of an established community. The WTP would be located on a 11.7-acre parcel in unincorporated Shady Glen north of Colfax. The project would not require the displacement or relocation of any housing structures. There would be no impact.

b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The project includes the construction and operation of a WTP and associated facilities to serve growth in the Colfax service area and to provide improved reliability and more dependable service. The project is consistent with the land use goals and policies of the adopted *Placer County General Plan* and would not be inconsistent with any plans or policies adopted for the purpose of avoiding/mitigating an environmental effect. Furthermore, PCWA has committed to additional measures to help minimize construction-related effects (e.g., noise) on nearby residents. There would be no impact.

XII. Mineral Resources

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:					
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
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?				X

Affected Environment

Placer County includes many mineral resources. Known mineral resources include gravel, sand, clay, quartz, gold, crushed quarry rock, and decomposed granite. Currently, stone, clay, gold and gravel are extracted within the county. The most common current mining activity in the county is sand and gravel extraction. These operations are located along several streambed and adjacent floodplain deposits throughout the county. No active quarry or mining sites are known to exist in or near the project site.

Discussion

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?

The project would include construction within APNs 099-140-030 and 099-150-003 and on Rollins Lake Road and would not result in the loss of known mineral resources of value to the region or residents of the state. No adverse effect on mineral resources would be anticipated. There would be no impact.

b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

The project site has not been designated as a locally important mineral resource recovery site. Therefore, the project would have no effect on locally important mineral resource recovery sites. There would be no impact.

XIII. Noise

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:					
a.	Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?		X		
b.	Generate excessive groundborne vibration or groundborne noise levels?			X	
c.	Be located within the vicinity of a private airstrip or an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels?				X

Affected Environment

The project site, located at 25745 Rollins Lake Road in Colfax, is currently developed with a small private water treatment facility that serves Shady Glen Estates and houses a small mobile trailer residence. The project would involve the construction and operation a new WTP and associated facilities to serve growth in the Colfax service area and to provide improved reliability and more dependable service. Construction of the project and certain components of project operation would generate noise.

The project site is located in a relatively rural or quiet suburban portion of Placer County. Rural and suburban areas typically have lower ambient sound levels than urban and more developed areas. Areas near highways, rail lines, and airports experience some of the highest sound levels. Conversely, national and state parks, national forests, natural preserves, and grazing lands have some of the lowest sound levels. Refer to Table 13 for approximate average L_{dn} (day-night average level noise) noise levels for various types of locations.

Table 13. Approximate Average L_{dn} Noise Levels for Various Locations

Qualitative Description of Location	Average L_{dn} in dBA
Rural	40–50
Small town or quiet suburban residential	50
Normal suburban residential	55
Urban residential	60
Noisy urban residential	65
Very noisy urban residential	70
Downtown, major metropolis	75–80
Adjoining freeway or near major airport	80–90

Source: Hoover & Keith 2000.
dBA = A-weighted decibels.
L_{dn} = day-night average level noise

Ambient noise levels in the project vicinity would be similar to that in a rural or small town/ suburban area and would be expected to be in the range of 40 to 50 dBA L_{dn}.

Regarding nearby sensitive receptors, the nearest offsite sensitive land use is the residence located approximately 80 feet north of the northernmost construction areas for the project. A residence is also located west of the project site, approximately 90 feet from the nearest project construction areas. Additional residences are located south and southwest of the project site at distances of 150 feet and greater from the nearest construction areas.

Regulatory Framework

Placer County General Plan

The *Placer County General Plan* (Placer County 2013) includes the goals related to protecting county residents from the harmful and annoying effects of exposure to excessive noise. The general plan's Noise Element also establishes performance standards and maximum allowable noise levels for transportation and non-transportation sources.

Refer to Table 14 and Table 15 for the specific criteria that apply to non-transportation and transportation noise sources in the county.

Table 14. Maximum Allowable Noise Levels (L_{dn}) within Specified Zone Districts

Zone District or Receptor	Property Line of Receiving Use (dBA)	Interior Spaces [a] (dBA)
Residential Adjacent to Industrial [b]	60	45
Other Residential [c]	50	45
Office/Professional	70	45
Transient Lodging	65	45
Neighborhood Commercial	70	—
General Commercial	70	45
Timberland Preserve	—	—
Recreation & Forestry	70	—
Open Space	—	—
Mineral Reserve	—	—

Source**:** Placer County 2013, Table 9-1.
Note: Where no noise level standards have been provided for a specific zone district, it is assumed that the interior and/or exterior spaces of these uses are effectively insensitive to noise.
dBA = A-weighted decibels
Ldn = day/night average noise level

[a] Interior spaces are defined as any locations where some degree of noise sensitivity exists. Examples include all habitable rooms of residences, and areas where communication and speech intelligibility are essential, such as classrooms and offices.

[b] Noise from industrial operations may be difficult to mitigate in a cost-effective manner. In recognition of this fact, the exterior noise standards for residential zone districts immediately adjacent to industrial, limited industrial, industrial park, and industrial reserve zone districts have been increased by 10 dB as compared to residential districts adjacent to other land uses. For purposes of the Noise Element, residential zone districts are defined to include the following zoning classifications: AR, R-1, R-2, R-3, FR, RP, TR-1, TR-2, TR- 3, and TR-4.

[c] Where a residential zone district is located within an -SP combining district, the exterior noise level standards are applied at the outer boundary of the -SP district. If an existing industrial operation within an -SP district is expanded or modified, the noise level standards at the outer boundary of the -SP district may be increased as described above in these standards. Where a new residential use is proposed in an -SP zone, an Administrative Review Permit is required, which may require mitigation measures at the residence for noise levels existing and/or allowed by use permit.

Table 15. Maximum Allowable Noise Exposure Transportation Noise Sources

	Outdoor Activity Areas[a]	Interior Spaces	
Land Use	L_{dn} **/CNEL (dBA)**	L_{dn} **/CNEL (dBA)**	L_{dn} **/CNEL (dBA)**
Residential	60c	45	45
Transient Lodging	60c	45	45
Hospitals, Nursing Homes	60c	45	45
Theaters, Auditoriums, Music Halls	—	—	—
Churches, Meeting Halls	60c	—	—
Office Buildings	—	—	—
Schools, Libraries, Museums	—	—	—
Playgrounds, Neighborhood Parks	70	—	—

Source: Placer County 2013, Table 9-3.
CNEL = Community Noise Equivalent Level
dBA = A-weighted sound level
Ldn = day/night average sound level

[a] Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use.

[b] As determined for a typical worst-case hour during periods of use.

[c] Where it is not possible to reduce noise in outdoor activity areas to 60 dBA Ldn/CNEL or less using a practical application of the best- available noise reduction measures, an exterior noise level of up to 65 dBA Ldn/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

Placer County Code

The Placer County Code includes hourly Leq and Lmax noise standards for stationary sources of noise in the county. The hourly standard is 55 dBA for daytime noise and 45 dBA for nighttime noise. A maximum level of 70 dBA is permitted during the day and 65 dBA at night. The Placer County Code also prohibits creation of noises that would exceed the existing ambient sound level by 5 dB. Refer to Table 16 for the Placer County sound level performance standards.

Table 16. Placer County Sound Level Performance Standards [a]

Noise Level Descriptor	Daytime [b] (7:00 a.m.–10:00 p.m.)	Nighttime [b] (10:00 p.m.–7:00 a.m.)
Hourly (dBA, L_{eq})	55 dBA	45 dBA
Maximum level (dBA, L_{max})	70 dBA	65 dBA

dB = decibel

dBA = A-weighted decibel

L_{eq} = equivalent sound level

L_{max} = maximum sound level

[a] The noise standard shall be applied at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards shall be applied on the receiving side of noise barriers or other property line noise mitigation measures.

[b] Each noise level standard specified shall be reduced by 5 dB for single-tone noises, or noise consisting primarily of speech or music.

The Placer County Code provides an exemption from these noise standards for construction noise provided that construction equipment is fitted with factory-installed muffling devices and is properly maintained, and that construction occurs during the following periods.

- Monday through Friday, 6:00 a.m. to 8:00 p.m.
- Saturday and Sunday, 8:00 a.m. to 8:00 p.m.

Discussion

a. Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?

Implementation of the proposed project would generate noise from construction activities. Construction of the project would be short term, occurring between 2022 and 2024, and would involve the following subphases: site preparation, grading, building construction, paving, and architectural coating. Construction would primarily take place on weekdays between 7:00 a.m. and 5:00 p.m. Weekend work is not currently anticipated; if required, it would be for a short duration during daylight exempt hours. Therefore, all construction would occur during the daytime hours when it is considered exempt from the local ordinance. (Trejo pers. comm. [c]).

Construction noise modeling was conducted to determine if project construction would result in significant noise impacts to nearby noise-sensitive uses. Estimates of combined construction noise levels were based on reference noise levels from the Federal Highway Administration (FHWA) roadway construction noise model (Federal Highway Administration 2006) and the Federal Transit Administration general assessment construction noise analysis method (Federal Transit Administration 2018), which recommends combining noise levels from the two loudest pieces of equipment expected to operate simultaneously in roughly the same location. The noise data include the A-weighted L_{max} noise levels measured at a distance of 50 feet from the construction equipment and the utilization factors for the equipment. The utilization factor is the percentage of time each piece of construction equipment is typically operating at full power over the specified time period and used to estimate L_{eq} values from L_{max} values. For example, the L_{eq} value for a piece of equipment that operates at full power over 50 percent of the time is 3 dB less than the L_{max} value (Federal Highway Administration 2006).

An initial screening analysis was conducted to determine which subphases of Project construction would require the use of the loudest equipment. It was determined that grading subphase would use the loudest equipment. Combined L_{eq} noise levels from the two loudest pieces of equipment for the grading subphase (e.g., a grader and a scraper) was modeled. As shown in Table 17, worst-case grading noise (based on the assumptions described above) at a distance of 80 feet (the distance to the nearest offsite sensitive use, north of the site), could be up to 79 dBA L_{eq}.

Table 17. Reasonable Worst-Case Project Grading Noise Levels (L_{eq})

Source Data:	Maximum Sound Level (dBA)	Utilization Factor	L_{eq} Sound Level (dBA)
Expected Loudest Construction Condition: Grading			
Source 1: Grader - Sound level (dBA) at 50 feet =	85	40%	81.0
Source 2: Scraper - Sound level (dBA) at 50 feet =	84	40%	80.0
Calculated Data:			
All Sources Combined – L_{max} sound level (dBA) at 50 feet = **88 L_{max}**			
All Sources Combined – L_{eq} sound level (dBA) at 50 feet = **84 L_{eq}**			

Distance Between Source and Receiver (feet)	**Geometric Attenuation (dB)**	**Calculated L_{max} Sound Level (dBA)**	**Calculated L_{eq} Sound Level (dBA)**
25	6	94	90
50	0	88	84
80	**-4**	**83**	**79**
100	-6	82	78
150	-10	78	74
200	-12	75	72
250	-14	74	70
300	-16	72	68
350	-17	71	67
400	-18	69	65
500	-20	68	64

Note: Geometric attenuation is based on 6 dB per doubling of distance. This calculation does not include the effects, if any, of local shielding from walls, topography, or other barriers, which may reduce sound levels further.
dB = decibel
dBA = A-weighted decibel
L_{eq} = equivalent sound level
L_{max} = maximum sound level

During most of the project construction period, equipment would operate farther away from nearby noise-sensitive receptors than this worst-case distance. In addition, even when equipment would operate this close to a noise-sensitive receptor, it is likely that it would be operating intermittently and for a relatively short period of time in that specific location. Therefore, actual daily noise levels from construction activities would typically be lower than the reasonable worst-case noise level presented in this analysis. At residences located south of the project site, at least 150 feet from the nearest project construction areas, estimated noise levels from construction would be less than this level. As shown in Table 17, noise levels at a distance of 150 feet would be 74 dBA L_{eq}. At residences located further away, noise levels would be even lower.

In addition to onsite construction, minor hauling would be required (e.g., up to 2 haul trucks per day for a worst-case construction subphase). The addition of up to two haul trucks per day on the local roadway network would not result in a meaningful increase in average daily noise levels. In addition, all hauling would take place during daytime hours when construction noise is considered exempt from the local noise standards.

Although temporary noise increases during daytime hours would occur during project construction, construction noise would be limited to the daytime hours when it is considered exempt from the local ordinance. Therefore, construction noise for the project would be in compliance with local applicable construction noise criteria, and impacts from project construction noise would be less than significant.

Operations

Traffic Noise

Operation of the new water treatment facility would employ one full-time employee who would report to the site daily. Special maintenance (e.g., sludging) is expected to occur up to one week per year and would require three employees per day during this time. These staffing demands are the same as the existing facility located on the site that would be decommissioned by the project. Accordingly, the project would not increase vehicle trips or result in increases in operational traffic noise.

Emergency Generator Testing Noise

One emergency generator (expected to be a 175-kW generator, similar to the one currently existing on the site) would be maintained on site to provide backup power in the event of an outage. Emergency testing would occur monthly, up to 1 hour per day and 12 hours per year total. (Trejo pers. comm. [b]). With project implementation, the generator would be located north-northwest of the main treatment building and over 290 feet from the nearest residence, located to the north. An additional residence is located west of the proposed generator location at an approximate distance of 350 feet. It is expected that the generator would be located inside an enclosure, further reducing noise.

The make and model of the proposed 175 kW generator is not yet finalized. Sound data for a 175-kW Cummins C175D6D diesel generator can be used to approximate noise levels from the generator proposed for the project. A 175-kW generator would generate an estimated unattenuated noise level of up to approximately 93 dBA at 50 feet (combined exhaust and engine noise), without accounting for attenuation from mufflers or weather and/or sound enclosures (Cummins Inc. 2019). The nearest sensitive receptors to the proposed generator location are the residences located north and west of the generator location, at distances of 250 to 340 feet, respectively. At these distances, unshielded generator noise during intermittent testing would be approximately 79 and 76, respectively. Note that shielding in the form of a generator building, and intervening buildings, may reduce these noise levels. However, since specific design features are not known at this time, it is difficult to ensure noise levels during testing would be below the 55-dBA daytime noise standard for Placer County. Therefore, because unattenuated noise levels from emergency generator testing may exceed the allowable levels for Placer County, noise impacts from the proposed emergency generator to nearby residential land uses would be considered significant.

Implementation of Mitigation Measure NOI-1 would ensure noise levels from noise-generating project mechanical equipment, including emergency generators during testing, would be below the allowable levels. With implementation of Mitigation Measure NOI-1, impacts related to emergency generator testing would be less than significant.

Heating, Ventilation, and Air Conditioning Noise

With regard to operational mechanical equipment, most equipment would be located inside of solid structures (e.g., the main water treatment building, solid pump buildings, etc.). Equipment located inside of these solid buildings would not be expected to result in meaningful increases to the ambient noise environment outside of the structures themselves. However, HVAC equipment would be installed on top of the main operations building and could, therefore, result in increases to the ambient noise level in the project area (Trejo pers. comm. [c]).

A single package HVAC unit can generate noise levels in the range of 75 dBA at a distance of 50 feet without accounting for any attenuation from screens or enclosures. The operations building is located at least 110 feet from the nearest residence, and HVAC equipment would likely be located even further away from this nearby receiver. At a distance of 110 feet, noise from this HVAC unit would be reduced to approximately 68 dBA L_{eq}. Note that the hourly standard for this type of noise source in Placer County is 55 dBA during daytime hours and 45 dBA during nighttime hours. Although actual noise levels from HVAC equipment would likely be lower than the 68 dBA L_{eq} noise level presented above due to screening or enclosures provided for the HVAC equipment, such design features have not been selected at this time. Therefore, because unattenuated noise levels from HVAC equipment may exceed the allowable levels in Placer County, noise impacts from HVAC equipment to nearby residential land uses would be significant.

Implementation of Mitigation Measure NOI-1 would ensure noise levels from noise-generating project mechanical equipment would be below the allowable levels. With implementation of Mitigation Measure NOI-1, impacts related to the operation of HVAC equipment would be less than significant.

Pump Noise

Noise generated by pumps could also result in elevated noise levels in the immediate project vicinity. Noise levels associated with pumps generally vary based on the size and type of equipment.

The proposed pumps for the project would range from 50 to 75 hp (Trejo pers. comm. [c]). A 50- to 75-hp pump could result in a noise level of about 60 to 65 dBA at a distance of 50 feet depending on the speed range (revolutions per minute) of the pump (Hoover & Keith 2000). Since noise from a point source generally reduces by 6 dB per doubling of distance (without accounting for attenuation from shielding or ground absorption over soft ground), noise would be greatly reduced outside of the immediate vicinity of a pump. At a distance of 200 feet, the distance to the nearest residence from the proposed 50-hp pumps, noise from each of these pumps (noting only one would be operational at a given time) would be reduced by 12 dB, resulting in an estimated noise level of approximately 52 to 53 dBA L_{eq} (without accounting for shielding from any enclosures). The 75-hp pumps are more than 300 feet from the nearest receptor. At this distance, noise from each pump would be reduced to 50 dBA or lower, without accounting for shielding from enclosures. Although actual noise levels would likely be lower than these levels due to attenuation from shielding, design features have not been selected at this time. Therefore, because unattenuated noise levels from project pumping equipment may exceed the allowable 45 dBA nighttime allowable level in Placer County at nearby residences, noise impacts from project pumping equipment would be significant.

Implementation of Mitigation Measure NOI-1 would ensure noise levels from noise-generating project mechanical equipment would be below the allowable levels. Implementation of Mitigation Measure NOI-1 would ensure impacts related to the operation of project pumping equipment would be less than significant.

Mitigation Measure NOI-1: Implement Stationary Equipment Noise Controls

PCWA will ensure that the project's stationary equipment, including HVAC equipment, pumping equipment and the proposed emergency generator (during testing), meets the noise limits specified in Article 9.36 of the Placer County Code (i.e., a 45 dBA limit and a 55 dBA limit at the nearest residences during nighttime hours and daytime hours, respectively). Acoustical treatments to obtain compliance with these standards may include the following.

- Enclosing noise-generating mechanical equipment (e.g., pumps, HVAC equipment and the emergency generator) that would otherwise be located external to buildings.
- Installing relatively quiet models of air handlers, pumps, and other mechanical equipment.
- Using mufflers or silencers on equipment exhaust fans.
- Orienting or shielding equipment to protect sensitive uses to the greatest extent feasible.
- Increasing the distance between stationary equipment and noise-sensitive receptors.
- Placing barriers around the equipment to facilitate the attenuation of noise.

b. Generate excessive groundborne vibration or groundborne noise levels?

Operations-related vibration results primarily from the passing of trains, buses, and heavy trucks. Project operation, including the use of pumps or water treatment equipment, is not anticipated to generate perceptible levels of vibration at receptors; therefore, operational vibration effects are not assessed. However, potential vibration effects from construction activities are analyzed to determine if impacts related to structural damage or sleep disturbance would occur.

The operation of heavy-duty construction equipment can generate localized ground-borne vibration and noise at buildings adjacent to the construction areas. Ground-borne vibration rarely causes damage to normal buildings, with the occasional exception of blasting or pile-driving

during construction. Project construction would not require the use of any piles and would therefore not require the use of a pile driver or drill rig to install piles. The most vibration-intensive equipment proposed for project construction is a vibratory roller. Earth-moving equipment, such as the proposed dozer and excavator (which generates similar vibration levels to a dozer), could also generate vibration. Table 18 summarizes typical vibration velocity levels at a distance of 25 feet for the various types of construction equipment that may be used for the project.

Table 18. Construction Vibration Levels at Nearby Sensitive Uses

Equipment	PPV at 25 Feet	PPV at 80 Feet
Vibratory roller	0.210	0.037
Large bulldozer	0.089	0.016
Loaded trucks	0.076	0.013
Jackhammer	0.035	**0.006**
Small bulldozer	0.003	**0.001**

Source: California Department of Transportation 2020.
PPV = peak particle velocity

Although there are no Placer County thresholds that directly apply to construction vibration, the California Department of Transportation (Caltrans) provides guidelines regarding vibration-related damage and annoyance impacts. These criteria are often used throughout the state to assess potential vibration effects of construction projects. Table 19 provides Caltrans' vibration guidelines for potential damage to different types of structures.

Table 19. Caltrans Vibration Guidelines for Potential Damage to Structures

	Maximum Peak Particle Velocity (PPV, in/sec)	
Structure Type and Condition	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Source: California Department of Transportation 2020.
Note: Transient sources create a single, isolated vibration event (e.g., blasting or the use of drop balls). Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.
PPV = peak particle velocity

Ground-borne vibration and noise can also disturb people who are generally more sensitive to vibration during nighttime hours when sleeping than during daytime waking hours. Table 20 provides Caltrans' guidelines regarding vibration annoyance potential (expressed here as peak particle velocity [PPV]).

Table 20. Caltrans Guidelines for Vibration Annoyance Potential

	Maximum PPV (in/sec)	
Human Response	**Transient Sources**	**Continuous/Frequent Intermittent Sources**
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.10
Severe	2.0	0.4

Source: California Department of Transportation 2020.
Note: Transient sources create a single, isolated vibration event (e.g., blasting or the use of drop balls). Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.
PPV = peak particle velocity

Damage-Related Vibration Effects

As discussed previously, general construction activity could occur as close as 80 feet from the nearest residence located north of the project. Vibration levels are presented for all equipment at an 80-foot distance. As shown in Table 18, the vibration level for a vibratory roller at this distance could be up to 0.037 PPV inch per second. This vibration level is well below the damage criteria presented in Table 18 above for all building types, including older residential structures (which has a criterion of 0.3 PPV inch per sec). Because peak vibration levels from the most vibration-intensive construction would be approximately 10 times lower than the applicable criterion, vibration-related damage impacts to nearby structures would be less than significant.

Annoyance-Related Vibration Effects

With regard to annoyance-related vibration impacts, residential land uses are considered to be most sensitive to vibration during nighttime hours, when people generally sleep. Should strongly perceptible vibration levels (per the *Caltrans Guidelines*) occur during nighttime hours, sleep disturbance could occur. As shown in Table 18, vibration generated by continuous or frequent intermittent sources, such as vibration from construction activities, is considered to be strongly perceptible if the PPV is in excess of 0.1 inch per second. No nighttime construction is proposed for the project. Therefore, excessive vibration during nighttime hours when people typically sleep would not occur as a result of the project. In addition, as described above, the estimated daytime PPV level from the most vibration-intensive equipment proposed for use (a vibratory roller) would be approximately 0.037 PPV inch per second at the nearest residence. This vibration level is well below the strongly perceptible level of 0.1 PPV inch per second. Therefore, even during daytime hours, vibration levels at nearby offsite residences would be below the strongly perceptible criterion. Vibration impacts related to sleep disturbance and annoyance would be less than significant.

c. Be located within the vicinity of a private airstrip or an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels?

The project site is not located within the vicinity of a private airstrip, an airport land use plan, or within 2 miles of a public airport. The project would not expose people residing or working in the project area to excessive noise levels associated with private airstrip or public airport operations. There would be no impact.

XIV. Population and Housing

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:					
a.	Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?				X
b.	Displace a substantial number of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

Affected Environment

Population growth and projected housing needs in the project area are addressed in the *Placer County General Plan* and *City of Colfax General Plan*. PCWA bases its facility needs on these planning documents. The project site is just north of the city limits of Colfax in unincorporated Shady Glen. According to U.S. Census data, Colfax's 2019 population was 2,002 and was 1,963 in 2010 (U.S. Census Bureau 2019).

Discussion

a. Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?

The project does not involve the construction of any components (i.e., roads, residential homes) that would directly induce population growth. The project includes the construction and operation of a WTP and associated facilities to serve growth in the Colfax service area and to provide improved reliability and more dependable service. The project also includes construction of a parking area. This facility would not induce growth beyond what has been planned for under the adopted *Placer County General Plan* and *City of Colfax General Plan*. In addition, the project would only create one new permanent job. The existing PCWA employees would be on site 1 week of the year for special operations (sludging or major maintenance. There would be no impact.

b. Displace a substantial number of existing people or housing, necessitating the construction of replacement housing elsewhere?

The project would not result in the demolition of any homes and does not include any components that would result in the displacement of any homes or create the need for replacement housing. There would be no impact.

XV. Public Services

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a 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 following public services:				
Fire protection?				X
Police protection?				X
Schools?				X
Parks?				X
Other public facilities?				X

Affected Environment

Public utilities include fire and police protection, schools, parks, and other public facilities. The California Department of Forestry and Fire Protection (CAL FIRE) provides full-service fire protection services through a cooperative agreement with the county. Law enforcement services in the project area are provided by the Placer County Sheriff's Department, Auburn Main Office. The project site is within the Placer Union High School District and Colfax Elementary School District. The closest school to the project site is Colfax High School, approximately 1 mile southwest. Colfax Elementary School is just southeast of the high school. There are no parks or other public facilities located in the project area; however, Rollins Lake is approximately 1 mile north.

Discussion

a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a 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 following public services:

Fire protection, Police protection, Schools, Parks, and Other public facilities?

The project would not directly or indirectly increase the population of Placer County or the community of Colfax. The project would not include any components that would increase the service requirements for CAL FIRE or require additional fire protection facilities be constructed. The project area would continue to be served by the Placer County Sheriff's Department and project implementation would not require an increase in law enforcement protection services or the

construction of additional law enforcement facilities. The project does not include any uses that would increase the demands on local schools or local park facilities. Therefore, the project would not be expected to result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities in Placer County or the community of Colfax. There would be no impact.

XVI. Recreation

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:					
a.	Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b.	Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?				X

Affected Environment

The project area is served by the Placer County Parks Division. The nearest recreational facilities to the project site are located at Rollins Lake, which is approximately 1 mile north. Rollins Lake offers water skiing and wake boarding, canoeing, kayaking, fishing, swimming, picnicking, hiking, boat rentals, horseback riding, and camping.

Discussion

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

The project does not include any components that would directly result in an increased use of recreational facilities in Placer County. Therefore, the project would not be expected to increase the use of parks such that substantial physical deterioration would occur. There would be no impact.

b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

The project would not include any recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. As described above, the project would not be expected to increase the use of recreational facilities such that substantial physical deterioration would occur. There would be no impact.

XVII. Transportation

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:					
a.	Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?			X	
b.	Conflict or be inconsistent with State CEQA Guidelines section 15064.3, subdivision (b)?			X	
c.	Substantially increase hazards because of a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
d.	Result in inadequate emergency access?		X		

Affected Environment

Regional vehicular access to the project area is provided by Interstate-80 to the east of the project site and SR 174 to the west of the project site. Local access is provided by SR 174 and Rollins Lake Road. Both roadways have a shoulder width varying from 0 to 2 feet.

The Placer County Transportation Planning Agency (PCTPA) is the state-designated regional transportation planning agency for the county. PCTPA makes decisions about the regional transportation system in the county and plans and programs the area's federal and state transportation funds. In developing and adopting plans and strategies, PCTPA makes use of these funds and fulfills the requirements of the organization's state designation as the county's regional transportation planning agency. The current transportation planning and programming decisions are stated in the *Final Placer County 2036 Regional Transportation Plan* (Placer County Transportation Planning Agency 2016). The closest regionally significant roadways recognized by PCTPA include Interstate-80 and SR 174. Rollins Lake Road is not considered regionally significant (Placer County Transportation Planning Agency 2016).

There are no bike paths for cyclists or sidewalks for pedestrians in the project area. South of the project site, SR 174 is designated as a Rural Route for bicyclists (Placer County Transportation Planning Agency 2011). Rural Routes are scenic routes on rural roads that may have high speed vehicle traffic, varying shoulder widths, and challenging climbs.

Placer County Transit operates a Colfax/Alta Route (Route 40) that runs from the Auburn Station to the Alta Store weekdays (Placer County Transit 2020). Reservations are required for Alta destinations.

Discussion

a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Project construction activities would generate new vehicle trips on the local roadway network associated with equipment and materials hauling and construction worker transportation to and from the project site. Construction-related traffic would be expected to include the use of dump trucks, haul trucks, and various deliveries of material and equipment occurring throughout the construction period. These trips would represent a minor and temporary increase in traffic volumes on SR 174 and Rollins Lake Road and other local roads in the project vicinity.

During trench excavation and potable water pipeline placement in Rollins Lake Road, daytime road delays could occur along a short segment of Rollins Lake Road. The staging of equipment and pipeline segments within a portion of the roadway prior to its installation could also contribute to traffic delays. The temporary delays on Rollins Lake Road could divert traffic to other roadways in the local area, which could temporarily increase congestion on these other roadways. However, due to a fairly extensive network of roads in the local area, a variety of alternative routes are available to travel through the area. The temporary disruptions on local roads during the summer construction period for the project would not permanently change their levels of service.

The project would require one new employee for project operations, which would not generate a substantial increase in new vehicle trips. Therefore, project operations would not generate any new vehicle trips other than for routine maintenance.

During construction, the project would not result in delays in transit service within the project area because there are no transit routes on SR 174 or Rollins Lake Road. Following construction, the proposed project would have no effect on transit service.

The single-lane closure could slightly delay bicycle trips along a short segment of Rollins Lake Road and would likely reduce the space available on this roadway for bicycle travel. However, these delays would be negligible, particularly if bicyclists are able to pass queuing vehicles. Pedestrian use of local roadways is extremely limited along due to the narrow shoulders and relatively high vehicle speeds. Therefore, the temporary single-lane closure would not be expected to disrupt pedestrian travel in the area.

The project would not be expected to conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Therefore, this impact would be less than significant.

b. Conflict or be inconsistent with State CEQA Guidelines section 15064.3, subdivision (b)?

CEQA Guidelines Section 15064.3(b) applies to land use and transportation projects that would be expected to increase vehicle miles driven during their operations. The project site is not located within 0.5 mile of either an existing major transit stop or a stop along an existing high quality transit corridor. For construction activities, CEQA Guidelines Section 15064.3(b)(3) allows a qualitative analysis to be conducted. The project would result in a temporary increase in vehicle miles traveled during construction due to worker trips to the site, the delivery of materials, and trips generated by construction vehicles on the site. The temporary increase in vehicle mileage travelled during construction would not be expected to increase vehicle miles travelled over the long term and would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b).

Once the project becomes operational, it would generate approximately two vehicle trips per day and one haul truck trip over 1 week annually for special operations (sludging or major maintenance). Additionally, because the new WTP would be able to dry the sludge on site, this would result in a decrease in truck trips to dispose of the dried sludge under existing conditions. Therefore, this impact would be less than significant.

c. Substantially increase hazards because of a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The project does not include any components that would alter the geometric design of SR 174 or Rollins Lake Road. Therefore, there would be no impact.

d. Result in inadequate emergency access?

During trench excavation and pipeline placement for the potable water line, daytime road delays would occur along Rollins Lake Road that could require restricting vehicle traffic to one lane within the construction area. The temporary delays on the road could divert traffic to other roadways in the local area, which could temporarily increase congestion on these other roadways. Although this lane restriction would be temporary, it would slow vehicle circulation within the area of the activity. This lane restriction could also contribute to emergency vehicle access delays if long vehicle queues form on the roadway. Although the local area includes a network of roads that could be used as alternative routes for emergency vehicles, any delays in emergency vehicle access during construction activities would be a potentially significant impact.

The implementation of Mitigation Measure TRA-1 would minimize this impact by requiring the contractor to have sufficient traffic management resources to maintain safe traffic flow at all times, to ensure that emergency fire, police or medical vehicles are able to access all adjacent areas, and that construction activities do not obstruct or hinder traffic that might be generated during an evacuation. The implementation of Mitigation Measure TRA-1 would reduce this impact to a less-than-significant level.

Mitigation Measure TRA-1: Implement Traffic Control Measures during Construction

The contractor will implement the following measures during project construction.

- As required, the contractor will provide adequate traffic management resources, such as protective devices, flag persons, and police assistance for traffic control, to maintain safe traffic flow on local streets affected by construction at all times.
- The contractor will identify traffic hazards created by construction, such as rough road or potholes, freshly paved locations, and minimize total traffic and vehicle speed through such hazards.
- The contractor will ensure that traffic safety hazards, such as uncovered or unfilled open trenches, will not be left in roadways during period of time when construction personnel are not present, such as nighttime and weekends.
- The contractor will repair all roads adequately after construction to ensure that traffic can move in the same manner as before construction.
- At all times during construction, the contractor will ensure that emergency fire, police or medical vehicles are able to access all adjacent areas. Additionally, construction equipment

or activities must not obstruct or hinder traffic that might be generated during an evacuation.

- Contractor will comply with the requirements of Placer County and Caltrans encroachment permits.

XVIII. Tribal Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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				X
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.		X		

Affected Environment

Tribal cultural resources are defined as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following: (1) included or determined to be eligible for inclusion in the California Register of Historic Resources (CRHR); or (2) included in a local register of historical resources. Tribal cultural resources are also resources determined by the lead agency (i.e., Placer County), in its discretion and supported by substantial evidence, to be significant. In making this determination, the lead agency is required to consider the significance of the resource to a California Native American tribe.

The CRHR includes resources listed in or formally determined eligible for listing in the NRHP. Pursuant to Public Resources Code, Section 21084.1, a "project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." Demolition, replacement, substantial alteration, and relocation of historic properties are actions that would change the significance of an historic resource (14 CCR 15064.5).

Background

The project is located on undeveloped land in unincorporated Shady Glen, north of Colfax. No evidence of historic buildings, sites, structures or objects that would constitute a Tribal Cultural Resource was revealed from the records search at the North Central Information Center (see Section *2.5 Cultural Resources* for details of record search results). Through consultation efforts conducted by PCWA, the United Auburn Indian Community of the Auburn Rancheria (UAIC) and the Wilton

Rancheria were identified as the two tribes requesting consultation on the project. A brief tribal history is provided below for each tribe.

United Auburn Indian Community of the Auburn Rancheria

The UAIC is comprised of both Miwok and Maidu Indians. The historic Auburn Rancheria is located in Auburn, California. Below is a brief history of the UAIC as presented on their website (United Auburn Indian Community 2021).

The reestablishment of the United Auburn Indian Tribe began when the Department of Interior documented the existence of a separate, cohesive band of Maidu and Miwok Indians, occupying a village on the outskirts of the City of Auburn in Placer County. In 1917, the United States acquired land in trust for the Auburn Band near the City of Auburn and formally established a reservation, known as the Auburn Rancheria. Tribal members continued to live on the reservation as a community despite great adversity.

In 1953, the United States Congress enacted the Rancheria Acts, authorizing the termination of federal trust responsibilities to a number of California Indian tribes including the Auburn Band. With the exception of a 2.8-parcel containing a tribal church and a park, the government sold the land comprising the Auburn Rancheria. The United States terminated federal recognition of the Auburn Band in 1967. Finally, in 1970, President Nixon declared the policy of termination a failure. In 1976, both the United States Senate and House of Representatives expressly repudiated this policy in favor of a new federal policy entitled Indian Self-Determination.

In 1991, surviving members of the Auburn Band reorganized their tribal government as the United Auburn Indian Community (UAIC) and requested the United States to formally restore their federal recognition. In 1994, Congress passed the Auburn Indian Restoration Act, which restored the Tribe's federal recognition. The Act provided that the Tribe may acquire land in Placer County to establish a new reservation.

Wilton Rancheria

The members of Wilton Rancheria are comprised of Miwok whose tribal territory encompassed much of what is now known as Sacramento County. Below is a brief history of the Wilton Rancheria as presented on their website (Wilton Rancheria 2021):

The lands the Tribe's ancestors inhabited were located along a path of massive death and destruction of California Indians caused by Spanish, Mexican, and American military incursions, disease and slavery, and the violence accompanying

mining and settlements. Between March 1851 and January 1852, three commissioners hastily negotiated eighteen treaties with representatives of some of the indigenous population in California. The ancestors of the Tribe were party to the treaty signed at the Forks of the Cosumnes. The Treaty of the Forks of the Cosumnes River ceded the lands on which the Wilton Rancheria in Sacramento County was later established, but promised to establish a rancheria beginning at the Cosumnes River, "commencing at a point on the Cosumnes river, on the western line of the county, running south on and by said line to its terminus, running east on said line twenty-five miles, thence north to the middle fork of the Cosumnes river, down said stream to the place of beginning; to have and to hold the said district of country for the sole use and occupancy of said Tribe forever."

The Tribe's ancestors came back from nearly being annihilated only to have their children taken to boarding schools that stripped their indigenous language and culture further. Finally in July of 1928 the United State of America acquired land in trust for the Miwok people that were living in Sacramento County. A 38.77-acre tract of land in Wilton, Sacramento County, California was purchased from the Cosumnes Company which formally established the Wilton Rancheria. In 1958, the United States Congress enacted the Rancheria Act, authorizing the termination of federal trust responsibilities to 41 California Indian Tribes including Wilton Rancheria. The Tribe official lost its Federal Recognition in 1964.

Congress reconsidered their policy of termination in favor of Indian self-determination in the 1970s. In 1991, surviving members of Wilton Rancheria reorganized their tribal government and in 1999 they requested the United States to formally restore their federal recognition. Ten years later a decision of a U.S. District Court Judge gave Wilton Rancheria restoration, restoring the Tribe to a Federally Recognized Tribe in 2009. Wilton Rancheria is a federally recognized Indian Tribe as listed in the Federal Register, Vol. 74, No. 132, p. 33468-33469, as "Wilton Rancheria of Wilton, California". The Tribe passed their constitution in 2011. It stated its four branches of government that includes the Office of the Chair & Vice Chair, the Tribal Council, a Tribal-Court, and the General Council. The Tribe's administration office is located in the City of Elk Grove, Sacramento County in California.

As stated in the Federal Register, Vol. 78, No. 176, Notices 55731, on September 11, 2013, the Tribe was designated the geographic boundaries of the Service Delivery Area (SDA) of Sacramento County in the State of California. As the only Federally Recognized Tribe in Sacramento County it is designated administratively as the Tribe's SDA. To function as a Contract Health Service Delivery Area (CHSDA), for the purpose of operating a Contract Health Service (CHS) program pursuant to the Indian Self-Determination and Education Assistant Act (ISDEAA), Public Law 93–638.

Correspondence

PCWA mailed AB 52 consultation letters to Wilton Rancheria and United Auburn Indian Community of the Auburn Rancherία (UAIC) on April 29, 2021. The letters described the project and requested information about tribal cultural resources that may be on or near the project area.

On May 4, 2021, Anna Starkey of the UAIC, responded that the UAIC is aware of a tribal village site located in the vicinity of the project. Because the site is approximately mapped, she noted that it is possible the site extends into the project footprint. Ms. Starkey also included UAIC's preferred mitigation measures for unanticipated discoveries, a post-ground disturbance site visit, and cultural awareness training which have been incorporated into the mitigation measures for this section as well as *Section 2.5 Cultural Resources*.

On May 4, 2021, Mariah Mayberry of the Wilton Rancheria, responded to alerting PCWA that the Tribe has identified cultural resources near the project footprint and would like to have a tribal monitor present during all ground disturbing activities.

PCWA responded to Wilton Rancheria and UAIC on June 7, 2021, asking for additional information on the identified resource both Tribes and provided the draft Tribal cultural resources chapter with proposed avoidance, protection, and mitigation measures for the project. Comment on the chapters were provided by UAIC on June 23, 2021. A follow-up meeting with PCWA and UAIC occurred on July 7, 2021, during which time, the UAIC reiterated the fact that a Tribal Cultural Resource has been identified through oral history in the vicinity of the project. Although the exact location of the TCR had not been ground-truthed, it was indicated that it is most likely located northwest of the project and could extend into the project area below the surface. The revised draft Tribal cultural resources section, which addressed comments that were provided by UAIC was sent on August 4, 2021, to Wilton Rancheria and UAIC. Tribal consultation under AB 52 concluded on August 5, 2021.

Discussion

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

The project does not include any resources that are 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). This was confirmed through a records search performed at the California Historical Resources Information System's North Central Information Center and through review of the California Register's online database. Any historic resources that may have been previously located on the surface of the project have been removed or buried. The project would disturb approximately 5 acres on APNs 099-140-030 and 099-150-003. Due to the lack of existing historic resources, and the relatively small footprint of excavation activities, the project would not be expected to cause a substantial adverse change in the significance of a tribal cultural resource listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources. There would be no impact.

b. 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 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?

Based on the consultation completed for AB 52, a Tribal Cultural Resource was identified near the project, and has the potential to extend into the project area. Because it is not known if the site extends into the project area, the project does have the potential to impact a Tribal Cultural Resource. This would be a significant impact. However, Mitigation Measures MM CUL-1/TCR-1, MM CUL-2/TCR-2, MM CUL-3/TCR-3, and MM CUL-4/TCR-4 (see Section 2.5, *Cultural Resources* for full text) would reduce potential impacts on TCRs to a less than significant level.

XIX. Utilities and Service Systems

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:					
a.	Require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?				X
b.	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?				X
c.	Result in a determination by the wastewater treatment provider that 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?				X
d.	Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X	
e.	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				X

Affected Environment

PCWA was created under state legislation and adopted in 1957 by the California Legislature to provide water service to the project area. PCWA carries out a broad range of responsibilities, including water resource planning and management, retail and wholesale supply of irrigation water and drinking water, and production of hydroelectric energy. PCWA operates an extensive water distribution system that includes 165 miles of canals, ditches, flumes and several small reservoirs.

The project site is not located within one of the nine separate sanitary sewer systems in the county. Rather, the project area is served by individual septic systems, and a septic system is planned for the onsite bathroom.

Solid waste generated in the project area is disposed of at the Western Regional Sanitary Landfill, which is managed by the Western Placer Waste Management Authority. The Western Regional Sanitary Landfill has a total capacity of 36.3 million cubic yards and a remaining capacity of approximately 24.5 million cubic yards (CalRecycle 2019).

Discussion

a. Require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

The project includes the construction and operation of a WTP and associated facilities to serve growth in the Colfax service area and to provide improved reliability and more dependable service. The WTP would not require or result in the relocation or construction of new or expanded utility infrastructure. There would be no impact.

b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

The project includes the construction and operation of a WTP and associated facilities to serve growth in the Colfax service area. The WTP would improve water supply reliability and service so that there is a sufficient supply during normal, dry, and multiple dry years. The project would have a beneficial effect on water supply in the project area. There would be no impact.

c. Result in a determination by the wastewater treatment provider that 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 project area does not have sewer service, so a septic system would be constructed to handle the project's wastewater needs. The septic system would be designed and constructed per county standards and requirements. There would be no impact.

d. Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Project construction would not be expected to generate significant volumes of solid waste. Negligible volumes of debris would be generated during project construction that would be delivered to the Material Recovery Facility (MRF) at the Western Regional Sanitary Landfill. Much of this debris could be recovered at the MRF before the remaining materials are deposited in the landfill. Because the remaining materials disposed of in the landfill would be negligible, the project

would not generate solid waste in excess of state or local standards or in excess of the landfill's remaining capacity and would not otherwise impair the attainment of solid waste reduction goals. The impact would be less than significant.

e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Solid wastes generated as part of the water treatment process would be dewatered and disposed of at a landfill with sufficient permitted capacity to accommodate the needs of the WTP. Operation of the plant would comply with federal, state, and local statutes and regulations related to solid waste. Because project construction would not be expected to generate significant volumes of solid waste, the project would not be expected to conflict with any solid waste statutes or regulations. There would be no impact.

XX. Wildfire

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:					
a.	Substantially impair an adopted emergency response plan or emergency evacuation plan?		X		
b.	Due to slope, prevailing winds, and other factors, exacerbate wildfire risks of, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?			X	
c.	Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts on the environment?			X	
d.	Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?			X	

Affected Environment

The Placer County Office of Emergency Services is responsible for maintaining the county's LHMP. Preparation of the LHMP included a risk assessment to determine the county's vulnerability to hazards, which influenced the development of goals and mitigation actions. Placer County and its incorporated communities have a variety of systems and procedures established to protect its residents and visitors to plan for, avoid, and respond to a hazard event including those associated with floods and wildfires. This includes Pre-Disaster Public Awareness and Education information, and specific warning and evacuation systems and procedures include information relative to Warning Systems, ALERT System, dam protocols, evacuation procedures, and sheltering in place (Placer County 2016).

The severity of wildland fires is influenced primarily by vegetation, topography, and weather (temperature, humidity, and wind). CAL FIRE has developed a fire hazard severity scale that considers vegetation, climate, and slope to evaluate the level of wildfire hazard. CAL FIRE designates three levels of Fire Hazard Severity Zones (Moderate, High, and Very High) to indicate the severity of fire hazard in a particular geographical area. Fire hazard zoning is used to indicate both the likelihood for a fire (e.g., prevalence of fuels) and the potential for damage (e.g., proximity to residences). Local fire departments also use these severity zone designations within their jurisdictions. As identified by the Placer County Land Information Search, the project site is located within a VHFHSZ (Placer County 2020).

Discussion

a. Substantially impair an adopted emergency response plan or emergency evacuation plan?

The project includes the construction and operation of a WTP and associated facilities to serve growth in the Colfax service area and to provide improved reliability and more dependable service. PCWA would require the construction contractor to submit an encroachment permit application to PCDPW for finished-water pipeline work in Rollins Lake Road. Construction activities on Rollins Lake Road could require restricting vehicle traffic to one lane within the construction area. Although a potential lane restriction would be temporary, it would slow vehicle circulation within the area of the activity. This potential lane restriction could also contribute to delayed evacuations if it remained in place during an emergency. This would be considered a potentially significant impact during construction activities. The implementation of Mitigation Measure TRA-1 would minimize this impact by requiring the contractor to have sufficient traffic management resources to maintain safe traffic flow at all times, to ensure that emergency fire, police or medical vehicles are able to access all adjacent areas, and that construction activities do not obstruct or hinder traffic that might be generated during an evacuation. With implementation of Mitigation Measure TRA-1, this impact would be less than significant.

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

The project site is located on gently sloping land surrounded by developed and undeveloped lands in a VHFHSZ. However, the project would not include any permanent occupants that could be exposed to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. The project would include one new employee. The project would provide a more reliable source of water in the Colfax area and would not exacerbate wildfire risks. The impact would be less than significant.

c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts on the environment?

The project would not require the installation of any new roads, fuel breaks, emergency water sources, power lines, or other utilities that may exacerbate fire risk or that may result in temporary or ongoing impacts on the environment. The project includes the construction and operation of a WTP and associated facilities to serve growth in the Colfax service area and to provide improved reliability and more dependable water service. The impact would be less than significant.

d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

The project does not include any physical changes that would be expected to expose people or structures to downslope or downstream flooding or landslides as a result of runoff, post-fire slope instability, or drainage changes. The project includes the construction and operation of a WTP and associated facilities to serve growth in the Colfax service area and to provide improved reliability and more dependable service. Site drainage would be per PCWA and Placer County standards and would not expose people or structures to significant risks. The impact would be less than significant.

XXI. Mandatory Findings of Significance

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a.	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?		X		
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.)		X		
c.	Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?		X		

Discussion

a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

Based on the information and analysis provided in this document, implementation of the project would not substantially degrade the quality of the environment and would not 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 rare or endangered plants or animals, or eliminate important examples of California history or prehistory. Also, based on the ability of the identified mitigation measures to reduce potential impacts to less-than-significant levels, the project's impacts would be less than significant with mitigation incorporated.

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.)

Implementation of the project would result in less-than-significant environmental impacts with implementation of the identified mitigation measures. The impacts associated with the project are anticipated to be localized at the project site and would not be expected to combine with other projects to cause cumulatively considerable environmental impacts. Given the limited impacts anticipated with project implementation, the project would not be expected to cause cumulatively considerable impacts. This impact would be less than significant with mitigation incorporated.

c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

As discussed in this IS/MND, implementation of the project would result in less-than-significant environmental impacts with implementation of the identified mitigation measures. Therefore, the project would not be expected to cause substantial adverse effects on human beings, either directly or indirectly. This impact would be less than significant with mitigation incorporated.

Chapter 3
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N/A

XII. Mineral Resources

N/A

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XV. Public Services

N/A

XVI. Recreation

N/A

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XX. Wildfire

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XXI. Mandatory Findings of Significance

N/A

Appendix A
Air Quality and Greenhouse Gas Emissions

Colfax Water Treatment Construction - Placer-Mountain Counties County, Summer

Colfax Water Treatment Construction
Placer-Mountain Counties County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	200,000.00	User Defined Unit	5.00	200,000.00	0
Parking Lot	4.00	Space	0.04	1,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	3			**Operational Year**	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Land Use - Lot acrage provided by PCWA
Construction Phase - Schedule from PCWA
Off-road Equipment - Equipment from PCWA
Trips and VMT - Cut and fill balanced onsite
Grading - Material balanced onsite
Construction Off-road Equipment Mitigation - Mitigated with T4

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	65.00
tblConstructionPhase	NumDays	230.00	195.00
tblConstructionPhase	NumDays	20.00	195.00
tblConstructionPhase	NumDays	20.00	130.00
tblConstructionPhase	NumDays	10.00	153.00
tblGrading	AcresOfGrading	73.13	10.00
tblGrading	MaterialImported	0.00	2,750.00
tblLandUse	LandUseSquareFeet	0.00	200,000.00
tblLandUse	LotAcreage	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	7.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.00

tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblTripsAndVMT	HaulingTripNumber	272.00	2.00
tblTripsAndVMT	HaulingTripNumber	0.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	33.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	WorkerTripNumber	13.00	12.00
tblTripsAndVMT	WorkerTripNumber	20.00	16.00
tblTripsAndVMT	WorkerTripNumber	85.00	8.00
tblTripsAndVMT	WorkerTripNumber	8.00	6.00
tblTripsAndVMT	WorkerTripNumber	17.00	2.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	5	45	30	0	18	2	20	10	2	12	0	7113	7113	2	0	7166
2023	3	33	31	0	9	1	11	5	1	6	0	6512	6512	2	0	6551
2024	29	1	1	0	0	0	0	0	0	0	0	379	379	0	0	380
Maximum	**29**	**45**	**31**	**0**	**18**	**2**	**20**	**10**	**2**	**12**	**0**	**7113**	**7113**	**2**	**0**	**7166**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	1	5	36	0	18	0	19	10	0	10	0	7113	7113	2	0	7166
2023	1	5	37	0	9	0	9	5	0	5	0	6512	6512	2	0	6551
2024	29	1	1	0	0	0	0	0	0	0	0	379	379	0	0	380
Maximum	**29**	**5**	**37**	**0**	**18**	**0**	**19**	**10**	**0**	**10**	**0**	**7113**	**7113**	**2**	**0**	**7166**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2022	12/31/2022	5	153	
2	Grading	Grading	10/1/2022	6/30/2023	5	195	
3	Building Construction	Building Construction	4/1/2023	12/31/2023	5	195	
4	Paving	Paving	7/1/2023	12/31/2023	5	130	
5	Architectural Coating	Architectural Coating	1/1/2024	3/31/2024	5	65	

Acres of Grading (Grading Phase): 10

Acres of Paving: 0.04

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 300,000; Non-Residential Outdoor: 100,000; Striped Parking Area: 96 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Off-Highway Trucks	1	6.00	402	0.38
Site Preparation	Rubber Tired Dozers	2	6.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Excavators	2	6.00	158	0.38
Grading	Graders	1	6.00	187	0.41
Grading	Off-Highway Trucks	1	6.00	402	0.38
Grading	Rubber Tired Dozers	2	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	1.00	231	0.29
Building Construction	Forklifts	1	1.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	1	6.00	46	0.45
Paving	Off-Highway Trucks	1	4.00	402	0.38
Paving	Pavers	0	0.00	130	0.42
Paving	Paving Equipment	1	5.00	132	0.36
Paving	Rollers	1	2.00	80	0.38
Architectural Coating	Air Compressors	1	4.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Site Preparation	5	12.00	6.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	16.00	6.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	8.00	6.00	4.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	3	6.00	6.00	4.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	6.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.0331	0.0000	9.0331	4.9653	0.0000	4.9653			0.0000			0.0000
Off-Road	1.8990	18.7142	11.2490	0.0274		0.8707	0.8707		0.8010	0.8010		2,651.650	2,651.6504	0.8576		2,673.090
Total	**1.8990**	**18.7142**	**11.2490**	**0.0274**	**9.0331**	**0.8707**	**9.9038**	**4.9653**	**0.8010**	**5.7664**		**2,651.650**	**2,651.6504**	**0.8576**		**2,673.090**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-	2.9800e-	5.1000e-	1.0000e-	2.3000e-	1.0000e-	2.4000e-	6.0000e-	1.0000e-	7.0000e-		1.1069	1.1069	3.0000e-		1.1077
Vendor	0.0168	0.6143	0.1052	1.7400e-	0.0406	1.2500e-	0.0419	0.0117	1.2000e-	0.0129		182.2413	182.2413	7.5200e-		182.4294
Worker	0.0406	0.0207	0.2988	9.2000e-	0.0986	6.0000e-	0.0992	0.0262	5.5000e-	0.0267		91.3043	91.3043	1.9400e-		91.3529
Total	**0.0574**	**0.6380**	**0.4045**	**2.6700e-**	**0.1395**	**1.8600e-**	**0.1413**	**0.0379**	**1.7600e-**	**0.0397**		**274.6525**	**274.6525**	**9.4900e-**		**274.8900**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.0331	0.0000	9.0331	4.9653	0.0000	4.9653			0.0000			0.0000
Off-Road	0.3350	1.4518	13.7089	0.0274		0.0447	0.0447		0.0447	0.0447	0.0000	2,651.650	2,651.6504	0.8576		2,673.090
Total	**0.3350**	**1.4518**	**13.7089**	**0.0274**	**9.0331**	**0.0447**	**9.0778**	**4.9653**	**0.0447**	**5.0100**	**0.0000**	**2,651.650**	**2,651.6504**	**0.8576**		**2,673.090**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.0000e-	2.9800e-	5.1000e-	1.0000e-	2.3000e-	1.0000e-	2.4000e-	6.0000e-	1.0000e-	7.0000e-		1.1069	1.1069	3.0000e-		1.1077
Vendor	0.0168	0.6143	0.1052	1.7400e-	0.0406	1.2500e-	0.0419	0.0117	1.2000e-	0.0129		182.2413	182.2413	7.5200e-		182.4294
Worker	0.0406	0.0207	0.2988	9.2000e-	0.0986	6.0000e-	0.0992	0.0262	5.5000e-	0.0267		91.3043	91.3043	1.9400e-		91.3529
Total	**0.0574**	**0.6380**	**0.4045**	**2.6700e-**	**0.1395**	**1.8600e-**	**0.1413**	**0.0379**	**1.7600e-**	**0.0397**		**274.6525**	**274.6525**	**9.4900e-**		**274.8900**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.0875	0.0000	9.0875	4.9712	0.0000	4.9712			0.0000			0.0000
Off-Road	2.5139	25.3229	17.4230	0.0401		1.1250	1.1250		1.0350	1.0350		3,882.632	3,882.6325	1.2557		3,914.025
Total	**2.5139**	**25.3229**	**17.4230**	**0.0401**	**9.0875**	**1.1250**	**10.2125**	**4.9712**	**1.0350**	**6.0062**		**3,882.632**	**3,882.6325**	**1.2557**		**3,914.025**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	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	0.0168	0.6143	0.1052	1.7400e-	0.0406	1.2500e-	0.0419	0.0117	1.2000e-	0.0129		182.2413	182.2413	7.5200e-		182.4294
Worker	0.0541	0.0276	0.3984	1.2200e-	0.1314	7.9000e-	0.1322	0.0349	7.3000e-	0.0356		121.7391	121.7391	2.5900e-		121.8038
Total	**0.0708**	**0.6419**	**0.5036**	**2.9600e-**	**0.1721**	**2.0400e-**	**0.1741**	**0.0466**	**1.9300e-**	**0.0485**		**303.9804**	**303.9804**	**0.0101**		**304.2333**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.0875	0.0000	9.0875	4.9712	0.0000	4.9712			0.0000			0.0000
Off-Road	0.4912	2.1285	21.8171	0.0401		0.0655	0.0655		0.0655	0.0655	0.0000	3,882.632	3,882.6325	1.2557		3,914.025
Total	**0.4912**	**2.1285**	**21.8171**	**0.0401**	**9.0875**	**0.0655**	**9.1530**	**4.9712**	**0.0655**	**5.0367**	**0.0000**	**3,882.632**	**3,882.6325**	**1.2557**		**3,914.025**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	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	0.0168	0.6143	0.1052	1.7400e-	0.0406	1.2500e-	0.0419	0.0117	1.2000e-	0.0129		182.2413	182.2413	7.5200e-		182.4294
Worker	0.0541	0.0276	0.3984	1.2200e-	0.1314	7.9000e-	0.1322	0.0349	7.3000e-	0.0356		121.7391	121.7391	2.5900e-		121.8038
Total	**0.0708**	**0.6419**	**0.5036**	**2.9600e-**	**0.1721**	**2.0400e-**	**0.1741**	**0.0466**	**1.9300e-**	**0.0485**		**303.9804**	**303.9804**	**0.0101**		**304.2333**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.0875	0.0000	9.0875	4.9712	0.0000	4.9712			0.0000			0.0000
Off-Road	2.2026	21.4829	16.6290	0.0401		0.9186	0.9186		0.8451	0.8451		3,883.582	3,883.5820	1.2560		3,914.982
Total	**2.2026**	**21.4829**	**16.6290**	**0.0401**	**9.0875**	**0.9186**	**10.0062**	**4.9712**	**0.8451**	**5.8164**		**3,883.582**	**3,883.5820**	**1.2560**		**3,914.982**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	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	0.0128	0.5093	0.0920	1.7100e-	0.0406	5.5000e-	0.0412	0.0117	5.3000e-	0.0122		178.9701	178.9701	5.5200e-		179.1080
Worker	0.0507	0.0249	0.3682	1.1700e-	0.1314	7.8000e-	0.1322	0.0349	7.2000e-	0.0356		117.0958	117.0958	2.3300e-		117.1540
Total	**0.0635**	**0.5342**	**0.4603**	**2.8800e-**	**0.1721**	**1.3300e-**	**0.1734**	**0.0466**	**1.2500e-**	**0.0478**		**296.0659**	**296.0659**	**7.8500e-**		**296.2620**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.0875	0.0000	9.0875	4.9712	0.0000	4.9712			0.0000			0.0000
Off-Road	0.4912	2.1285	21.8171	0.0401		0.0655	0.0655		0.0655	0.0655	0.0000	3,883.582	3,883.5820	1.2560		3,914.982
Total	**0.4912**	**2.1285**	**21.8171**	**0.0401**	**9.0875**	**0.0655**	**9.1530**	**4.9712**	**0.0655**	**5.0367**	**0.0000**	**3,883.582**	**3,883.5820**	**1.2560**		**3,914.982**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	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	0.0128	0.5093	0.0920	1.7100e-	0.0406	5.5000e-	0.0412	0.0117	5.3000e-	0.0122		178.9701	178.9701	5.5200e-		179.1080
Worker	0.0507	0.0249	0.3682	1.1700e-	0.1314	7.8000e-	0.1322	0.0349	7.2000e-	0.0356		117.0958	117.0958	2.3300e-		117.1540
Total	**0.0635**	**0.5342**	**0.4603**	**2.8800e-**	**0.1721**	**1.3300e-**	**0.1734**	**0.0466**	**1.2500e-**	**0.0478**		**296.0659**	**296.0659**	**7.8500e-**		**296.2620**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1621	10.1648	13.4322	0.0222		0.4768	0.4768		0.4625	0.4625		2,093.186	2,093.1867	0.2954		2,100.572
Total	**1.1621**	**10.1648**	**13.4322**	**0.0222**		**0.4768**	**0.4768**		**0.4625**	**0.4625**		**2,093.186**	**2,093.1867**	**0.2954**		**2,100.572**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.1000e-	3.4800e-	7.1000e-	2.0000e-	3.6000e-	1.0000e-	3.7000e-	1.0000e-	1.0000e-	1.0000e-		1.6943	1.6943	4.0000e-		1.6952
Vendor	0.0128	0.5093	0.0920	1.7100e-	0.0406	5.5000e-	0.0412	0.0117	5.3000e-	0.0122		178.9701	178.9701	5.5200e-		179.1080
Worker	0.0253	0.0124	0.1841	5.9000e-	0.0657	3.9000e-	0.0661	0.0174	3.6000e-	0.0178		58.5479	58.5479	1.1600e-		58.5770
Total	**0.0383**	**0.5252**	**0.2769**	**2.3200e-**	**0.1067**	**9.5000e-**	**0.1077**	**0.0292**	**9.0000e-**	**0.0301**		**239.2123**	**239.2123**	**6.7200e-**		**239.3802**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2516	1.7008	14.3896	0.0222		0.0314	0.0314		0.0314	0.0314	0.0000	2,093.186	2,093.1867	0.2954		2,100.572
Total	**0.2516**	**1.7008**	**14.3896**	**0.0222**		**0.0314**	**0.0314**		**0.0314**	**0.0314**	**0.0000**	**2,093.186**	**2,093.1867**	**0.2954**		**2,100.572**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.1000e-	3.4800e-	7.1000e-	2.0000e-	3.6000e-	1.0000e-	3.7000e-	1.0000e-	1.0000e-	1.0000e-		1.6943	1.6943	4.0000e-		1.6952
Vendor	0.0128	0.5093	0.0920	1.7100e-	0.0406	5.5000e-	0.0412	0.0117	5.3000e-	0.0122		178.9701	178.9701	5.5200e-		179.1080
Worker	0.0253	0.0124	0.1841	5.9000e-	0.0657	3.9000e-	0.0661	0.0174	3.6000e-	0.0178		58.5479	58.5479	1.1600e-		58.5770
Total	**0.0383**	**0.5252**	**0.2769**	**2.3200e-**	**0.1067**	**9.5000e-**	**0.1077**	**0.0292**	**9.0000e-**	**0.0301**		**239.2123**	**239.2123**	**6.7200e-**		**239.3802**

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3971	3.1883	3.7053	9.8100e-		0.1354	0.1354		0.1245	0.1245		950.0131	950.0131	0.3073		957.6944
Paving	8.1000e-					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.3979**	**3.1883**	**3.7053**	**9.8100e-**		**0.1354**	**0.1354**		**0.1245**	**0.1245**		**950.0131**	**950.0131**	**0.3073**		**957.6944**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.6000e-	5.2300e-	1.0600e-	2.0000e-	5.4000e-	1.0000e-	5.5000e-	1.5000e-	1.0000e-	1.6000e-		2.5414	2.5414	5.0000e-		2.5428
Vendor	0.0128	0.5093	0.0920	1.7100e-	0.0406	5.5000e-	0.0412	0.0117	5.3000e-	0.0122		178.9701	178.9701	5.5200e-		179.1080
Worker	0.0190	9.3200e-	0.1381	4.4000e-	0.0493	2.9000e-	0.0496	0.0131	2.7000e-	0.0133		43.9109	43.9109	8.7000e-		43.9328
Total	**0.0320**	**0.5239**	**0.2312**	**2.1700e-**	**0.0905**	**8.5000e-**	**0.0913**	**0.0249**	**8.1000e-**	**0.0257**		**225.4224**	**225.4224**	**6.4400e-**		**225.5835**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.1203	0.5213	5.3977	9.8100e-		0.0160	0.0160		0.0160	0.0160	0.0000	950.0131	950.0131	0.3073		957.6944
Paving	8.1000e-					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.1211**	**0.5213**	**5.3977**	**9.8100e-**		**0.0160**	**0.0160**		**0.0160**	**0.0160**	**0.0000**	**950.0131**	**950.0131**	**0.3073**		**957.6944**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.6000e-	5.2300e-	1.0600e-	2.0000e-	5.4000e-	1.0000e-	5.5000e-	1.5000e-	1.0000e-	1.6000e-		2.5414	2.5414	5.0000e-		2.5428
Vendor	0.0128	0.5093	0.0920	1.7100e-	0.0406	5.5000e-	0.0412	0.0117	5.3000e-	0.0122		178.9701	178.9701	5.5200e-		179.1080
Worker	0.0190	9.3200e-	0.1381	4.4000e-	0.0493	2.9000e-	0.0496	0.0131	2.7000e-	0.0133		43.9109	43.9109	8.7000e-		43.9328
Total	**0.0320**	**0.5239**	**0.2312**	**2.1700e-**	**0.0905**	**8.5000e-**	**0.0913**	**0.0249**	**8.1000e-**	**0.0257**		**225.4224**	**225.4224**	**6.4400e-**		**225.5835**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.5299					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1205	0.8125	1.2068	1.9800e-		0.0406	0.0406		0.0406	0.0406		187.6320	187.6320	0.0106		187.8962
Total	**28.6504**	**0.8125**	**1.2068**	**1.9800e-**		**0.0406**	**0.0406**		**0.0406**	**0.0406**		**187.6320**	**187.6320**	**0.0106**		**187.8962**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	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	0.0124	0.5026	0.0878	1.7000e-	0.0406	5.3000e-	0.0412	0.0117	5.1000e-	0.0122		177.7772	177.7772	5.3600e-		177.9112
Worker	5.9600e-	2.8100e-	0.0428	1.4000e-	0.0164	1.0000e-	0.0165	4.3600e-	9.0000e-	4.4500e-		14.0615	14.0615	2.6000e-		14.0680
Total	**0.0183**	**0.5054**	**0.1306**	**1.8400e-**	**0.0571**	**6.3000e-**	**0.0577**	**0.0161**	**6.0000e-**	**0.0167**		**191.8387**	**191.8387**	**5.6200e-**		**191.9793**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	28.5299					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0198	0.0858	1.2216	1.9800e-		2.6400e-	2.6400e-		2.6400e-	2.6400e-	0.0000	187.6320	187.6320	0.0106		187.8962
Total	**28.5497**	**0.0858**	**1.2216**	**1.9800e-**		**2.6400e-**	**2.6400e-**		**2.6400e-**	**2.6400e-**	**0.0000**	**187.6320**	**187.6320**	**0.0106**		**187.8962**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	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	0.0124	0.5026	0.0878	1.7000e-	0.0406	5.3000e-	0.0412	0.0117	5.1000e-	0.0122		177.7772	177.7772	5.3600e-		177.9112
Worker	5.9600e-	2.8100e-	0.0428	1.4000e-	0.0164	1.0000e-	0.0165	4.3600e-	9.0000e-	4.4500e-		14.0615	14.0615	2.6000e-		14.0680
Total	**0.0183**	**0.5054**	**0.1306**	**1.8400e-**	**0.0571**	**6.3000e-**	**0.0577**	**0.0161**	**6.0000e-**	**0.0167**		**191.8387**	**191.8387**	**5.6200e-**		**191.9793**

Colfax Water Treatment Construction - Placer-Mountain Counties County, Annual

Colfax Water Treatment Construction
Placer-Mountain Counties County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	200,000.00	User Defined Unit	5.00	200,000.00	0
Parking Lot	4.00	Space	0.04	1,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	3			**Operational Year**	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Land Use - Lot acrage provided by PCWA
Construction Phase - Schedule from PCWA
Off-road Equipment - Equipment from PCWA
Trips and VMT - Cut and fill balanced onsite
Grading - Material balanced onsite
Construction Off-road Equipment Mitigation - Mitigated with T4

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	20.00	65.00
tblConstructionPhase	NumDays	230.00	195.00
tblConstructionPhase	NumDays	20.00	195.00
tblConstructionPhase	NumDays	20.00	130.00
tblConstructionPhase	NumDays	10.00	153.00
tblGrading	AcresOfGrading	73.13	10.00
tblGrading	MaterialImported	0.00	2,750.00
tblLandUse	LandUseSquareFeet	0.00	200,000.00
tblLandUse	LotAcreage	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	7.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.00

tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblTripsAndVMT	HaulingTripNumber	272.00	2.00
tblTripsAndVMT	HaulingTripNumber	0.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	33.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	WorkerTripNumber	13.00	12.00
tblTripsAndVMT	WorkerTripNumber	20.00	16.00
tblTripsAndVMT	WorkerTripNumber	85.00	8.00
tblTripsAndVMT	WorkerTripNumber	8.00	6.00
tblTripsAndVMT	WorkerTripNumber	17.00	2.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2332	2.3254	1.4709	3.6900e-	1.0055	0.1034	1.1089	0.5460	0.0951	0.6412	0.0000	325.3948	325.3948	0.0975	0.0000	327.8329
2023	0.2916	2.7162	2.6989	5.9500e-	0.6188	0.1152	0.7340	0.3305	0.1084	0.4389	0.0000	520.2622	520.2622	0.1198	0.0000	523.2571
2024	0.9317	0.0430	0.0436	1.2000e-	1.7800e-	1.3400e-	3.1200e-	5.0000e-	1.3400e-	1.8400e-	0.0000	11.0772	11.0772	4.9000e-	0.0000	11.0893
Maximum	**0.9317**	**2.7162**	**2.6989**	**5.9500e-**	**1.0055**	**0.1152**	**1.1089**	**0.5460**	**0.1084**	**0.6412**	**0.0000**	**520.2622**	**520.2622**	**0.1198**	**0.0000**	**523.2571**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0478	0.2510	1.8019	3.6900e-	1.0055	5.7600e-	1.0113	0.5460	5.7500e-	0.5518	0.0000	325.3944	325.3944	0.0975	0.0000	327.8326
2023	0.0736	0.4596	3.2395	5.9500e-	0.6188	8.5900e-	0.6274	0.3305	8.5800e-	0.3391	0.0000	520.2616	520.2616	0.1198	0.0000	523.2565
2024	0.9285	0.0194	0.0440	1.2000e-	1.7800e-	1.1000e-	1.8900e-	5.0000e-	1.1000e-	6.1000e-	0.0000	11.0772	11.0772	4.9000e-	0.0000	11.0893
Maximum	**0.9285**	**0.4596**	**3.2395**	**5.9500e-**	**1.0055**	**8.5900e-**	**1.0113**	**0.5460**	**8.5800e-**	**0.5518**	**0.0000**	**520.2616**	**520.2616**	**0.1198**	**0.0000**	**523.2565**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2022	12/31/2022	5	153	
2	Grading	Grading	10/1/2022	6/30/2023	5	195	
3	Building Construction	Building Construction	4/1/2023	12/31/2023	5	195	
4	Paving	Paving	7/1/2023	12/31/2023	5	130	
5	Architectural Coating	Architectural Coating	1/1/2024	3/31/2024	5	65	

Acres of Grading (Grading Phase): 10

Acres of Paving: 0.04

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 300,000; Non-Residential Outdoor: 100,000; Striped Parking Area: 96 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Off-Highway Trucks	1	6.00	402	0.38
Site Preparation	Rubber Tired Dozers	2	6.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Excavators	2	6.00	158	0.38
Grading	Graders	1	6.00	187	0.41
Grading	Off-Highway Trucks	1	6.00	402	0.38
Grading	Rubber Tired Dozers	2	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	1.00	231	0.29
Building Construction	Forklifts	1	1.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	1	6.00	46	0.45
Paving	Off-Highway Trucks	1	4.00	402	0.38
Paving	Pavers	0	0.00	130	0.42
Paving	Paving Equipment	1	5.00	132	0.36
Paving	Rollers	1	2.00	80	0.38
Architectural Coating	Air Compressors	1	4.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Site Preparation	5	12.00	6.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	16.00	6.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	8.00	6.00	4.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	3	6.00	6.00	4.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	6.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6910	0.0000	0.6910	0.3799	0.0000	0.3799	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1453	1.4316	0.8606	2.0900e-		0.0666	0.0666		0.0613	0.0613	0.0000	184.0236	184.0236	0.0595	0.0000	185.5115
Total	**0.1453**	**1.4316**	**0.8606**	**2.0900e-**	**0.6910**	**0.0666**	**0.7576**	**0.3799**	**0.0613**	**0.4411**	**0.0000**	**184.0236**	**184.0236**	**0.0595**	**0.0000**	**185.5115**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-	2.3000e-	4.0000e-	0.0000	2.0000e-	0.0000	2.0000e-	0.0000	0.0000	1.0000e-	0.0000	0.0761	0.0761	0.0000	0.0000	0.0761
Vendor	1.3200e-	0.0475	8.8900e-	1.3000e-	3.0000e-	1.0000e-	3.0900e-	8.7000e-	9.0000e-	9.6000e-	0.0000	12.4661	12.4661	5.5000e-	0.0000	12.4800
Worker	2.7700e-	1.7900e-	0.0201	6.0000e-	7.2100e-	5.0000e-	7.2500e-	1.9200e-	4.0000e-	1.9600e-	0.0000	5.7834	5.7834	1.2000e-	0.0000	5.7865
Total	**4.1000e-**	**0.0496**	**0.0290**	**1.9000e-**	**0.0102**	**1.5000e-**	**0.0104**	**2.7900e-**	**1.3000e-**	**2.9300e-**	**0.0000**	**18.3256**	**18.3256**	**6.7000e-**	**0.0000**	**18.3426**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6910	0.0000	0.6910	0.3799	0.0000	0.3799	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0256	0.1111	1.0487	2.0900e-		3.4200e-	3.4200e-		3.4200e-	3.4200e-	0.0000	184.0234	184.0234	0.0595	0.0000	185.5113
Total	**0.0256**	**0.1111**	**1.0487**	**2.0900e-**	**0.6910**	**3.4200e-**	**0.6945**	**0.3799**	**3.4200e-**	**0.3833**	**0.0000**	**184.0234**	**184.0234**	**0.0595**	**0.0000**	**185.5113**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-	2.3000e-	4.0000e-	0.0000	2.0000e-	0.0000	2.0000e-	0.0000	0.0000	1.0000e-	0.0000	0.0761	0.0761	0.0000	0.0000	0.0761
Vendor	1.3200e-	0.0475	8.8900e-	1.3000e-	3.0000e-	1.0000e-	3.0900e-	8.7000e-	9.0000e-	9.6000e-	0.0000	12.4661	12.4661	5.5000e-	0.0000	12.4800

Worker	2.7700e-	1.7900e-	0.0201	6.0000e-	7.2100e-	5.0000e-	7.2500e-	1.9200e-	4.0000e-	1.9600e-	0.0000	5.7834	5.7834	1.2000e-	0.0000	5.7865
Total	**4.1000e-**	**0.0496**	**0.0290**	**1.9000e-**	**0.0102**	**1.5000e-**	**0.0104**	**2.7900e-**	**1.3000e-**	**2.9300e-**	**0.0000**	**18.3256**	**18.3256**	**6.7000e-**	**0.0000**	**18.3426**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2989	0.0000	0.2989	0.1620	0.0000	0.1620	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0817	0.8230	0.5663	1.3000e-		0.0366	0.0366		0.0336	0.0336	0.0000	114.4736	114.4736	0.0370	0.0000	115.3992
Total	**0.0817**	**0.8230**	**0.5663**	**1.3000e-**	**0.2989**	**0.0366**	**0.3354**	**0.1620**	**0.0336**	**0.1956**	**0.0000**	**114.4736**	**114.4736**	**0.0370**	**0.0000**	**115.3992**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	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	5.6000e-	0.0202	3.7800e-	6.0000e-	1.2700e-	4.0000e-	1.3100e-	3.7000e-	4.0000e-	4.1000e-	0.0000	5.2961	5.2961	2.4000e-	0.0000	5.3020
Worker	1.5700e-	1.0100e-	0.0114	4.0000e-	4.0800e-	3.0000e-	4.1100e-	1.0900e-	2.0000e-	1.1100e-	0.0000	3.2760	3.2760	7.0000e-	0.0000	3.2777
Total	**2.1300e-**	**0.0212**	**0.0152**	**1.0000e-**	**5.3500e-**	**7.0000e-**	**5.4200e-**	**1.4600e-**	**6.0000e-**	**1.5200e-**	**0.0000**	**8.5721**	**8.5721**	**3.1000e-**	**0.0000**	**8.5797**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2989	0.0000	0.2989	0.1620	0.0000	0.1620	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0160	0.0692	0.7091	1.3000e-		2.1300e-	2.1300e-		2.1300e-	2.1300e-	0.0000	114.4735	114.4735	0.0370	0.0000	115.3991
Total	**0.0160**	**0.0692**	**0.7091**	**1.3000e-**	**0.2989**	**2.1300e-**	**0.3010**	**0.1620**	**2.1300e-**	**0.1641**	**0.0000**	**114.4735**	**114.4735**	**0.0370**	**0.0000**	**115.3991**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	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	5.6000e-	0.0202	3.7800e-	6.0000e-	1.2700e-	4.0000e-	1.3100e-	3.7000e-	4.0000e-	4.1000e-	0.0000	5.2961	5.2961	2.4000e-	0.0000	5.3020
Worker	1.5700e-	1.0100e-	0.0114	4.0000e-	4.0800e-	3.0000e-	4.1100e-	1.0900e-	2.0000e-	1.1100e-	0.0000	3.2760	3.2760	7.0000e-	0.0000	3.2777
Total	**2.1300e-**	**0.0212**	**0.0152**	**1.0000e-**	**5.3500e-**	**7.0000e-**	**5.4200e-**	**1.4600e-**	**6.0000e-**	**1.5200e-**	**0.0000**	**8.5721**	**8.5721**	**3.1000e-**	**0.0000**	**8.5797**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Fugitive Dust					0.5925	0.0000	0.5925	0.3233	0.0000	0.3233	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1432	1.3964	1.0809	2.6100e-		0.0597	0.0597		0.0549	0.0549	0.0000	229.0032	229.0032	0.0741	0.0000	230.8548
Total	**0.1432**	**1.3964**	**1.0809**	**2.6100e-**	**0.5925**	**0.0597**	**0.6522**	**0.3233**	**0.0549**	**0.3783**	**0.0000**	**229.0032**	**229.0032**	**0.0741**	**0.0000**	**230.8548**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	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	8.5000e-	0.0334	6.5600e-	1.1000e-	2.5500e-	4.0000e-	2.5800e-	7.4000e-	3.0000e-	7.7000e-	0.0000	10.4019	10.4019	3.5000e-	0.0000	10.4106
Worker	2.9500e-	1.8300e-	0.0209	7.0000e-	8.1700e-	5.0000e-	8.2200e-	2.1700e-	5.0000e-	2.2200e-	0.0000	6.3024	6.3024	1.2000e-	0.0000	6.3056
Total	**3.8000e-**	**0.0353**	**0.0275**	**1.8000e-**	**0.0107**	**9.0000e-**	**0.0108**	**2.9100e-**	**8.0000e-**	**2.9900e-**	**0.0000**	**16.7044**	**16.7044**	**4.7000e-**	**0.0000**	**16.7161**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.5925	0.0000	0.5925	0.3233	0.0000	0.3233	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0319	0.1384	1.4181	2.6100e-		4.2600e-	4.2600e-		4.2600e-	4.2600e-	0.0000	229.0029	229.0029	0.0741	0.0000	230.8545
Total	**0.0319**	**0.1384**	**1.4181**	**2.6100e-**	**0.5925**	**4.2600e-**	**0.5967**	**0.3233**	**4.2600e-**	**0.3276**	**0.0000**	**229.0029**	**229.0029**	**0.0741**	**0.0000**	**230.8545**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	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	8.5000e-	0.0334	6.5600e-	1.1000e-	2.5500e-	4.0000e-	2.5800e-	7.4000e-	3.0000e-	7.7000e-	0.0000	10.4019	10.4019	3.5000e-	0.0000	10.4106
Worker	2.9500e-	1.8300e-	0.0209	7.0000e-	8.1700e-	5.0000e-	8.2200e-	2.1700e-	5.0000e-	2.2200e-	0.0000	6.3024	6.3024	1.2000e-	0.0000	6.3056
Total	**3.8000e-**	**0.0353**	**0.0275**	**1.8000e-**	**0.0107**	**9.0000e-**	**0.0108**	**2.9100e-**	**8.0000e-**	**2.9900e-**	**0.0000**	**16.7044**	**16.7044**	**4.7000e-**	**0.0000**	**16.7161**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1133	0.9911	1.3096	2.1700e-		0.0465	0.0465		0.0451	0.0451	0.0000	185.1434	185.1434	0.0261	0.0000	185.7967
Total	**0.1133**	**0.9911**	**1.3096**	**2.1700e-**		**0.0465**	**0.0465**		**0.0451**	**0.0451**	**0.0000**	**185.1434**	**185.1434**	**0.0261**	**0.0000**	**185.7967**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-	3.5000e-	7.0000e-	0.0000	3.0000e-	0.0000	3.0000e-	1.0000e-	0.0000	1.0000e-	0.0000	0.1484	0.1484	0.0000	0.0000	0.1484

Vendor	1.2800e-	0.0501	9.8300e-	1.6000e-	3.8200e-	5.0000e-	3.8700e-	1.1100e-	5.0000e-	1.1600e-	0.0000	15.6029	15.6029	5.2000e-	0.0000	15.6159
Worker	2.2100e-	1.3700e-	0.0157	5.0000e-	6.1300e-	4.0000e-	6.1600e-	1.6300e-	3.0000e-	1.6700e-	0.0000	4.7268	4.7268	9.0000e-	0.0000	4.7292
Total	**3.5000e-**	**0.0518**	**0.0256**	**2.1000e-**	**9.9800e-**	**9.0000e-**	**0.0101**	**2.7500e-**	**8.0000e-**	**2.8400e-**	**0.0000**	**20.4781**	**20.4781**	**6.1000e-**	**0.0000**	**20.4935**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0245	0.1658	1.4030	2.1700e-		3.0600e-	3.0600e-		3.0600e-	3.0600e-	0.0000	185.1432	185.1432	0.0261	0.0000	185.7965
Total	**0.0245**	**0.1658**	**1.4030**	**2.1700e-**		**3.0600e-**	**3.0600e-**		**3.0600e-**	**3.0600e-**	**0.0000**	**185.1432**	**185.1432**	**0.0261**	**0.0000**	**185.7965**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-	3.5000e-	7.0000e-	0.0000	3.0000e-	0.0000	3.0000e-	1.0000e-	0.0000	1.0000e-	0.0000	0.1484	0.1484	0.0000	0.0000	0.1484
Vendor	1.2800e-	0.0501	9.8300e-	1.6000e-	3.8200e-	5.0000e-	3.8700e-	1.1100e-	5.0000e-	1.1600e-	0.0000	15.6029	15.6029	5.2000e-	0.0000	15.6159
Worker	2.2100e-	1.3700e-	0.0157	5.0000e-	6.1300e-	4.0000e-	6.1600e-	1.6300e-	3.0000e-	1.6700e-	0.0000	4.7268	4.7268	9.0000e-	0.0000	4.7292
Total	**3.5000e-**	**0.0518**	**0.0256**	**2.1000e-**	**9.9800e-**	**9.0000e-**	**0.0101**	**2.7500e-**	**8.0000e-**	**2.8400e-**	**0.0000**	**20.4781**	**20.4781**	**6.1000e-**	**0.0000**	**20.4935**

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0258	0.2072	0.2408	6.4000e-		8.8000e-	8.8000e-		8.1000e-	8.1000e-	0.0000	56.0194	56.0194	0.0181	0.0000	56.4724
Paving	5.0000e-					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0259**	**0.2072**	**0.2408**	**6.4000e-**		**8.8000e-**	**8.8000e-**		**8.1000e-**	**8.1000e-**	**0.0000**	**56.0194**	**56.0194**	**0.0181**	**0.0000**	**56.4724**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-	3.5000e-	7.0000e-	0.0000	3.0000e-	0.0000	3.0000e-	1.0000e-	0.0000	1.0000e-	0.0000	0.1484	0.1484	0.0000	0.0000	0.1484
Vendor	8.5000e-	0.0334	6.5600e-	1.1000e-	2.5500e-	4.0000e-	2.5800e-	7.4000e-	3.0000e-	7.7000e-	0.0000	10.4019	10.4019	3.5000e-	0.0000	10.4106
Worker	1.1000e-	6.9000e-	7.8400e-	3.0000e-	3.0600e-	2.0000e-	3.0800e-	8.2000e-	2.0000e-	8.3000e-	0.0000	2.3634	2.3634	5.0000e-	0.0000	2.3646
Total	**1.9600e-**	**0.0345**	**0.0145**	**1.4000e-**	**5.6400e-**	**6.0000e-**	**5.6900e-**	**1.5700e-**	**5.0000e-**	**1.6100e-**	**0.0000**	**12.9137**	**12.9137**	**4.0000e-**	**0.0000**	**12.9236**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.8200e-	0.0339	0.3509	6.4000e-		1.0400e-	1.0400e-		1.0400e-	1.0400e-	0.0000	56.0194	56.0194	0.0181	0.0000	56.4723

Paving	5.0000e-					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**7.8700e-**	**0.0339**	**0.3509**	**6.4000e-**		**1.0400e-**	**1.0400e-**		**1.0400e-**	**1.0400e-**	**0.0000**	**56.0194**	**56.0194**	**0.0181**	**0.0000**	**56.4723**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-	3.5000e-	7.0000e-	0.0000	3.0000e-	0.0000	3.0000e-	1.0000e-	0.0000	1.0000e-	0.0000	0.1484	0.1484	0.0000	0.0000	0.1484
Vendor	8.5000e-	0.0334	6.5600e-	1.1000e-	2.5500e-	4.0000e-	2.5800e-	7.4000e-	3.0000e-	7.7000e-	0.0000	10.4019	10.4019	3.5000e-	0.0000	10.4106
Worker	1.1000e-	6.9000e-	7.8400e-	3.0000e-	3.0600e-	2.0000e-	3.0800e-	8.2000e-	2.0000e-	8.3000e-	0.0000	2.3634	2.3634	5.0000e-	0.0000	2.3646
Total	**1.9600e-**	**0.0345**	**0.0145**	**1.4000e-**	**5.6400e-**	**6.0000e-**	**5.6900e-**	**1.5700e-**	**5.0000e-**	**1.6100e-**	**0.0000**	**12.9137**	**12.9137**	**4.0000e-**	**0.0000**	**12.9236**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.9272					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9200e-	0.0264	0.0392	6.0000e-		1.3200e-	1.3200e-		1.3200e-	1.3200e-	0.0000	5.5321	5.5321	3.1000e-	0.0000	5.5398
Total	**0.9311**	**0.0264**	**0.0392**	**6.0000e-**		**1.3200e-**	**1.3200e-**		**1.3200e-**	**1.3200e-**	**0.0000**	**5.5321**	**5.5321**	**3.1000e-**	**0.0000**	**5.5398**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	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	4.1000e-	0.0165	3.1200e-	5.0000e-	1.2700e-	2.0000e-	1.2900e-	3.7000e-	2.0000e-	3.9000e-	0.0000	5.1667	5.1667	1.7000e-	0.0000	5.1709
Worker	1.7000e-	1.0000e-	1.2100e-	0.0000	5.1000e-	0.0000	5.1000e-	1.4000e-	0.0000	1.4000e-	0.0000	0.3784	0.3784	1.0000e-	0.0000	0.3786
Total	**5.8000e-**	**0.0166**	**4.3300e-**	**5.0000e-**	**1.7800e-**	**2.0000e-**	**1.8000e-**	**5.1000e-**	**2.0000e-**	**5.3000e-**	**0.0000**	**5.5451**	**5.5451**	**1.8000e-**	**0.0000**	**5.5495**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.9272					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.4000e-	2.7900e-	0.0397	6.0000e-		9.0000e-	9.0000e-		9.0000e-	9.0000e-	0.0000	5.5320	5.5320	3.1000e-	0.0000	5.5398
Total	**0.9279**	**2.7900e-**	**0.0397**	**6.0000e-**		**9.0000e-**	**9.0000e-**		**9.0000e-**	**9.0000e-**	**0.0000**	**5.5320**	**5.5320**	**3.1000e-**	**0.0000**	**5.5398**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	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	4.1000e-	0.0165	3.1200e-	5.0000e-	1.2700e-	2.0000e-	1.2900e-	3.7000e-	2.0000e-	3.9000e-	0.0000	5.1667	5.1667	1.7000e-	0.0000	5.1709
Worker	1.7000e-	1.0000e-	1.2100e-	0.0000	5.1000e-	0.0000	5.1000e-	1.4000e-	0.0000	1.4000e-	0.0000	0.3784	0.3784	1.0000e-	0.0000	0.3786
Total	**5.8000e-**	**0.0166**	**4.3300e-**	**5.0000e-**	**1.7800e-**	**2.0000e-**	**1.8000e-**	**5.1000e-**	**2.0000e-**	**5.3000e-**	**0.0000**	**5.5451**	**5.5451**	**1.8000e-**	**0.0000**	**5.5495**

Colfax Water Treatment Construction - Placer-Mountain Counties County, Annual

Colfax Water Treatment Construction
Placer-Mountain Counties County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	200,000.00	User Defined Unit	5.00	200,000.00	0
Parking Lot	4.00	Space	0.04	1,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	3			**Operational Year**	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	641.35	**CH4 Intensity**	0.029	**N2O Intensity**	0.006

1.3 User Entered Comments & Non-Default Data

Land Use - Lot acrage provided by PCWA
Construction Phase - Schedule from PCWA
Off-road Equipment - Equipment from PCWA
Trips and VMT - Cut and fill balanced onsite
Grading - Material balanced onsite
Construction Off-road Equipment Mitigation - Mitigated with DPF L3

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3

tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstructionPhase	NumDays	10.00	153.00
tblConstructionPhase	NumDays	20.00	195.00
tblConstructionPhase	NumDays	230.00	195.00
tblConstructionPhase	NumDays	20.00	130.00
tblConstructionPhase	NumDays	20.00	65.00
tblGrading	AcresOfGrading	73.13	10.00
tblGrading	MaterialImported	0.00	2,750.00
tblLandUse	LandUseSquareFeet	0.00	200,000.00
tblLandUse	LotAcreage	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	7.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	6.00

tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	5.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblTripsAndVMT	HaulingTripNumber	272.00	2.00
tblTripsAndVMT	HaulingTripNumber	0.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	4.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	33.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	WorkerTripNumber	13.00	12.00
tblTripsAndVMT	WorkerTripNumber	20.00	16.00
tblTripsAndVMT	WorkerTripNumber	85.00	8.00
tblTripsAndVMT	WorkerTripNumber	8.00	6.00
tblTripsAndVMT	WorkerTripNumber	17.00	2.00

2.0 Emissions Summary

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10	Fugitive PM2.5	Exhaust PM2.5	PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2332	2.3254	1.4709	3.69E-03	1.0055	0.0157	1.0212	0.546	0.0144	0.5605	0	325.3944	325.3944	0.0975	0	327.8326
2023	0.2916	2.7162	2.6989	5.95E-03	0.6188	0.0175	0.6363	0.3305	0.0164	0.347	0	520.2616	520.2616	0.1198	0	523.2565
2024	0.9317	0.043	0.0436	1.20E-04	1.78E-03	2.20E-04	2.00E-03	5.00E-04	2.20E-04	7.20E-04	0	11.0772	11.0772	4.90E-04	0	11.0893
Maximum	**0.9317**	**2.7162**	**2.6989**	**5.95E-03**	**1.0055**	**0.0175**	**1.0212**	**0.546**	**0.0164**	**0.5605**	**0**	**520.2616**	**520.2616**	**0.1198**	**0**	**523.2565**

3.0 Construction Detail

Construction Phase

Phase	Phase Name	Phase Type	Start Date	End Date	Num Days	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2022	12/31/2022	5	153	
2	Grading	Grading	10/1/2022	6/30/2023	5	195	

3	Building Construction	Building Construction	4/1/2023	12/31/2023	5	195	
4	Paving	Paving	7/1/2023	12/31/2023	5	130	
5	Architectural Coating	Architectural Coating	1/1/2024	3/31/2024	5	65	

Acres of Grading (Grading Phase): 10

Acres of Paving: 0.04

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 300,000; Non-Residential Outdoor: 100,000; Striped Parking Area: 96 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Off-Highway Trucks	1	6.00	402	0.38
Site Preparation	Rubber Tired Dozers	2	6.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Excavators	2	6.00	158	0.38
Grading	Graders	1	6.00	187	0.41
Grading	Off-Highway Trucks	1	6.00	402	0.38
Grading	Rubber Tired Dozers	2	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	1.00	231	0.29
Building Construction	Forklifts	1	1.00	89	0.20
Building Construction	Generator Sets	2	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	1	6.00	46	0.45
Paving	Off-Highway Trucks	1	4.00	402	0.38
Paving	Pavers	0	0.00	130	0.42
Paving	Paving Equipment	1	5.00	132	0.36
Paving	Rollers	1	2.00	80	0.38
Architectural Coating	Air Compressors	1	4.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment	Worker Trip	Vendor Trip	Hauling Trip	Worker Trip	Vendor Trip	Hauling Trip	Worker Vehicle	Vendor	Hauling
Site Preparation	5	12.00	6.00	2.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	16.00	6.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	8.00	6.00	4.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	3	6.00	6.00	4.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	6.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use DPF for Construction Equipment

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6910	0.0000	0.6910	0.3799	0.0000	0.3799	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1453	1.4316	0.8605	2.0900e-		9.9900e-	9.9900e-		9.1900e-	9.1900e-	0.0000	184.0234	184.0234	0.0595	0.0000	185.5113
Total	**0.1453**	**1.4316**	**0.8605**	**2.0900e-**	**0.6910**	**9.9900e-**	**0.7010**	**0.3799**	**9.1900e-**	**0.3890**	**0.0000**	**184.0234**	**184.0234**	**0.0595**	**0.0000**	**185.5113**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-	2.3000e-	4.0000e-	0.0000	2.0000e-	0.0000	2.0000e-	0.0000	0.0000	1.0000e-	0.0000	0.0761	0.0761	0.0000	0.0000	0.0761
Vendor	1.3200e-	0.0475	8.8900e-	1.3000e-	3.0000e-	1.0000e-	3.0900e-	8.7000e-	9.0000e-	9.6000e-	0.0000	12.4661	12.4661	5.5000e-	0.0000	12.4800
Worker	2.7700e-	1.7900e-	0.0201	6.0000e-	7.2100e-	5.0000e-	7.2500e-	1.9200e-	4.0000e-	1.9600e-	0.0000	5.7834	5.7834	1.2000e-	0.0000	5.7865
Total	**4.1000e-**	**0.0496**	**0.0290**	**1.9000e-**	**0.0102**	**1.5000e-**	**0.0104**	**2.7900e-**	**1.3000e-**	**2.9300e-**	**0.0000**	**18.3256**	**18.3256**	**6.7000e-**	**0.0000**	**18.3426**

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2989	0.0000	0.2989	0.1620	0.0000	0.1620	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0817	0.8230	0.5663	1.3000e-		5.4800e-	5.4800e-		5.0500e-	5.0500e-	0.0000	114.4735	114.4735	0.0370	0.0000	115.3991
Total	**0.0817**	**0.8230**	**0.5663**	**1.3000e-**	**0.2989**	**5.4800e-**	**0.3044**	**0.1620**	**5.0500e-**	**0.1670**	**0.0000**	**114.4735**	**114.4735**	**0.0370**	**0.0000**	**115.3991**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	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	5.6000e-	0.0202	3.7800e-	6.0000e-	1.2700e-	4.0000e-	1.3100e-	3.7000e-	4.0000e-	4.1000e-	0.0000	5.2961	5.2961	2.4000e-	0.0000	5.3020
Worker	1.5700e-	1.0100e-	0.0114	4.0000e-	4.0800e-	3.0000e-	4.1100e-	1.0900e-	2.0000e-	1.1100e-	0.0000	3.2760	3.2760	7.0000e-	0.0000	3.2777
Total	**2.1300e-**	**0.0212**	**0.0152**	**1.0000e-**	**5.3500e-**	**7.0000e-**	**5.4200e-**	**1.4600e-**	**6.0000e-**	**1.5200e-**	**0.0000**	**8.5721**	**8.5721**	**3.1000e-**	**0.0000**	**8.5797**

3.3 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.5925	0.0000	0.5925	0.3233	0.0000	0.3233	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1432	1.3964	1.0809	2.6100e-		8.9600e-	8.9600e-		8.2400e-	8.2400e-	0.0000	229.0029	229.0029	0.0741	0.0000	230.8545
Total	**0.1432**	**1.3964**	**1.0809**	**2.6100e-**	**0.5925**	**8.9600e-**	**0.6014**	**0.3233**	**8.2400e-**	**0.3316**	**0.0000**	**229.0029**	**229.0029**	**0.0741**	**0.0000**	**230.8545**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	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	8.5000e-	0.0334	6.5600e-	1.1000e-	2.5500e-	4.0000e-	2.5800e-	7.4000e-	3.0000e-	7.7000e-	0.0000	10.4019	10.4019	3.5000e-	0.0000	10.4106
Worker	2.9500e-	1.8300e-	0.0209	7.0000e-	8.1700e-	5.0000e-	8.2200e-	2.1700e-	5.0000e-	2.2200e-	0.0000	6.3024	6.3024	1.2000e-	0.0000	6.3056
Total	**3.8000e-**	**0.0353**	**0.0275**	**1.8000e-**	**0.0107**	**9.0000e-**	**0.0108**	**2.9100e-**	**8.0000e-**	**2.9900e-**	**0.0000**	**16.7044**	**16.7044**	**4.7000e-**	**0.0000**	**16.7161**

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1133	0.9911	1.3096	2.1700e-		6.9700e-	6.9700e-		6.7600e-	6.7600e-	0.0000	185.1432	185.1432	0.0261	0.0000	185.7965
Total	**0.1133**	**0.9911**	**1.3096**	**2.1700e-**		**6.9700e-**	**6.9700e-**		**6.7600e-**	**6.7600e-**	**0.0000**	**185.1432**	**185.1432**	**0.0261**	**0.0000**	**185.7965**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-	3.5000e-	7.0000e-	0.0000	3.0000e-	0.0000	3.0000e-	1.0000e-	0.0000	1.0000e-	0.0000	0.1484	0.1484	0.0000	0.0000	0.1484
Vendor	1.2800e-	0.0501	9.8300e-	1.6000e-	3.8200e-	5.0000e-	3.8700e-	1.1100e-	5.0000e-	1.1600e-	0.0000	15.6029	15.6029	5.2000e-	0.0000	15.6159
Worker	2.2100e-	1.3700e-	0.0157	5.0000e-	6.1300e-	4.0000e-	6.1600e-	1.6300e-	3.0000e-	1.6700e-	0.0000	4.7268	4.7268	9.0000e-	0.0000	4.7292
Total	**3.5000e-**	**0.0518**	**0.0256**	**2.1000e-**	**9.9800e-**	**9.0000e-**	**0.0101**	**2.7500e-**	**8.0000e-**	**2.8400e-**	**0.0000**	**20.4781**	**20.4781**	**6.1000e-**	**0.0000**	**20.4935**

3.5 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0258	0.2072	0.2408	6.4000e-		1.3200e-	1.3200e-		1.2100e-	1.2100e-	0.0000	56.0194	56.0194	0.0181	0.0000	56.4723
Paving	5.0000e-					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0259**	**0.2072**	**0.2408**	**6.4000e-**		**1.3200e-**	**1.3200e-**		**1.2100e-**	**1.2100e-**	**0.0000**	**56.0194**	**56.0194**	**0.0181**	**0.0000**	**56.4723**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-	3.5000e-	7.0000e-	0.0000	3.0000e-	0.0000	3.0000e-	1.0000e-	0.0000	1.0000e-	0.0000	0.1484	0.1484	0.0000	0.0000	0.1484
Vendor	8.5000e-	0.0334	6.5600e-	1.1000e-	2.5500e-	4.0000e-	2.5800e-	7.4000e-	3.0000e-	7.7000e-	0.0000	10.4019	10.4019	3.5000e-	0.0000	10.4106
Worker	1.1000e-	6.9000e-	7.8400e-	3.0000e-	3.0600e-	2.0000e-	3.0800e-	8.2000e-	2.0000e-	8.3000e-	0.0000	2.3634	2.3634	5.0000e-	0.0000	2.3646
Total	**1.9600e-**	**0.0345**	**0.0145**	**1.4000e-**	**5.6400e-**	**6.0000e-**	**5.6900e-**	**1.5700e-**	**5.0000e-**	**1.6100e-**	**0.0000**	**12.9137**	**12.9137**	**4.0000e-**	**0.0000**	**12.9236**

3.6 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.9272					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9200e-	0.0264	0.0392	6.0000e-		2.0000e-	2.0000e-		2.0000e-	2.0000e-	0.0000	5.5320	5.5320	3.1000e-	0.0000	5.5398
Total	**0.9311**	**0.0264**	**0.0392**	**6.0000e-**		**2.0000e-**	**2.0000e-**		**2.0000e-**	**2.0000e-**	**0.0000**	**5.5320**	**5.5320**	**3.1000e-**	**0.0000**	**5.5398**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	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	4.1000e-	0.0165	3.1200e-	5.0000e-	1.2700e-	2.0000e-	1.2900e-	3.7000e-	2.0000e-	3.9000e-	0.0000	5.1667	5.1667	1.7000e-	0.0000	5.1709
Worker	1.7000e-	1.0000e-	1.2100e-	0.0000	5.1000e-	0.0000	5.1000e-	1.4000e-	0.0000	1.4000e-	0.0000	0.3784	0.3784	1.0000e-	0.0000	0.3786
Total	**5.8000e-**	**0.0166**	**4.3300e-**	**5.0000e-**	**1.7800e-**	**2.0000e-**	**1.8000e-**	**5.1000e-**	**2.0000e-**	**5.3000e-**	**0.0000**	**5.5451**	**5.5451**	**1.8000e-**	**0.0000**	**5.5495**

Colfax Existing Operation - Placer-Mountain Counties County, Summer

Colfax Existing Operation
Placer-Mountain Counties County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1,300.00	User Defined Unit	0.00	1,300.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	3			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	281.91	**CH4 Intensity**	0.03	**N2O Intensity**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Updated utility EF
Land Use - Existing square footage from PCWA
Energy Use - Existing kWh from PCWA
Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	1.00
tblConstructionPhase	PhaseEndDate	3/14/2021	3/15/2021
tblEnergyUse	T24E	0.00	173.08
tblLandUse	LandUseSquareFeet	0.00	1,300.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.03
tblProjectCharacteristics	CO2IntensityFactor	641.35	281.91
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	250.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	1.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	12.00

tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00

2.0 Emissions Summary

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.04	0.00	0.13	0.00		0.00	0.00		0.00	0.00		0.28	0.28	0.00		0.30
Energy	0	0	0	0		0	0		0	0		0	0	0	0	0
Mobile	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Stationary	0	1	1	0		0	0		0	0		210	210	0		211
Total	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**210**	**210**	**0**	**0**	**211**

6.0 Area Detail

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural	0					0	0		0	0			0			0
Consumer	0					0	0		0	0			0			0
Landscaping	0	0	0	0		0	0		0	0		0	0	0		0
Total	**0**	**0**	**0**	**0**		**0**	**0**		**0**	**0**		**0**	**0**	**0**		**0**

10.0 Stationary Equipment

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency	0	1	1	0		0	0		0	0		210	210	0		211
Total	**0**	**1**	**1**	**0**		**0**	**0**		**0**	**0**		**210**	**210**	**0**		**211**

Colfax Existing Operation - Placer-Mountain Counties County, Annual

Colfax Existing Operation
Placer-Mountain Counties County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1,300.00	User Defined Unit	0.00	1,300.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	3			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	281.91	**CH4 Intensity**	0.03	**N2O Intensity**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Updated utility EF
Land Use - Existing square footage from PCWA
Energy Use - Existing kWh from PCWA
Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	1.00
tblConstructionPhase	PhaseEndDate	3/14/2021	3/15/2021
tblEnergyUse	T24E	0.00	173.08
tblLandUse	LandUseSquareFeet	0.00	1,300.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.03
tblProjectCharacteristics	CO2IntensityFactor	641.35	281.91
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.004
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	250.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	1.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	12.00

tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00

2.0 Emissions Summary

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.01	0.00	0.01	0.00		0.00	0.00		0.00	0.00	0.00	0.02	0.02	0.00	0.00	0.02
Energy	0	0	0	0		0	0		0	0	0	29	29	0	0	29
Mobile	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stationary	0	0	0	0		0	0		0	0	0	1	1	0	0	1
Waste						0	0		0	0	0	0	0	0	0	0
Water						0	0		0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**30**	**30**	**0**	**0**	**30**

5.0 Energy Detail

5.3 Energy by Land Use - Electricity

	Electricity	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined	225000	29	0	0	29
Total		**29**	**0**	**0**	**29**

6.0 Area Detail

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural	0					0	0		0	0	0	0	0	0	0	0
Consumer	0					0	0		0	0	0	0	0	0	0	0
Landscaping	0	0	0	0		0	0		0	0	0	0	0	0	0	0
Total	**0**	**0**	**0**	**0**		**0**	**0**		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

10.0 Stationary Equipment

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency	0	0	0	0		0	0		0	0	0	1	1	0	0	1
Total	**0**	**0**	**0**	**0**		**0**	**0**		**0**	**0**	**0**	**1**	**1**	**0**	**0**	**1**

Colfax Project Operation - Placer-Mountain Counties County, Summer

Colfax Project Operation
Placer-Mountain Counties County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	200,000.00	User Defined Unit	0.00	200,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	74
Climate Zone	3			**Operational Year**	2024
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity	235.62	**CH4 Intensity**	0.03	**N2O Intensity**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Updated utility EF
Land Use - Square footage from PCWA
Energy Use - kWh from PCWA
Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	1.00
tblConstructionPhase	PhaseEndDate	3/14/2021	3/15/2021
tblEnergyUse	T24E	0.00	1.30
tblLandUse	LandUseSquareFeet	0.00	200,000.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.03
tblProjectCharacteristics	CO2IntensityFactor	641.35	235.62
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	500.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	1.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	12.00

tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00

2.0 Emissions Summary

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7	0	20	0		0	0		0	0		44	44	0		47
Energy	0	0	0	0		0	0		0	0		0	0	0	0	0
Mobile	0	0	0	0	0	0	0	0	0	0		0	0	0		0
Stationary	1	2	2	0		0	0		0	0		420	420	0		421
Total	**7**	**2**	**22**	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**464**	**464**	**0**	**0**	**468**

6.0 Area Detail

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural	0.508					0	0		0	0			0			0
Consumer	4.28					0	0		0	0			0			0
Landscaping	1.8823	0.1852	20.3874	1.53E-03		0.0726	0.0726		0.0726	0.0726		43.7705	43.7705	0.1143		46.6273
Total	**6.6702**	**0.1852**	**20.3874**	**1.53E-03**		**0.0726**	**0.0726**		**0.0726**	**0.0726**		**43.7705**	**43.7705**	**0.1143**		**46.6273**

10.0 Stationary Equipment

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive	Exhaust	PM10	Fugitive	Exhaust	PM2.5	Bio- CO2	NBio-	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency	0.8204	2.2934	2.0922	3.94E-03		0.1207	0.1207		0.1207	0.1207		419.7571	419.7571	0.0589		421.2283
Total	**0.8204**	**2.2934**	**2.0922**	**3.94E-03**		**0.1207**	**0.1207**		**0.1207**	**0.1207**		**419.7571**	**419.7571**	**0.0589**		**421.2283**