Sewerage Commission-Oroville Region

Wastewater Treatment Plant Upgrade Project

Administrative Draft Initial Study/ Mitigated Negative Declaration

June 2022

Prepared for:
Sewerage Commission-Oroville Region

Prepared by:
Provost & Pritchard Consulting Group
3387 Bodero Lane, Chico, California 95973

EST. 1968
PROVOST& PRITCHARD
CONSULTING GROUP
An Employee Owned Company

Report Prepared for:

Sewerage Commission-Oroville Region (SC-OR)

P.O. Box 1350
2880 South Fifth Avenue
Oroville, CA 95965

Contact:
Glen Sturdevant, General Manager
Telephone: (503) 534-0353

Report Prepared by:

Provost & Pritchard Consulting Group

Ken Shuey, Principal Engineer, Engineering Project Manager
Briza Sholars, Senior Planner, QAQC
Jackie Lancaster, Planner, Project Administrator
Mallory Serrao, GIS

Contact:
Briza Sholars
(559) 449-2700

Table of Contents

List of Figures

List of Tables

Acronyms and Abbreviations

AB ..... Assembly Bill
BCAQMD ..... Butte County Air Quality Management District
BMPs ..... Best Management Practices
CAA ..... Clean Air Act
CAAQS ..... California Ambient Air Quality Standards
CAP ..... Climate Action Plan
CalEEMod ..... California Emissions Estimator Model
CalEPA ..... California Environmental Protection Agency
Cal/OSHA ..... California Division of Occupational Safety and Health
CARB ..... California Air Resources Board
CCAA ..... California Clean Air Act
CCR ..... California Code of Regulations
CDFW ..... California Department of Fish and Wildlife
CEC ..... California Energy Commission
CEQA ..... California Environmental Quality Act
CESA ..... California Endangered Species Act
CFR ..... U.S. Code of Federal Regulations
CH_4 ..... Methane
CNDDB ..... California Natural Diversity Database
CNPS ..... California Native Plant Service
CPUC ..... California Public Utilities Commission
CO ..... Carbon Monoxide
CO_2 ..... Carbon Dioxide Equivalent
CRHR ..... California Register of Historical Resources
CUPA ..... Certified Unified Program Agency
CVRWQCB ..... Central Valley Regional Water Quality Control Board
CWA ..... Clean Water Act
EIR ..... Environmental Impact Report
EPA ..... United States Environmental Protection Agency
FEMA ..... Federal Emergency Management Agency
FIRM ..... Flood Insurance Rate Maps
FMMP ..... Farmland Mapping and Monitoring Program

GHGs ..... Greenhouse Gases
GIS ..... Geographic Information System
IPaC ..... U.S. Fish and Wildlife Service's Information for Planning and Consultation system
IS ..... Initial Study
IS/MND ..... Initial Study/Mitigated Negative Declaration
M-2 ..... Intensive Industrial Zone District
MGD ..... million gallons per day
MMRP ..... Mitigation Monitoring & Reporting Program
MBTA ..... Migratory Bird Treaty Act
MMT ..... Million Metric Tons
MND ..... Mitigated Negative Declaration
NAHC ..... Native American Heritage Commission
NAAQS ..... National Ambient Air Quality Standards
ND ..... Negative Declaration
NFPA ..... National Fire Protection Association
NO_2 ..... Nitrogen Dioxide
NOX ..... Nitrogen Oxide
NPDES ..... National Pollutant Discharge Elimination System
NRCS ..... Natural Resources Conservation Service
NRHP ..... National Register of Historic Places
NSVAB ..... Natural Resources Conservation Service
O_3 ..... Ozone
OHWM ..... Ordinary High Water Mark
Pb ..... Lead
PM_{10} ..... Particulate Matter less than 10 microns in diameter
$PM_{2.5}$ ..... Particulate Matter less than 2.5 microns in diameter
PRC ..... Public Resources Code
Project ..... Sewerage Commission- Oroville Region Wastewater Treatment Plant Upgrade Project
PQ ..... Public and Quasi Public Facilities Zone District
RAS ..... Return-Activated Sludge
RCRA ..... Resource Conservation and Recovery Act
RDT ..... Rotary Drum Thickener
RWQCB ..... Regional Water Quality Control Board
SB ..... Senate Bill

SC-OR.....Sewerage Commission-Oroville Region
SIP .....State Implementation Plan
SO_2 .....Sulfur Dioxide
SVAB .....Sacramento Valley Air Basin
SWRCB.....State Water Resources Control Board
SWPPP..... Storm Water Pollution Prevention Plan
USACE.....U.S. Army Corps of Engineers
USFWS .....U.S. Fish and Wildlife Service
USGS .....U.S. Geological Survey
UV .....Ultaviolent
WAS ..... Waste-Activated Sludge
WWTP.....Wastewater Treatment Plant

Chapter 1 Introduction

Provost & Pritchard Consulting Group has prepared this Initial Study/Mitigated Negative Declaration (IS/MND) on behalf of the Sewerage Commission-Oroville Region (SC-OR) to address the environmental effects of the proposed Wastewater Treatment Plant (WWTP) Upgrade Project (Project). This document has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq. SC-OR is the CEQA lead agency for this Project.

The site and Project are described in detail in **Chapter Chapter 2 – Project Description**.

1.1 Regulatory Information

An Initial Study (IS) is a document prepared by a lead agency to determine whether a project may have a significant effect on the environment. In accordance with California Code of Regulations Title 14 (Chapter 3, Section 15000, *et seq.*)-- also known as the CEQA Guidelines--Section 15064 (a)(1) states that an environmental impact report (EIR) must be prepared if there is substantial evidence in light of the whole record that the proposed Project under review may have a significant effect on the environment and should be further analyzed to determine mitigation measures or project alternatives that might avoid or reduce project impacts to less than significant levels. A negative declaration (ND) may be prepared instead if the lead agency finds that there is ***no*** substantial evidence in light of the whole record that the project may have a significant effect on the environment. An ND is a written statement describing the reasons why a proposed Project, not otherwise exempt from CEQA, would not have a significant effect on the environment and, therefore, why it would not require the preparation of an EIR (CEQA Guidelines Section 15371). According to CEQA Guidelines Section 15070, a ND or *mitigated* ND shall be prepared for a project subject to CEQA when either:

a. The IS shows there is no substantial evidence, in light of the whole record before the agency, that the proposed Project may have a significant effect on the environment, or

b. The IS identified potentially significant effects, but:

    1. Revisions in the project plans or proposals made by or agreed to by the applicant before the proposed MND and IS is released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur is prepared, and

    2. There is no substantial evidence, in light of the whole record before the agency, that the proposed Project, as revised, may have a significant effect on the environment.

1.2 Document Format

This IS/MND contains four chapters and five appendices, **Chapter 1 Introduction**, provides an overview of the proposed Project and the CEQA process. **Chapter 2 Project Description**, provides a detailed description of proposed Project components and objectives. **Chapter 3 Impact Analysis**, presents the CEQA checklist and environmental analysis for all impact areas, mandatory findings of significance, and feasible mitigation measures. If the proposed Project does not have the potential to significantly impact a given issue area, the relevant section provides a brief discussion of the reasons why no impacts are expected. If the proposed Project could have a potentially significant impact on a resource, the issue area discussion provides a description of potential impacts, and appropriate mitigation measures and/or permit requirements that would reduce those impacts to a less than significant level. **Chapter 3** concludes with the Lead Agency's determination based upon this initial evaluation. **Chapter 4 Mitigation Monitoring and Reporting Program** (MMRP), provides the proposed mitigation measures, implementation timelines, and the entity/agency responsible for ensuring implementation.

The CalEEMod Output Files, Biological Evaluation, Cultural Resources Inventory and Historical Property Evaluation Report, USDA NRCS Soil Resource Report, and Pre-Demolition Asbestos Survey & Lead Based Paint Inspection Report are provided as technical **Appendix A, Appendix B, Appendix C, Appendix D,** and **Appendix E** respectively, at the end of this document.

Chapter 2 Project Description

2.1 Project Background and Objectives

2.1.1 Project Title

Wastewater Treatment Plant Upgrade Project

2.1.2 Lead Agency Name and Address

Sewerage Commission-Oroville Region
P.O. Box 1350
Oroville, CA 95965

2.1.3 Contact Person and Phone Number

Lead Agency Contact
Glen Sturdevant, General Manager
(530) 534-0353

CEQA Consultant
Provost & Pritchard Consulting Group
Briza Grace Sholars, Senior Planner
(559) 636-1166

2.1.4 Project Location

The Project is located in southern Butte County, northern California within the City of Oroville. The City of Oroville is approximately 63 miles north of Sacramento (See **Figure 2-1**). The Project site is located approximately 0.5 mile east of State Route 70 and more specifically, at the existing Wastewater Treatment Plant (WWTP) near the intersection of Fifth Avenue and Simpco Lane on Assessor's Parcel Number 035-390-013-000 and 350-390-008 within the City of Oroville. The Area of Potential Effect (APE) is approximately 54 acres.

2.1.5 Latitude and Longitude

The centroid of the parcel is 39.486302, -121.565154

2.1.6 General Plan Designation

"Public" and "Industrial"

2.1.7 Zoning

"PQ-Public and Quasi-Public Facilities" () and "M-2-Intensive Industrial"

2.1.8 Description of Project

2.1.8.1 Project Background and Purpose

SC-OR operates wastewater collection and treatment facilities that serve the greater Oroville, California, region. See **Figure 2-1** and **Figure 2-2** for the location and vicinity of the existing WWTP. The service region is composed of three separate member entities that together adopted a Joint Powers Agreement in 1973 forming the SC-OR organization. This agreement established a Joint Power Authority consisting of the following member entities:

- City of Oroville
- Lake Oroville Area Public Utility District (formerly North Burbank)
- Thermalito Water and Sewer District (formerly Thermalito Irrigation District)

The original treatment facility was constructed in 1959, prior to the formation of SC-OR, and has been modified and expanded several times since 1959, with the most significant expansion taking place during construction activities in 1975 when secondary, tertiary, and solids stabilization facilities were constructed. Most of the existing WWTP's equipment was commissioned during this expansion, which translates to equipment with over 40 years of operation. In addition to the existing WWTP, SC-OR maintains a portion of the wastewater collection system that includes three sewer mains, two lift stations, and associated facilities.

SC-OR has conducted various facility evaluations and plans since 1975, the last being the Master Planning and Financial Assistance Study (Master Plan), written by CH2M HILL, Inc. (CH2M) in 2017. The Master Plan built off work done in previous analyses to present recommendations for upgrading the existing WWTP to accommodate influent, regulatory, and service area changes over a 20-year planning period through 2037.

The primary drivers identified for the proposed existing WWTP upgrades are as follows:

- Anticipated reductions in effluent ammonia-nitrogen discharge limits
- Increasing peak wet weather flow
- Odorous air management
- Aged and obsolete equipment

Based upon a Project Definition Report prepared for SC-OR by Jacobs Engineering Group[1], the following design criteria were applied to the Project:

- Have sufficient hydraulic and treatment capacity to process the projected 2037 flows and loads
- Improve grit removal efficiency
- Reduce effluent ammonia-nitrogen levels below the Central Valley Regional Water Quality Control Board (CVRWQCB) guidelines for aquatic ammonia toxicity
- Mitigate the release of odorous air from the primary existing WWTP sources
- Provide an alternate disinfection process to address the unreliable supply of chlorine gas
- Expand and improve the existing WWTP's septage receiving capacity
- Replace and upgrade aged or obsolete equipment

2.1.8.2 Existing Facility

The existing WWTP consists of the following processes:

- Influent Pumping
- Rag Removal (Grit and Screenings removal)
- Primary clarification

[1] Jacobs Engineering Group, Edward L Couch, RCE, *Project Definition Report – Sewerage Commission -Oroville Region, Wastewater Treatment Plant Upgrade Schematic Design, Final.* September 2018

- Activated Sludge Secondary Treatment including Aeration Basins and Secondary Clarifiers
- Filtration
- Disinfection and De-chlorination
- Aerobic Sludge Digestion
- Humus Ponds for sludge storage and stabilization, and septage receiving and disposal
- Emergency Storage Ponds for storage of excess influent flow

The treated effluent is discharged to the Feather River in accordance with CVRWQCB's waste discharge requirements.

2.1.8.3 Project Components

Numerous facilities at the existing WWTP will be affected by the proposed Project updates. The Project includes construction of a variety of structures, devices and plumbing to upgrade the existing wastewater treatment plant located in the City of Oroville.

The proposed improvements at each affected process facility are summarized below:

The current plant has an operational capacity of 10.6 million gallons per day (MGD). Although the Project is not a capacity expansion project but rather an upgrade project to improve the quality of water discharged to the Feather River and handle existing peak flows (estimated at ±25 MGD), the component upgrades will result in a minor residual additional average flow capacity increase of about 9%. The upgrades to the plant will add 1,852 Equivalent Dwelling Units (EDUs) to the current 20,703 EDUs, for total new capacity of 13.3 MGD. The Project will not create a new discharge location into the Feather River nor relocate the existing discharge location.

Several components of the long-planned upgrade, (a new influent pump/lift station, replacement of existing rag removal screens with multi-rake screens, installation of new baffles in the existing grit washing system, and replacement of the obsolete and leaking grit pump) were evaluated in a separate approved environmental document and have been or are under construction/installation. These components will likely be completed and existing when the proposed Project consisting of the below listed components are constructed. The influent pump station replaces aged equipment and expands pumping capacity to handle peak wet weather flows up to 23 MGD.

Aeration Basins

The existing aerobic digesters will be converted to aeration basins, effectively doubling the aeration basin capacity. Along with the elimination of the primary clarifiers, this will provide better secondary treatment. The converted basins will utilize fine-bubble diffusers.

The existing surface aerators will be replaced with fine-bubble diffusers supplied by turbo blowers housed in a new blower building. The layout will be modified by splitting each aeration basin into four zones, three aerobic and one anoxic, to create a Modified Ludzack-Ettinger process specifically targeting nitrogen removal. A hyperbolic mixer will be installed in each anoxic zone for mixing and nitrified recycle pumps to recycle flow from the third aerobic zone back to the anoxic zone.

An aeration basin splitter box will be constructed to divide flow between the two basins. The project will include construction in the pond area for additional electrical and mooring posts for new aerators in the ponds. A mixed liquor distribution box will be constructed to divide mix liquor flow between the basins and discharge waste activated sludge to the thickening building.

The majority of this work will be inside the existing aeration basins. The blower building will be a slab on grade with shallow foundations. Splitter and distribution boxes will be installed.

Secondary Clarification

One new secondary clarifier will be constructed to accommodate anticipated 15MGD peak wet weather flows through the plant and acceptable hydraulic loading rates. Volumes of wet-weather flows exceeding 15MGD will be sent to the equalization ponds. The mixed-liquor distribution box will be modified to ensure even flow split among the four secondary clarifiers.

Filtration

Four new filter supply pumps and two new No. 2 Water (2W) supply pumps will be installed adjacent to the existing chlorine contact basin. Two new filters will be installed next to the existing filters. The flow path will be modified so that secondary effluent is the new filter influent, following the discontinuation of the chlorine disinfection system. The backwash system will be modified to be supplied from a new backwash water supply tank (using the existing chlorine contact basin), including two new backwash water supply pumps, located adjacent to the existing chlorine contact basin. This tank will be supplied with final effluent and a chlorine dose. Structures associated with this component will be slabs on grade with shallow foundations.

Disinfection

A new, open-channel ultraviolet (UV) disinfection system will be installed inside the existing chlorine contact basins. A sodium hypochlorite system to provide chlorination for return-activated sludge (RAS) bulking, 2W, and backwash water will also be installed. These structures will be slabs-on-grade with shallow foundations.

Solids Handling

A rotary drum thickener (RDT) to thicken waste activated sludge from the aeration basins will be installed. The RDT will pre-thicken waste-activated sludge (WAS) or recuperatively thicken digested sludge. An RDT building will be constructed to the south west of the current aerobic digesters (to be converted to aeration basins). A polymer system with the RDT to maximize thickening will be installed. Structures associated with this component will be slabs on grade with shallow foundations.

Return Sludge Pump Station

The existing RAS and WAS pumps will be replaced with four new RAS pumps and a flow control valve to maintain the appropriate RAS/WAS flow split. WAS will have the option of flowing to the RDT or directly to the sludge ponds. [These pumps will be in an existing building.]

Flow Equalization

Two new flow equalization pumps will be installed to transfer equalized flow or digested sludge between ponds. One pump will be located between the flow equalization pond and the North Sludge Pond and the other between the Middle and South Sludge Ponds. Each pump will be capable of drawing suction from two ponds and discharging to all four ponds. Structures associated with this component be slabs on grade with shallow foundations.

Septage Receiving Station

A septage receiving station will be installed adjacent to humus ponds No. 1 and No. 2 to remove unwanted material prior to introduction into the ponds. The septage receiving station will will be slabs on grade with shallow foundations.

Additional project components:

- One of the uses of the main building will change from Chlorine and Sulfur Dioxide feed room to Plant operations office.
- SC-OR will use the space south of the plant for the Construction Contractor's Yard and temporary storage of sheds and materials during construction.

- 4 walls on Blower and RDT buildings will be constructed
- Woman's locker room inside the main plant building will be constructed
- The WWTP recycled water irrigation system will be upgraded and relocated due to the construction of the new access road on the north side of the administration building. Changes include upgrading the pumps, pressure tanks and piping

Additional Access Road

The proposed access road will be paved and traverse around the plant (north side of existing main plant building.)

Structures to be demolished (materials will be disposed of off-site at an approved disposal or recycling facility):

- The existing pressurized water tank on the front lawn will be demolished. This tank is currently used for potable water supply for the main office.
- The Primary Sludge pumps and building will be removed.
- Two existing anerobic digesters, no longer in use, will be demolished. The anerobic digester tanks are no longer used as digesters, and the west tank was converted into a backwash storage tank, which will no longer be needed.
- The two existing primary clarifiers will be taken out of service and demolished.
- Chemical feed equipment and piping inside CL2/SO2 room
- The existing Chlorine and Sulfur Dioxide distribution system will be demolished, therefore eliminating the use of Chlorine and Sulfur Dioxide gas.

Structures to be relocated:

- Five metal sheds, outbuildings, and equipment will be temporarily relocated during construction to an area south of the digesters, however they will be moved back after the project.
- Water tank (mentioned above) that is within proposed road access way.

2.1.8.4 Operation and Maintenance

Operation and maintenance of the existing WWTP will continue to be performed by the existing operational staff, comprised of five employees. An additional 1 - 2 employees may be employed in 2022/2023.

2.1.8.5 Construction

Construction of the Project is anticipated to be completed within approximately 18 months. Construction equipment will likely include excavators, backhoes, graders, loaders, skid steers, and dump trucks. Generally, construction will occur between the hours of 7am and 5pm, Monday through Friday, excluding holidays. Post-construction activities will include system testing, commissioning, and site clean-up. Construction will require temporary staging and storage of materials and equipment. Staging areas will be located onsite.

Although construction is not expected to generate hazardous waste, field equipment used during construction has the potential to contain various hazardous materials such as diesel fuel, hydraulic oil, grease, solvents, adhesives, paints, and other petroleum-based products.

2.1.9 Surrounding Land Uses and Setting:

The Project's setting is an existing WWTP, surrounded by ruderal vacant lots and industrial uses in the southern portion of Butte County in the Sacramento Valley, and more specifically, within the City of Oroville's South Oroville Industrial District. The site is zoned M-2 (Intensive Industrial) and PQ (Public Quasi Public). Corresponding General Plan land use designations for the site are Industrial and Public. Although much of the Industrial District is undeveloped, with an expanse of vacant lots that are not served by utility connections or

public streets, land uses in the vicinity include a variety of industrial businesses, such as machine rental shops, lumber yards, and metal shops. South Oroville Industrial District also includes some commercial businesses unrelated to industrial use, such as Feather River Cinemas, as well as several historic cemeteries. The Project site is located along the valley floor, east of the Coast Ranges and West of the Sierra Nevada Mountain Range, approximately 0.6 mile east of Feather River and 0.5 mile east of State Route 70.

2.1.10 Other Public Agencies Whose Approval May Be Required:

- City of Oroville – Building Permit, Erosion Control Permit, Grading Permit, MS-4 Stormwater Permit
- State Water Resources Control Board – NPDES Construction General Permit
- Regional Water Quality Control Board, Central Valley Region (CVRWQCB) – Waste Discharge Requirements
- Butte County Air Quality Management District – Rules and Regulations (Rule 200, Rule 201, Rule 202, Rule 205, Rule 234, Rule 400 and 500); Stationary Source Permit for Public and Private Waste Water Treatment Works; Authority to Construct and Permit to Operate
- City of Oroville Fire Department- National Fire Protection Association (NFPA) 820 inspection and compliance
- Butte County, Division of Environmental Health, Certified Unified Program Agency (CUPA)- Hazardous Materials Release Response Plan

2.1.11 Consultation with California Native American Tribes

Assembly Bill 52 (AB 52; codified at Public Resources Code Section 21080.3.1, et seq.) requires that a lead agency, within 14 days of determining that it will undertake a project, must notify in writing any California Native American Tribe traditionally and culturally affiliated with the geographic area of the project if that Tribe has previously requested notification about projects in that geographic area. The notice must briefly describe the project and inquire whether the Tribe wishes to initiate request formal consultation. Tribes have 30 days from receipt of notification to request formal consultation. The lead agency then has 30 days to initiate the consultation, which then continues until the parties come to an agreement regarding necessary mitigation or agree that no mitigation is needed, or one or both parties determine that negotiation occurred in good faith, but no agreement will be made.

SC-OR, as a lead agency, has has not received any written correspondence from a California Native American Tribe traditionally and culturally affiliated with the geographic area of the project formally requesting notification of proposed projects pursuant to Public Resources Code Section 21080.3.1.

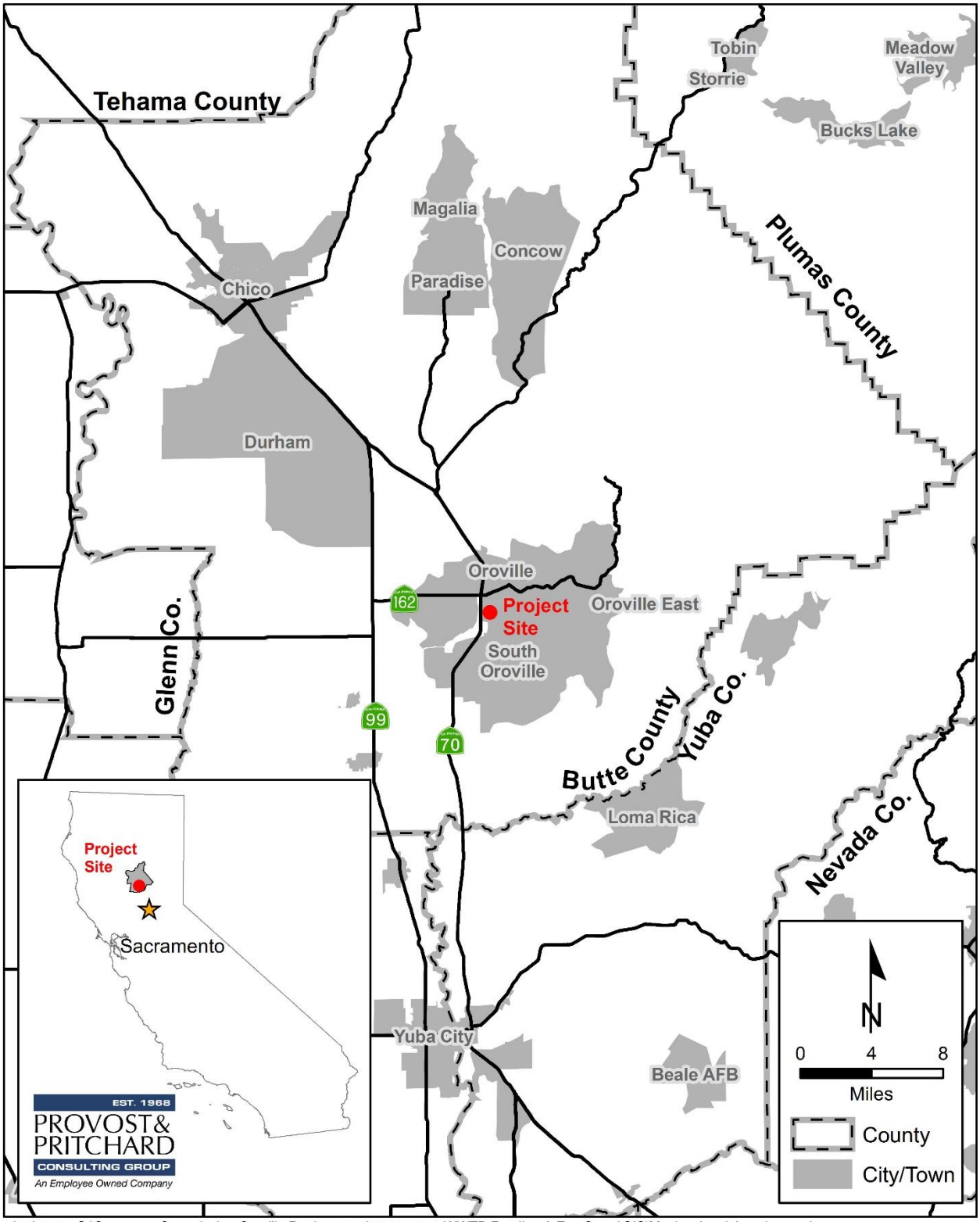

Figure 2-1. Regional Location Map

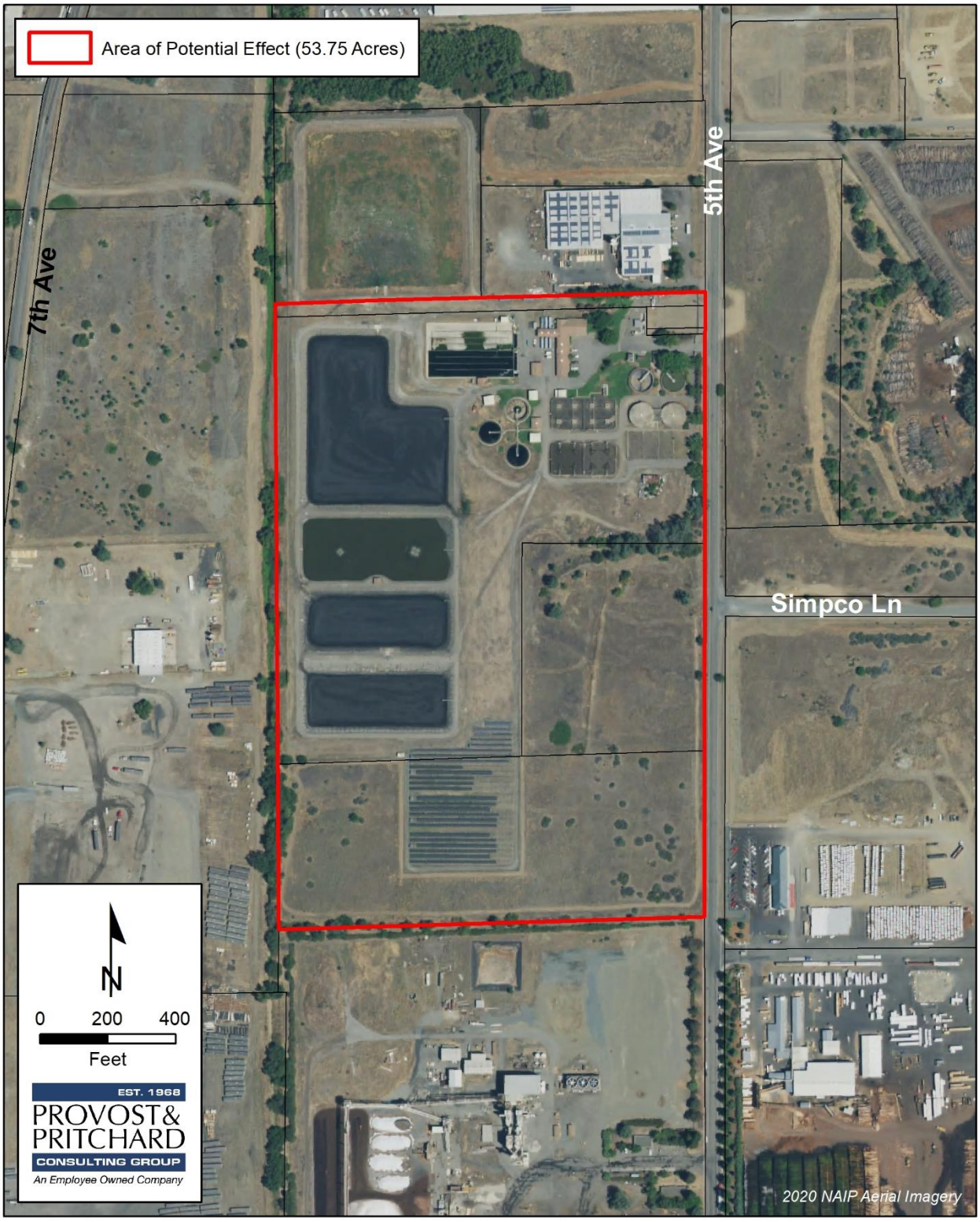

Figure 2-2. Aerial/ Area of Potential Effect

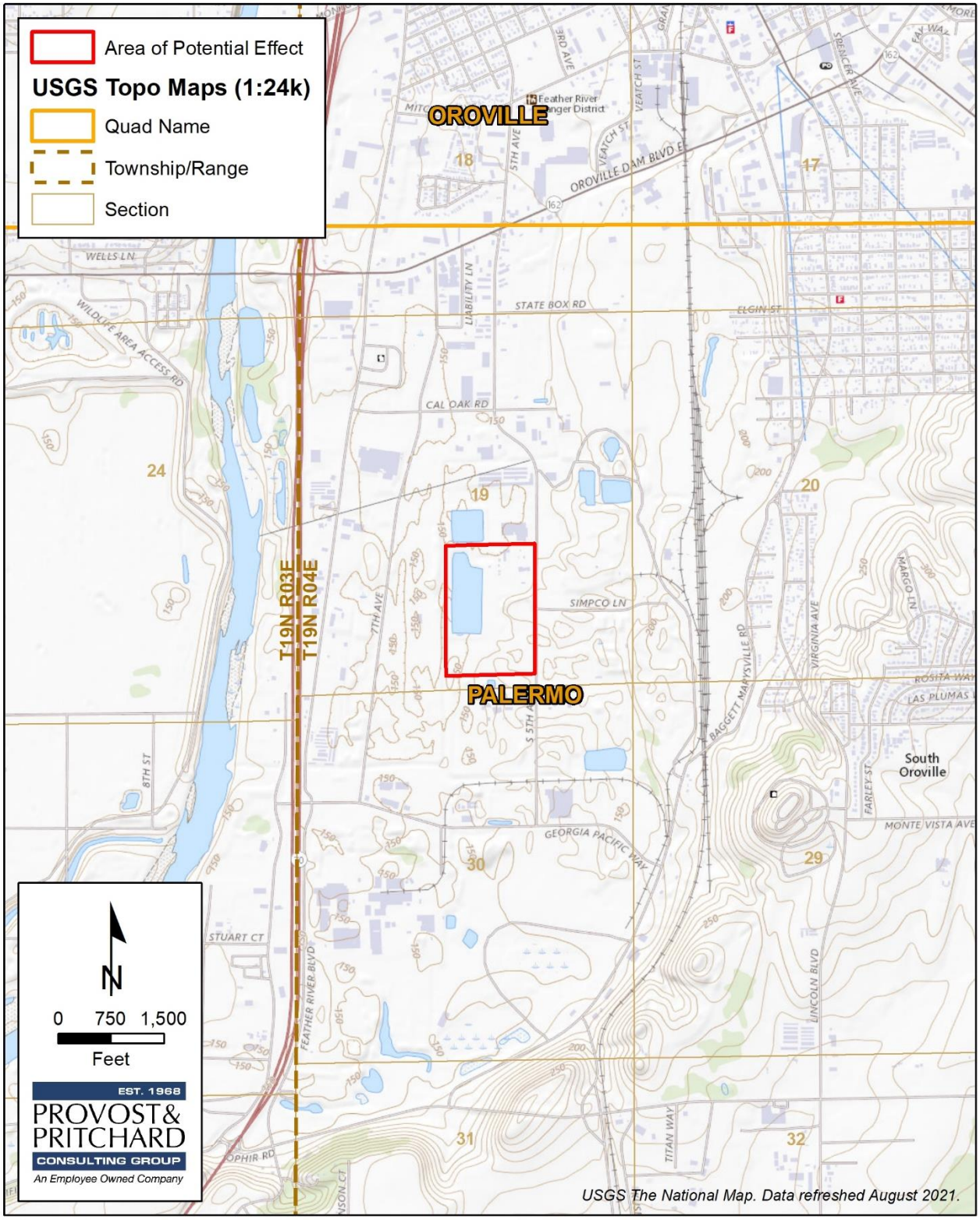

Figure 2-3. Topographic Quadrangle Map

Chapter 3 Impact Analysis

3.1 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, as indicated by the checklist and subsequent discussion on the following pages.

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

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

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

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

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

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

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

_____ _____

Signature Date

_____

Printed Name/Position

3.2 Aesthetics

Table 3-1. Aesthetics Impacts

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

3.2.1 Environmental Setting

The Project is located within the southern portion of Butte County in the Sacramento Valley, and more specifically, within the City of Oroville and its South Oroville Industrial District. The South Oroville Industrial District area is loosely bounded by State Route 162 to the north, State Route 70 to the west, and the Union Pacific rail line to the east. Although much of the District is undeveloped, with an expanse of vacant lots that are not served by utility connections or public streets, land uses surrounding the existing WWTP include a variety of industrial businesses, such as machine rental shops, lumber yards, and metal shops. South Oroville Industrial District also includes some commercial businesses unrelated to industrial use, such as Feather River Cinemas, as well as several historic cemeteries.

Southern and western Oroville are primarily flat river basins that rise into the Sierra Nevada foothills to the northeast. The eastern portion of the City is located in an urban-wildland interface comprised of oak woodlands and chaparral that begins the Sierra Nevada foothills. The existing WWTP is located approximately 0.6 mile east of Feather River and the Oroville Wildlife Area, 2.5 miles west of the Sierra Nevada foothills, 3.7 miles northeast of Thermalito Afterbay, 5.5 miles southwest of Lake Oroville, 7 miles south of Table Mountain and North Table Mountain Ecological Reserve, and 22 miles northeast of Sutter Buttes. In Butte County, there are no officially designated State Scenic Highways; although State Route 70, which is located approximately 0.5 mile west of the site, is eligible for designation.

3.2.2 Regulatory Setting

3.2.2.1 Federal

There are no federal laws or regulations regarding aesthetics applicable to the Project.

3.2.2.2 State

Given the absence of officially designated State Scenic Highways in the vicinity, there are no State laws or regulations regarding aesthetics applicable to the Project.

3.2.2.3 Local

Oroville 2030 General Plan[2]: The Oroville 2030 General Plan sets for the following goals and policies that protect the aesthetic character of the City and which have potential relevance to the Project's CEQA review:

Goal CD-6: Maintain high quality commercial, industrial, and business park districts with uses that are compatible in design and surrounding uses.

Policy P5.1: Maintain zoning, design guidelines and operating standards for industrial uses that promote a community commitment to high aesthetic standards.

Goal OPS-5: Maintain and enhance the quality of Oroville's scenic and visual resources.

Policy P5.1: Maintain the appearance of Oroville, as seen from the freeway, as a city to be visited, enjoyed and admired.

Policy P5.3: Maintain the scenic view of the Feather River and Table Mountain.

Policy P5.4: Require new light fixtures within new development to be designed and sited so as to minimize light pollution, glare, and light trespass into adjoining properties.

Oroville Zoning Code[3]: Title 17 of the Oroville Municipal Code, also referred to as the Oroville Zoning Code, sets forth numerous regulations to minimize potential effects a development could have on its surroundings and to promote compatibility with surrounding uses. Title 17 establishes setback, parking and sign standards, building height limits, and building densities. Development standards specifically include considerations relative to neighborhood compatibility, setbacks, building height, landscaping, tree preservation, fences and walls, views and obstructions, signs, and lighting.

3.2.3 Impact Assessment

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

Less than Significant Impact. The existing WWTP is located approximately 0.6 mile east of Feather River and the Oroville Wildlife Area, 2.5 miles west of the Sierra Nevada foothills, 3.7 miles northeast of Thermalito Afterbay, 5.5 miles southwest of Lake Oroville, 7 miles south of Table Mountain and North Table Mountain Ecological Reserve, and 22 miles northeast of Sutter Buttes. However, the Project site is not within the viewshed of many of these scenic features. The Project involves improvements to an existing WWTP, and the proposed improvements would not stand out from its surroundings in any remarkable fashion and would not alter the current aesthetic character of the site. Impacts would be less than significant.

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

Less than Significant Impact. In Butte County, there are no officially designated State Scenic Highways; although State Route 70, which is located approximately 0.5 mile west of the site, is eligible for designation. Furthermore, as stated above in Impact Assessment a), the Project does not propose activities that would worsen scenic resources. Given the absence of an officially designated State Scenic Highway and the nature of the Project, impacts would be less than significant.

[2] Oroville 2030 General Plan. http://www.cityoforoville.org/home/showdocument?id=12187 Accessed 23 October 2018.
[3] Oroville Municipal Code. http://www.qcode.us/codes/oroville/ Accessed 23 October 2018.

c) In non-urbanized areas, would the project substantially degrade the existing visual character or quality of the site and its surroundings? (Public view 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?

Less than Significant Impact. The existing WWTP is surrounded primarily by industrial uses and vacant lots. As discussed above in Impact Assessment a), improvements to existing infrastructure would not substantially degrade the visual character of the area. Impacts would be less than significant.

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

Less than Significant Impact. The existing WWTP is surrounded by vacant lots and industrial uses. Implementation of the Project would include upgrades to the existing WWTP; however, no additional onsite lighting is proposed, and the operation of the improved facility will not result in an increased number of maintenance trips or staff members. Therefore, the Project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area or be inconsistent with existing conditions.

3.3 Agriculture and Forestry Resources

Table 3-2. Agriculture and Forest Resources Impacts

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

3.3.1 Environmental Setting

Agriculture is the number one industry in Butte County with an estimated gross production value of $688,369,916 in 2019, of which $214,261,031 is attributed to walnuts.[4] A wide range of commodities are grown in the County. Top grossing crops are walnuts, rice, almonds, and prunes. In contrast, only 17 acres of agricultural land exists within the City of Oroville, with the majority used as pasture and for grazing.[5]

The Project's setting is an existing WWTP, surrounded by ruderal vacant lots and industrial uses in the South Oroville Industrial District. The site is within the M-2 (Intensive Industrial) and PQ (Public Quasi Public) zone districts. Corresponding General Plan land use designations for the site are Industrial and Public. The site and surrounding areas are not designated farmland or used for agricultural production in any way. As shown in **Figure** 3-1, the FMMP for Butte County designates the site as Urban and Built-Up land.

[4] Butte County 219 Crop Report. http://www.buttecounty.net/Portals/2/CropReports/2019CROPREPORT.pdf?ver=2020-09-29-122937-093 Accessed 6 April 2022.
[5] Oroville 2030 General Plan. http://www.cityoforoville.org/services/planning-development-services-department/planning-division/planning-documents Accessed 25 October 2018.

3.3.2 Regulatory Setting

3.3.2.1 Federal

There are no federal regulations, plans, programs, and guidelines associated with agriculture and forestry resources that are applicable to the Project.

3.3.2.2 State

Farmland Mapping and Monitoring Program (FMMP)[6]: The FMMP produces maps and statistical data used for analyzing impacts to California's agricultural resources. Agricultural land is rated according to soil quality and irrigation status; the best quality land is called Prime Farmland. The maps are updated every two years with the use of a computer mapping system, aerial imagery, public review, and field reconnaissance. As shown in **Figure** 3-1, the FMMP for Butte County designates the site as Urban and Built-Up land. Given the absence of farmland onsite or in the vicinity, there are no State laws or regulations regarding agriculture that apply to the Project.

3.3.2.3 Local

Oroville 2030 General Plan: The Oroville 2030 General Plan contains few goals and policies relating to agriculture, and none are relevant to this Project's CEQA review. The site is acknowledged as a public facility.

3.3.3 Impact Assessment

a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. The FMMP for Butte County designates the site as Urban and Built-Up Land, as shown in **Figure** 3-1. The Project involves improvements to an existing WWTP and would not result in any type of land use conversion. Implementation of the Project would not result in a conversion of farmland to non-agricultural use. There would be no impact.

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

No Impact. The site is located within the South Oroville Industrial District and is not zoned for agricultural use, nor is it covered under a Williamson Act contract. Adjacent parcels consist of vacant lots and industrial uses. The Project involves improvements to an existing WWTP and would not result in any type of land use conversion, nor would it conflict with Williamson Act contracts. There would be no impact.

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? ; and,

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

No Impacts. There are no forest lands or timberlands within the Project site or vicinity. Furthermore, as stated above in Impact Assessments a and b, the Project does not propose any type of land use conversion. There would be no impact.

[6] Department of Conservation, Farmland Mapping and Monitoring Program. Map data accessible at website: https://www.conservation.ca.gov/dlrp/fmmp Accessed 30 October 2018

e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. As discussed above in Impact Assessments a-d, the Project involves improvements to an existing WWTP and would not result in any type of land use conversion, either directly or indirectly. There would be no impact.

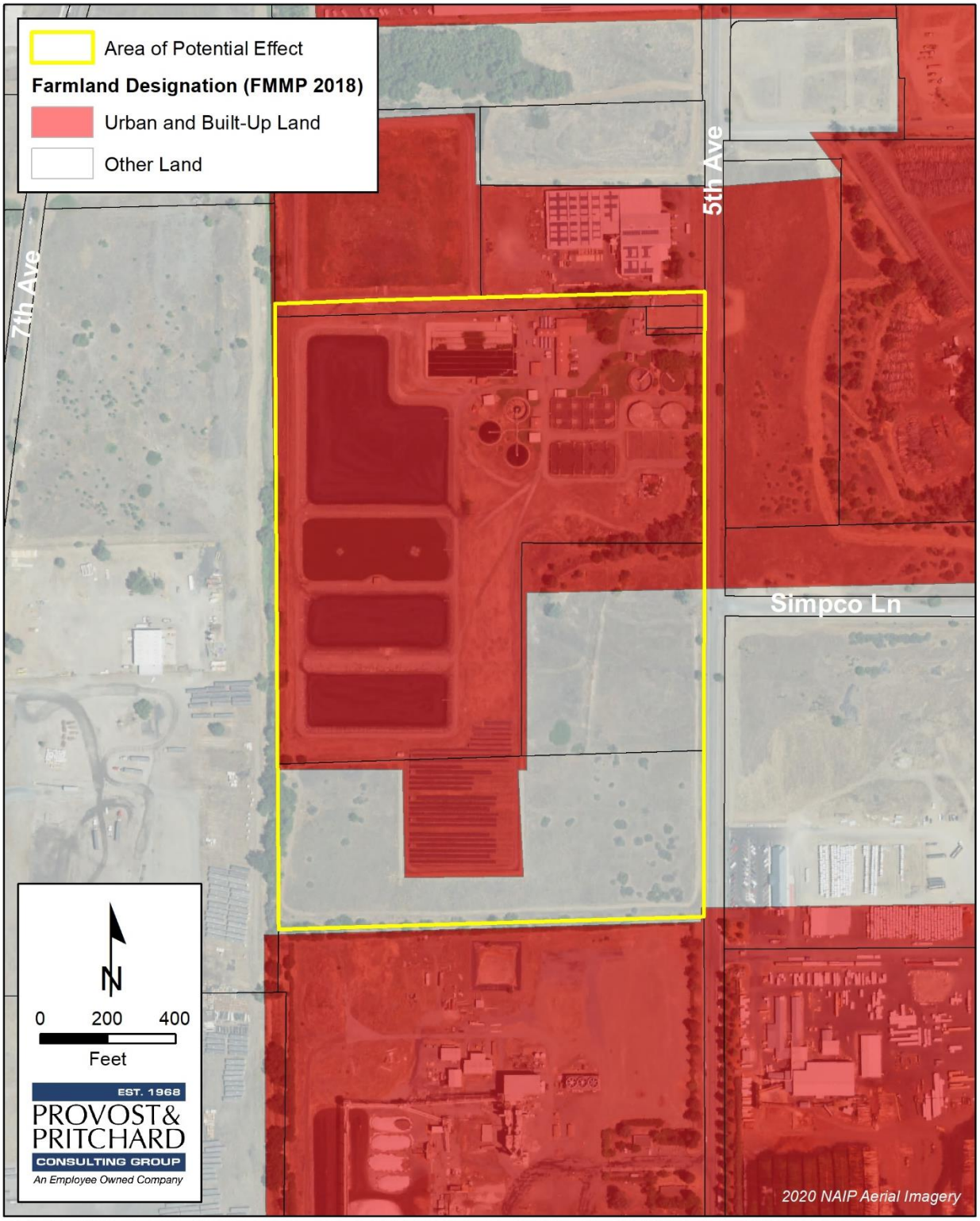

Figure 3-1. Farmland Designation Map

3.4 Air Quality

Table 3-3. Air Quality Impacts

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

3.4.1 Environmental Setting

The Project lies within the Sacramento Valley Air Basin (SVAB) and is managed by Butte County Air Quality Management District (BCAQMD). The Sacramento Valley Air Basin (SVAB) is bounded on the west by the Coast Range, on the north by the Cascade Range, on the east by the Sierra Nevada, and on the south by the San Joaquin Valley Air Basin. The intervening terrain is flat and is approximately 25 feet above sea level. The SVAB consists of the counties of Butte, Colusa, Glenn, Sacramento, Shasta, Sutter, Tehama, Yolo, and Yuba and portions of Placer and Solano Counties.

Air quality in the NSVAB is influenced by a variety of factors, including topography and local and regional meteorology. NSVAB generally experiences two types of inversions, both of which are accompanied by air quality issues due to poor dispersion. In the warm summer months, subsidence inversion is common, in which sinking air forms a "lid" over the region, contributing to photochemical smog problems by confining pollution to a shallow layer near the ground. In the cool winter months, radiative inversion occurs because the surrounding mountains create a barrier to airflow which traps pollutants in the valley. Air near the valley floor cools by radiative processes, while the upward air remains warm. Absence of surface wind leads to poor dispersion which can create localized air pollution "hot spots" near emission sources. Because these inversions occur more frequently during summer and winter, the air quality is generally better by comparison during the spring and fall seasons.

National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) have been established for the following criteria pollutants: carbon monoxide (CO), ozone (O_3), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), particulate matter (PM_{10} and $PM_{2.5}$), and lead (Pb). The CAAQS also set standards for sulfates, hydrogen sulfide, and visibility.

Air quality plans or attainment plans are used to bring the applicable air basin into attainment with all state and federal ambient air quality standards designed to protect the health and safety of residents within that air basin. Areas are classified under the federal Clean Air Act as either "attainment", "nonattainment", or "extreme

nonattainment" areas for each criteria pollutant based on whether the NAAQS have been achieved or not. Attainment relative to the State standards is determined by the California Air Resources Board (CARB). As illustrated in **Appendix A**, Butte County is currently designated as a State and federal nonattainment area for ozone and a State nonattainment area for particulate matter (PM_{10} and $PM_{2.5}$).

3.4.2 Methodology

An Air Quality and Greenhouse Gas Emissions Evaluation Report (**Appendix A**) was prepared using CalEEmod, Version 2016.3.2 for the Project in December 2018. The sections below detail the methodology of the air quality and greenhouse gas emissions report and its conclusions.

3.4.2.1 Short-Term Construction-Generated Emissions

Short-term construction emissions associated with the Proposed Project were calculated using CalEEmod, Version 2016.3.2. The emissions modeling includes emissions generated by off-road equipment, haul trucks, and worker commute trips. Emissions were quantified based on anticipated construction schedules and construction equipment requirements provided by the project applicant. All remaining assumptions were based on the default parameters contained in the model. Localized air quality impacts associated with the Project would be minor and were qualitatively assessed. Modeling assumptions and output files are included in **Appendix A**.

3.4.2.2 Long-Term Operational Emissions

Since the Project involves improvements to an existing WWTP, long-term operational emissions associated with the Project will be essentially unchanged from existing baseline conditions. However, operational emissions were calculated using CalEEmod, Version 2016.3.2. Worker and vendor commute trips will be unchanged, as no additional long-term operational nor maintenance staff will be required. Stationary sources and operational equipment will be similar to those currently present in the existing facility. The Project proposes replacement and upgrades to aged or obsolete equipment, which would result in energy efficiency and a reduction in emissions.

3.4.2.3 Thresholds of Significance

To assist local jurisdictions in the evaluation of air quality impacts, the BCAQMD has published the *CEQA Air Quality Handbook: Guidelines for Assessing Air Quality and Greenhouse Gas Impacts for Projects Subject to CEQA Review*.[7] This guidance document includes recommended thresholds of significance to be used for the evaluation of short-term construction, long-term operational, odor, toxic air contaminant, and cumulative air quality impacts. Accordingly, the BCAQMD-recommended thresholds of significance are used to determine whether implementation of the Project would result in a significant air quality impact. Projects that exceed these recommended thresholds would be considered to have a potentially significant impact to human health and welfare. The thresholds of significance are summarized in **Table 3-4** below:

Table 3-4. BCAQMD Thresholds of Significance for Criteria Air Pollutants

Pollutant	Construction-Related	Operational-Related
ROG	137 lbs/day, not to exceed 4.5 tons/year	25 lbs/day
NOX	137 lbs/day, not to exceed 4.5 tons/year	25 lbs/day
PM ≤ 10 microns (PM_{10} or smaller)	80 lbs/day	80 lbs/day

Short-Term Emissions of Particulate Matter (PM_{10} and $PM_{2.5}$): Construction impacts associated with the Project would be considered significant if construction-related emissions of PM_{10} and/or $PM_{2.5}$ exceed 80 lbs/day.

[7] CEQA Air Quality Handbook. https://bcaqmd.org/wp-content/uploads/CEQA-Handbook-Appendices-2014.pdf Accessed 30 October 2018.

Short-Term Emissions of Ozone Precursors (ROG and NOx): Construction impacts associated with the Project would be considered significant if the project generates emissions of Reactive Organic Gases (ROG) or NO_X that exceeds 137 lbs/day or 4.5 tons/year.

Long-Term Emissions of Particulate Matter (PM_{10} and $PM_{2.5}$): Operational impacts associated with the Project would be considered significant if the Project generates operational emissions of PM_{10} and/or $PM_{2.5}$ exceeding 80 lbs/day.

Long-Term Emissions of Ozone Precursors (ROG and NOx): Operational impacts associated with the Project would be considered significant if the project generates operational emissions of ROG or NO_X exceeding 25 lbs/day.

Conflict with or Obstruct Implementation of Applicable Air Quality Plan: Due to the region's nonattainment status for ozone and PM, if the project-generated emissions of either of the ozone precursor pollutants (i.e., ROG and NO_x) or PM_{10} or $PM_{2.5}$ exceeding the BCAQMD's significance thresholds, then the project would be considered to conflict with the attainment plans. Furthermore, consistency with District Rules and Regulations, such as Rule 205 (Fugitive Dust Emissions) is required, as these rules were developed with the intention of meeting the attainment goals of the 2012 Northern Sacramento Valley Planning Area Air Quality Management Plan.

Exposure to toxic air contaminants (TAC) would be considered significant if the probability of contracting cancer for the Maximally Exposed Individual (i.e., maximum individual risk) would exceed 10 in 1 million or would result in a Hazard Index greater than 1.

Odor impacts associated with the Project would be considered significant if the Project has the potential to generate odors that could adversely affect a substantial number of persons in the Project vicinity or locate receptors where they would be affected by an existing odor source.

3.4.3 Regulatory Setting

3.4.3.1 Federal

U.S. Environmental Protection Agency: At the Federal level, the EPA has been charged with implementing national air quality programs. The EPA's air quality mandates are drawn primarily from the Clean Air Act (CAA), which was signed into law in 1970. Congress substantially amended the CAA in 1977 and again in 1990.

Federal Clean Air Act: The CAA required the EPA to establish National Ambient Air Quality Standards (NAAQS), and also set deadlines for their attainment. Two types of NAAQS have been established: primary standards, which protect public health, and secondary standards, which protect public welfare from non-health-related adverse effects, such as visibility restrictions.

The CAA also required each State to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The CAA Amendments of 1990 added requirements for States with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. The EPA has responsibility to review all State SIPs to determine conformance with the mandates of the CAA, and the amendments thereof, and determine if implementation will achieve air quality goals. If the EPA determines a SIP to be inadequate, a Federal Implementation Plan (FIP) may be prepared for the nonattainment area that imposes additional control measures.

Toxic Substances Control Act: The Toxic Substances Control Act (TSCA) first authorized the EPA to regulate asbestos in schools and Public and Commercial buildings under Title II of the law, which is also known as the

Asbestos Hazard Emergency Response Act (AHERA). AHERA requires Local Education Agencies (LEAs) to inspect their schools for ACBM and prepare management plans to reduce the asbestos hazard. The Act also established a program for the training and accreditation of individuals performing certain types of asbestos work.

National Emission Standards for Hazardous Air Pollutants: Pursuant to the CAA of 1970, the EPA established the National Emission Standards for Hazardous Air Pollutants (NESHAP). These are technology-based source-specific regulations that limit allowable emissions of hazardous air pollutants.

3.4.3.2 State

California Air Resources Board: The CARB is the agency responsible for coordination and oversight of State and local air pollution control programs in California and for implementing the California Clean Air Act of 1988. Other CARB duties include monitoring air quality (in conjunction with air monitoring networks maintained by air pollution control districts and air quality management districts, establishing California Ambient Air Quality Standards (CAAQS), which in many cases are more stringent than the NAAQS, and setting emissions standards for new motor vehicles. The emission standards established for motor vehicles differ depending on various factors including the model year, and the type of vehicle, fuel and engine used.

California Clean Air Act: The CCAA requires that all air districts in the State endeavor to achieve and maintain CAAQS for ozone, CO, SO_2, and NO_2 by the earliest practical date. The CCAA specifies that districts focus particular attention on reducing the emissions from transportation and area-wide emission sources, and the act provides districts with authority to regulate indirect sources. Each district plan is required to either (1) achieve a five percent annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each nonattainment pollutant or its precursors, or (2) to provide for implementation of all feasible measures to reduce emissions. Any planning effort for air quality attainment would thus need to consider both State and Federal planning requirements.

Table 3-5. Summary of Ambient Air Quality Standards and Butte County Attainment Designations

Summary of Ambient Air Quality Standards & Butte County Attainment Designation					
Pollutant	**Averaging Time**	**California Standards**		**National Standards**	
		Concentration	**Attainment Status**	**Primary**	**Attainment Status**
Ozone (O_3)	1-hour	0.09 ppm	Nonattainment	–	
	8-hour	0.070 ppm		0.070 ppm	Nonattainment
Respirable Particulate Matter (PM_{10})	AAM	20 µg/m^3	Attainment	–	–
	24-hour	50 µg/m^3	Nonattainment	150 µg/m^3	Attainment
Fine Particulate Matter ($PM_{2.5}$)	AAM	12 µg/m^3	Nonattainment	12 µg/m^3	Attainment
	24-hour	–	–	35 µg/m^3	
Carbon Monoxide (CO)	1-hour	20 ppm	Attainment	35 ppm	Attainment
	8-hour	9 ppm		9 ppm	
	8-hour (Lake Tahoe)	6 ppm		–	
Nitrogen Dioxide (NO_2)	AAM	0.030 ppm	Attainment	0.053 ppm	Attainment
	1-hour	0.18 ppm		100 ppb	
Sulfur Dioxide (SO_2)	AAM	–	Attainment	0.03 ppm	Attainment
	24-hour	0.04 ppm		0.14 ppm	
	3-hour	–		--	
	1-hour	0.25 ppm		75 ppb	
Lead	30-day Average	1.5 µg/m^3	–	–	–
	Calendar Quarter	–		1.5 µg/m^3	
	Rolling 3-Month Average	–		0.15 µg/m^3	
Sulfates	24-hour	25 µg/m^3	–	No Federal Standards	
Hydrogen Sulfide	1-hour	0.03 ppm (42 µg/m^3)	–		
Vinyl Chloride	24-hour	0.01 ppm (26 µg/m^3)	–		
Visibility-Reducing Particle Matter	8-hour	Extinction coefficient: 0.23/km-visibility of 10 miles or more (0.07-30 miles or more for Lake Tahoe) due to particles when the relative humidity is less than 70%.	–		

Source: CARB 2016; BCAQMD 2014

3.4.3.3 Local

Oroville 2030 General Plan[8]: The Oroville 2030 General Plan sets for the following goals and policies that protect air quality of the City and which have potential relevance to the Project's CEQA review:

Goal OPS-12: Reduce particulate matter pollution in Oroville to meet State and federal ambient air quality standards.

Policy P12.1: Cooperate with the Butte County Air Pollution Control District to achieve 5 percent annual emissions reductions for non-attainment pollutants, including ozone and particulate matter, by implementation of air pollution control measures as required by State and federal standards.

Policy P12.3: Require all construction projects to implement dust control measures to reduce particulate matter emissions due to disturbance of exposed top-soils. Such measures would include watering of active areas where disturbance occurs, covering haul loads, maintaining clean access roads, and cleaning the wheels of construction vehicles accessing disturbed areas of the site.

Goal OPS-13: Reduce emissions of air contaminants, including greenhouse gases, and minimize public exposure to toxic, hazardous, and odoriferous air pollutants.

Policy P13.1: Prohibit sensitive receptors, such as residential uses, schools and hospitals, from locating in the vicinity of industrial and commercial uses known to emit toxic, hazardous or odoriferous air pollutants, and prohibit the establishment of such uses in the vicinity of sensitive receptors.

Policy P13.4: Encourage the use of alternative fuels in vehicle fleets and the use of alternative forms of transportation for City staff and other public agencies.

Policy P13.9: Control measures shall be implemented at all construction sites, such as alternative fuels, after-market add-ons, and other measures to further minimize exhaust emissions from construction equipment.

Butte County Air Quality Management District: BCAQMD is the agency primarily responsible for ensuring that NAAQS and CAAQS are not exceeded and that air quality conditions are maintained in the NSVAB, within which the Project is located. Responsibilities of the BCAQMD include, but are not limited to, preparing plans for the attainment of ambient air quality standards, adopting and enforcing rules and regulations concerning sources of air pollution, issuing permits for stationary sources of air pollution, inspecting stationary sources of air pollution and responding to citizen complaints, monitoring ambient air quality and meteorological conditions, and implementing programs and regulations required by the CAA and the CCAA.

The BCAQMD Rules and Regulations[9] that are applicable to the Project include, but are not limited to, the following:

Rule 200 (Nuisance): No person shall discharge from any non-vehicular source such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property.

Rule 201 (Visible Emissions): No person shall discharge into the atmosphere from any single non-vehicular source of emission whatsoever any air contaminant, other than uncombined water vapor, for a period or periods aggregating more than three (3) minutes in any one hour which is:

[8] Oroville 2030 General Plan. http://www.cityoforoville.org/home/showdocument?id=12187 Accessed 23 October 2018.
[9] BCAQMD Rules and Regulations. https://www.arb.ca.gov/drdb/but/cur.htm Accessed 1 November 2018.

- As dark or darker in shade as that designated as No. 2 on the Ringelmann Chart as published by the U.S. Bureau of Mines; or,
- Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in Section 1 of this Rule.

Rule 202 (Particulate Matter Concentration): A person shall not discharge into the atmosphere from any source particulate matter in excess of 0.3 grains per cubic foot of gas at standard conditions.

Rule 205 (Fugitive Dust Emissions): This rule is a series of requirements designed to reduce particulate emissions generated by human activity, including construction and demolition activities, carryout and trackout, paved and unpaved roads, bulk material handling and storage, unpaved vehicle/traffic areas, open space areas, etc. In order to minimize fugitive dust emissions, all projects are required to implement applicable best available control measures, which are specifically outlined in Table 1 on pages 7 through 11 of Rule 205[10]. The table of best available control measures is organized by source category, control measure(s) required, and an additional guidance column.

Rule 234 (Disposal of Organic Waste): This rule is a series of requirements designed to reduce the emissions of volatile organic compounds (VOC) resulting from the generation, storage, transfer, treatment, recycling, or disposal of volatile organic wastes.

Rule 400 and 500 (Stationary Source Permit): Rules 400 and 500 require any person constructing, altering, or operating a source that emits or may emit air contaminants to obtain an Authority to Construct or Permit to Operate from the Air Pollution Control Officer (APCO) and to provide an orderly procedure for application, review, and authorization of new sources and of the modification and operation of existing sources of air pollution. According to these rules, the Project may require a Stationary Source Permit for Public and Private Waste Water Treatment Works, Authority to Construct, and Permit to Operate.

Butte County Air Quality Control District Thresholds of Significance. Projects that produce emissions that exceed the significance thresholds identified in **Section 3.4.2.2**, above, shall be considered significant for a project level and/or cumulatively considerable impact to air quality.

3.4.3.4 Regulatory Attainment Designations

Under the CCAA, the CARB is required to designate areas of the State as attainment, nonattainment, or unclassified with respect to applicable standards. An "attainment" designation for an area signifies that pollutant concentrations did not violate the applicable standard in that area. A "nonattainment" designation indicates that a pollutant concentration violated the applicable standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. Depending on the frequency and severity of pollutants exceeding applicable standards, the nonattainment designation can be further classified as serious nonattainment, severe nonattainment, or extreme nonattainment, with extreme nonattainment being the most severe of the classifications. An "unclassified" designation signifies that the data does not support either an attainment or nonattainment designation. The CCAA divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

The EPA designates areas for ozone, CO, and NO_2 as "does not meet the primary standards," "cannot be classified," or "better than national standards." For SO_2, areas are designated as "does not meet the primary standards," "does not meet the secondary standards," "cannot be classified," or "better than national standards." However, the CARB terminology of attainment, nonattainment, and unclassified is more frequently used. The EPA uses the same sub-categories for nonattainment status: serious, severe, and extreme. In 1991, EPA assigned new nonattainment designations to areas that had previously been classified as Group I, II, or

[10] BCAQMD Rule 205. https://www.arb.ca.gov/drdb/but/curhtml/r205.pdf Accessed 1 November 2018.

III for PM_{10} based on the likelihood that they would violate national PM_{10} standards. All other areas are designated "unclassified."

The State and national attainment status designations pertaining to the BCAQMD are summarized in **Table 3-5**. Butte County is currently designated as a State and federal nonattainment area for ozone and a State nonattainment area for particulate matter (PM_{10} and $PM_{2.5}$).

3.4.4 Impact Assessment

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

No Impact. As noted in Impact Assessment b and c below, implementation of the Project would not result in short-term or long-term increases in emissions that would exceed applicable thresholds of significance. Projects that do not exceed the recommended thresholds would not be considered to conflict with or obstruct the implementation of applicable air quality plans.

Less than Significant Impact. Due to the region's nonattainment status, BCAQMD has adopted thresholds of significance for ROG, NOX, and particulate matter (PM_{10} or smaller). As demonstrated in **Table 3-6**, the emissions generated by the Project's construction phase would not exceed the BCAQMD thresholds of significance.

Table 3-6. Short-Term Construction-Related Emissions of Criteria Air Pollutants

Short-Term Construction-Related Emissions of Criteria Air Pollutants					
	ROG	NOX	PM_{10} or smaller	CO	SO_2
Summer (daily max)	23.4201 lbs/day	32.3730 lbs/day	12.2041 lbs/day	26.8431 lbs/day	0.0586 lbs/day
Winter (daily max)	23.4165 lbs/day	32.4031 lbs/day	12.2041 lbs/day	26.5891 lbs/day	0.0582 lbs/day
Annual (max)	0.4407 tons/year	2.5823 tons/year	0.4663 tons/year	2.4435 tons/year	0.00567 tons/year
BCAQMD Thresholds of Significance	137 lbs/day 4.5 tons/year	137 lbs/day 4.5 tons/year	80 lbs/day	No adopted threshold	No adopted threshold
Exceeds BCAQMD thresholds?	No	No	No	N/A	N/A

Since the Project involves improvements to an existing WWTP, long-term operational emissions associated with the Project will be essentially unchanged from existing baseline conditions. However, estimated long-term operational emissions were calculated using CalEEmod, Version 2016.3.2 and are displayed in **Table 3-7**. Worker and vendor commute trips will be unchanged, as no additional long-term operational nor maintenance staff will be required. Stationary sources and operational equipment will be similar to those currently present in the existing facility. The Project proposes replacement and upgrades to aged or obsolete equipment, which would result in energy efficiency and a reduction in emissions. As demonstrated in **Table 3-7**, the emissions generated by the Project's operational phase would not exceed the BCAQMD thresholds of significance. Therefore, Project-related impacts to air quality would be considered less than significant.

Table 3-7. Long-Term Operational Emissions of Criteria Air Pollutants

Long-Term Operational Emissions of Criteria Air Pollutants					
	ROG	NO_X	PM_{10} or smaller	CO	SO_2
Summer (daily max)	2.4687 lbs/day	0.4878 lbs/day	0.0742 lbs/day	0.4185 lbs/day	0.00293 lbs/day
Winter (daily max)	2.4687 lbs/day	0.4878 lbs/day	0.0742 lbs/day	0.4185 lbs/day	0.00293 lbs/day
Annual (max)	0.4505 tons/year	0.0890 tons/year	0.1352 tons/year	0.0756 tons/year	0.00053 tons/year
BCAQMD Thresholds of Significance	25 lbs/day	25 lbs/day	80 lbs/day	No adopted threshold	No adopted threshold
Exceeds BCAQMD thresholds?	No	No	No	N/A	N/A

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Less than Significant Impact. As mentioned above in Impact Assessment b), due to the region's nonattainment status, BCAQMD has adopted thresholds of significance for ROG, NO_X, and particulate matter (PM_{10} or smaller). Estimated construction-related emissions and estimated operational emissions were calculated using CalEEmod, Version 2016.3.2 and the results are displayed above in **Table 3-6 and Table 3-7**.

Short-Term Construction-Related Emissions

Construction-generated emissions are temporary in duration, lasting approximately 18 months. The construction of the Project would result in the temporary generation of emissions associated with site grading and excavation, motor vehicle exhaust associated with construction equipment and worker trips, as well as the movement of construction equipment on unpaved surfaces.

It is important to note that the Project would be required to comply with all applicable BCAQMD Rules and Regulation, including but not limited to Rule 200, Rule 201, Rule 202, Rule 205, and Rule 234, as mentioned above in **Section 3.4.3.3**. Compliance with these Rules and Regulations would further reduce construction-related emissions, minimizing the Project's potential to adversely impact to air quality.

Given that construction-related emissions would not exceed applicable BCAQMD significance thresholds and the Project would be required to comply with all applicable BCAQMD Rules and Regulations, construction-related emissions of criteria pollutants would be considered less than significant.

Long-Term Operational Emissions

Long-term operational emissions associated with the Project will be essentially unchanged from existing baseline conditions. Worker and vendor trips will not increase, and stationary sources and operational equipment will be similar to those currently in use at the existing WWTP. Furthermore, estimated operational emissions do not exceed BCAQMD's significance thresholds. Therefore, Project-related emissions of criteria air pollutants would be considered less than significant.

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

Less than Significant Impact. The Project involves improvements to an existing WWTP in the South Oroville Industrial District. There are no existing or planned sensitive receptors in the Project's vicinity. Construction and operation of the existing WWTP Upgrade Project is not anticipated to result in a substantial increase in pollutant concentrations, as discussed above in Impact Assessment a)-d). Therefore, Project-related impacts to sensitive receptors would be less than significant.

d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

No Impact. The Project involves improvements to an existing WWTP located in the South Oroville Industrial District. Although this area is designated by the general plan and zoned for industrial use, there are scattered commercial developments in the vicinity which may have issue with odors generated by the existing WWTP. For this reason, the Project specifically proposes upgrades to mitigate these odors, such as implementation of an odor control system and a biofilter to treat odorous air from the rag removal process and the influent pump station. The Project would not increase the amount of waste handled or create new sources of odor. On the contrary, the Project aims to reduce the existing issue of objectionable odors. Therefore, implementation of the Project would have no adverse impact related to objectionable odors.

3.5 Biological Resources

Table 3-8. Biological Resources Impacts

Biological Resources				
Would the project:	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

3.5.1 Environmental Setting

The Project is located in north central California in the northeastern portion of the Sacramento Valley, in Butte County. The Sacramento Valley is the north portion of California's Central Valley, situated north of the Sacramento-San Joaquin River Delta. Butte County is located within the Sacramento Valley and foothills of the Sierra Nevada, bordered by the Sierra Nevada to the east, the Cascade Range to the north, and the Sacramento River and Butte Creek to the west. Water from snowpack in the northern Sierra Nevada and the southern Cascade Range drains into the Sacramento Valley via the Feather River, the Sacramento River, Butte Creek, and other tributaries. The Project is located in a portion of the Sacramento Valley that has historically been used for agricultural, mining, and development purposes. Gold dredging of the nearby Feather River occurred from 1898 through 1952, and some dredge tailings were deposited in the vicinity of the existing WWTP. Current agricultural activities in the region include cropland, fruit and nut orchards, and livestock grazing.

Like most of California, the Sacramento Valley has a Mediterranean climate. Warm dry summers are followed by cool moist winters. Summer temperatures commonly exceed 90 degrees Fahrenheit. Annual precipitation within the vicinity of the Project is about 31 inches, the majority of which falls between the months of October and April. Nearly all precipitation falls in the form of rain. Stormwater readily infiltrates the soils of and surrounding the Project site.

The principal drainage in the Project vicinity is the Feather River. The Feather River originates in the Sierra Nevada in four distinct forks which unite as arms of the Lake Oroville reservoir in the Sierra Nevada foothills five miles northeast of Oroville in eastern Butte County. The North Fork Feather River drains approximately 60% of the entire upper Feather River watershed. The main stem of the Feather River begins at Oroville Dam, the outlet of Lake Oroville, and flows generally south across the Sacramento Valley, east of the Sutter Buttes, past Oroville and Yuba City-Marysville. The Project is located less than one mile east of the main stem Feather River and approximately five and a half miles southwest of the Oroville Dam.

Since the completion of the Oroville Dam in 1968, flow of the Feather River below the dam has been highly regulated for hydroelectric power production, flood control, water supply, and fish and wildlife. The dam has confined fish migration up the Feather River, and the controlled flow of the river has affected riparian habitat. In an effort to mitigate negative effects from altered water flow, the Department of Water Resources collaborated with California Department of Fish and Wildlife (CDFW) to build the Feather River Fish Hatchery. Since 1967, the Feather River Hatchery has raised Chinook salmon and steelhead along the Feather River and below Lake Oroville.

The Project site is immediately surrounded by commercial uses to the north, east, and south and by ruderal fields to the west. A storage business is directly north, and a firewood products business lies adjacent to the east with a railway just beyond. An agricultural processing plant is south of the site. West of the ruderal fields bordering the site is Highway 70 and just beyond, the main stem Feather River. The nearest boundary of the Oroville Wildlife Area lies on the western banks of the Feather River directly west of the Project site.

3.5.1.1 Methodology

A field survey of the Project area was conducted on November 7, 2018 by Live Oak Associates (LOA) ecologist Geoffrey Cline and written evaluation updated and completed in January 2021. The survey consisted of walking throughout the Project area while identifying the principal land uses and associated plant and animal species while mapping suitable habitat for special status species and other sensitive biological resources. The survey assessed the significance of possible biological impacts associated with development of the Project area. The Biological Evaluation Report, in its entirety, is available as **Appendix B** at the end of this document.

LOA conducted an analysis of potential Project impacts based on the known and potential biotic resources of the Project area. Sources of information used in the preparation of this analysis included: (1) the California Natural Diversity Data Base (CNDDB), the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC system, (3) the California Native Plant Society's Online Inventory of Rare and Endangered Vascular Plants of California, and (4) manuals, reports, and references related to plants and animals of the Sacramento Valley region.

Several species of plants and animals within the state of California have low populations, limited distributions, or both. Such species may be considered "rare" and are vulnerable to extirpation as the State's human population grows and the habitats these species occupy are converted to agricultural and urban uses. As described in **Section 3.5.2**, State and federal laws have provided CDFW and USFWS with a mechanism for conserving and protecting the diversity of plant and animal species native to the state. A sizable number of native plants and animals have been formally designated as "threatened" or "endangered" under State and federal endangered species legislation. Others have been designated as candidates for such listing. Still others have been designated as "species of special concern" by CDFW. The California Native Plant Society (CNPS)

has developed its own set of lists of native plants considered rare, threatened, or endangered. Collectively, these plants and animals are referred to as "special status species."

The CNDDB was queried for special status species occurrences in the nine USGS 7.5-minute quadrangles containing and immediately surrounding the Project area (*Palermo, Shippee, Oroville, Oroville Dam, Biggs, Bangor, Gridley, Honcut*, and *Loma Rica*). These species, and their potential to occur onsite, are listed in **Table 3-9** and **Table 3-10**. Sources of information for this table included California's Wildlife, Volumes I, II, and III, CNDDB, the USFWS IPaC system, The Jepson Manual: Vascular Plants of California, second edition, The California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California, Calflora.org, and eBird.org. A complete list of references is available in the Biological Evaluation Report as **Appendix B** at the end of this document.

3.5.1.2 Project Site Existing Conditions

At the time of the August 2021 field survey, the APE consisted of approximately 34 acres of the existing WWTP facility and 20 acres of vacant land adjoining the facility to the south. The site is fairly level, with an average elevation of approximately 150 feet, and is surrounded by a perimeter fence, approximately 6-feet in height, that meets the ground along the majority of the fence-line.

The 20 acres of vacant land is unfenced and is described as disturbed savanna. This area is characterized by extremely rocky soils associated with dredge tailings, and widespread evidence of past ground disturbance such as vegetated berms and stockpiles. At the time of the 2021 field survey, the vegetative community comprised non-native grasses and forbs including wild oats (Avena fatua), filaree (Erodium sp.), yellow star-thistle (Centaurea solstitialis), and black mustard (Brassica nigra), and scattered trees and shrubs including foothill pine (Pinus

There are five sewage treatment lagoons immediately west and northwest of the Project area that store raw wastewater, four of which are included within the western site boundary. This wastewater is pumped back to the existing WWTP facility where it undergoes a multi-stage treatment process before it is piped approximately five miles to the Feather River discharge location south of the Project site. The four southernmost lagoons within the western site boundary are asphalt lined, while the northernmost lagoon is clay lined. In typical operation, any of these five lagoons may be dry for long periods of time, as each are regularly drained as part of their operational cycle.

The Project area contains two soil mapping units from two soil series: Xerorthents, tailings-Urban land complex, 0 to 2 percent slopes, and Thompson flat-Oroville, 0 to 9 percent slopes. The Xerorthents soils are considered hydric, meaning that they tend to pond water consistently enough to support the growth of wetland vegetation.

The Project area consists primarily of developed WWTP habitat which included the existing WWTP facilities (buildings, equipment, treatment lagoons), paved and gravel access roads, irrigated lawns, and ornamental vegetation. The remainder of the site consists of ruderal land which includes gravel or hard-pack weedy areas and roads adjacent to the existing WWTP. The majority of the vegetation in the developed areas included landscaped areas consist of non-native lawn grasses, bur clover, and ornamental trees and shrubs. Invasive, weedy forbs and graminoids dominate ruderal portions of the site.

Frequent human disturbance from regular operations and the prevalence of man-made facilities limit the value of the developed existing WWTP and ruderal habitats to wildlife; however, some species may occur onsite in limited numbers. Common wildlife species expected to occur onsite or in the vicinity include the following: Pacific chorus frog, western toad, western fence lizard, mourning dove, common raven, Brewer's blackbird, least sandpiper, killdeer, northern mockingbird, black phoebe, European starling, deer mouse, house mouse, Norway rat, Botta's pocket gopher, western gray squirrel, red-tailed hawk, American kestrel, northern harrier, western meadowlark, raccoon, striped skunk, Audubon's cottontail, and black-tailed jackrabbit.

Table 3-9. List of Special Status Plants with Potential to Occur in the Project Vicinity

Species	Status	Habitat	Occurrence
Butte County Meadowfoam (*Limnanthes floccosa ssp. californica*)	FE, CE, CNPS 1B	Occurs along vernal pool edges and freshwater wetlands at elevations often below 1,000 feet. Blooms around March-May.	**Absent.** Suitable habitats for this species are absent from the Project area.
Slender Orcutt Grass (*Orcuttia tenuis*)	FT, CE, CNPS 1B	Occurs in vernal pools of valley grassland, foothill woodland, freshwater wetlands, and wetland-riparian habitats at elevations of approximately 650-3,600 feet. Blooms around May-October.	**Absent.** Suitable habitats for this species are absent from the Project area and the site is well below the elevation range of this species.
Greene's Tuctoria (*Tuctoria greenei*)	FE, CR, CNPS 1B	Occurs in vernal pools of valley grassland, freshwater wetlands, and wetland-riparian habitats at elevations often below 3,450 feet. Blooms around May-September.	**Absent.** Suitable habitats for this species are absent from the Project area.
Big-scale Balsamroot (*Balsamorhiza macrolepis*)	CNPS 1B	Occurs on open grassy or rocky slopes in valley grassland and foothill woodland habitat, between 150 and 5,100 feet in elevation. Blooms March-July.	**Unlikely.** The APE is situated at the lower limit of this species' elevation distribution, and consists largely of an active wastewater treatment facility that would not support this or other sensitive plant species. Although the APE's disturbed savanna may theoretically offer suitable habitat for big-scale balsamroot, past ground disturbance associated with gold dredging would greatly limit its potential to occur here. Moreover, there are no known occurrences of this species in the project vicinity. The closest CNDDB record is more than 9 miles from the APE, documented in 1897.
Pink Creamsacs (*Castilleja rubicundula var. rubicundula*)	CNPS 1B	Occurs in serpentinite rock of chaparral, cismontaine woodland, meadows and seeps, and valley and foothill grassland habitat at elevations of approximately 65-3,000 feet. Blooms around April-June.	**Absent.** Suitable habitats for this species are absent from the Project area.
Mosquin's Clarkia (*Clarkia mosquinii*)	CNPS 1B	Occurs in dry, rocky places like foothill woodland at elevations of 600-4,000 feet. Blooms around June-July.	**Absent.** Suitable habitats for this species are absent from the Project area and the site is well below the elevation range of this species.
Recurved Larkspur (*Delphinium recurvatum*)	CNPS 1B	Occurs in shadscale scrub, valley grassland, and foothill woodland habitats, usually in non-wetlands but occasionally in wetlands at elevations of approximately 100-2,000 feet. Blooms around March-June.	**Absent.** Suitable habitats for this species are absent from the Project area.
Adobe-lily (*Fritillaria pluriflora*)	CNPS 1B	Occurs in adobe, general serpentine soils of chaparral, valley grassland, and foothill woodland habitats at elevations often below 3,000 feet. Blooms around February-April.	**Absent.** Suitable habitats for this species are absent from the Project area.

Species	Status	Habitat	Occurrence
Wooly Rose-mallow (*Hibiscus lasiocarpos var occidentalis*)	CNPS 1B	Occurs in freshwater wetlands, wet banks, and marshes often below 330 feet in elevation. Blooms around June-November.	**Absent.** Suitable habitats for this species are absent from the Project area.
Ahart's Dwarf Rush (*Juncus leiospermus var. ahartii)*	CNPS 1B	Occurs in vernal pool margins, grassland swales, and gopher mounds at elevations of approximately 100-300 feet. Blooms around March-May.	**Absent.** Suitable habitats for this species are absent from the Project area.
Red Bluff Dwarf Rush (*Juncus leiospermus var. leiospermus*)	CNPS 1B	Occurs in vernal pool margins, wet places in chaparral, and woodland habitats at elevations of approximately 900-1,700 feet. Blooms around March-June.	**Absent.** Suitable habitats for this species are absent from the Project area and the site is well below the elevation range of this species.
Baker's Navarretia (*Navarretia leucocephala ssp. bakeri*)	CNPS 1B	Occurs in vernal pools and wetlands of yellow pine forest, norther oak woodland, foothill woodland, valley grassland, freshwater wetlands, and wetland-riparian habitats at elevations often below 5,600 feet. Blooms around April-July.	**Absent.** Suitable habitats for this species are absent from the Project area.
Ahart's Paronychia (*Paronychia ahartii*)	CNPS 1B	Occurs in well-drained, rocky outcrops, often vernal pool edges, and volcanic upland areas of valley grassland, foothill woodland, and freshwater wetland habitat at elevations often below 1,650 feet. Blooms around March-June.	**Absent.** Suitable habitats for this species are absent from the Project area.
Sanford's Arrowhead (*Sagittaria sanfordii*)	CNPS 1B	Occurs in ponds and ditches of freshwater wetlands and wetland-riparian habitats at elevations often below 1,000 feet. Blooms around May-October.	**Absent.** Suitable habitats for this species are absent from the Project area.
Butte County Golden Clover (*Trifolium jokerstii*)	CNPS 1B	Occurs in vernal pools at elevations often below 1,350 feet. Blooms around March-May.	**Absent.** Suitable habitats for this species are absent from the Project area.

Table 3-10. List of Special Status Animals with Potential to Occur in the Project Vicinity

Species	Status	Habitat	Occurrence
Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*)	FT	Lives in mature elderberry shrubs of California's Central Valley and Sierra foothills.	**Possible.** Blue elderberry shrubs are located along the APE's southern and western boundary in six distinct clusters. These shrubs may support VELB. This species is known from the Oroville Wildlife Area, 3 to 5 miles southwest of the APE.
Monarch Butterfly (Danaus plexippus)	FC	The western North American population of monarch butterfly overwinters along the California coast. In the spring, individuals migrate north and east over to the Pacific Northwest and toward the Rockies, producing multiple generations en route. In the fall, adults enter reproductive diapause and return to the coast. Milkweed, the obligate host plant of this species, is required during spring migration, when	**Possible.** Monarchs have the potential to migrate through the APE, and may occasionally forage or roost on site. Milkweed was not detected during the field surveys, so it appears unlikely that the APE would support breeding by this species.

Species	Status	Habitat	Occurrence
		breeding occurs. Trees are used as roost sites during fall migration. Nectar resources from both milkweed and other flowering plants are important year-round.	
Vernal Pool Fairy Shrimp (*Branchinecta lynchi*)	FT	Occurs in vernal pools, clear to tea-colored water in grass or mud-bottomed swales, and basalt depression pools.	**Absent.** Suitable habitat in the form of vernal pools is absent from the Project area. The nearest CNDDB observation is approximately 1.5 miles to the southeast, and is from 2006.
Vernal Pool Tadpole Shrimp (*Lepidurus packardi*)	FE	Occurs in vernal pools, clear to tea-colored water in grass or mud-bottomed swales, and basalt depression pools.	**Absent.** Suitable habitat in the form of vernal pools is absent from the APE. The nearest CNDDB observation is approximately 3 miles to the northwest, and is from 2005.
Delta Smelt (*Hypomesus transpacificus*)	FT	This slender-bodied fish is endemic to the San Francisco Bay and Sacramento-San Joaquin Delta upstream through Contra Costa, Sacramento, San Joaquin, Solano, and Yolo Counties.	**Absent.** Suitable habitats for this species are absent from the Project area.
Steelhead – Central Valley DPS (*Oncorhynchus mykiss irideus pop. 11*)	FT	Cold-water streams with adequate dissolved oxygen and gravel substrates free of excessive silt for spawning in coastal streams and tributaries of San Francisco and San Pablo bays.	**Absent.** Suitable habitats for this species are absent from the Project area.
Chinook Salmon – Central Valley spring-run ESU (*Oncorhynchus tshawytscha pop. 6*)	FT, CT	Salmon of this run begin to migrate up the Sacramento River in the spring. They hold in cool water tributaries through the summer, and spawn in the fall in gravel beds in riffle areas. Juveniles migrate soon after emergence as young-of-the year, or remain in freshwater and migrate as yearlings.	**Absent.** Suitable habitats for this species are absent from the Project area.
Foothill Yellow-Legged Frog (*Rana boylii*)	CCT, CSSC	Frequents rocky streams and rivers with open, sunny banks in forests, chaparral, and woodlands. Occurs from sea level to 2,040 meters in elevation.	**Absent.** Suitable habitats for this species are absent from the Project area.
California Red-legged Frog (*Rana draytonii*)	FT	Perennial rivers, creeks and stock ponds of the Coast Range and northern Sierra foothills with overhanging vegetation.	**Absent.** Suitable habitats for this species are absent from the Project area.
Giant Garter Snake (GGS) (*Thamnophis gigas*)	FT, CT	Occurs in marshes, sloughs, drainage canals, irrigation ditches, rice fields, and adjacent uplands. Prefers locations with emergent vegetation for cover and open areas for basking. GGS use small mammal burrows and soil crevices adjacent to aquatic habitats for overwintering and, in the summer, to escape excessive heat.	**Absent.** Suitable habitats for this species are absent from the Project area. The nearest CNDDB observation is over four miles to the southwest, within the Feather River, and is from 2011.
Tricolored Blackbird (*Agelaius tricolor*)	CCE	Nests colonially near fresh water in dense cattails or tules, or in thickets of	**Possible.** The APE's disturbed savanna habitat offers suitable foraging

Species	Status	Habitat	Occurrence
		willows or shrubs. In the San Joaquin Valley, has increasingly been documented nesting in wheat fields. Forages in grassland and cropland areas.	habitat for tricolored blackbirds. This species nests in large colonies that would not be supported by the site's isolated patches of willows and blackberry. The nearest known nesting occurrence is approximately 2,6 miles to the southwest, and is from 1971.
Greater Sandhill Crane (*Antigone canadensis tabida*)	CT, CFP	Winters in the Central Valley, where it frequents grasslands, moist croplands with rice or corn stubble, and emergent wetlands. Breeds in northern California and elsewhere.	**Possible.** Migrating or wintering greater sandhill cranes may occasionally forage in the APE's disturbed savanna habitat. Use of the site would be infrequent at best, given the APE's industrial setting and absence of cereal grain and wetland habitats likely to attract cranes. This species does not breed in Butte County.
Golden Eagle (*Aquila chrysaetos*)	CFP	Hunts over open terrain for rodents, lagomorphs and occasionally birds and reptiles. Nests on cliffs of all heights and in large trees in open areas.	**Possible.** Golden eagles may occasionally forage in the APE's disturbed savanna habitat, but nesting habitat is absent.
Swainson's Hawk (*Buteo swainsoni*)	CT	This breeding migrant to California nests in mature trees in riparian areas and oak savannah, and occasionally in lone trees at the margins of agricultural fields. Requires adjacent suitable foraging areas such as grasslands or alfalfa fields supporting rodent populations.	**Possible.** Swainson's hawks have the potential to nest in mature trees of the APE's disturbed savanna habitat, and to forage in that habitat's open areas. This species is unlikely to use the APE's ruderal/developed habitat, which is highly modified and frequently disturbed by WWTP operations. The closest known nesting occurrence of this species is approximately 5 miles to the southwest at Oroville Wildlife Area.
Western Yellow-billed Cuckoo (*Coccyzus americanus*)	FT, CE	Once a common breeding species in riparian habitats of lowland California, the western yellow-billed cuckoo today breeds consistently in only two California localities: along the Sacramento and South Fork Kern Rivers.	**Absent.** Suitable habitats for this species are absent from the Project area.
White-Tailed Kite (*Elanus leucurus*)	CFP	Occurs in savanna, open woodlands, marshes, desert grassland, and cultivated fields. Prefer lightly grazed or ungrazed fields for foraging.	**Possible.** White-tailed kites may nest in mature trees of the APE's disturbed savanna habitat, and forage in that habitat's open areas. This species is not expected to use the highly modified and frequently disturbed habitats of the active WWTP facility.
Bald Eagle (*Haliaeetus leucocephalus*)	CE, CFP	In California, breeds in mountain and foothill forests near reservoirs, lakes, and rivers, and winters near Central Valley reservoirs. Primarily feeds on fish and waterfowl, and may also eat carrion.	**Unlikely.** This species may occasionally fly over the APE, but is unlikely to forage on site due to the marginal nature of the site's aquatic habitats and high levels of disturbance. The site would not support breeding by this species.

Species	Status	Habitat	Occurrence
California Black Rail (*Laterallus jamaicensis coturniculus*)	CT, CFP	Prefers marshes, swamps, and wet meadows and is dependent on aquatic plants, insects, and crustaceans.	**Absent.** Suitable habitats for this species are absent from the Project area.
Bank Swallow (*Riparia riparia*)	CT	Prefers riverbanks, creeks, seashores, and lakes. Nests in colonies in vertical streamside banks or cliffs.	**Absent.** Suitable habitats for this species are absent from the Project area.
Least Bell's Vireo (*Vireo belii pusillus*)	FE, CE	Breeds in dense early successional riparian vegetation. Winters in Mexico and Central America.	**Absent.** Suitable habitats for this species are absent from the Project area.
Western Spadefoot (*Spea hammondii*)	CSSC	Mainly occurs in grasslands of the Central Valley, where it breeds in vernal pools or other temporary wetlands and aestivates in underground refugia such as rodent burrows. Baumberger et al. (2019) recorded a maximum distance of around 890 feet between breeding and aestivation sites.	**Unlikely.** While the APE's disturbed savanna habitat is theoretically suitable for spadefoot aestivation, potential breeding habitat is absent from the APE and adjacent lands, greatly limiting the potential for this species to occur on site.
Coast Horned Lizard (*Phrynosoma blainvillii*)	CSSC	Occurs in the lower Sierra foothills and throughout the central and southern California coast in relatively open areas.	**Unlikely.** While the APE's disturbed savanna habitat is theoretically suitable for this species it is unlikely to have persisted in the project vicinity following widespread dredging activities, nor would it be expected to migrate into this industrial portion of Oroville, The closest known occurrence, historical or otherwise, is approximately 8 miles north of the APE at a CDFW ecological reserve.
Western Pond Turtle (*Emys marmorata*)	CSSC	An aquatic turtle of ponds, marshes, slow-moving rivers, streams and irrigation ditches with aquatic vegetation. Needs basking sites and sandy banks or grassy open fields for egg laying.	**Absent.** The APE's treatment ponds would not support this species because they are not perennially inundated. The closest suitable aquatic habitat appears to be the Feather River, which, at ½ mile from the APE, is too distant to enable upland use of the site by individuals of this species.
Burrowing Owl (*Athene cunicularia*)	CSSC	Frequents open, dry annual or perennial grasslands, deserts, and scrublands characterized by low growing vegetation. Dependent upon burrowing mammals, most notably the California ground squirrel, for nest burrows.	**Possible.** This species has limited presence in the project vicinity, with only one known occurrence in a nearly 20-mile radius. However, the APE's disturbed savanna offers marginal roosting, nesting, and foraging habitat for the burrowing owl. Should this species occur in the vicinity, it could conceivably use this portion of the site. This species is not expected to use the highly modified and frequently disturbed habitats of the active WWTP facility.
Northern Harrier (*Circus cyaneus*)	CSSC	Frequents meadows, grasslands, open rangelands, freshwater emergent	**Possible.** Northern harriers have the potential to forage and nest in the APE's disturbed savanna habitat. Its

Species	Status	Habitat	Occurrence
		wetlands. Nests on ground, generally in marshes, although grassland and pasture habitat may also be used.	use of the APE's ruderal/developed habitat, if it occurs at all, would be limited to occasional foraging in open areas.
Loggerhead Shrike (*Lanius ludovicianus*)	CSSC	Frequents open habitats with sparse shrubs and trees, other suitable perches, bare ground, and low herbaceous cover. In the Central Valley, nests in riparian areas, desert scrub, and agricultural hedgerows.	**Possible.** This species may occasionally forage within the APE, and has the potential to nest in trees and shrubs of the APE's disturbed savanna habitat.
Yellow Warbler (*Setophaga petechia*)	CSSC	Migrants move through many habitats of Sierra and its foothills. This species breeds in riparian thickets of alder, willow and cottonwoods.	**Possible.** This species may pass through or forage within the APE's disturbed savanna habitat during migration, but would not breed on site or in the vicinity.
Townsend's Big-eared Bat (*Corynorhinus townsendii*)	CSSC	Primarily a cave-dwelling bat, but may also roost in tunnels, buildings, other human-made structures, and hollow trees. Occurs in a variety of habitats.	**Possible.** This species has the potential to roost in the APE's buildings and mature trees, and could forage on site.
Western Mastiff Bat (*Eumops perotis californicus*)	CSSC	Frequents open, semi-arid to arid habitats, including conifer, and deciduous woodlands, coastal scrub, grasslands, palm oasis, chaparral and urban. Roosts in cliff faces, high buildings, and tunnels.	**Possible.** This species may forage over the APE, but would not roost on site.

OCCURRENCE DESIGNATIONS AND STATUS CODES

Present: Species observed on the site at time of field survey or during recent past
Likely: Species not observed on the site, but it may reasonably be expected to occur there on a regular basis
Possible: Species not observed on the site, but it could occur there from time to time
Unlikely: Species not observed on the site, and would not be expected to occur there except, perhaps, as a transient
Absent: Species not observed on the site, and precluded from occurring there due to absence of suitable habitat

STATUS CODES

FE Federally Endangered
FT Federally Threatened
FPE Federally Proposed Endangered
FPT Federally Proposed Threatened
FC Federal Candidate

CE California Endangered
CT California Threatened
CCE California Candidate Endangered
CCT California Candidate Threatened
CFP California Fully Protected
CSSC California Species of Special Concern

CNPS LISTING

1A Plants Presumed Extinct in California
1B Plants Rare, Threatened, or Endangered in California and elsewhere
2 Plants Rare, Threatened, or Endangered in California, but more common elsewhere

3.5.2 Regulatory Setting

3.5.2.1 Threatened and Endangered Species

State and federal "endangered species" legislation has provided the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. Permits may be required

from both CDFW and USFWS if activities associated with a proposed project will result in the "take" of a listed species. "Take" is defined by the State of California as "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill" (Fish and Game Code Section 86). "Take" is more broadly defined by the federal Endangered Species Act to include "harm" (16 USC, Section 1532(19), 50 CFR, Section 17.3). Furthermore, CDFW and USFWS are responsible agencies under CEQA. Both agencies review CEQA documents in order to determine the adequacy of their treatment of endangered species issues and to make project-specific recommendations for their conservation.

3.5.2.2 Migratory Birds

The Federal Migratory Bird Treaty Act (MBTA: 16 USC 703-712) prohibits killing, possessing, or trading in any bird species covered in one of four international conventions to which the United States is a party, except in accordance with regulations prescribed by the Secretary of the Interior. The name of the act is misleading, as it actually covers almost all bird's native to the United States, even those that are non-migratory. The MBTA encompasses whole birds, parts of birds, and bird nests and eggs.

Although the USFWS and its parent administration, the U.S. Department of the Interior, have traditionally interpreted the MBTA as prohibiting incidental as well as intentional "take" of birds, a January 2018 legal opinion issued by the Department of the Interior now states that incidental take of migratory birds while engaging in otherwise lawful activities is permissible under the MBTA. However, California Fish and Game Code makes it unlawful to take or possess any non-game bird covered by the MBTA (Section 3513), as well as any other native non-game bird (Section 3800), even during lawful activities.

3.5.2.3 Birds of Prey

Birds of prey are also protected in California under provisions of Fish and Game Code Section 3503.5, which states that it is "unlawful to take, possess, or destroy any birds in the order *Falconiformes* or *Strigiformes* (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the CDFW.

3.5.2.4 Nesting Birds

In California, protection is afforded to the nests and eggs of all birds. California Fish and Game Code (Section 3503) states that it is "unlawful to take, possess, or needlessly destroy the nest or eggs of any bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Breeding-season disturbance that causes nest abandonment and/or loss of reproductive effort is considered a form of "take" by CDFW.

3.5.2.5 California Fully Protected Species

The classification of certain animal species as "fully protected" was the State of California's initial effort in the 1960s, prior to the passage of the California Endangered Species Act (CESA), to identify and provide additional protection to those species that were rare or faced possible extinction. Following CESA enactment in 1970, many fully protected species were also listed as California threatened or endangered. The fully protected species are identified, and their protections stipulated, in Fish and Game Code Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish). Fully protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take, except in conjunction with necessary scientific research and protection of livestock.

3.5.2.6 Wetlands and Other Jurisdictional Waters

The USACE regulates the filling or grading of Waters of the U.S. under the authority of Section 404 of the Clean Water Act. Natural drainage channels and adjacent wetlands may be considered "Waters of the United

States" or "jurisdictional waters" subject to the jurisdiction of the USACE. The extent of jurisdiction has been defined in the Code of Federal Regulations and clarified in federal courts.

On June 29, 2015, the Environmental Protection Agency and USACE jointly issued the Clean Water Rule as a synthesis of statute, science, and U.S. Supreme Court decisions. The Clean Water Rule defines Waters of the U.S. to include the following:

1) All waters used in interstate or foreign commerce (also known as traditional navigable waters), including all waters subject to the ebb and flow of the tide;
2) All interstate waters including interstate wetlands;
3) The territorial seas;
4) All impoundments of Waters of the U.S.;
5) All tributaries of waters defined in Nos. 1 through 4 above, where "tributary" refers to a water (natural or constructed) that contributes flow to another water and is characterized by the physical indicators of a bed and bank and an ordinary high water mark (OHWM);
6) Adjacent waters, defined as either (a) located in whole or in part within 100 feet of the OHWM of waters defined in Nos. 1 through 5 above, or (b) located in whole or in part within the 100-year floodplain and within 1,500 feet of the OHW mark of waters defined in Nos. 1 through 5 above;
7) Western vernal pools, prairie potholes, Carolina bays and Delmarva bays, pocosins, and Texas coastal prairie wetlands, if determined on a case-specific basis to have a significant nexus to waters defined in Nos. 1 through 3 above;
8) Waters that do not meet the definition of adjacency, but are determined on a case-specific basis to have a significant nexus to waters defined in Nos. 1 through 3 above, and are either (a) located in whole or in part within the 100-year floodplain of waters defined in Nos. 1 through 3 above, or (b) located within 4,000 feet of the OHWM of waters defined in Nos. 1 through 5 above.

The 2015 rule also redefines exclusions from jurisdiction, which include:

1) Waste treatment systems;
2) Prior converted cropland;
3) Artificially irrigated areas that would revert to dry land should application of irrigation water to the area cease;
4) Groundwater;
5) Stormwater control features constructed to convey treat or store stormwater created in dry land; and
6) Three types of ditches: (a) ditches with ephemeral flow that are not a relocated or excavated tributary, (b) ditches with intermittent flow that are not a relocated or excavated tributary or that do not drain wetlands, and (c) ditches that do not flow, either directly or through another water, to a traditional navigable water.

A ditch may be a water of the U.S. only it if meets the definition of "tributary" and is not otherwise excluded under the provision.

All activities that involve the discharge of dredge or fill material into Waters of the U.S. are subject to the permit requirements of the USACE. Such permits are typically issued on the condition that the applicant agrees to provide mitigation that result in no net loss of wetland functions or values. No permit can be issued until the RWQCB issues a Section 401 Water Quality Certification (or waiver of such certification) verifying that the proposed activity will meet state water quality standards.

Under the Porter-Cologne Water Quality Control Act of 1969, the State Water Resources Control Board has regulatory authority to protect the water quality of all surface water and groundwater in the State of California ("Waters of the State"). Nine RWQCBs oversee water quality at the local and regional level. The RWQCB for a given region regulates discharges of fill or pollutants into Waters of the State through the issuance of various permits and orders. Discharges into Waters of the State that are also Waters of the U.S. require a Section 401 Water Quality Certification from the RWQCB as a prerequisite to obtaining certain federal permits, such as a Section 404 Clean Water Act permit. Discharges into all Waters of the State, even those that are not also Waters of the U.S., require Waste Discharge Requirements (WDRs), or waivers of WDRs, from the RWQCB.

The RWQCB also administers the Construction Storm Water Program and the federal National Pollution Discharge Elimination System (NPDES) program. Projects that disturb one or more acres of soil must obtain a Construction General Permit under the Construction Storm Water Program. A prerequisite for this permit is the development of a Storm Water Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer. Projects that discharge wastewater, storm water, or other pollutants into a Water of the U.S. may require a NPDES permit.

CDFW has jurisdiction over the bed and bank of natural drainages and lakes according to provisions of Section 1601 and 1602 of the California Fish and Game Code. Activities that may substantially modify such waters through the diversion or obstruction of their natural flow, change or use of any material from their bed or bank, or the deposition of debris require a Notification of Lake or Streambed Alteration. If CDFW determines that the activity may adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement will be prepared. Such an agreement typically stipulates that certain measures will be implemented to protect the habitat values of the lake or drainage in question.

3.5.2.7 Local

Oroville 2030 General Plan[11]: The Oroville 2030 General Plan sets for the following goals and policies that protect biological resources of the City and which have potential relevance to the Project's CEQA review:

Goal OPS-8: Preserve and protect all special-status species, species that are candidates for federal or State listing, State species of special concern, and CNPS listed plant species.

Policy P8.2: Require a habitat-based site assessment during the project design phase to determine the potential for special-status species to occur within a proposed project area. If potential habitat for special-status plant or animal species is identified, additional focused surveys may need to be conducted during the appropriate season.

Policy P9.7: Protect native plant species in undisturbed portions of a development site and use native species for replanting in disturbed portions of the project site.

Policy P9.8: Support efforts to eradicate invasive and noxious weeds and vegetation on public and private property.

3.5.3 Impact Assessment

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?

Less than Significant Impact with Mitigation Incorporated. As discussed in **Chapter Chapter 2 , Project Description**, SC-OR proposes upgrades to the existing WWTP. The Project will entail various improvements within an approximately 54-acre area inside the boundaries of the existing WWTP facility property.

[11] Oroville 2030 General Plan. http://www.cityoforoville.org/home/showdocument?id=12187 Accessed 7 December 2018.

Project-Related Mortality/ Disturbance of the Valley Elderberry Longhorn Beetle

As discussed in **Appendix B**, blue elderberry shrubs, the obligate habitat of the federally threatened valley elderberry longhorn beetle (VELB), are located along the APE's southern and western boundaries in six distinct clusters. These shrubs would be protected during construction with fenced no-disturbance buffers of at least 20 feet, as measured from the dripline. None of the shrubs are located within the fenced WWTP facility, where most improvements would be constructed. One cluster is located immediately outside of the WWTP fence line to the west of the treatment ponds, and the other five are located along the boundary of the APE's disturbed riparian habitat, which would only be used for construction staging and materials laydown. The risk to these shrubs and any resident VELB is therefore considered to be low. Nevertheless, there is the potential for individual beetles to be harmed by nearby construction activities, particularly during the March-July flight season. Project-related injury or mortality of VELB individuals would violate the federal Endangered Species Act and be considered a significant impact of the project under CEQA.

3.5.3.1 Mitigation Measures

The following measures adapted from the USFWS (2017) Framework for Assessing Impacts to the Valley Elderberry Longhorn Beetle would be implemented for the protection of the VELB.

> **BIO-1a (Fencing and Avoidance Areas).** All areas to be avoided during construction activities shall be fenced and/or flagged as close to construction limits as possible. This includes the required 20-foot no-disturbance buffers around elderberry shrubs, as well as any other areas within 165 feet of the shrub clusters that may feasibly be avoided. Fencing would be inspected by a qualified biologist prior to the start of work.
>
> **BIO-1b (Worker Education).** Prior to the start of work a qualified biologist shall provide training for all contractors, work crews, and any onsite personnel on the status of the VELB, its host plant and habitat, the need to avoid damaging the APE's elderberry shrubs, and the possible penalties for non-compliance.
>
> **BIO-1c (Timing).** As much as feasible, all activities occurring within 165 feet of an elderberry shrub shall be conducted outside of the flight season of the VELB (March-July).
>
> **BIO-1d (Chemical Usage).** Throughout the operational life of the project, herbicides shall not be used within the dripline of elderberry shrubs, and insecticides shall not be used within 100 feet of an elderberry shrub. All chemicals shall be applied using a backpack sprayer or similar direct application method.

Implementation of the above mitigation measures would reduce project-related impacts to the VELB to a less than significant level under CEQA, and enable a May Affect, Not Likely to Adversely Affect determination for this species under Section 7 of the Endangered Species Act.

Project-Related Mortality/ Disturbance of Burrowing Owl

Although the burrowing owl is not common in the project vicinity, the APE's disturbed savanna offers marginal nesting, roosting, and foraging habitat for this species, and there is some potential for burrowing owl individuals to occur in this portion of the site. Project-related impacts in this area would be relatively minor, limited to temporary disturbance associated with construction staging and materials laydown activities. However, if burrowing owls are occupying burrows in this portion of the APE at the time of construction, owls could be vulnerable to project-related injury or mortality. Project-related injury, mortality, or disturbance of burrowing owls is considered a potentially significant impact under CEQA.

The highly maintained habitats of the fenced WWTP facility are not suitable for the burrowing owl, and no individuals of this species are expected to occur in this portion of the site.

3.5.3.2 Mitigation Measures

The following measures would be implemented for construction activities occurring in the APE's disturbed savanna habitat for Burrowing Owl:

> **BIO-2a (Take Avoidance Surveys).** Take avoidance surveys for burrowing owls shall be conducted by a qualified biologist within 30 days prior to the start of construction activities in the APE's disturbed savanna habitat. The surveys shall be conducted according to methods described in the Staff Report on Burrowing Owl Mitigation (CDFG 2012). The survey shall cover proposed work areas and adjacent lands within 200 meters, where potential nesting or roosting habitat is present ("survey area").
>
> **BIO-2b (Avoidance of Nest Burrows).** During the burrowing owl breeding season (February 1-August 31), any active nest burrows that are identified shall be avoided by a minimum distance of 200 meters. The avoidance areas shall be enclosed with temporary fencing to prevent encroachment by construction equipment and workers. Buffers shall remain in place for the duration of the breeding season, unless otherwise arranged with CDFW. After the breeding season, passive relocation of any remaining owls may take place as described below.
>
> **BIO-2c (Avoidance or Passive Relocation of Resident Owls).** During the non-breeding season (September 1-January 31), resident owls occupying burrows in the APE's disturbed savanna habitat shall either be avoided or passively relocated to alternative habitat. If avoidance is elected, a 50-meter no-disturbance buffer shall be established around the occupied burrows, to remain in place until a qualified biologist determines that the burrows are no longer active. If the applicant chooses to passively relocate resident owls, this activity shall be conducted in accordance with a relocation plan prepared by a qualified biologist.

Compliance with the above mitigation measures would reduce potential impacts to the burrowing owl from project-related injury, mortality, or disturbance to a less than significant level under CEQA, and will ensure that the project is in compliance with state and federal laws protecting this species

Project-Related Mortality/ Disturbance of Nesting Raptors and Migratory Birds including the Northern Harrier, Swainson's Hawk, White-tailed Kite, and Loggerhead Shrike

The Project area contains suitable nesting habitat for a number of avian species protected under the California Fish and Game Code. Trees and shrubs in the existing WWTP's developed area could be used by songbirds such as the Brewer's blackbird and northern mockingbird, and possibly also by raptors such as the red-tailed hawk. Black phoebes could utilize commercial buildings for nesting. Mourning doves could nest in the ruderal field, and killdeer could nest on the ground along the gravel roadbed. Least sandpipers could nest in the habitat surrounding the sewage treatment lagoons adjacent to the existing WWTP. If birds were found to be nesting on or adjacent to the Project site at the time of construction, Project-related activities could result in the abandonment of active nests or direct mortality to these birds. Construction activities that adversely affect the nesting success of migratory birds and raptors or result in the mortality of individual birds constitute a violation of State laws and would be considered a significant impact.

The following measures would be implemented to avoid and minimize the potential for Project-related mortality/disturbance of nesting raptors and migratory birds, as necessary.

> **BIO-3a (Avoidance).** In order to avoid impacts to nesting raptors and migratory birds, construction shall occur, where possible, outside the nesting season, or between September 1st and January 31st.
>
> **BIO-3b (Pre-construction Surveys).** If construction must occur during the nesting season (February 1 – August 31), a qualified biologist shall conduct pre-construction surveys for active raptor and migratory bird nests within 30 days of the onset of these activities. Nest surveys shall include all areas on and within 500 feet of the APE, where accessible. If no active nests are found within the survey area, no further mitigation is required.

BIO-3c (Establish Buffers). Should any active nests be discovered in or near proposed construction zones, the biologist would identify a suitable construction-free buffer around the nest. This buffer would be identified on the ground with flagging or fencing and would be maintained until a qualified biologist has determined that the young have fledged.

Compliance with the above mitigation measures would reduce impacts to nesting raptors and migratory birds to a less than significant level under CEQA and ensure compliance with federal and state laws protecting these species.

Project-Related Mortality/ Disturbance of of Roosting Bats including the Townsend's Big-eared Bat

The APE contains buildings and trees potentially suitable for roosting by a variety of native bat species including the Townsend's big-eared bat (Corynorhinus townsendii), a California Species of Special Concern. Project-related tree removal and building demolition/relocation have the potential to impact any bats roosting within. If bat maternity colonies are present, many individual bats could be killed. Such a mortality event would be considered a significant impact of the project under CEQA.

The following measures would be implemented to avoid and minimize the potential for project-related mortality/disturbance of roosting bats.

3.5.3.3 Mitigation Measures

The following measures would be implemented to avoid and minimize the potential for project-related mortality/disturbance of roosting bats.

BIO-4a (Temporal Avoidance). To avoid potential impacts to maternity bat roosts, tree removal and building demolition/relocation shall occur outside of the period between April 1 and September 30, the time frame within which colony-nesting bats generally assemble, give birth, nurse their young, and ultimately disperse.

BIO-4b (Preconstruction Surveys). If tree removal or building demolition/relocation must occur between April 1 and September 30, then within 30 days prior to these activities, a qualified biologist shall survey the affected features for roosting bats. The biologist shall look for individuals, guano, and staining, and shall listen for bat vocalizations. If necessary, the biologist shall wait for nighttime emergence of bats from roost sites. If no bats are observed to be roosting or breeding, then no further action would be required, and the activities could proceed.

BIO-4c (Minimization). If a non-breeding bat colony is detected in any of the trees or buildings to be removed, the individuals shall be humanely evicted under the direction of a qualified biologist to ensure that bats are not harmed by these activities.

BIO-4d (Avoidance of Maternity Roosts). If a maternity colony is detected in any of the trees or buildings to be removed, the biologist shall identify a suitable disturbance-free buffer around the colony. The buffer shall remain in place until the biologist determines that the nursery is no longer active.

Compliance with the above mitigation measures would reduce potential impacts to roosting bats from construction-related injury, mortality, or disturbance to a less than significant level under CEQA.

Project-Related Impacts to Loss of Habitat for Special Status Plants

Fifteen special status vascular plant species are known to occur within the Project vicinity (see **Table 3-9**). These species include Butte County Meadowfoam (*Limnanthes floccosa* ssp. *californica*), Slender Orcutt Grass (*Orcuttia tenuis*), Greene's Tuctoria (*Tuctoria greenei*), Big-scale Balsamroot, (*Balsamorhiza macrolepis*), Pink Creamsacs (*Castilleja rubicundula* var. *rubicundula*), Mosquin's Clarkia (*Clarkia mosquinii*), Recurved Larkspur

(*Delphinium recurvatum*), Adobe-lily (*Fritillaria pluriflora*), Wooly Rose-mallow (*Hibiscus lasiocarpos* var *occidentalis*), Ahart's Dwarf Rush (*Juncus leiospermus* var. *ahartii*), Red Bluff Dwarf Rush (*Juncus leiospermus* var. *leiospermus*), Baker's Navarretia (*Navarretia leucocephala* ssp. *bakeri*), Ahart's Paronychia (*Paronychia ahartii*), Sanford's Arrowhead (*Sagittaria sanfordii*), and Butte County Golden Clover (*Trifolium jokerstii*). Due to habitat loss or degradation associated with the high level of human disturbance onsite, the absence of any historical suitable habitat, and/or the location of the site being outside a particular species' range, none of these species are expected to occur onsite. Therefore, the Project would be unlikely to affect regional populations of these species and impacts would be less than significant. Mitigation measures are not warranted. (**Appendix B**)

Project-Related Impacts to Loss of Habitat for Special Status Animals

As discussed, the APE has the potential to be used in some form by a number of special status animal species. Although in some cases these animals may be vulnerable to construction-related injury or mortality , the project would not result in substantial loss or degradation of habitat for any special status animal. Because the project would avoid blue elderberry shrubs by a minimum distance of 20 feet, no VELB habitat would be lost. The APE's disturbed savanna habitat, which may be used for nesting, roosting, and/or foraging by a variety of special status animals, would experience temporary disturbance associated with construction staging and materials laydown, but is expected to return to its former level of suitability after construction. For the few special status animals that have the potential to occur within the fenced WWTP facility, a small amount of low-quality habitat may be lost as a result of the project – for example, buildings presently suitable for roosting by the Townsend's big-eared bat may be removed – but similar or higher quality habitat would remain available elsewhere in the APE and project vicinity. For these reasons, project-related loss of special status animal habitat is considered a less than significant impact. Mitigation is not warranted

Project-Related Impacts to Special Status Animal Species Absent From or Unlikely to Occur Within the Project Area

Of the 29 special status animal species that have the potential to occur in the project vicinity, 16 are considered absent or unlikely to occur on site due to past and ongoing disturbance of the site and surrounding lands, the absence of suitable habitat, and/or the distance of the site from the known distribution of the species. These species include the vernal pool fairy shrimp (Branchinecta lynchi), vernal pool tadpole shrimp (Lepidurus packardi), delta smelt (Hypomesus transpacificus), steelhead – Central Valley DPS (Oncorhynchus mykiss irideus pop. 11), chinook salmon – Central Valley spring-run ESU (Oncorhynchus tshawytscha pop. 6), foothill yellow-legged frog (Rana boylii), California red-legged frog (Rana aurora draytonii), giant garter snake (Thamnophis gigas), yellow-billed cuckoo (Coccyzus americanus), bald eagle (Haliaeetus leucocephalus), California black rail (Laterallus jamaicensis coturniculus), bank swallow (Riparia riparia), least Bell's vireo (Vireo belii pusillus), western spadefoot (Spea hammondii), coast horned lizard (Phrynosoma blainvillii), and western pond turtle (Emys marmorata) (see **Table 3-10**). Since there is little to no likelihood that these species would occur onsite, Project implementation is not likely to adversely affect these species, and Project-related impacts are considered less than significant. Mitigation measures are not warranted. (**Appendix B**)

Project-Related Impacts to Special Status Animal Species That May Occur Onsite as Occasional or Regular Foragers but Breed Elsewhere

Five special status animal species, the tricolored blackbird (Agelaius tricolor), greater sandhill crane (Antigone canadensis tabida), golden eagle (Aquila chrysaetos), yellow warbler (Setophaga petechia), and western mastiff bat (Eumops perotis californicus), have the potential to forage on the site from time to time but are unlikely to breed, nest, or roost on-site(see **Table 3-10**). Neither species would be vulnerable to construction-related injury or mortality while foraging because they are highly mobile foragers, and would be expected to avoid active construction zones.

A sixth such species, the monarch butterfly (Danaus plexippus), may forage or roost on the APE during migration events, but would not breed or overwinter on site. None of these species would be vulnerable to construction-related injury or mortality because their use of the APE would be limited to activities in which they maintain a high level of mobility. Individuals of these species would be expected to avoid active

construction zones. Thus, loss of foraging habitat for these species due to Project impacts would be considered less than significant. Mitigation measures are not warranted. (**Appendix B**)

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

No Impact. The Project site and surrounding areas do not contain riparian habitat, designated critical habitat, or natural communities of special concern. There are no known adopted Habitat Conservation Plans in the Project vicinity. Therefore, there would be no impact.

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

Less than Significant Impact with Mitigation Incorporated. Although jurisdictional waters, wetlands, and other protected water features are absent from the Project site, Project-related activities could potentially impact downstream waters.

Degradation of Water Quality in Seasonal Drainages and Downstream Waters

Extensive ground disturbance associated with construction projects often leaves the soils of construction zones barren of vegetation and, therefore, vulnerable to erosion. Eroded soil is generally carried as sediment in surface runoff to be deposited in natural creek beds, canals, and adjacent wetlands. Runoff is often polluted with grease, oil, pesticide and herbicide residues, and/or heavy metals.

The proposed project anticipates decreasing the nitrate levels of the treated effluent that enters the Feather River, thereby increasing the water quality downstream of the existing WWTP discharge location. However, water quality of downstream waters could be significantly impacted by construction activities occurring within the Project area. Runoff could enter the ditch to the west of the site or make its way to this ditch system from other areas within the site, and degrade water quality of the Feather River. Degradation of water quality in these downstream waters as a result of project construction would be considered a potentially significant impact.

3.5.3.4 Mitigation Measure

The following measures would be implemented to prevent sedimentation and degradation of downstream waters.

> **BIO-5a (Erosion Control Measures).** The applicant shall define the limits of any construction within the Project area. Wattles or other appropriate erosion controls shall be placed between ground-disturbing activities and areas where sedimentation could flow out of the site.
>
> **BIO-5b (Storm Water Pollution Prevention Plan).** The applicant shall arrange for the preparation of a Storm Water Pollution Prevention Plan (SWPPP) that identifies measures to prevent erosion and sedimentation from construction activities and measures to prevent contaminants from entering downstream waters. The SWPPP shall be implemented in full during project construction.
>
> **BIO-5c (Use of Best Management Practices to control soil erosion and non-point source pollution).** Best Management Practices (BMPs) shall be implemented as appropriate. BMP's may include measures in BIO-2a and BIO-2b above, and may include any number of additional measures appropriate for this particular site and this particular project, including, but not-limited to, grease traps in staging areas, regular site inspections for pollutants that could be carried by runoff into natural drainages, etc.

Implementation of the above measures will reduce potential impacts to downstream water quality to a less than significant level.

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?

Less than Significant Impact. The commercially developed area surrounding the existing WWTP to the north, east, and south results in low-quality, fragmented habitat with limited value to terrestrial wildlife. Critical winter range habitat for Butte County's three migratory deer herds does not occur within the Project site or in the immediate vicinity. Although the sewage treatment lagoons within the Project boundary may provide suitable foraging habitat for migratory songbirds, shorebirds, and bats, the Project will have no effect on the Pacific Flyway; birds using the flyway will continue to do so during and following Project implementation. Project impacts to wildlife movement corridors are considered less than significant.

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

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?

No Impacts. The Project is in compliance with the City of Oroville General Plan. The Project also appears to be in compliance with the draft Butte Regional Conservation Plan, although it has not been adopted. There would be no impact.

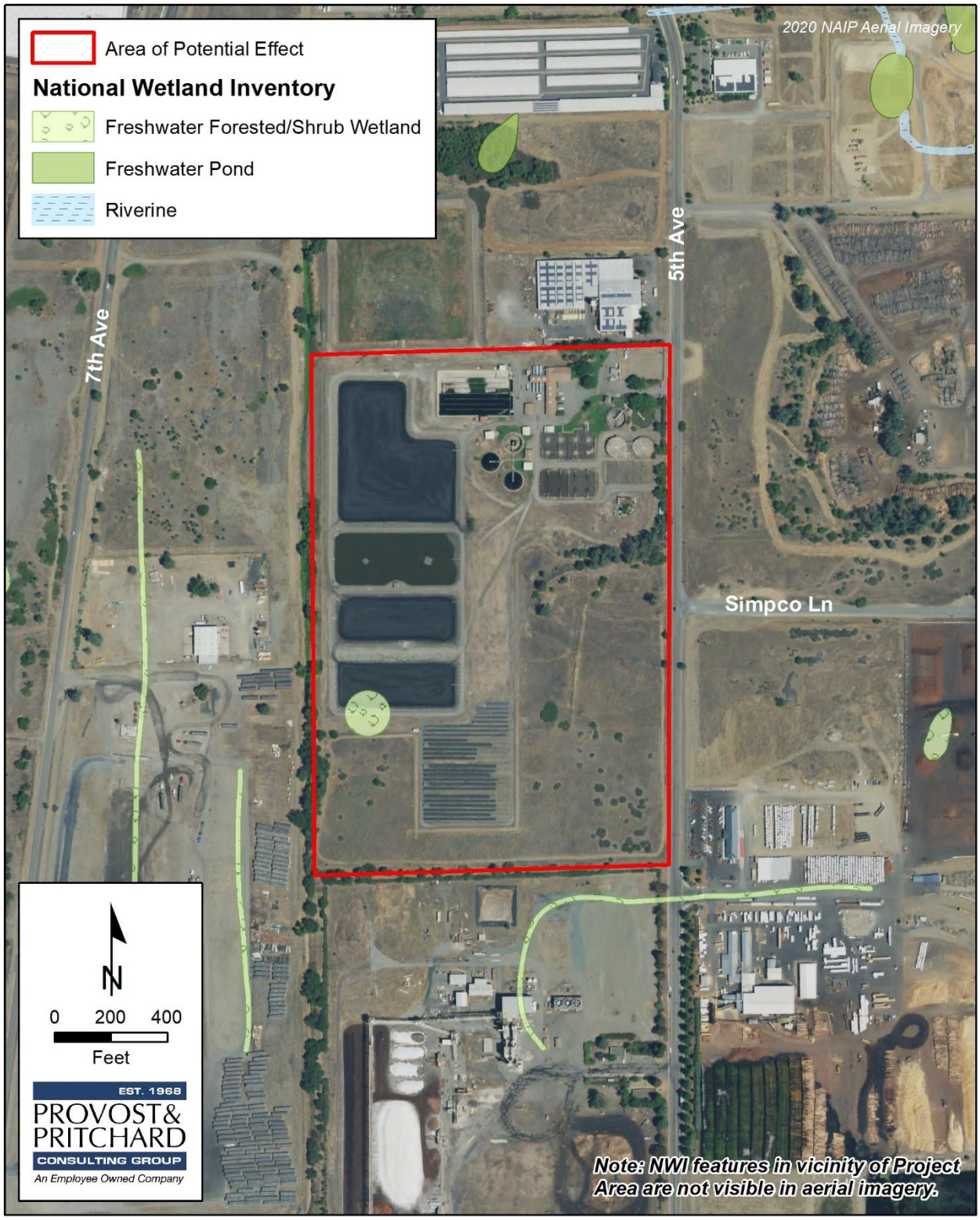

Figure 3-2. Wetlands Map

3.6 Cultural Resources

Table 3-11. Cultural Resources Impacts

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

3.6.1 Environmental Setting

"Cultural resources in Oroville include both prehistoric and historic resources in the realms of archaeology, paleontology and historic structures, sites and areas that played an important role in local history.[12]" According to the Oroville 2030 General Plan, 33 sites with prehistoric components have been located within the City of Oroville and surrounding area, including at least two known Native American burial sites. Prehistoric sites are often found along major rivers in the Sacramento Valley and along creeks and drainages in the foothills of the Sierra Nevada. The banks of the Feather River and its tributaries through Historic Downtown are known to contain prehistoric and historic archaeological resources.

The City of Oroville experienced a large influx of Euro-Americans seeking gold in 1849 during the height of the California Gold Rush. The discovery of gold along the Feather River was immediately followed by the establishment of the City and the development of residential and commercial buildings, many of which are still standing today.

3.6.1.1 Records Search

A records search from the Northeast Information Center (NEIC) of the California Historical Resources Information System (CHRIS), located at California State University, Chico was conducted in January 2020. The NEIC records search includes a review of all recorded archaeological and built-environment resources as well as a review of cultural resource reports on file. In addition, the California Points of Historical Interest (SPHI), the California Historical Landmarks (SHL), the California Register of Historical Resources (CAL REG), the National Register of Historic Places (NRHP), and the California State Built Environment Resources Directory (BERD) listings were reviewed for the above referenced APE and an additional ¼-mile radius. Due to the sensitive nature of cultural resources, archaeological site locations are not released. (**Appendix C**).

In addition to the official records and maps for archaeological sites and surveys in Butte County, the following historic references were also reviewed: Historic Property Data File for Butte County (OHP 2012); The National Register Information System (National Park Service [NPS] 2020); Office of Historic Preservation, California Historical Landmarks (OHP 2020); California Historical Landmarks (OHP 1996 and updates); California Points of Historical Interest (OHP 1992 and updates); Directory of Properties in the Historical Resources Inventory (1999); Caltrans Local Bridge Survey (Caltrans 2019); Caltrans State Bridge Survey (Caltrans 2018); and Historic

[12] Oroville 2030 General Plan. http://www.cityoforoville.org/home/showdocument?id=12188 Accessed 11 December 2018.

Spots in California (Kyle 2002). Further discussion and details of the research efforts and references can be found in **Appendix C**

3.6.1.2 Native American Outreach

The Native American Heritage Commission (NAHC) in Sacramento was also contacted in January 2020. They were provided with a brief description of the Project and a map showing its location and requested that the NAHC perform a search of the Sacred Lands File to determine if any Native American resources have been recorded in the immediate APE. The NAHC identifies, catalogs, and protects Native American cultural resources -- ancient places of special religious or social significance to Native Americans and known ancient graves and cemeteries of Native Americans on private and public lands in California. The NAHC is also charged with ensuring California Native American tribes' accessibility to ancient Native American cultural resources on public lands, overseeing the treatment and disposition of inadvertently discovered Native American human remains and burial items, and administering the California Native American Graves Protection and Repatriation Act (CalNAGPRA), among many other powers and duties. NAHC provide a current list of Native American Tribal contacts to notify of the project. The four tribal representatives identified by NAHC were contacted in writing via United States Postal Service in a letter mailed January 15, 2020, informing each Tribe of the Project. A follow up call was made February 4, 2020. Further discussion and details of the outreach efforts can be found in **Appendix C**.

3.6.1.3 Field Survey

On January 23, 2020, ECORP conducted an initial intensive pedestrian survey under the guidance of the Secretary of the Interior's Standards for the Identification of Historic Properties (NPS 1983) using transects spaced 15 meters apart. An additional intensive pedestrian survey of the expanded APE was conducted on August 4, 2021 (See **Appendix C**). During both surveys, the ground surface was examined for indications of surface or subsurface cultural resources. The general morphological characteristics of the ground surface were inspected for indications of subsurface deposits that may be manifested on the surface, such as circular depressions or ditches. Whenever possible, the locations of subsurface exposures caused by such factors as rodent activity, water or soil erosion, or vegetation disturbances were examined for artifacts or for indications of buried deposits. No subsurface investigations or artifact collections were undertaken during the pedestrian survey. The field methods employed for the pedestrian survey and impact evaluations are described in detail and the full report can be found in **Appendix C**.

3.6.1.4 Project Site Existing Conditions

The existing WWTP facility was initially constructed in 1959-1961 and has been subject to various substantial modifications from 1974 to present. Original features of the existing WWTP include the control building, chlorine building, clarifiers No. 1 and No. 2, digesters No. 1 and No. 2, and drying fields, all of which are still intact and present onsite.

The Project area consists entirely of the existing WWTP. The ground surface has been heavily disturbed by previous grading, subterranean excavations, and the above- and below-ground construction of existing facilities. No archaeological resources were identified by the ECORP archaeologist during the field survey of the Project area. The origin of all existing structures can be traced to 1959-1961 or 1974 to present. Original structures, constructed during 1959-1961, were evaluated for historical significance, and according to the cultural resources reports in **Appendix C**, none of the existing structures were deemed eligible for inclusion in the California Register of Historical Resources under any of the relevant criteria. No part of the site is considered a significant historical resource or unique archaeological resource.

3.6.2 Regulatory Setting

3.6.2.1 Federal

National Historic Preservation Act of 1966 (as amended), Section 106: The significance of cultural resources is evaluated under the criteria for inclusion in the National Register of Historic Places (NRHP), authorized under the National Historic Preservation Act of 1966, as amended.

Significant impacts under CEQA occur when "historically significant" or "unique" cultural resources are adversely affected, which occurs when such resources could be altered or destroyed through project implementation. Historically significant cultural resources are defined by eligibility for or by listing in the California Register of Historical Resources (CRHR). In practice, the federal NRHP criteria (see below) for significance applied under Section 106 are generally (although not entirely) consistent with CRHR criteria (see PRC Section 5024.1; Title 14 CCR, Sections 4852 and 15064.5(a)(3)).

Significant cultural resources are those archaeological resources and historical properties that:

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

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

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

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

Unique resources under CEQA, in slight contrast, are those that represent:

> An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:
>
> (1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
>
> (2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.
>
> (3) Is directly associated with a scientifically recognized important prehistoric or historic event or person (PRC Section 21083.2(g)).

Preservation in place is the preferred approach under CEQA to mitigating adverse impacts to significant or unique cultural resources. Sites listed or eligible for listing on the NRHP are considered to be historic properties. Sites younger than 50 years, unless of exceptional importance, are not eligible for listing in the NRHP.

American Indian Religious Freedom Act

The American Indian Religious Freedom Act, a federal law and joint resolution of Congress was created to protect and preserve the traditional religious rights and cultural practices of American Indians, Eskimos, Aleuts and Native Hawaiians. These rights include, but are not limited to, access of sacred sites, repatriation of sacred objects held in museums, freedom to worship through ceremonial and traditional rites, including within prisons, and use and possession of objects considered sacred.

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act requires federal agencies and institutions that receive federal funding to return Native American cultural items to lineal descendants and culturally affiliated Indian tribes and Native Hawaiian organizations. Cultural items include human remains, funerary objects, sacred objects, and objects of cultural patrimony.

3.6.2.2 State

CEQA requires consideration of project impacts on archaeological or historical sites deemed to be "historical resources." Under CEQA, a substantial adverse change in the significant qualities of a historical resource is considered a significant effect on the environment. For the purposes of CEQA, a "historical resource" is a resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources (Title 14 CCR Section15064.5[a][1]-[3]). Historical resources may include, but are not limited to, "any object, building, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (PRC Section 5020.1[j]).

The eligibility criteria for the California Register are the definitive criteria for assessing the significance of historical resources for the purposes of CEQA (Office of Historic Preservation.). The criteria for a resource to be considered "historically significant" for listing on the California Register is demonstrated below.
A resource is considered "historically significant" if it meets one or more of the following criteria for listing on the California Register:

- *Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.*
- *Is associated with the lives of persons important in our past.*
- *Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.*
- *Has yielded, or may be likely to yield, information important in prehistory or history. (PRC Section5024.1[c])*

California Health and Safety Code: Health and Safety Code Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the County coroner can determine whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the California Native American Heritage Commission. PRC Section 5097.98 specifies the procedures to be followed in case of the discovery of human remains on non-federal land. The disposition of Native American burials is within the jurisdiction of the Native American Heritage Commission.

Paleontological Resources: Paleontological resources are the fossilized remains of plants and animals and associated deposits. The Society of Vertebrate Paleontology has identified vertebrate fossils, their taphonomic and associated environmental indicators, and fossiliferous deposits as significant nonrenewable paleontological resources. Botanical and invertebrate fossils and assemblages may also be considered significant resources[13].CEQA requires that a determination be made as to whether a project would directly or indirectly destroy a unique paleontological resource or site or unique geological feature (CEQA Appendix G(v)(c)). If an impact is significant, CEQA requires feasible measures to minimize the impact (CCR Title 14(3) Section 15126.4(a)(1)). PRC Section 5097.5 (see above) also applies to paleontological resources.

[13] Society of Vertebrate Paleontology. Conformable Impact Mitigation Guidelines Committee Policy Statements. http://www.vertpaleo.org/ConformableImpactMitigationGuidelinesCommittee.htm.

3.6.2.3 Local

Oroville 2030 General Plan[14]: The Oroville 2030 General Plan sets for the following goals and policies that protect cultural resources of the City and which have potential relevance to the Project's CEQA review:

Goal OPS-14: Preserve Oroville's cultural resources, including archaeological, historic and paleontological resources, for their aesthetic, scientific, educational and cultural values.

Policy P14.1: Require consultation with the Northeast Information Center of the California Historical Resources Information System and completion of a records search as part of review of proposed development projects to determine whether the project site contains known prehistoric or historic cultural resources and/or to determine the potential for discovery of additional cultural resources and the necessity of further investigation.

Policy P14.3: Require that areas found during construction to contain significant historic or prehistoric archaeologic artifacts be examined by a qualified archaeologist or historian for appropriate protection and preservation. Require that historic or prehistoric artifacts found during construction be examined by a qualified archaeologist to determine their significance and develop appropriate protection and preservation measures as necessary.

Policy P14.4: For projects involving federal land, or requiring permission (including review by the U.S. Army Corps of Engineers) or funding, work with applicants to meet appropriate criteria for cultural resources review, prior to commencement of work.

Policy P14.7: If cultural resources, including archaeological or paleontological resources, are uncovered during grading or other on-site excavation activities, construction shall stop until appropriate mitigation is implemented.

Policy P14.8: If human remains are located during any ground disturbing activity, work shall stop until the County Coroner has been contacted, and, if the human remains are determined to be of Native American origin, the NAHC and most likely descendant have been consulted.

Policy P15.1: Treat with respect and dignity and human remains discovered during implementation of public and private projects within the Planning Area and fully comply with the California Native American Graves Protection and Repatriation Act and other appropriate laws.

3.6.3 Impact Assessment

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

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

Less than Significant Impacts with Mitigation Incorporated. In January of 2020, ECORP conducted an initial intensive pedestrian survey under the guidance of the Secretary of the Interior's Standards for the Identification of Historic Properties (NPS 1983) using transects spaced 15 meters apart. An additional intensive pedestrian survey of the expanded APE was conducted on August 4, 2021 (See **Appendix C**). A record search was conducted at the Northeast Information Center of the California Historical Resources Information System, California State University, Chico prior to the survey. A record search of the Native American Heritage

[14] Oroville 2030 General Plan. http://www.cityoforoville.org/home/showdocument?id=12187 Accessed 7 December 2018.

Commission (NAHC) Sacred Lands File was also conducted, which resulted in a declaration that no sacred sites or tribal cultural resources are known to exist within the Project site or in the vicinity.

ECORP identified three cultural resources on the property as a result of the records search and field survey: Oroville Dredge Tailings (P-04-1345), the Oroville WWTP (OW-001), and an electrical distribution line (OW-002). The Oroville Dredge Tailings were confirmed through field survey to have been removed or redistributed within the APE and lacks integrity. The Oroville WWTP was evaluated as not eligible for the NRHP and CRHR. The distribution line was evaluated as not eligible for the NRHP and CRHR. Therefore, no Historic Properties under Section 106 of the NHPA or Historical Resources under CEQA would be affected by the Proposed Project. Until the lead agencies concur with the identification and evaluation of eligibility of cultural resources, no Project activity should occur. (See **Appendix C)**

Figure 3-3. Southwest view of Resource OW-001 - 1950's building located at the plant

Figure 3-4. Southwest view of Resource OW-001 – 1950's tank located at the plant

Figure 3-5. West view of Resource OW-001 - 1970s aeration basin located on plant

Figure 3-6. Northwest view of Resource OW-001 - 1970s main office located at the plant

The potential for buried cultural resources exists within the Project Area. Pre-contact archaeological sites are likely to be located along perennial waterways, and a known village site was mapped in the vicinity of the Project Area. Such sites may have been buried by alluvium from the Feather River or the dredge tailings from the historic period; therefore, there exists the potential for buried pre-contact sites in the Project Area as well. Mitigation Measures **CUL-1a and CUL-1b,** as outlined below, would be implemented and reduce any impacts to less than significant upon discovery of any unknow existing historical or archaeological resources.

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

Less than Significant Impact with Mitigation Incorporated. No formal cemeteries or other places of human internment are known to exist on the Project site; however, in accordance with Health and Safety Code

Section 7050.5 and Public Resource Code Section 5097.98, if human remains are uncovered, Mitigation Measure **CUL-1c** would be implemented and reduce any impacts to less than significant.

3.6.3.1 Mitigation.

The following mitigation measures would be implemented in the event suspected cultural resources or human remains are discovered during ground disturbing construction activity:

Mitigation CUL-1a (Subsurface Deposits). If subsurface deposits believed to be cultural or human in origin are discovered during construction, all work shall halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for pre-contact and historic archaeologist, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find: (If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required.)

Mitigation CUL-1b (Archaeological Resources). If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, he or she shall immediately notify SC-OR and USDA. The agencies shall consult on a finding of eligibility and implement appropriate treatment measures if the find is determined to be a Historical Resource under CEQA or a Historic Property under Section 106. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not a Historical Resource under CEQA or Historic Property under Section 106; or 2) that the treatment measures have been completed to their satisfaction.

Mitigation CUL-1c (Human or Potentially human remains). If the find includes human remains, or remains that are potentially human, he or she shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). The archaeologist shall notify the Butte County Coroner (per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California PRC and AB 2641 will be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner will notify the NAHC, who then will designate a Native American Most Likely Descendant (MLD) for the project (§ 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC may mediate (§ 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This shall also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

3.7 Energy

Table 3-12 Energy Impacts

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

3.7.1 Environmental Setting and Baseline Conditions

Power is already available at the site to operate the various facilities and will continue to be provided by Pacific Gas & Electric.

3.7.2 Impact Assessment

a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? and,

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less than Significant Impacts. The existing WWTP utilizes energy to operate the plant as a required public facility. Project would utilize current state-of-the-art facilities to provide the needed upgrades, and as such they are anticipated to be more energy efficient and sustainable than the aging or obsolete equipment they are replacing. Thus, energy use during operation would be similar to, or less than, existing conditions. Construction of the Project would require energy use, but this use would not be wasteful or inefficient, nor would it require new or expanded electric power or natural gas facilities. No features of the Project would conflict with or obstruct state or local plans for renewable energy or energy efficiency. The Project would not require the relocation or construction of new or expanded electric or natural gas power generating facilities. The impact on energy use and energy plans would be less than significant.

3.8 Geology and Soils

Table 3-13. Geology and Soils Impacts

Geology and Soils				
Would the project:	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the most recently adopted Uniform Building Code creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geological resource or site or unique geologic feature?	☐	☐	☐	☒

3.8.1 Environmental Setting

Using the USDA NRCS soil survey of Butte and Plumas Counties, a report of the onsite soils was generated and is provided in **Appendix D**

3.8.1.1 Geology and Soils

The Project is located in southern Butte County, northern California, in the northern section of California's Great Valley geomorphic province, or Central Valley. The Sacramento Valley, which contains the Project, encompasses the northern third while the San Joaquin Valley comprises the southern two-thirds of the Great Valley. The Sacramento Valley is primarily watered by the Sacramento River, which flows west from the Sierra

Nevada Range and the Feather River, in the Project's vicinity, is the principal tributary to the Sacramento River. Most of the surface of the Great Valley is covered by Quaternary (present day to 1.6 million years ago) alluvium.

Butte County is comprised of three geologic areas: the valley region, the foothill region, and the mountain region. The Project lies within the valley region, which covers approximately 45% of Butte County. This region consists predominantly of marine sedimentary rocks and continentally-derived sediments underlain by granite and metamorphic bedrock. [15]

Soil onsite is primarily comprised of Xerorthents, tailings- Urban land complex, 0 to 2 percent slopes. (See Custom Soil Resource Report in **Appendix D**.) Urban land complex refers to developed urban land, such as pavement, cement, buildings, or infrastructure, while Xerorthents refers to man-modified material such as soils rearranged in a cut and fill or as tailings heaps. In a general sense, tailings are waste from mining activities, which often contain trace residual minerals. These tailings can then be chemically treated, recycled, and utilized as construction materials. The term tailings also encompass leftover material from rock-crushing activities and is often used as an aggregate in asphalt paving or a bank stabilization method during construction. Tailings vary in size from a fine-grain to a large cobble and in their larger form are frequently used as landscaping rock or an alternative to gravel.

Historical gold mining operations along the Feather River created deposits of mine tailings, many of which have been dispersed by development activities or carried downstream. However, some areas adjacent to Feather River may contain residual undisturbed deposits from nineteenth century mining practices.[16] It is unknown if the tailings reported onsite by the NRCS Custom Soil Resource Report are resultant from mining operations or recycled construction materials.

3.8.1.2 Faults and Seismicity

The Project site is not located within an Alquist-Priolo Earthquake Fault Zone and no known faults cut through the local soil at the site. The nearest major fault is the Maacama Fault, located approximately 87 miles south-southwest of the Project site. The Maacama fault is the northward continuation of the Hayward-Rodgers Creek fault system in northern California. The Cleveland Hill Fault, a northern reach of the Foothills Fault System, is approximately 6 miles east of the site.

3.8.1.3 Liquefaction

The potential for liquefaction, which is the loss of soil strength due to seismic forces, is dependent on soil types and density, the groundwater table, and the duration and intensity of ground shaking. Liquefaction is restricted to certain geologic and hydrologic conditions, and areas with high groundwater levels and recently deposited silt and sand are especially susceptible. In Butte County, areas of liquefiable soil can be found on the valley floor, especially near the Sacramento and Feather Rivers and tributaries. The Project site is mapped as an area with generally moderate liquefaction potential, according to the Butte County 2030 General Plan EIR.[17]

3.8.1.4 Soil Subsidence

Subsidence occurs when a large land area settles due to over-saturation or extensive withdrawal of groundwater, oil, or natural gas. These areas are typically composed of open-textured soils that become saturated. These areas are high in silt or clay content. The Project site is dominated by Xerothents, tailings-Urban land complex soil. There are no areas within Butte County with recorded historic or current subsidence. Given the shallow depth of the groundwater table in the County, the risk of subsidence is understood to be low.

[15] Butte County 2030 General Plan EIR. http://www.buttegeneralplan.net/products/2010-08-30_FEIR/default.asp Accessed 1 November 2018.
[16] City of Oroville 2030 General Plan. http://www.cityoforoville.org/home/showdocument?id=12188 Accessed 27 November 2018.
[17] Butte County 2030 General Plan EIR. Figure SAF-1. Page 9-3.

3.8.1.5 Dam and Levee Failure

Lake Oroville is located approximately 5.5 miles northeast of the Project site and is inside of the inundation zone, in the instance of dam failure.

3.8.2 Regulatory Setting

3.8.2.1 Federal

There are no federal regulations regarding geology and soils applicable to the Project.

3.8.2.2 State

California Alquist-Priolo Earthquake Fault Zoning Act: The Alquist-Priolo Earthquake Fault Zoning Act (originally enacted in 1972 and renamed in 1994) is intended to reduce the risk to life and property from surface fault rupture during earthquakes. The statute prohibits the location of most types of structures intended for human occupancy across the traces of active faults and regulates construction in the corridors along active faults.

California Building Standards Code: The California Code of Regulations (CCR) Title 24 is assigned to the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. The California Building Code incorporates by reference the International Building Code with necessary California amendments. The International Building Code is a widely-adopted model building code in the United States published by the International Code Council. About one-third of the text within the California Building Standards Code has been tailored for California earthquake conditions.

3.8.2.3 Local

Oroville 2030 General Plan: The Oroville 2030 General Plan contains several goals and policies relating to geology, soils, and seismic hazards; however, none are relevant to this Project's CEQA review.

3.8.3 Impact Assessment

a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

a-i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42? and,

a-ii) Strong seismic ground shaking?

Less than Significant Impacts. Although the Project site is not located in an Alquist-Priolo Earthquake Fault Zone as established by the Alquist-Priolo Fault Zoning Act (Section 2622 of Chapter 7.5, Division 2 of the California Public Resources Code), nearby potentially active faults could generate ground shaking. The nearest major fault is the Maacama Fault, located approximately 87 miles south-southwest of the Project site. The Cleveland Hill Fault, a northern reach of the Foothills Fault System, is approximately 6 miles east of the site. The Project involves improvements to an existing WWTP and does not include the development of habitable or residential structures. Development of additional structures at the existing WWTP would be limited to small buildings used to house equipment. Furthermore, the development of all structures would be consistent with the requirements set forth in the California Building Standards Code, which sets procedures and limitations for design of structures based on seismic risk, and which would ensure that the design and construction of these structures are engineered to withstand the expected ground acceleration that could occur in the vicinity. Operation and maintenance staff at the existing WWTP will be unchanged from current site operations; therefore, implementation of the Project would not result in an increase of people onsite. Any impact would be less than significant.

a-iii) Seismic-related ground failure, including liquefaction?

Less than Significant Impact. Liquefaction occurs when loose, water-saturated sediments lose strength and fail during strong ground shaking. The Project site is mapped as an area with generally moderate liquefaction potential, according to the Butte County 2030 General Plan EIR.[18] However, as stated above in a-i and a-ii, the Project involves improvements to an existing WWTP and does not include the development of habitable or residential structures. Operation and maintenance staff at the existing WWTP would be unchanged from current site operations; therefore, implementation of the Project would not result in an increase of people onsite. Any impact would be less than significant.

a-iv) Landslides?

No Impact. The Project involves improvements to an existing WWTP within the City of Oroville. As the Project is located on the Valley floor in an area with essentially flat and level topography, no major geologic landforms exist on or near the site that could result in a landslide event. In addition, the Project site is mapped in an area with minimal to no landslide potential, according to the Butte County 2030 General Plan.[19] Furthermore, as stated above in Impact Assessments a-i-iii, the Project does not involve the development of habitable structures and would not result in an increase of people onsite. Given the nature of the Project and the low potential for a landslide event in the vicinity, there would be no impact.

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

b) Less than Significant Impact. The Project involves improvements to an existing WWTP. Since the site is currently developed and comprised of man-modified materials on essentially level terrain, the potential for erosion is minimal. However, earthmoving activities associated with the Project would include excavation, grading, trenching, and infrastructure construction, which could potentially expose soils to erosion processes. The extent of erosion would vary depending on slope steepness/stability, vegetation/cover, concentration of runoff, and weather conditions. Dischargers whose projects disturb one (1) or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity Construction General Permit Order 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading and disturbances to the ground such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development of a Storm Water Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer (QSD). Since the Project site has relatively flat terrain with a low potential for soil erosion and would comply with the SWRCB requirements, the impact would be less than significant.

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

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

Less than Significant Impacts. The Project involves improvements to an existing WWTP. The site is currently developed and comprised of man-modified materials on essentially level terrain. Risk of landslides, lateral spreading, subsidence, liquefaction, and collapse are minimal. The Project does not propose significant alteration of the topography of the site and it does not involve development of habitable structures or facilities that could be affected by expansive soils or expose people to substantial risks to life or property. Furthermore,

[18] Ibid. Figure SAF-1. Page 9-3.
[19] Butte County 2030 General Plan. Figure HS-6. Page 11-34. http://www.buttecounty.net/Portals/10/Planning/General%20Plan/2018%20Updated%20GP/11_Health_Safety_PRR.pdf Accessed 27 November 2018.

the Project would be consistent with the California Building Standards Code. Any impacts would be less than significant.

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. Septic installation or alternative wastewater disposal systems are not proposed nor necessary for the project. There would be no impact.

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

Less than Significant Impact. There are no known unique paleontological resources/sites or unique geologic features present on the Project site. Barring any evidence to the contrary it is not anticipated that the Project would directly or indirectly destroy a unique paleontological resource or site or unique geological feature. Construction activities associated with the Project are not expected to be conducted significantly below grade, at a level where they would have the potential to disturb any previously unknown paleontological resources or geologic features. Impacts would be less than significant.

3.9 Greenhouse Gas Emissions

Table 3-14. Greenhouse Gas Emissions Impacts

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

3.9.1 Environmental Setting

The Earth's climate has been warming for the past century. It is believed that this warming trend is related to the release of certain gases into the atmosphere. Greenhouse gases (GHG) absorb infrared energy that would otherwise escape from the Earth. As the infrared energy is absorbed, the air surrounding the Earth is heated. An overall warming trend has been recorded since the late 19th century, with the most rapid warming occurring over the past two decades. The 10 warmest years of the last century all occurred within the last 15 years. It appears that the decade of the 1990s was the warmest in human history (National Oceanic and Atmospheric Administration, 2010). Human activities have been attributed to an increase in the atmospheric abundance of greenhouse gases. The following is a brief description of the most commonly recognized GHGs.

Adopted March 31, 2015, The City of Oroville Community Climate Action Plan[20] was developed with the purpose of reducing GHG emissions to 11% below 2010 levels. This goal is referred to as the 2020 emissions reduction target. Oroville's 2010 community GHG emissions inventory serves as a starting point for emissions projections and forms the foundation for climate action planning efforts in the City. In 2010, Oroville generated approximately 163,000 $MTCO_2e$, which comprised less than 1% of California's GHG emissions for that year. According to Oroville's 2010 GHG emissions inventory, on-road transportation accounts for 47.8% of total emissions and the building energy sector accounts for 46%. In contrast, wastewater treatment accounted for 0.8% of the total GHG emissions. [21]

3.9.1.1 Greenhouse Gases

Commonly identified GHG emissions and sources include the following:

Carbon dioxide (CO_2) is an odorless, colorless natural greenhouse gas. CO_2 is emitted from natural and anthropogenic sources. Natural sources include the following: decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic out gassing. Anthropogenic sources include the burning of coal, oil, natural gas, and wood.

Methane (CH_4) is a flammable greenhouse gas. A natural source of methane is the anaerobic decay of organic matter. Geological deposits, known as natural gas fields, also contain methane, which is extracted for fuel. Other sources are from landfills, fermentation of manure, and ruminants such as cattle.

[20] City of Oroville Community Climate Action Plan. http://www.cityoforoville.org/home/showdocument?id=12191 Accessed 2 November 2018.
[21] Ibid.. Table 2-1.

Nitrous oxide (N_2O), also known as laughing gas, is a colorless greenhouse gas. Nitrous oxide is produced by microbial processes in soil and water, including those reactions that occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load.

Water vapor is the most abundant, and variable greenhouse gas. It is not considered a pollutant; in the atmosphere, it maintains a climate necessary for life.

Ozone (O_3) is known as a photochemical pollutant and is a greenhouse gas; however, unlike other greenhouse gases, ozone in the troposphere is relatively short-lived and, therefore, is not global in nature. Ozone is not emitted directly into the atmosphere but is formed by a complex series of chemical reactions between volatile organic compounds, nitrogen oxides, and sunlight.

Aerosols are suspensions of particulate matter in a gas emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light.

Chlorofluorocarbons (CFCs) are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). CFCs were first synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. CFCs destroy stratospheric ozone; therefore, their production was stopped as required by the Montreal Protocol in 1987.

Hydrofluorocarbons (HFCs) are synthetic chemicals that are used as a substitute for CFCs. Of all the greenhouse gases, HFCs are one of three groups (the other two are perfluorocarbons and sulfur hexafluoride) with the highest global warming potential. HFCs are human-made for applications such as air conditioners and refrigerants.

Perfluorocarbons (PFCs) have stable molecular structures and do not break down through the chemical processes in the lower atmosphere; therefore, PFCs have long atmospheric lifetimes, between 10,000 and 50,000 years. The two main sources of PFCs are primary aluminum production and semiconductor manufacture.

Sulfur hexafluoride (SF_6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It has the highest global warming potential of any gas evaluated. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

3.9.1.2 Effects of Climate Change

There are uncertainties as to exactly what the climate changes will be in various local areas of the earth, and what the effects of clouds will be in determining the rate at which the mean temperature will increase. There are also uncertainties associated with the magnitude and timing of other consequences of a warmer planet: sea level rise, spread of certain diseases out of their usual geographic range, the effect on agricultural production, water supply, sustainability of ecosystems, increased strength and frequency of storms, extreme heat events, air pollution episodes, and the consequence of these effects on the economy.

Emissions of GHGs contributing to global climate change are largely attributable to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. About three-quarters of human emissions of CO_2 to the global atmosphere during the past 20 years are due to fossil fuel burning. Atmospheric concentrations of CO_2, CH_4, and N_2O have increased 31 percent, 151 percent, and 17 percent respectively since the year 1750 (CEC 2008). GHG emissions are typically expressed in carbon dioxide-equivalents (CO_2e), based on the GHG's Global Warming Potential (GWP). The GWP is dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. For example, one ton of CH_4 has the same contribution to the greenhouse effect as approximately 21 tons of CO_2. Therefore, CH_4 is a much more potent GHG than CO_2.

3.9.2 Methodology

An Air Quality and Greenhouse Gas Emissions Evaluation Report, **Appendix A**, was prepared in November 2018. The sections below detail the methodology of the report and its conclusions.

3.9.2.1 Short-Term Construction-Generated Emissions

Short-term construction emissions associated with the Project were calculated using CalEEmod, Version 2016.3.2. Emissions' modeling was assumed to occur over an approximate 18-month period and covering a site area of approximately 2 acres. Remaining assumptions were based on the default parameters contained in the model. Modeling assumptions and output files are included in **Appendix A**.

3.9.2.2 Long-Term Operational Emissions

Since the Project involves improvements to an existing WWTP, long-term operational emissions associated with the Project will be essentially unchanged from existing baseline conditions. However, operational emissions were calculated using CalEEmod, Version 2016.3.2. Worker and vendor commute trips will be unchanged, as no additional long-term operational nor maintenance staff will be required. Stationary sources and operational equipment will be similar to those currently present in the existing facility. The Project proposes replacement and upgrades to aged or obsolete equipment, which would result in energy efficiency and a reduction in emissions.

3.9.2.3 Thresholds of Significance

CEQA Guidelines Amendments became effective March 18, 2010. Included in the Amendments are revisions to the Appendix G Initial Study Checklist. In accordance with these Amendments, a project would be considered to have a significant impact to climate change if it would:

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or,
b. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

BCAQMD has not established numeric standards as thresholds of significance for GHG. However, the BCAQMD's *CEQA Air Quality Handbook: Guidelines for Assessing Air Quality and Greenhouse Gas Impacts for Projects Subject to CEQA Review*[22] states that projects consistent with the goals of AB 32 and/or in compliance with an approved GHG reduction plan, such as the City of Oroville Community Climate Action Plan, would be determined to have a less than significant impact upon global climate change.

Bay Area Air Quality Management District's Thresholds for Significance

Bay Area Air Quality Management District's approach to developing a threshold of significance for GHG emissions is to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce Statewide GHG emissions. If a project would generate GHG emissions above the threshold level, it would be considered to contribute substantially to a cumulative impact, and would be considered significant. If mitigation can be applied to lessen the emissions such that the project meets its share of emission reductions needed to address the cumulative impact, the project would normally be considered less than significant. Although the Project is not located in the Bay Area, the Bay Area Air Quality Management District's thresholds for significance are based on the Statewide AB 32 objectives and will be used to quantify potential impacts related to GHG emissions. For land use development projects, the threshold is compliance with a qualified GHG Reduction Strategy or annual emissions less than 1,100 metric tons per year (MT/yr) of CO_2e. For stationary source projects, such as those requiring a permit from a local air district to operate, the threshold is 10,000 MT/yr of CO_2e.

[22] CEQA Air Quality Handbook. https://bcaqmd.org/wp-content/uploads/CEQA-Handbook-Appendices-2014.pdf Accessed 12 December 2018.

3.9.3 Regulatory Setting

3.9.3.1 Federal

Although climate change and GHG reduction is a concern at the federal level; currently there are no regulations or legislation that have been enacted specifically addressing GHG emissions reductions and climate change at the project level.

3.9.3.2 State

Assembly Bill 1493:

Assembly Bill (AB) 1493 (Pavley) of 2002 (Health and Safety Code Sections 42823 and 43018.5) requires the California Air Resources Board (CARB) to develop and adopt the nation's first GHG emission standards for automobiles.

Assembly Bill 32 - California Global Warming Solutions Act of 2006

AB 32 (Health and Safety Code Sections 38500, 38501, 38510, 38530, 38550, 38560, 38561–38565, 38570, 38571, 38574, 38580, 38590, 38592–38599 "*et seq.,*") requires that Statewide GHG emissions be reduced to 1990 levels by the year 2020. The gases that are regulated by AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, nitrogen trifluoride, and sulfur hexafluoride. The reduction to 1990 levels will be accomplished through an enforceable Statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce Statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires that CARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrives at the cap, institute a schedule to meet the emissions cap, and develop tracking, reporting, and enforcement mechanisms to ensure that the State achieves reductions in GHG emissions necessary to meet the cap. AB 32 also includes guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions.

Climate Change Scoping Plan

In October 2008, CARB published its Climate Change Proposed Scoping Plan, which is the State's plan to achieve GHG reductions in California required by AB 32. The Scoping Plan contains the main strategies California will implement to achieve reduction of 169 million metric tons (MMT) of CO_2e, or approximately 30 percent from the State's projected 2020 emissions level of 596 $MMTCO_2e$ under a business-as-usual scenario (this is a reduction of 42 $MMTCO_2e$, or almost 10 percent, from 2002–2004 average emissions). The Scoping Plan also includes CARB-recommended GHG reductions for each emissions sector of the State's GHG inventory. The largest proposed GHG reduction recommendations are from improving emissions standards for light-duty vehicles (estimated reductions of 31.7 $MMTCO_2e$), implementation of the Low Carbon Fuel Standard (15.0 $MMTCO_2e$) program, energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems (26.3 $MMTCO_2e$), and a renewable portfolio standard for electricity production (21.3 $MMTCO_2e$). The Scoping Plan identifies the local equivalent of AB 32 targets as a 15 percent reduction below baseline GHG emissions level, with baseline interpreted as GHG emissions levels between 2003 and 2008.

A key component of the Scoping Plan is the Renewable Portfolio Standard, which is intended to increase the percentage of renewables in California's electricity mix to 33 percent by year 2020, resulting in a reduction of 21.3 $MMTCO_2e$. Sources of renewable energy include, but are not limited to, biomass, wind, solar, geothermal,

hydroelectric, and anaerobic digestion. Increasing the use of renewables will decrease California's reliance on fossil fuels, thus reducing GHG emissions.

The Scoping Plan States that land use planning and urban growth decisions will play important roles in the State's GHG reductions because local governments have primary authority to plan, zone, approve, and permit how land is developed to accommodate population growth and the changing needs of their jurisdictions. (Meanwhile, CARB is also developing an additional protocol for community emissions.) CARB further acknowledges that decisions on how land is used will have large impacts on the GHG emissions that will result from the transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas emissions sectors. The Scoping Plan States that the ultimate GHG reduction assignment to local government operations is to be determined. With regard to land use planning, the Scoping Plan expects approximately 5.0 $MMTCO_2e$ will be achieved associated with implementation of Senate Bill 375, which is discussed further below. The Climate Change Proposed Scoping Plan was approved by CARB on December 11, 2008.

The First Update of the Scoping Plan was approved by the CARB on May 22, 2014, which looked past 2020 to set mid-term goals (2030-2035) on the road to reaching the 2050 goals. CARB's Key Action for the Waste Sector focused on eliminating organics from the landfill starting in 2016 and financing the in-State infrastructure development of composting and anaerobic digestion facilities. CARB's Key Action for Short-lived Climate Pollutants such as methane is to develop a comprehensive strategy by 2015 which will focus on methane generated at landfills from the disposal of organic wastes.

Senate Bill 97 - CEQA: Greenhouse Gas Emissions

Senate Bill 97, signed in August 2007, acknowledges that climate change is an important environmental issue that requires analysis under CEQA. This bill directs the Governor's Office of Planning and Research to prepare, develop, and transmit to the Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, by July 1, 2009. The Resources Agency is required to certify or adopt those guidelines by January 1, 2010. Amendments to the CEQA guidelines took effect March 18, 2010. The revisions include a new section (Sec. 15064.4) that specifically addresses the potential significance of GHG emissions. Section 15064.4 calls for a "good-faith effort" to "describe, calculate or estimate" GHG emissions. Section 15064.4 further States that a lead agency "should" consider several factors when assessing the significance of impacts from GHG emissions on the environment, including: the extent to which the project would increase or reduce GHG emissions; whether project emissions exceed an applicable threshold of significance; and the extent to which the project complies with "regulations or requirements adopted to implement a Statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions." The guidelines also State that a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements of previously approved plan or mitigation program (Sec. 15064(h)(3)). However, the guidelines do not require or recommend a specific analytical methodology or provide quantitative criteria for determining the significance of GHG emissions.

This bill also protected projects until January 1, 2010 that were funded by the Highway Safety, Traffic Reduction, Air Quality and Port Security Bond Act of 2006, or the Disaster Preparedness and Flood Protection Bond Act of 2006 (Proposition 1B or 1E) from claims of inadequate analysis of GHG as a legitimate cause of action. Thus, this "protection" is highly limited to a handful of projects and for a short time period (California Air Pollution Control Officers Association, 2008).

Senate Bill 1368

Senate Bill (SB) 1368 (codified at Public Utilities Code Chapter 3) is the companion bill of AB 32. SB 1368 required the California Public Utilities Commission (CPUC) to establish a greenhouse gas emissions performance standard for baseload generation from investor-owned utilities by February 1, 2007. The bill also required the California Energy Commission (CEC) to establish a similar standard for local publicly owned utilities by June 30, 2007. These standards cannot exceed the greenhouse gas emission rate from a baseload

combined-cycle natural-gas-fired plant. The legislation further requires that all electricity provided to California, including imported electricity, must be generated from plants that meet the standards set by the CPUC and the CEC.

Senate Bill 1078 and Governor's Order S-14-08 (California Renewables Portfolio Standards)

Senate Bill 1078 (Public Utilities Code Sections 387, 390.1, 399.25 and Article 16) addresses electricity supply and requires that retail sellers of electricity, including investor-owned utilities and community choice aggregators, provide a minimum 20 percent of their supply from renewable sources by 2017. This Senate Bill will affect Statewide GHG emissions associated with electricity generation. In 2008, Governor Schwarzenegger signed Executive Order S-14-08, which set the Renewables Portfolio Standard target to 33 percent by 2020. It directed State government agencies and retail sellers of electricity to take all appropriate actions to implement this target. The Proposed Project area would receive energy service from the investor-owned Southern California Edison.

Prior to the Executive Order, the CPUC and the CEC were responsible for implementing and overseeing the Renewables Portfolio Standard. The Executive Order shifted that responsibility to CARB, requiring it to adopt regulations by July 31, 2010. CARB is required by current law, AB 32 of 2006, to regulate sources of greenhouse gases to meet a State goal of reducing greenhouse gas emissions to 1990 levels by 2020 and an 80 percent reduction of 1990 levels by 2050. The CEC and CPUC are expected to serve in advisory roles to help CARB develop the regulations to administer the 33 percent by 2020 requirement. Additionally, the CEC and CPUC will continue their implementation and administration of the 20 percent requirement. The Executive Order also stipulates that CARB may delegate to the CPUC and CEC any policy development or program implementation responsibilities that would reduce duplication and improve consistency with other energy programs. CARB is also authorized to increase the target and accelerate and expand the time frame.

The general definition under the State Renewables Portfolio Standard for biomass is any organic material not derived from fossil fuels, including agricultural crops, agricultural wastes and residues, waste pallets, crates, dunnage, manufacturing, and construction wood wastes, landscape and right-of-way tree trimmings, mill residues that result from milling lumber, rangeland maintenance residues, sludge derived from organic matter, and wood and wood waste from timbering operations. Biomass feedstock from State and national forests is allowable under the definition.

Mandatory Reporting of Greenhouse Gas Emissions

Reporting of greenhouse gases by major sources is required by the California Global Warming Solutions Act (AB 32, 2006). Revisions to the existing CARB mandatory GHG reporting regulation were considered at the board hearing on December 16, 2010. The revised regulation was approved by the California Office of Administrative Law and became effective on January 1, 2012. The revised regulation affects industrial facilities, suppliers of transportation fuels, natural gas, natural gas liquids, liquefied petroleum gas, and carbon dioxide, operators of petroleum and natural gas systems, and electricity retail providers and marketers.

Cap-and-Trade Regulation

The cap-and-trade regulation is a key element in California's climate plan. It sets a Statewide limit on sources responsible for 85 percent of California's greenhouse gas emissions, and establishes a price signal needed to drive long-term investment in cleaner fuels and more efficient use of energy. The cap-and-trade rules came into effect on January 1, 2013 and apply to large electric power plants and large industrial plants. In 2015, they will extend to fuel distributors (including distributors of heating and transportation fuels). At that stage, the program will encompass nearly 85 percent of the State's total greenhouse gas emissions.

GHG emissions addressed by the cap-and-trade regulation are subject to an industry-wide cap on overall GHG emissions. The cap-and-trade regulation sets a firm limit or cap on GHGs, which declines approximately 3 percent each year beginning in 2013. Any growth in emissions must be accounted for under the cap, such that

a corresponding and equivalent reduction in emissions must occur to allow any increase. The cap-and-trade regulation will help California achieve its goal of reducing GHG emissions to 1990 levels by the year 2020, and ultimately achieving an 80% reduction from 1990 levels by 2050. As such, the CARB has determined that the cap-and-trade regulation meets the requirements of AB 32.

3.9.3.3 Local

Butte County Air Quality Management District

BCAQMD has not established numeric standards as thresholds of significance for GHG. However, the BCAQMD's *CEQA Air Quality Handbook: Guidelines for Assessing Air Quality and Greenhouse Gas Impacts for Projects Subject to CEQA Review*[23] states that projects consistent with the goals of AB 32 and/or in compliance with an approved GHG reduction plan, such as the City of Oroville Community Climate Action Plan, would be determined to have a less than significant impact upon global climate change.

City of Oroville Community Climate Action Plan

Adopted March 31, 2015, The City of Oroville Community Climate Action Plan (CAP)[24] was developed with the purpose of reducing GHG emissions to 11% below 2010 levels. This goal is referred to as the 2020 emissions reduction target. The CAP includes a variety of regulatory and incentive-based strategies that will reduce emissions from both existing and new development in Oroville. Strategies that may be applicable to the Project include, but are not limited to, the following:

BE-1 (Green Building Ordinance): Achieve 15% less energy use than the 2013 Title 24 requirements in new development.

BE-4 (Energy Efficient Lighting Standards): Reduce electricity consumption with energy-efficient lighting.

LUT-9 (Idling Ordinance): Limit heavy-duty vehicle idling to 3 minutes to reduce exhaust emissions and fuel consumption.

LUT-10 (Electric-Powered Construction Equipment): Ensure that at least 25% of construction equipment on annual projects utilize electric power.

WR-1 (Waste Diversion Goal): Divert from landfills at least 75% of waste generated in the city and 65% of construction materials and debris.

Oroville 2030 General Plan[25]: The Oroville 2030 General Plan sets forth the following goals and policies regarding energy use and greenhouse gases and which have potential relevance to the Project's CEQA review:

Goal OPS-13: Reduce emissions of air contaminants, including greenhouse gases, and minimize public exposure to toxic, hazardous, and odiferous air pollutants.

Policy P13.4: Encourage the use of alternative fuels in vehicle fleets and the use of alternative forms of transportation for City staff and other public agencies.

Goal OPS-16: Reduce greenhouse gas emissions and improve the sustainability of actions by City government, residents, and businesses in Oroville.

Policy P16.1: Implement the Climate Action Plan strategies, as feasible.

[23] CEQA Air Quality Handbook. https://bcaqmd.org/wp-content/uploads/CEQA-Handbook-Appendices-2014.pdf Accessed 30 October 2018.
[24] City of Oroville Community Climate Action Plan. http://www.cityoforoville.org/home/showdocument?id=12191 Accessed 2 November 2018.
[25] Oroville 2030 General Plan. http://www.cityoforoville.org/home/showdocument?id=12187 Accessed 23 October 2018.

Policy P16.12: Encourage energy conservation, waste reduction, and environmental sustainability in all City activities.

3.9.4 Impact Assessment

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

Less than Significant Impact.

Short-Term Construction-Related Emissions

Estimated construction-related emissions are summarized in **Table 3-15**, below. As indicated, construction of the Project would generate maximum annual emissions of approximately 492.0568 metric tons of carbon dioxide equivalent ($MTCO_2e$). Construction-related production of GHGs would be temporary, lasting approximately 18 months.

Long-Term Operational Emissions

Since the Project involves improvements to an existing WWTP, long-term operational emissions associated with the Project will be essentially unchanged from existing baseline conditions. However, estimated long-term operational emissions were calculated using CalEEmod, Version 2016.3.2, resulting in estimated maximum annual emissions of approximately 435.0036 $MTCO_2e$, as displayed in **Table 3-15**. Worker and vendor commute trips would be unchanged, as no additional long-term operational nor maintenance staff would be required. Stationary sources and operational equipment will be similar to those currently present in the existing facility. The Project proposes replacement and upgrades to aged or obsolete equipment, which would result in energy efficiency and a reduction in emissions. As demonstrated in **Table 3-15**, the emissions generated by the Project's operational phase would not exceed the Bay Area Air Quality Management District's adopted thresholds of significance which are based on the AB 32 objectives. Therefore, Project-related production of GHGs would be considered less than significant.

Table 3-15. Short-Term Construction-Generated GHG Emissions

Estimated Maximum Annual Project-Related GHG Emissions	
Phase	**Emissions (MT CO_2e)[1]**
Construction	492.0568
Operation	435.0036
*AB 32 Consistency Threshold for Land-Use Development Projects**	*1,100*
*AB 32 Consistency Threshold for Stationary Source Projects**	*10,000*
Exceed Threshold?	No

1. *Emissions were quantified using the CalEEmod, Version 2016.3.2. Refer to Appendix A for modeling results and assumptions. Totals may not sum due to rounding.*

*As published in the Bay Area Air Quality Management District's CEQA Air Quality Guidelines. Available online at http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en Accessed 12 December 2018.

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

Less than Significant Impact. Although BCAQMD has not established numeric standards as thresholds of significance for GHG emissions, the recommended guidance available in BCAQMD's CEQA Air Quality Handbook: Guidelines for Assessing Air Quality and Greenhouse Gas Impacts for Projects Subject to CEQA

Review[26] states that projects consistent with the goals of AB 32 and/or in compliance with an approved GHG reduction plan, such as the City of Oroville Community Climate Action Plan, would be determined to have a less than significant impact upon global climate change.

Adopted March 31, 2015, The City of Oroville Community Climate Action Plan (CAP)[27] was developed with the purpose of reducing GHG emissions to 11% below 2010 levels. The CAP includes a variety of regulatory and incentive-based strategies that will reduce emissions from both existing and new development in Oroville.

The Project would implement all applicable measures stipulated by the Oroville Community CAP and the Oroville 2030 General Plan to reduce emissions of GHGs during construction and operation. Furthermore, the Project complies with the Bay Area Air Quality Management District's GHG emissions thresholds for significance. For the aforementioned reasons, implementation of the Project is not anticipated to conflict with any applicable plan, policy or regulation for reducing the emissions of GHGs, nor will the Project have a significant impact on the environment. The impact would be considered less than significant.

[26] [26] CEQA Air Quality Handbook. https://bcaqmd.org/wp-content/uploads/CEQA-Handbook-Appendices-2014.pdf Accessed 30 October 2018.

[27] City of Oroville Community Climate Action Plan. http://www.cityoforoville.org/home/showdocument?id=12191 Accessed 2 November 2018.

3.10 Hazards and Hazardous Materials

Table 3-16. Hazards and Hazardous Materials Impacts

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

3.10.1 Environmental Setting

Historical gold mining operations along the Feather River created deposits of mine tailings, many of which have been dispersed by development activities or carried downstream stream over the past century. However, some areas adjacent to Feather River may contain residual undisturbed deposits from nineteenth century mining practices. In a general sense, tailings are waste from mining activities, which often contain trace residual minerals. These tailings can then be chemically treated, recycled, and utilized as construction materials. The term tailings also encompass leftover material from rock-crushing activities and is often used as an aggregate in asphalt paving or a bank stabilization method during construction. Tailings vary in size from a fine-grain to a large cobble and in their larger form are frequently used as landscaping rock or an alternative to gravel. [28]

[28] City of Oroville 2030 General Plan. http://www.cityoforoville.org/home/showdocument?id=12188 Accessed 27 November 2018.

As discussed in **Section 3.7**, tailings are present onsite, according to the NRCS Custom Soil Resource Report (**Appendix D**). It is unknown if the tailings reported onsite by the NRCS Custom Soil Resource Report are resultant from mining operations or recycled construction materials.

In more recent times, hazardous materials include a wide variety of substances commonly used in households and businesses. Used motor oil, paint, solvents, lawn care and gardening products, household cleaners, gasoline, and refrigerants are among the diverse range of substances classified as hazardous materials. Nearly all businesses and residences generate some amount of hazardous waste; certain businesses and industries generate larger amounts of such substances, including gas stations, automotive service and repair shops, printers, dry cleaners, and photo processors. Hospitals, clinics, and laboratories generate medical waste, much of which is also potentially hazardous.[29]

Wastewater treatment processes generally involve a variety of hazardous chemicals and biological materials contained within the effluents and reagents used in water processing or generated during treatment. For instance, SC-OR currently uses gaseous chlorine for effluent disinfection. Gaseous chlorine is toxic, and regulatory requirements have been established to reduce potential public exposure. The Uniform Fire Code is typically used as the design basis for hazardous gas abatement systems.

3.10.1.1 Asbestos Survey

The objective of the asbestos investigation was to evaluate suspect building and construction materials at specified portions of the property that would be impacted by proposed renovation/demolition operations as to asbestos content. The scope of sampling was conducted in accordance with the NESHAP regulation of the U.S.E.P.A., the BCAQMD, and Cal/OSHA requirements. Specific sampling locations were selected by the inspector based on referenced regulatory requirements. Sampling was conducted utilizing destructive techniques. Suspect asbestos-containing materials were characterized by size, color, and texture in order to quantify materials and to draw conclusions based on bulk sample results.

Bulk sample analysis was provided by Environmental Management Consultants, an independent, NVLAP accredited laboratory (NVLAP No. 101926-0) located in Phoenix, Arizona and specializing in asbestos analysis. Bulk samples were individually bagged and numbered for identification and to maintain a chain-of-custody as part of the report. See **Appendix E** for full details of the Asbestos Investigation.

3.10.1.2 Lead Based Paint Investigation

The Lead-Based Paint Inspection was conducted in accordance with Title 17 - California Code of Regulations, Division 1, Chapter 8, 8 CCR 1532.1 (Cal/OSHA), and the federal Renovation, Remodeling and Paint Rule (RRP). The sampling event was conducted in a manner which provides limited, representative evaluation of painted surfaces at referenced locations at the subject sites in accordance with the HUD schedule in Chapter 7 (Lead-Based Paint Inspection) of the "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing". Testing locations provide an overall representation of painted finishes present at the referenced structure. The referenced inspection is representative in nature and is limited based on the limitations of the referenced regulatory standard.

Sampling of painted surfaces for suspect lead-based paint at specified portions of the specified commercial property included a total of nineteen (19) separate testing combinations. The XRF instrument was calibrated prior to and following the prescribed sampling period in accordance with the Performance Characteristic Sheet provided by the manufacturer.

[29] City of Oroville 2030 General Plan Safety Element https://www.cityoforoville.org/home/showpublisheddocument/12188/635955765376170000 Accessed 6 April 2022

Calibration readings are included in the XRF sampling results as the initial and concluding readings and are designated as a "calibrate" reading. The calibration readings were compared to a known concentration of lead using a standard SRM sheet provided by the XRF manufacturer to verify accurate performance of the instrument at the beginning and the conclusion of the sampling episode.

3.10.1.3 Hazardous Materials

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies, and developers to comply with CEQA requirements in providing information about the location of hazardous materials release sites. Government Code (GC) Section 65962.5 requires the California Environmental Protection Agency (CalEPA) to develop at least annually an updated Cortese List. The Department of Toxic Substances Control (DTSC) is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List. DTSC's EnviroStor database provides DTSC's component of Cortese List data (DTSC, 2010). In addition to the EnviroStor database, the State Water Resources Control Board (SWRCB) Geotracker database provides information on regulated hazardous waste facilities in California, including underground storage tank (UST) cases and non-UST cleanup programs, including Spills-Leaks-Investigations-Cleanups (SLIC) sites, Department of Defense (DOD) sites, and Land Disposal program. A search of the DTSC EnviroStor database and the SWRCB Geotracker performed on November 7, 2018 determined that there are no known active hazardous waste generators or hazardous material spill sites within the Project site or immediate surrounding vicinity.

3.10.1.4 Airports

The Oroville Municipal Airport is located approximately 2.3 miles west and Sacramento International Airport is located approximately 54.5 miles south of the Project.

3.10.1.5 Emergency Response Plan

During disasters or large-scale incidents, the Butte County Office of Emergency Management coordinates the overall response through the Emergency Operations Center (EOC). When activated, the EOC provides a central location for responding and supporting agencies to collaborate response and recovery efforts in order to provide information and deploy resources effectively and efficiently.

3.10.1.6 Sensitive Receptors

The Project is located approximately one mile north-northwest of Oakdale Heights Elementary School.

3.10.2 Regulatory Setting

3.10.2.1 Federal

Hazardous Materials - U.S. Environmental Protection Agency: The U.S. Environmental Protection Agency (EPA) was established in 1970 to consolidate in one agency a variety of Federal research, monitoring, standard-setting and enforcement activities to ensure environmental protection. EPA's mission is to protect human health and to safeguard the natural environment — air, water, and land — upon which life depends. EPA works to develop and enforce regulations that implement environmental laws enacted by Congress, is responsible for researching and setting national standards for a variety of environmental programs, and delegates to States and tribes the responsibility for issuing permits and for monitoring and enforcing compliance. Where national standards are not met, EPA can issue sanctions and take other steps to assist the states and tribes in reaching the desired levels of environmental quality.

Toxic Substances Control Act/Resource Conservation and Recovery Act/ Hazardous and Solid Waste Act: The Toxic Substances Control Act (1976) and the Resource Conservation and Recovery Act of 1976 (RCRA) established a program administered by the EPA for the regulation of the generation, transportation, treatment, storage,

and disposal of hazardous waste. RCRA was amended in 1984 by the Hazardous and Solid Waste Act (HSWA), which affirmed and extended the "cradle to grave" system of regulating hazardous wastes.

Clean Water Act/SPCC Rule: The Clean Water Act (CWA) (33 U.S.C. Section 1251, *et seq*., formerly the Water Pollution Control Act of 1972), was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the United States. As part of the Clean Water Act, the EPA oversees and enforces the Oil Pollution Prevention regulation contained in Title 40 of the CFR, Part 112, which is often referred to as the "SPCC rule" because the regulations describe the requirements for facilities to prepare, amend and implement Spill Prevention, Control, and Countermeasure (SPCC) Plans. A facility is subject to SPCC regulations if a single oil storage tank has a capacity greater than 660 gallons, or the total above ground oil storage capacity exceeds 1,320 gallons, or the underground oil storage capacity exceeds 42,000 gallons, and if, due to its location, the facility could reasonably be expected to discharge oil into or upon the "navigable waters" of the United States. Other federal regulations overseen by the EPA relevant to hazardous materials and environmental contamination include Title 40, CFR, Chapter 1, Subchapter D – Water Programs and Subchapter I – Solid Wastes. Title 40, CFR, Chapter 1, Subchapter D, Parts 116 and 117 designate hazardous substances under the Water Pollution Control Act. Title 40, CFR, Part 116 sets forth a determination of the reportable quantity for each substance that is designated as hazardous. Title 40, CFR, Part 117 applies to quantities of designated substances equal to or greater than the reportable quantities that may be discharged into waters of the United States.

3.10.2.2State

California Environmental Protection Agency (CalEPA): CalEPA was created in 1991 by Governor's Executive Order. California Air Resources Board (CARB), the Department of Pesticide Regulation (DPR), the Department of Resources Recycling and Recovery (CalRecycle), the Department of Toxic Substances Control (DTSC), the Office of Environmental Health Hazard Assessment (OEHHA) and the State Water Resources Control Board (SWRCB) were placed under the CalEPA umbrella to create a cabinet-level voice for the protection of human health and the environment and to assure the coordinated deployment of State resources. The mission of CalEPA is to restore, protect, and enhance the environment to ensure public health, environmental quality, and economic vitality under Title 22 of the CCR.[30]

Department of Toxic Substances Control (DTSC): DTSC is a department of CalEPA and is the primary agency in California that regulates hazardous waste, clean-up of existing contamination, and looks for ways to reduce the hazardous waste produced in California. DTSC regulates hazardous waste in California primarily under the authority of RCRA and the Health and Safety Code. Other laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning. GC Section 65962.5 (commonly referred to as the Cortese List) includes DTSC-listed hazardous waste facilities and sites, SWRCB Division of Drinking Water lists of contaminated drinking water wells, sites listed by the SWRCB as having UST leaks and which have had a discharge of hazardous wastes or materials into the water or groundwater, and lists from local regulatory agencies of sites that have had a known migration of hazardous waste/material.

Unified Program: The Unified Program (CCR Title 27, Division 1, Subdivision 4, Chapter 1, Sections 15100-15620) consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of the following six environmental and emergency response programs[31]:

- Hazardous Waste Generator (HWG) program and Hazardous Waste On-site Treatment activities;
- Aboveground Storage Tank (AST) program Spill Prevention Control and Countermeasure Plan requirements;

[30] California Environmental Protection Agency. http://www.calepa.ca.gov Accessed 13 September 2018.
[31] California Environmental Protection Agency. http://www.calepa.ca.gov/cupa/ Accessed 13 September 2018

- Underground Storage Tank (UST) program;
- Hazardous Materials Release Response Plans and Inventory (HMRRP) program;
- California Accidental Release Prevention (CalARP) program;
- Hazardous Materials Management Plans and Hazardous Materials Inventory Statement (HMMP/HMIS) requirements.

The Secretary of CalEPA is directly responsible for coordinating the administration of the Unified Program. The Unified Program requires all counties to apply to the CalEPA Secretary for the certification of a local unified program agency. Qualified cities are also permitted to apply for certification. The local Certified Unified Program Agency (CUPA) is required to consolidate, coordinate, and make consistent the administrative requirements, permits, fee structures, and inspection and enforcement activities for these six program elements in the county. Most CUPAs have been established as a function of a local environmental health or fire department.

Hazardous Waste Management Program: The Hazardous Waste Management Program (HWMP) regulates hazardous waste through its permitting, enforcement, and Unified Program activities in accordance with HHSC Section 25135, *et seq*. The main focus of HWMP is to ensure the safe storage, treatment, transportation, and disposal of hazardous wastes.

State Water Resources Control Board (SWRCB): The SWRCB was created by the California legislature in 1967. The mission of SWRCB is to ensure the highest reasonable quality for waters of the State, while allocating those waters to achieve the optimum balance of beneficial uses. The joint authority of water allocation and water quality protection enables SWRCB to provide comprehensive protection for California's waters.

California Department of Industrial Relations – Division of Occupational Safety and Health (Cal/OSHA): In California, every employer has a legal obligation to provide and maintain a safe and healthful workplace for employees, according to the California Occupational Safety and Health Act of 1973 (per Title 8 of the CCR). The Division of Occupational Safety and Health (Cal/OSHA) program is responsible for enforcing California laws and regulations pertaining to workplace safety and health and for providing assistance to employers and workers about workplace safety and health issues. Cal/OSHA regulations are administered through Title 8 of the CCR. The regulations require all manufacturers or importers to assess the hazards of substances that they produce or import and all employers to provide information to their employees about the hazardous substances to which they may be exposed.

3.10.2.3 Local

Oroville 2030 General Plan[32]: The Oroville 2030 General Plan sets forth the following policies regarding hazards and hazardous materials and which have potential relevance to the Project's CEQA review:

Policy P4.1: Prohibit development in areas of known toxic contamination until such contamination has been remediated or mitigated to acceptable levels.

Policy P4.2: Require applicants to take and analyze soil samples prior to grading or construction in areas with a historical or suspected presence of toxic materials, including areas with known mine tailings, Superfund sites or other sites identified by the City or concerned agencies. If contamination is discovered prior to development, consult with the appropriate agencies and commence the proper clean-up measures.
Policy P4.3: Rely on the Butte County Local Hazard Mitigation Plan in the event of a hazardous materials incident.

[32] Oroville 2030 General Plan. http://www.cityoforoville.org/home/showdocument?id=12187 Accessed 23 October 2018.

Policy P4.6: Continue to coordinate with the Butte County Environmental Health Division and Oroville Fire Department in the review of all projects which require the use, storage or transport of hazardous waste to ensure necessary measures are taken to protect public health and safety.

Policy P4.9: Provide on-going training for appropriate City personnel in hazardous materials, response and handling.

3.10.3 Impact Assessment

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

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less than Significant Impact with Mitigation Incorporated. The Project involves improvements to the existing WWTP including the demolition and relocation of existing structures. Materials from these structures would be disposed of off-site at an approved disposal or recycling facility.

Construction of the Project would also involve the use of hazardous materials associated with construction equipment, such as diesel fuel, lubricants, and solvents.

The contractor would implement a SWPPP and would comply with all Cal/OSHA regulations regarding regular maintenance and inspection of equipment, spill prevention, and spill remediation in order to reduce the potential for incidental release of pollutants or hazardous substances onsite. Furthermore, any potential accidental hazardous materials spills during construction are the responsibility of the contractor to remediate in accordance with industry best management practices and State and county regulations. The operational phase of the Project would continue the use, transport, and disposal of potentially hazardous materials associated with the wastewater treatment process. Although the Project proposes replacement of the toxic gaseous chlorine disinfection process with safer UV disinfection, undoubtedly other phases of treatment and maintenance will continue to include potentially hazardous materials. The Project does not propose an increase in the amount of hazardous materials transported, stored, used or disposed of onsite and implementation of the Project would not result in an increased risk of accidental release.

Implementation of the mitigation measures HAZ as outlined below for the handling and disposal of hazardous materials would reduce any potential impacts to less than significant in nature.

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

No Impact. There are no existing or proposed schools located within one-quarter mile of the Project site, which is confined to an existing WWTP. There would be no impact.

d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. The Project does not involve land that is listed as a hazardous materials site pursuant to Government Code Section 65962.5 and is not included on a list compiled by the Department of Toxic Substances Control. A search of the DTSC EnviroStor database and the SWRCB Geotracker performed on November 7, 2018 determined that there are no known active hazardous waste generators or hazardous material spill sites within the Project site or immediate surrounding vicinity. There would be no impact.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

Less than Significant Impact. The Project site is not located within an Airport Land Use Plan. The nearest airport is being the Oroville Airport located approximately 2.3 miles west of the Project. The Project is more than two miles away from all other public and public use airports. Therefore, impacts would be less than significant

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

No Impacts. The Project does not provide any physical barriers or disturb any roadways in such a way that would impede emergency or hazards response; therefore, the Project would not interfere with implementation of an emergency response plan or evacuation plan.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact. The Project site comprises the existing WWTP in the South Oroville Industrial District. Pursuant to Government Code 51175-89, the California Department of Forestry and Fire Protection (CAL FIRE) identifies areas of Very High Fire Hazard Severity Zones (VHFHSZ) and publishes maps illustrating these locations. The nearest VHFHSZ, according to CAL FIRE[33], is located approximately 6.5 miles northeast of the Project. The Project does not include any residential components, nor would it require any employees to be stationed permanently at the site on a daily basis. There would be no impact.

3.10.3.1 Mitigation.

Implementation of the following mitigation measures to reduce impacts from hazardous materials:

HAZ-1a (Renovation/Demolition involving materials containing asbestos). Prior to proceeding with planned renovation and/or demolition operations involving specified portions of the referenced commercial property, have all building materials identified as containing asbestos in amounts (>0.1%) which would be impacted by planned work operations removed by a qualified, licensed abatement contractor with a demonstrated history of similar projects and regulatory compliance. Ensure that all work operations are conducted in accordance with applicable EPA and OSHA requirements. The Contractor shall be required to document evidence of current training, licensing, and asbestos specific insurance coverage.

HAZ-1b (Asbestos – Non-Friable to Friable conditions). Compliance with the notification requirements of Cal-OSHA and the air district of the USEPA and pay fees (if required). Wait the required ten (10) working-days after filing the notification before proceeding with regulated renovation activities exceeding the threshold amount (>160 s.f. or 260 l.f.) of RACM, and/or any non-friable ACM which becomes friable, or "any" demolition based on NESHAP and NESHAP requirements.

HAZ-1c (Hazard Communication Training - Lead). Upon commencing work operations involving disturbance of lead, the Contractor engaged in the work shall conduct an "Initial Exposure Assessment" for each planned "trigger task" in accordance with Cal/OSHA regulations to determine potential lead exposures to workers. The Contractor must assume workers would be exposed to airborne levels above the PEL and must provide workers with Hazard Communication Training, and personal protective equipment, including HEPA-equipped respirators. A hand-washing facility must be present at the worksite.

[33] CAL FIRE. Butte County FHSZ Map. http://fire.ca.gov/fire_prevention/fhsz_maps_butte Accessed 28 November 2018.

HAZ-1d (Disposal – Lead Containing Paint). Prior to disposal of lead-containing paint or elements which include lead-containing paint, the State of California requires that representative sample(s) of the waste stream waste (along with the substrate where bonded) be submitted to an accredited laboratory and that a Total Threshold Limit Concentration (TTLC) test be performed to determine the total lead content.

HAZ-1e (Toxicity Characteristic Leaching Procedure). Dependent upon the result, a SW846 (STLC) may be required to determine the amount of leachable lead. These tests would determine transportation and disposal requirements and may greatly impact the ultimate cost of the work. Due to potential delays associated with conducting the analysis of the waste, it is recommended that the waste characterization be initiated prior to soliciting bids for the work.

3.11 Hydrology and Water Quality

Table 3-17. Hydrology and Water Quality Impacts

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

3.11.1 Environmental Setting

According to the U.S. Geological Survey (USGS) classification system, the Project is located within the Lower Feather watershed; Hydrologic Unit Code (HUC): 18020106,[34] which commences at Oroville Dam. The Feather River watershed is part of the northern Sierra Nevada and is the source of water for Lake Oroville.

The Project lies entirely within the Wyandotte Creek Groundwater Subbasin of the Sacramento Valley Groundwater Basin of the Sacramento River Hydrologic Region.[35]

[34] USGS Watershed Maps. https://water.usgs.gov/maps.html Accessed 28 November 2018.
[35] DWR Bulletin 118. BBAT. https://gis.water.ca.gov/app/bbat/ Accessed 28 November 2018.

3.11.2 Regulatory Setting

3.11.2.1 Federal

Clean Water Act: The Clean Water Act (CWA) is intended to restore and maintain the chemical, physical, and biological integrity of the nation's waters (33 CFR 1251). The regulations implementing the CWA protect waters of the U.S. including streams and wetlands (33 CFR 328.3). The CWA requires States to set standards to protect, maintain, and restore water quality by regulating point source and some non-point source discharges. Under Section 402 of the CWA, the National Pollutant Discharge Elimination System (NPDES) permit process was established to regulate these discharges.

Federal Emergency Management Agency (FEMA) Flood Zones: The National Flood Insurance Act (1968) makes available federally-subsidized flood insurance to owners of flood-prone properties. To facilitate identifying areas with flood potential, FEMA has developed Flood Insurance Rate Maps (FIRM) that can be used for planning purposes. Flood hazard areas identified on the Flood Insurance Rate Map are identified as a Special Flood Hazard Area (SFHA). SFHA are defined as the area that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year. The 1-percent annual chance flood is also referred to as the base flood or 100-year flood. SFHAs are labeled as Zone A, Zone AO, Zone AH, Zones A1-A30, Zone AE, Zone A99, Zone AR, Zone AR/AE, Zone AR/AO, Zone AR/A1-A30, Zone AR/A, Zone V, Zone VE, and Zones V1-V30. Moderate flood hazard areas, labeled Zone B or Zone X (shaded) are also shown on the FIRM, and are the areas between the limits of the base flood and the 0.2-percent-annual-chance (or 500-year) flood. The areas of minimal flood hazard, which are the areas outside the SFHA and higher than the elevation of the 0.2-percent-annual-chance flood, are labeled Zone C or Zone X (un-shaded).

3.11.2.2 State

State Water Resources Control Board: The SWRCB has jurisdiction over water quality issues in California. The SWRCB is governed by the Porter-Cologne Water Quality Act (Division 7 of the Water Code (WC)), which establishes the legal framework for water quality control activities by the SWRCB. The intent of the Porter-Cologne Act is to regulate factors which may affect the quality of waters of the State to attain the highest quality which is reasonable, considering a full range of demands and values. Much of the implementation of the SWRCB's responsibilities is delegated to its nine Regional Boards. The Project site is located within the Central Valley Regional Water Quality Control Board (CVRWQCB). The CVRWQCB administers the NPDES storm water-permitting program in the Central Valley region. Construction activities on one acre or more are subject to the permitting requirements of the NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit). For projects proposing ground disturbance of one acre or greater, the SWRCB requires a Storm Water Pollution Prevention Plan (SWPPP) as a requirement of the NPDES to regulate water quality associated with construction or industrial activities. Additionally, CVRWQCB is responsible for issuing Waste Discharge Requirements Orders under WC Section 13260, Article 4, Waste Discharge Requirements.

Recycled Water Policy: The Water Recycling Act of 1991 (WC Section 1357,5 *et seq.*) established a Statewide goal to recycle a total of 700,000 acre-feet of water per year (AFY) by the year 2000 and 1,000,000 AFY by the year 2010. In February 2009, the SWRCB adopted its Recycled Water Policy (SWRCB Resolution No. 2009-0011), the purpose of which is to increase the beneficial use of recycled water from municipal wastewater sources in a manner that fully implements State and Federal water quality laws. The policy directs the State to rely less on variable annual precipitation and more on sustainable management of surface waters and groundwater, together with enhanced water conservation, water reuse and the use of stormwater. As a part of the new recycled water policy, the SWRCB adopted the following four goals for California:

1. *Increase the use of recycled water over 2002 levels by at least one million AFY by 2020 and by at least two million AFY by 2030.*

2. *Increase the use of stormwater over use in 2007 by at least 500,000 AFY by 2020 and by at least one million AFY by 2030.*
3. *Increase the amount of water conserved in urban and industrial uses by comparison to 2007 by at least 20 percent by 2020.*
4. *Included in these goals is the substitution of as much recycled water for potable water as possible by 2030.*

In the new policy, the SWRCB also discussed several practical impacts of the greater use of recycled water in the State. Those impacts include the following:

- Groundwater salt and nutrient control: The SWRCB imposed a requirement that consistent salt and nutrient management plans be prepared for each basin and subbasin in California. Such plans must include a significant stormwater use and recharge component.
- Landscape irrigation: The SWRCB discussed issues involving the permitting of landscape irrigation projects that use recycled water, including the control of incidental runoff of recycled water.
- Groundwater recharge: The SWRCB addressed site-specific approvals of groundwater recharge projects using recycled water, emphasizing that such projects must not lower the water quality within a groundwater basin.
- Chemicals of emerging concern: The SWRCB further addressed chemicals of emerging concern (CEC), knowledge of which is currently "incomplete." An advisory panel will advise the Water Board regarding actions involving CECs, as they relate to the use of recycled water.

The wide-ranging ramifications of using recycled water, coupled with the aggressive goals established by the SWRCB for such future use in California, demonstrates that the new Recycled Water Policy will have a significant impact on land use activities within the State for many years to come.

Department of Water Resources (DWR): WC Section 10004, *et seq*. requires that DWR update the State Water Plan every five years. The Plan is currently undergoing its 2018 update; the most recent adopted version is from 2013. For Update 2013, DWR worked with researchers at the University of California, Davis, to quantify how much growth might occur in the Sacramento River Hydrologic Region through 2050. The model was used to estimate a year 2050 urban footprint under the scenarios of alternative population growth and development density. Each of the growth scenarios shows a decline in irrigated acreage over existing conditions, but to varying degrees. Irrigated crop acreage declines, on average, by about 9,000 acres by year 2050 as a result of low population growth and urbanization in the Sacramento River region, while the decline under high population growth was higher, at approximately 73,000 acres. The change in water demand from 2006 to 2050 is estimated for the Sacramento River Hydrologic Region for the agriculture and urban sectors under 9 growth scenarios and 13 scenarios of future climate change. Urban demand increased under all nine growth scenarios tracking with population growth. Agricultural water demand decreases under all future scenarios due to reduction in irrigated lands as a result of urbanization and background water conservation. Groundwater resources were evaluated for performance under the plausible futures, resulting in 198 scenarios showing the change in groundwater storage from 2013 to 2050. The Sacramento River region is projected to remain highly reliable in both urban and agricultural sectors.[36]

Government Code 65302 (d): A conservation element for the conservation, development, and utilization of natural resources including water and its hydraulic force, forests, soils, river and other waters, harbors, fisheries, wildlife, minerals, and other natural resources. That portion of the conservation element including waters shall be developed in coordination with any County-wide water agency and with all district and city agencies which have developed, served, controlled or conserved water for any purpose for the County or city for which the plan is prepared. Coordination shall include the discussion and evaluation of any water supply and demand

[36] DWR California Water Plan. Update 2013. Sacramento River Hydrologic Region. https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/California-Water-Plan/Docs/Update2013/Regional-Reports/Water-Plan-Update-2013-Sacramento-River-Regional-Report.pdf Accessed 10 December 2018.

information described in Section 65352.5, if that information has been submitted by the water agency to the city or County. The conservation element may also cover:

1. The reclamation of land and waters.
2. Prevention and control of the pollution of streams and other waters.
3. Regulation of the use of land in stream channels and other areas required for the accomplishment of the conservation plan.
4. Prevention, control, and correction of the erosion of soils, beaches, and shores.
5. Protection of watersheds.
6. The location, quantity and quality of the rock, sand and gravel resources.
7. Flood control.

Sustainable Groundwater Management Act: On September 16, 2014 Governor Edmund G. Brown, Jr. signed historic legislation to strengthen local management and monitoring of groundwater basins most critical to the State's water needs. The three bills, SB 1168 (Pavley), SB 1319 (Pavley), and AB 1739 (Dickinson) together makeup the Sustainable Groundwater Management Act (SGMA). SGMA comprehensively reforms groundwater management in California. The intent of the Act is to place management at the local level, although the State may intervene to manage basins when local agencies fail to take appropriate responsibility. The Act provides authority for local agency management of groundwater and requires creation of groundwater sustainability agencies and implementation of plans to achieve groundwater sustainability within basins of high and medium-priority including the Tulare County Sub-basin. The Act took effect on January 1, 2015 and will be implemented over the course of next several years and decades.

3.11.2.3Local

Oroville 2030 General Plan[37]: The Oroville 2030 General Plan sets forth the following goals and policies regarding hydrology and water quality and which have potential relevance to the Project's CEQA review:

Policy P6.10: Encourage the use of drought-resistant landscaping and the use of reclaimed wastewater for agriculture and landscape irrigation supply water. Ensure that all reclaimed wastewater complies with State wastewater treatment and reclamation regulations and standards.

Goal PUB-7: Collect, treat and dispose of wastewater in ways that are safe, sanitary, environmentally acceptable, and financially sound.

Policy P7.1: Ensure that adequate wastewater collection and wastewater treatment services continue to be available to developed properties throughout the Planning Area.
Policy P7.9: Encourage SC-OR to begin planning and implementing expansions to the existing Regional Wastewater Treatment Master Plan to meet future demand for wastewater treatment generated by this General Plan at least four years prior to reaching the capacity of existing facilities.
Policy P7.13: Monitor the effectiveness, cooperation and functions of SC-OR through and by its member agencies for the interest of the public and implementation of this General Plan.

Policy P8.2: Encourage project design that minimizes the potential for wind and water erosion to occur. Where necessary, require the preparation and implementation of a soil erosion plan, including soil erosion mitigation during construction.

Policy P8.9: Require installation of temporary drainage facilities as necessary during construction activities in order to adequately mitigate stormwater impacts.

[37] Oroville 2030 General Plan. http://www.cityoforoville.org/home/showdocument?id=12187 Accessed 23 October 2018.

3.11.3 Impact Assessment

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less than Significant Impact with Mitigation Incorporated. As mentioned above in Section 3.9.2.2, the existing WWTP currently operates under a NPDES permit issued by the CVRWQCB which places stringent standards on the quality of effluent discharged into Feather River. SC-OR has a history of compliance with effluent limitations and since its inception has had no major violations. The proposed improvements to existing WWTP intend to increase treatment capacity thereby consistently reducing organic, nutrient, and solid loadings of raw sewage and further improving the quality of effluent discharged into the Feather River. During construction, the contractor will implement erosion control measures, a SWPPP, and Best Management Practices to control soil erosion and non-point source pollution to ensure that Project construction does not adversely impact water quality of the Feather River. Upon implementation of the Project, SC-OR would continue to comply with all applicable water quality standards and waste discharge requirements. For these reasons, any impacts would be less than significant with mitigation incorporated.

3.11.3.1 Mitigation.

The applicant will implement the following measures to prevent sedimentation and degradation of downstream waters.

HYD-1a (Erosion Control Measures). The applicant shall define the limits of any construction within the APE. Wattles or other appropriate erosion controls shall be placed between ground-disturbing activities and areas where sedimentation could flow out of the APE.

HYD-1b. (Storm Water Pollution Prevention Plan). The applicant shall arrange for the preparation of a Storm Water Pollution Prevention Plan (SWPPP) that identifies measures to prevent erosion and sedimentation from construction activities and measures to prevent contaminants from entering downstream waters. The SWPPP shall be implemented in full during project construction.

HYD-1c. (Use of Best Management Practices). Best Management Practices (BMPs) shall be implemented as appropriate. BMP's may include measures in a and b above, and may include any number of additional measures appropriate for this particular site and this particular project, including, but not-limited to, grease traps in staging areas, regular site inspections for pollutants that could be carried by runoff into natural drainages, etc.

b) Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

No Impact. There is no anticipated increase in water demand resulting from implementation of the Project and the site is not currently being used for aquifer recharge as it is an existing WWTP. The Project would not involve withdrawals from an aquifer or groundwater table and would not interfere with groundwater recharge. There would be no impact.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

c-i) result in substantial erosion or siltation on- or off-site?

c-ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

c-iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less than Significant Impacts. The Project involves improvements to an existing WWTP. There are no streams or rivers onsite and the Project does not propose significant alteration of the topography of the site or a substantial increase in the area of impervious surfaces. Furthermore, construction of the Project would require implementation of a Construction General Permit and a SWPPP which would include various measures to minimize erosion, siltation, stormwater runoff, and polluted runoff. Any impacts would be less than significant.

c-iv) impede or redirect flood flows?

No Impact. According to FEMA National Flood Insurance Program (NFIP) FIRM Panel 06007C980E, the Project is not located within a 100-year flood zone (**See**

Figure 3-7). Therefore, there would be no impact.

d) Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundations?

Less than Significant Impact. There are no nearby bodies of water of sufficient size or shape to generate a standing wave resulting in seiche and the Project site's distance from the Pacific Ocean and the intervening Coast Ranges preclude occurrence of a tsunami. The site's flat topography and its distance from flood-prone bodies of water make inundation by mudflow an unlikely occurrence. As mentioned above in Impact Assessment i, no structures housing people are associated with the Project and operational staff would be unchanged from existing conditions. Therefore, any impacts would be less than significant

The Project is located within the inundation zone of Lake Oroville and would likely be flooded if Oroville Dam were to experience failure. However, the Project involves improvements to an existing WWTP to which the flooding risks are an aspect of the baseline conditions. The Project does not propose the development of housing or habitable structures, that would result in increased threat to staff onsite. Construction staff associated with the Project would occupy the site on a short-term and temporary basis. Upon implementation, personnel onsite would be unchanged from existing conditions; therefore, any impacts would be less than significant.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than Significant Impact with Mitigation Incorporated. As noted in Impact Assessment b) above the Project would not involve withdrawals from an aquifer or groundwater table and would not interfere with groundwater recharge and therefore could not be in conflict with sustainable groundwater management plans. Any potential impacts to water quality have been discussed above in Impact Assessment a) and were determined to be less than significant with Mitigation Measures HYD-1a-1c incorporated.

3.11.3.2 Mitigation.

See **Mitigation Measures HYD-1a, 1b,** and **1c** above.

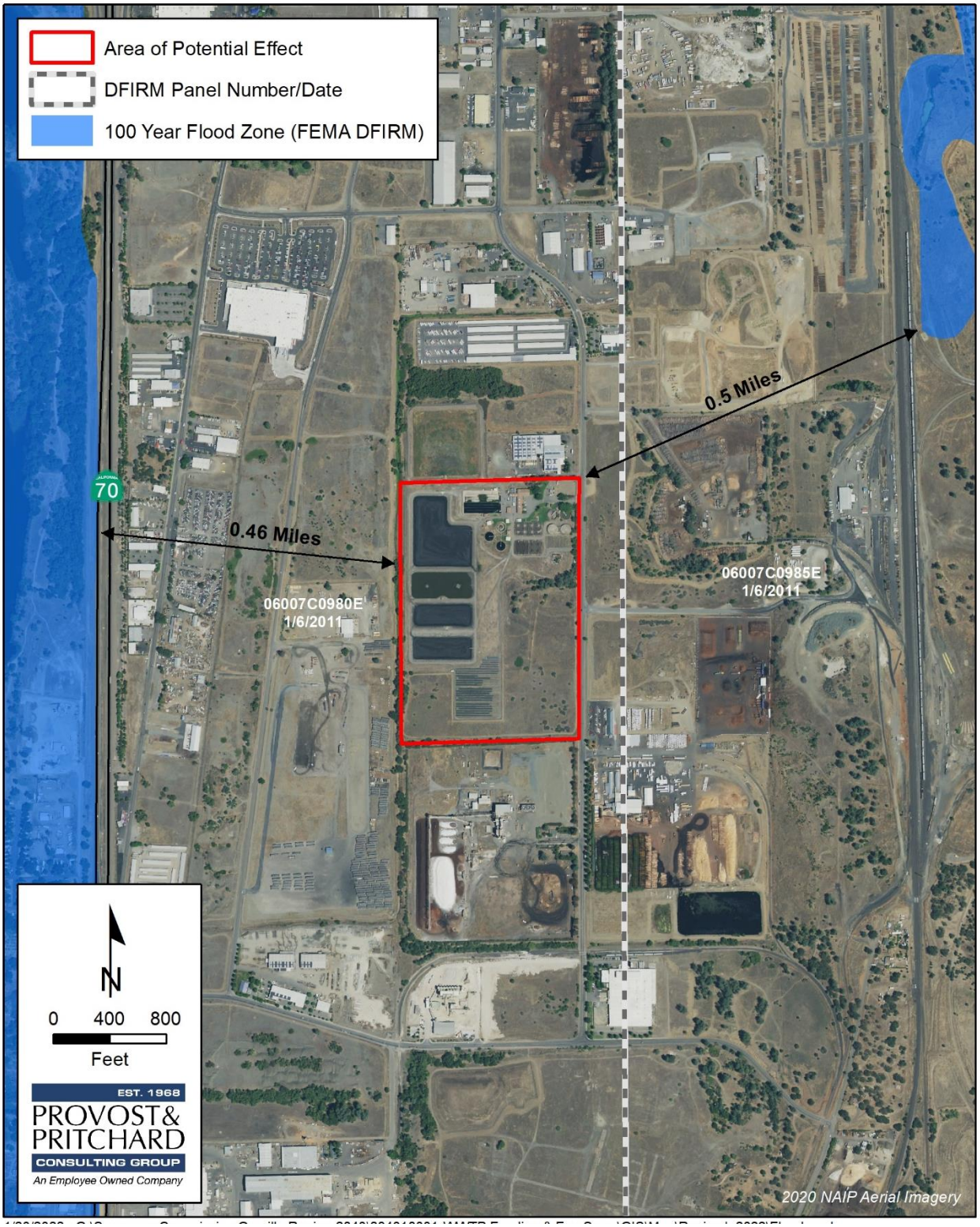

Figure 3-7. FEMA Flood Map

3.12 Land Use and Planning

Table 3-18. Land Use and Planning Impacts

Land Use and Planning					
	Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Physically divide an established community?	☐	☐	☐	☒
b)	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

3.12.1 Environmental Setting

The Project's setting is an existing WWTP located within the South Oroville Industrial District. Although much of the Industrial District is undeveloped, with an expanse of vacant lots that are not served by utility connections or public streets, land uses in the vicinity include a variety of industrial businesses, such as machine rental shops, lumber yards, and metal shops. South Oroville Industrial District also includes some commercial businesses unrelated to industrial use, such as Feather River Cinemas, as well as several historic cemeteries. As displayed **Figure 3-8,** General Plan land use designations for the site are Industrial and Public. As shown in **Figure 3-9**, the site is zoned M-2 (Intensive Industrial) and PQ (Public Quasi Public).

3.12.2 Regulatory Setting

3.12.2.1 Federal

There are no federal regulations, plans, programs, and guidelines associated with land use and planning that are applicable to the Project.

3.12.2.2 State

There are no State regulations, plans, programs, and guidelines associated with land use and planning that are applicable to the Project.

3.12.2.3 Local

Oroville 2030 General Plan: The Oroville 2030 General Plan contains several goals and policies relating to land use and planning; however, none are relevant to this Project's CEQA review.

3.12.3 Impact Assessment

a) Would the project physically divide an established community? and,

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?

No Impacts. The existing WWTP has provided municipal wastewater treatment services to the community of Oroville and surrounding areas since its establishment in 1959. The Project does not involve the development of habitable structures or the conversion of land use. Surrounding lands consist primarily of vacant lots and

industrial uses. The Project would not physically divide any established community or conflict with any applicable plans, policies, ordinances, or regulations. There would be no impact.

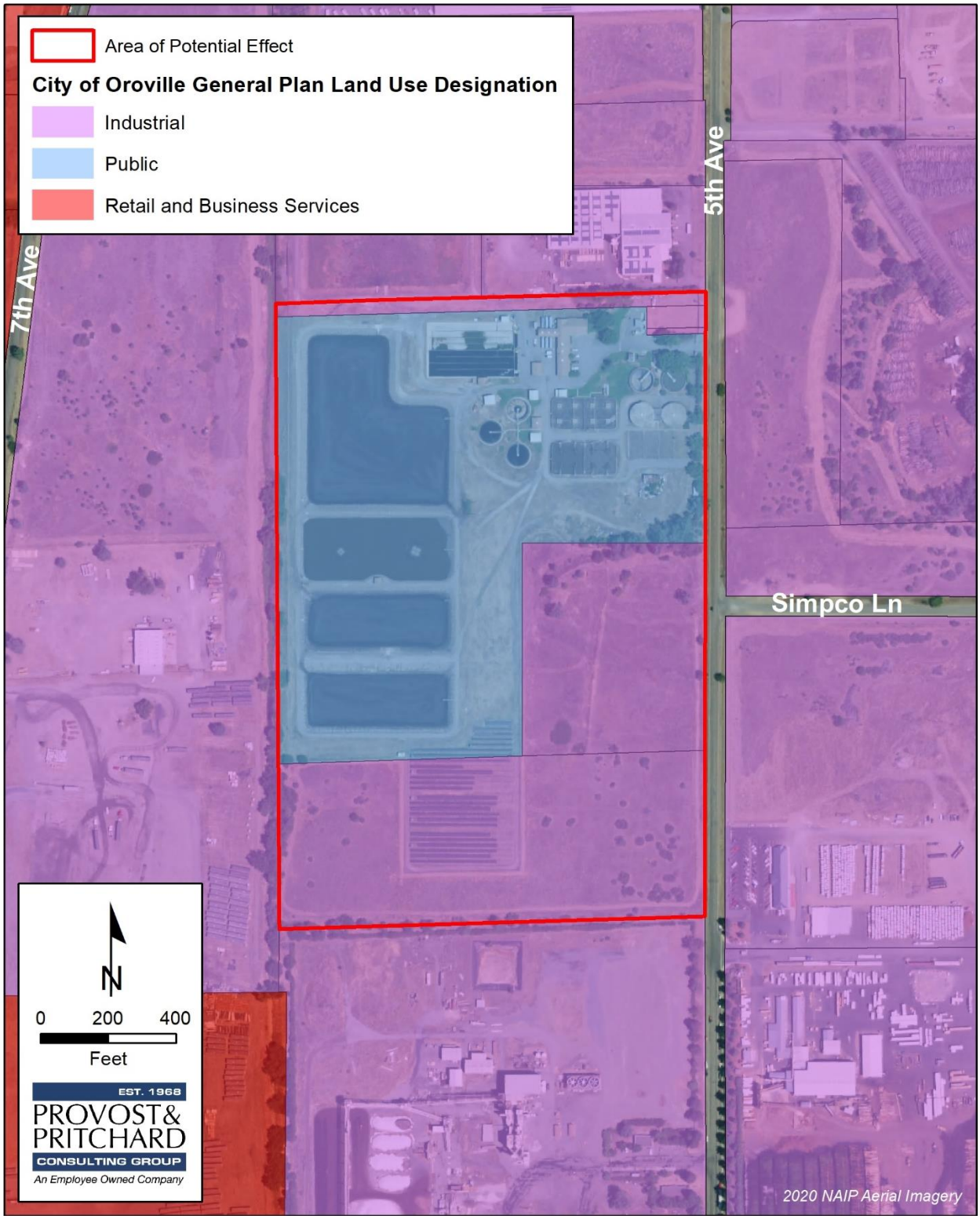

Figure 3-8. General Plan Land Use Designation Map

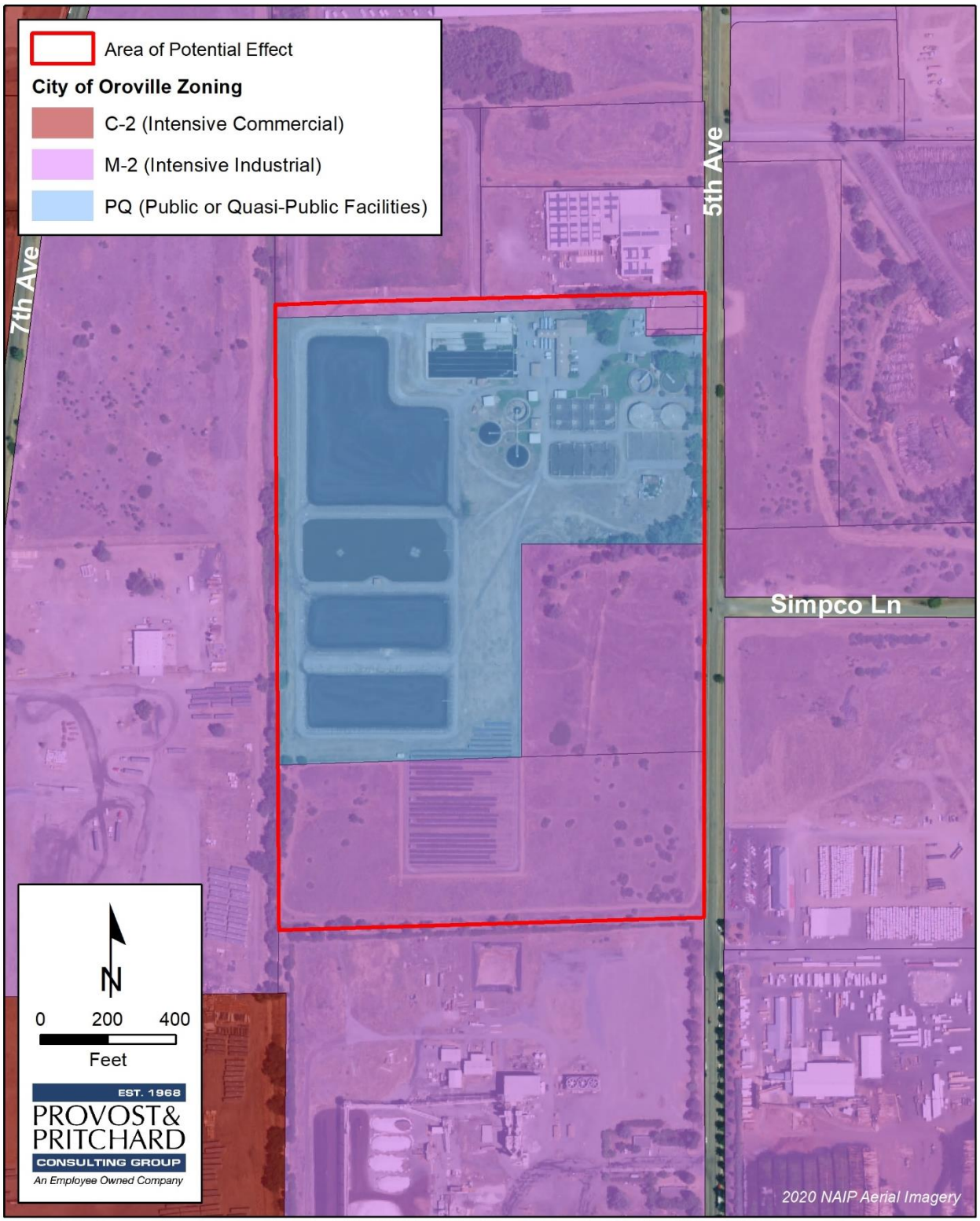

Figure 3-9. Zone District Map

3.13 Mineral Resources

Table 3-19. Mineral Resources Impacts

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

3.13.1 Environmental Setting

Oroville was settled in 1849, at the height of the California Gold Rush, after the discovery of gold along the Feather River. Early miners recovered gold from the area by hand using picks, shovels, and gold pans. Towards the end of the 19th century, dredging became the preferred method for extracting minerals. Despite its historical importance, gold mining has dwindled and been replaced by sand and gravel operations.

Oroville is located with Butte County's central "gravel belt," a region characterized by the collection of sediment that has been washed down from the Sierra Nevada to the slower waters of the valley, like the Feather River. Gravel and sand are primarily valued as a construction material, although they are also mined for silica, which is used as an abrasive in toothpaste, cleansers, and fiberglass.

3.13.2 Regulatory Setting

3.13.2.1 Federal

There are no federal regulations, plans, programs, and guidelines associated with mineral resources that are applicable to the Project.

3.13.2.2 State

There are no State regulations, plans, programs, and guidelines associated with mineral resources that are applicable to the Project.

3.13.2.3 Local

Oroville 2030 General Plan: The Oroville 2030 General Plan contains several goals and policies relating to mineral resources; however, none are relevant to this Project's CEQA review.

3.13.3 Impact Assessment

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? and,

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

No Impacts. The California Geological Survey Division of Mines and Geology has not classified the Project site as a Mineral Resource Zone under the Surface Mining and Reclamation Act (SMARA). California's Division of Oil, Gas and Geothermal Resources has no records of active oil or gas wells on the Project site. No known mineral resources are present within the Project area. Therefore, implementation of the Project would not result in the loss of availability of a known mineral resource since no known mineral resources occur in this area. There would be no impact.

3.14 Noise

Table 3-20. Noise Impacts

Noise					
	Would the project result in:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Generation of a substantial temporary or permanent noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b)	Generation of excessive ground borne vibration or ground borne noise levels?	☐	☐	☒	☐
c)	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

3.14.1 Environmental Setting

The Project involves improvements to an existing WWTP, within the South Oroville Industrial District. The surrounding vicinity is comprised predominantly of vacant lots, machine shops, and other industrial uses. The existing WWTP is located approximately 0.5 mile east of State Route 70 and 0.4 mile west of the Union Pacific Railroad.

Typical noise around the Project area are associated with industrial practices, as well as traffic. Major mobile noise sources in the City of Oroville include vehicular traffic, trains, and aircraft. Industrial processes involving large scale mechanical equipment and the associated operation of trucks can also be a substantial source of noise. The City's daytime noise compatibility standard for non-transportation sources is 50 dBA.

3.14.2 Regulatory Setting

3.14.2.1 Federal

There are no federal regulations, plans, programs, and guidelines associated with noise that are applicable to the Project.

3.14.2.2 State

There are no State regulations, plans, programs, and guidelines associated with noise that are applicable to the Project.

3.14.2.3 Local

Oroville 2030 General Plan[38]: According to the Noise Element of the Oroville 2030 General Plan, Table NOI-7, a noise impact from a non-transportation source would be considered significant if the Project exposes noise-

[38] Oroville 2030 General Plan. Noise Element. http://www.cityoforoville.org/home/showdocument?id=12189 Accessed 12 November 2018.

sensitive land uses, such as residential homes, playgrounds, or parks to exterior noise levels in excess of 70 dB during daytime hours (7:00 am – 10:00 pm) or 65 dB during nighttime hours (10:00 pm – 7:00 am).

The Oroville 2030 General Plan sets forth the following goals and policies relating to noise, and which have potential relevance to the Project's CEQA review:

Goal NOI-1: Minimize community exposure to excessive noise by ensuring compatible land uses relative to noise sources.

Policy P1.1: Include noise considerations in land use planning, transportation planning and project design decisions.

Policy P1.7: Only allow land uses to exceed the noise exposure standards in Tables NOI-6 and NOI-7 if the proposed use can be shown to serve the greater public interests of the citizens of Oroville.

Goal NOI-2: Reduce noise levels from sources such as domestic uses, construction, and mobile sources including motor vehicles and traffic.

Policy P2.2: Enforce provisions of the Community Noise Ordinance, which limits maximum permitted noise levels that cross property lines and impact adjacent land uses.

Policy P2.3: Limit noise generating construction activities located within 1,000 feet of residential uses to daytime hours between 7:00 am and 6:00 pm on weekdays and non-holidays.

Policy P2.4: Require the following standard construction noise control measures to be included as requirements at construction sites in order to minimize construction noise impacts:

- Equip all internal combustion engine driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.

- Locate stationary noise generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction project area.

- Utilize "quiet" air compressors and other stationary noise-generating equipment where appropriate technology exists and is feasible.

- The project sponsor shall designate a "noise coordinator" who would be responsible for responding to any local complaints about construction noise. The noise coordinator will determine the cause of the noise complaint (e.g. starting too early, bad muffler) and will require that reasonable measures warranted to correct the problem be implemented. The project sponsor shall also post a telephone number for excessive noise complaints in conspicuous locations in the vicinity of the project site. Additionally, the project sponsor shall send a notice to neighbors in the project vicinity with information on the construction schedule and the telephone number for noise complaints.

Policy P2.6: Support efforts to reduce vehicle and equipment noise, e.g. through fleet and equipment modernization or retrofits, use of alternative fuel vehicles and installation of mufflers or other noise reducing equipment.

Oroville Municipal Code[39]: Chapter 9.20 of the Oroville Municipal Code contains the Noise Ordinance which places limits on noise levels and hours of construction.

3.14.3 Impact Assessment

a) Would the project result in generation of in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less than Significant Impact. The construction phase of the Project would involve temporary noise sources, originating predominantly from off-road equipment such as backhoes, tractors, and excavators. Construction would be limited to daytime hours and noise generated would not exceed the standards established in the Noise Element of the Oroville 2030 General Plan or the Community Noise Ordinance. The Project is located within the South Oroville Industrial District in an area accustomed to noises associated with heavy machinery and industrial processes. Implementation of the Project would involve the continued operation of the existing WWTP by current staff and would not generate significant new noise. Any impacts would be mild and temporary, and therefore, less than significant.

b) Would the project result in generation of excessive ground borne vibration or ground borne noise levels?

Less than Significant Impact. The construction phase of the Project is expected to include excavation and grading, both of which have potential to produce ground borne noises or ground borne vibration. However, as mentioned above in Impact Assessment a), the Project is located in an area accustomed to noises associated with heavy machinery, commercial truck traffic, and industrial processes. Furthermore, construction would be temporary, and the noises generated onsite would not vary substantially from existing noise conditions created by industrial processes in the vicinity. Operation of the Project does not involve any processes expected to generate ground borne vibration or ground borne noise levels. Any impacts would be temporary and less than significant.

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

No Impact. The Project is not located within an airport land use plan or within two miles of a public airport or public use airport. The nearest airport to the Project is the Oroville Municipal Airport, located approximately 2.3 miles west of the site. There would be no impact.

[39] Oroville Municipal Code. http://qcode.us/codes/oroville/ Accessed 12 November 2018.

3.15 Population and Housing

Table 3-21. Population and Housing Impacts

Population and Housing					
	Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b)	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.15.1 Environmental Setting

The Project's setting is an existing WWTP, surrounded by ruderal vacant lots and industrial uses in the southern portion of Butte County in the Sacramento Valley, and more specifically, within the City of Oroville's South Oroville Industrial District. Although much of the Industrial District is undeveloped, with an expanse of vacant lots that are not served by utility connections or public streets, land uses in the vicinity include a variety of industrial businesses, such as machine rental shops, lumber yards, and metal shops. South Oroville Industrial District also includes some commercial businesses unrelated to industrial use, such as Feather River Cinemas, as well as several historic cemeteries. The site is zoned M-2 (Intensive Industrial) and PQ (Public Quasi Public). Corresponding General Plan land use designations for the site are Industrial and Public.

The population of the City of Oroville, according to 2020 Census data, was 20,042 people, an increase in of 4,496 people since 2010. As of 2016 to 2020, there was an estimated average of 6,591 households with 2.73 persons per household.[40]

3.15.2 Regulatory Setting

3.15.2.1 Federal

There are no federal or State regulations, plans, programs, and guidelines associated with population or housing that are applicable to the Project.

3.15.2.2 State

There are no federal or State regulations, plans, programs, and guidelines associated with population or housing that are applicable to the Project.

3.15.2.3 Local

Oroville 2030 General Plan: The Oroville 2030 General Plan sets forth several goals and policies relating to population and housing, none of which are relevant to this Project's CEQA review.

[40] U.S. Census Quick Facts Data. https://www.census.gov/quickfacts/fact/table/orovillecitycalifornia,US/PST045221Accessed 4 April 2020.

3.15.3 Impact Assessment

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

No Impact. The Project does not propose additional housing or any related habitable housing infrastructure nor serve to promote population growth. Therefore, the Project would not encourage population growth directly or indirectly beyond that previously analyzed by the Census Bureau.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The Project would not encourage population growth directly or indirectly. No housing or habitable structures would be built, nor will any be removed. Implementation of the Project would not result in displacement of people or existing housing. Therefore, there would be no impact.

3.16 Public Services

Table 3-22. Public Services Impacts

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

3.16.1 Environmental Setting

Fire Protection: The Project area is served by the City of Oroville Fire Department, which is comprised one station at 2055 Lincoln Street, approximately 1.5 miles north-northeast of the Project site. However, the California Department of Forestry and Fire Protection/ Butte County Fire Department and El Medio Fire Protection District provide additional emergency services as part of an Automatic Aid Agreement with the City of Oroville Fire Department. The Oroville Fire Department, which is comprised one station at 2055 Lincoln Street, approximately 1.9 miles north-northeast of the Project site.

Police Protection: Police protection is provided by the City of Oroville Police Department, which is comprised of one station at 2055 Lincoln Street, approximately 1.5 miles north-northeast of the Project site.

Schools: The City of Oroville is served by three elementary school districts: Oroville City Elementary, Thermalito Union, Palermo Union; and two unified school districts: Oroville Union High, and Biggs Unified. The Project site is located within the Oroville City Elementary School District and the Oroville Union High School District. The nearest school to the Project is Oakdale Heights Elementary School, which is located approximately 1.0 mile south-southeast of the site.

Parks: The Oroville Parks Commission has adopted a standard of providing a minimum of three acres of neighborhood and community parks per 1,000 residents. Oroville has many recreational open space resources that are protected by State agencies or conservation trusts. For instance, the 12,000-acre Oroville Wildlife Refuge, which intersects the Oroville City limits, is a riparian forest that serves both as habitat and as a recreational destination for hiking, bird watching, canoeing, fishing, and seasonal hunting. Regional and State parks offer additional open space preserves and recreational wildlife-viewing opportunities. The City of Oroville

Department of Parks and Trees works with the Feather River Recreation and Park District and the California Department of Parks and Recreation to coordinate open space corridor connections where possible and provide regional recreation opportunities in the Oroville area. The largest park in the City is the 210-acre Riverbend Park, which is located along the Feather River. Riverbend Park includes four pavilions, public restrooms, paved trails, play areas, dog park, boat dock, and fishing ponds. The park is currently undergoing major restorations after many of its facilities were damaged during the Oroville Spillway Incident in 2017.

Riverbend Park, which includes the Pat Alley Memorial Dog Park, is the nearest park, located approximately 1.2 miles north-northwest of the Project site.

Landfills: The nearest landfill to the Project site is the Neal Road Recycling and Waste Facility, located approximately 15.5 miles to the north-northwest.

3.16.2 Regulatory Setting

3.16.2.1 Federal

There are no federal or State regulations applicable to this Project.

3.16.2.2 State

There are no federal or State regulations applicable to this Project.

3.16.2.3 Local

Oroville 2030 General Plan: The Oroville 2030 General Plan sets forth several goals and policies relating to public services, none of which are relevant to this Project's CEQA review.

3.16.3 Impact Assessment

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

No Impact. The Project would not require the addition or alteration of any public services. The site is within the City of Oroville and would utilize existing services provided by the City. There would be no impact.

Fire Protection – The existing WWTP would continue to be served by the City of Oroville Fire Department, which is comprised one station at 2055 Lincoln Street, approximately 1.9 miles north-northeast of the Project site, and the California Department of Forestry and Fire Protection/ Butte County Fire Department and El Medio Fire Protection District would continue to provide additional emergency services as part of an Automatic Aid Agreement with the City of Oroville Fire Department. The existing WWTP is currently equipped with fire hydrants and fire extinguishers. Furthermore, all site improvements related to fire protection would be performed pursuant to the Uniform Fire Code and National Fire Protection Association (NFPA) 820: Standard for Fire Protection in Wastewater Treatment Collection Facilities. There would be no impact to public fire services.

Police Protection – The City of Oroville Police Department would continue to provide police protection to the existing WWTP upon implementation of the proposed improvements. Emergency response is adequate to the Project site. The closest police station is located at 2055 Lincoln Street, approximately 1.5 miles north-northeast of the Project site. No residential or office construction is proposed for this Project and no additional police protection would be required. There would be no impact.

Schools – The nearest school to the Project is Oakdale Heights Elementary School, which is located approximately 1.0 mile south-southeast of the site. The Project would not result in an increase of population that would require additional school facilities; therefore, there would be no impact.

Parks and other public facilities –As the Project would not induce population growth, directly or indirectly, the Project would not create a need for additional park or recreational services. Riverbend Park, which includes the Pat Alley Memorial Dog Park, is the nearest park, located approximately 1.2 miles north-northwest of the Project site. No parks or additional public facilities would be impacted by this Project.

3.17 Recreation

Table 3-23. Recreation Impacts

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

3.17.1 Environmental Setting

The Oroville Parks Commission has adopted a standard of providing a minimum of three acres of neighborhood and community parks per 1,000 residents. Oroville has many recreational open space resources that are protected by State agencies or conservation trusts. For instance, the 12,000-acre Oroville Wildlife Refuge, which intersects the Oroville City limits, is a riparian forest that serves both as habitat and as a recreational destination for hiking, bird watching, canoeing, fishing, and seasonal hunting. Regional and State parks offer additional open space preserves and recreational wildlife-viewing opportunities. The City of Oroville Department of Parks and Trees works with the Feather River Recreation and Park District and the California Department of Parks and Recreation to coordinate open space corridor connections where possible and provide regional recreation opportunities in the Oroville area. The largest park in the City is the 210-acre Riverbend Park, which is located along the Feather River. Riverbend Park includes four pavilions, public restrooms, paved trails, play areas, dog park, boat dock, and fishing ponds. The park is currently undergoing major restorations after many of its facilities were damaged during the Oroville Spillway Incident in 2017.

Riverbend Park, which includes the Pat Alley Memorial Dog Park, is the nearest park, located approximately 1.2 miles north-northwest of the Project site.

3.17.2 Regulatory Setting

3.17.2.1 Federal

There are no federal, State or local regulations, plans, programs, or guidelines associated with recreation that are applicable to the Project.

3.17.2.2 State

There are no federal, State or local regulations, plans, programs, or guidelines associated with recreation that are applicable to the Project.

3.17.2.3 Local

There are no federal, State or local regulations, plans, programs, or guidelines associated with recreation that are applicable to the Project.

3.17.3 Impact Assessment

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

No Impact. The Project involves improvements to an existing WWTP. No population growth would be associated with the Project, and therefore, it would not increase the demand for recreational facilities or put a strain on the existing recreational facilities. There would be no impact.

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

No Impact. The Project does not include recreational facilities. As there is no population growth associated with the Project, construction or expansion of nearby recreational facilities would not be necessary. There would be no impact.

3.18 Transportation

Table 3-24. Transportation Impacts

Transportation					
	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b)	Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c)	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?	☐	☐	☐	☒
d)	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e)	Result in inadequate emergency access?	☐	☐	☒	☐
f)	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☒	☐

3.18.1 Environmental Setting

Oroville's existing roadway system serves local and regional travel, with local streets primarily serving residential commuter trips and Highways 70 and 162 serving regional travel. Traffic congestion typically occurs on arterials and collectors. Highways 70 and 162 are the primary transportation corridors extending through Oroville. Highway 162 serves regional travel to Highway 99 to the west and local trips to and from the commercial businesses along the transportation corridor.

The Oroville General Plan calculates the Level of Service (LOS) for each roadway in the circulation system in order to evaluate the quality of existing traffic conditions. LOS is a general measure of traffic operating conditions, which assigns as letter grade from A (least congested) to F (most congested). LOS A represents

free-flow travel with an excellent level of comfort, convenience, and freedom to maneuver. LOS F exists when the volume of traffic exceeds the capacity of the roadway, often resulting in a bottleneck or stop-and-go traffic.[41]

The existing WWTP located in the South Oroville Industrial District. Primary access to the site would be through the entrance on South Fifth Avenue, which is approximately 0.6 miles east of State Route 70 and 0.4 miles west of the Union Pacific Railroad. South Fifth Avenue is a two-lane collector street with a Level of Service of D, which represent high-density, but stable flow. Construction access will be provided by a construction driveway from South Fifth Avenue just south of the plant facilities within the APE.

Vehicle miles traveled (VMT) Travel to and from the site after the Project is completed would remain consistent with baseline VMT since the Project does not propose any new habitable structures or an increase in operational or maintenance staff as a result of the Project. VMT traveled may increase slightly during construction related to contractor employee and equipment trips, however, this slight increase would be transient and temporary, and as noted above VMT would return to baseline existing conditions after construction is complete.

3.18.2 Regulatory Setting

3.18.2.1 Federal

There are no federal laws or regulations that apply to the Project.

3.18.2.2 State

There are no State laws or regulations that apply to the Project.

3.18.2.3 Local

Oroville 2030 General Plan: The Oroville 2030 General Plan sets forth several goals and policies relating to transportation and traffic, none of which are relevant to this Project's CEQA review.

3.18.3 Impact Assessment

a) Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

b) Would the project conflict or be inconsistent with CEQA Guidelines section 10564.3, subdivision (b)?

Less than Significant Impact. The Project involves improvements to an existing WWTP located in the South Oroville Industrial District. Primary access to the site would be through the entrance on Fifth Avenue, which is approximately 0.6 miles east of State Route 70 and 0.4 miles west of the Union Pacific Railroad. Fifth Avenue is a two-lane collector street with a Level of Service of D, which represent high-density, but stable flow. Construction traffic associated with the Project would be minimal and temporary, lasting approximately 18 months. Although construction would temporarily result in an increase in worker vehicle trips, Project activities do not propose any lane closures or traffic diversions. Operations would not require additional staffing or maintenance, and therefore operational traffic will be unchanged from existing conditions. There would not be a significant adverse effect to existing roadways in the area.

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

Less than Significant Impact. The Project does propose a new access road that would be paved and traverse around the north side of existing main plant building. The design and construction of this access road would

[41] City of Oroville General Plan. http://www.cityoforoville.org/home/showdocument?id=12188 Accessed 9 November 2018.

not increase hazards to to any unordinary features such as sharp curves or dangerous intersections. Any impacts would be considered less than significant.

d) Would the project result in inadequate emergency access?

Less than Significant Impact. The Project proposes to construct a new access road that would be paved and traverse around the north side of existing main plant building, however no existing main roads would be modified as part of the Project that would result in inadequate emergency access in the surrounding areas. Although construction would temporarily result in an increase in worker vehicle trips, Construction traffic associated with the Project would be minimal and temporary, lasting approximately 18 months. Furthermore, Project activities do not propose any lane closures or traffic diversions that would impact emergency access. The impacts to emergency access would be considered less than significant.

3.19 Tribal Cultural Resources

Table 3-25. Tribal Cultural Resources Impacts

Tribal Cultural Resources				
Would the project:	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	☐	☒	☐	☐
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☒	☐	☐
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

3.19.1 Environmental Setting

The Project lies within Oroville which is the ancestral homeland of the Maidu people. The Maidu have been divided into three primary groups: the Nisenan; the Mountain Maidu; and the KonKow. The KonKow continued to reside in the Oroville area at the time of Euro-American contact and were likely the final native occupants of lands within the Project area. Villages were most intensely occupied during winter months and frequently located on flats adjoining streams and on ridges above rivers and creeks. The Oroville area provided an abundance of year-round food sources in the form of seasonal harvests as well as hunting, gathering, and fishing.

Upon the discovery of gold, there was a rapid influx of Euro-Americans and native tribal populations dwindled. Disturbance caused by dredging and other intensive mining techniques substantially affected pre-historic sites in the area.

Presently, the most common type of prehistoric site found in Oroville and surrounding areas are milling stations, followed by temporary campsites, habitation sites, burial locations, and rock features. There have been 33 prehistoric sites recorded within the Oroville area, including two known Native American burials.[42]

3.19.1.1 Records Search

A records search from the Northeast Information Center (NEIC) of the California Historical Resources Information System (CHRIS), located at California State University, Chico was conducted in January 2020. The

[42] Oroville 2030 General Plan. http://www.cityoforoville.org/home/showdocument?id=12188 Accessed 12 December 2018.

NEIC records search includes a review of all recorded archaeological and built-environment resources as well as a review of cultural resource reports on file. In addition, the California Points of Historical Interest (SPHI), the California Historical Landmarks (SHL), the California Register of Historical Resources (CAL REG), the National Register of Historic Places (NRHP), and the California State Built Environment Resources Directory (BERD) listings were reviewed for the above referenced APE and an additional ¼-mile radius. Due to the sensitive nature of cultural resources, archaeological site locations are not released. (**Appendix C**).

In addition to the official records and maps for archaeological sites and surveys in Butte County, the following historic references were also reviewed: Historic Property Data File for Butte County (OHP 2012); The National Register Information System (National Park Service [NPS] 2020); Office of Historic Preservation, California Historical Landmarks (OHP 2020); California Historical Landmarks (OHP 1996 and updates); California Points of Historical Interest (OHP 1992 and updates); Directory of Properties in the Historical Resources Inventory (1999); Caltrans Local Bridge Survey (Caltrans 2019); Caltrans State Bridge Survey (Caltrans 2018); and Historic Spots in California (Kyle 2002). Further discussion and details of the research efforts and references can be found in **Appendix C**

3.19.1.2 Native American Outreach

The Native American Heritage Commission (NAHC) in Sacramento was also contacted in January 2020. They were provided with a brief description of the Project and a map showing its location and requested that the NAHC perform a search of the Sacred Lands File to determine if any Native American resources have been recorded in the immediate APE. The NAHC identifies, catalogs, and protects Native American cultural resources -- ancient places of special religious or social significance to Native Americans and known ancient graves and cemeteries of Native Americans on private and public lands in California. The NAHC is also charged with ensuring California Native American tribes' accessibility to ancient Native American cultural resources on public lands, overseeing the treatment and disposition of inadvertently discovered Native American human remains and burial items, and administering the California Native American Graves Protection and Repatriation Act (CalNAGPRA), among many other powers and duties. NAHC provide a current list of Native American Tribal contacts to notify of the project. The four tribal representatives identified by NAHC were contacted in writing via United States Postal Service in a letter mailed January 15, 2020, informing each Tribe of the Project. A follow up call was made February 4, 2020. Further discussion and details of the outreach efforts can be found in **Appendix C**.

3.19.1.3 Field Survey

On January 23, 2020, ECORP conducted an initial intensive pedestrian survey under the guidance of the Secretary of the Interior's Standards for the Identification of Historic Properties (NPS 1983) using transects spaced 15 meters apart. An additional intensive pedestrian survey of the expanded APE was conducted on August 4, 2021 (See **Appendix C**). During both surveys, the ground surface was examined for indications of surface or subsurface cultural resources. The general morphological characteristics of the ground surface were inspected for indications of subsurface deposits that may be manifested on the surface, such as circular depressions or ditches. Whenever possible, the locations of subsurface exposures caused by such factors as rodent activity, water or soil erosion, or vegetation disturbances were examined for artifacts or for indications of buried deposits. No subsurface investigations or artifact collections were undertaken during the pedestrian survey. The field methods employed for the pedestrian survey and impact evaluations are described in detail and the full report can be found in **Appendix C**.

3.19.1.4 Project Site Existing Conditions

The Project area consists entirely of the existing WWTP. The ground surface has been heavily disturbed by previous grading and the development of existing facilities. No archaeological resources were identified by the ECORP archaeologists during their field surveys. The origin of all existing structures can be traced to 1959-1961 or 1974 to present. Original structures, constructed during 1959-1961, were evaluated for historical

significance, and according to the Cultural Resources Inventory Reports (**Appendix C**), none of the existing structures were deemed eligible for inclusion in the California Register of Historical Resources under any of the relevant criteria. No part of the site is considered a significant historical resource or unique archaeological resource.

3.19.2 Regulatory Setting

3.19.2.1 Federal

There are no federal regulations, plans, programs, or guidelines associated with tribal cultural resources that are applicable to the Project.

3.19.2.2 State

Assembly Bill 52 (PRC Section 21080.3.1): The Project is subject to consultation with California Native American Indian Tribes, if required pursuant to California Public Resources Code Section 21080.3.1 (AB 52). The PRC requires the lead agency must, within 14 days of determining that an application for a project is complete, notify any California Native American Tribe in writing that has previously requested such notification about the project from the lead agency and inquire whether the Tribe wishes to initiate formal consultation. Tribes have 30 days from receipt of said notification to request formal consultation; tribal consultation is required only with those tribes that formally request consultation, in writing. The lead agency then has 30 days to initiate the consultation, which then continues until the parties come to an agreement regarding necessary mitigation for impacts to Tribal Cultural Resources or agree that no mitigation is needed, or one or both parties determine that negotiation occurred in good faith, but no agreement will be made.

As mentioned above in **Section 3.19.1.3**, four local Tribes, as identified by NAHC, were contacted in writing by ECORP Consulting in January 2020. The Mooretown Rancheria of Maidu Indians sent a response letter indicating that they wanted to be notified in the event there were tribal cultural resources found on the Project site. The three tribes that did not respond to the written contact were telephoned in February 2020. No additional comments were received.

California Environmental Quality Act (PRC 21000, *et seq.)* and the CEQA Guidelines (CCR Title 14, Chapter 3, Section 15000. *et seq*.):
CEQA is applicable to discretionary actions by State or local lead agencies. Under CEQA, lead agencies must analyze impacts to cultural resources, generally (see Section **3.6**) and Tribal Cultural Resources (TCR), specifically (this section) which analyzes impacts to tribal cultural resources directly related to California Native American Tribes geographically affiliated with the Project area. The distinction for TCR analysis versus the broader topic of "Cultural" impacts in Section 3.5 is that TCRs are described as a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with tribal cultural values specific to a California Native American Tribe.

3.19.2.3 Local

There are no local regulations, plans, programs, or guidelines associated with tribal cultural resources that are applicable to the Project.

3.19.3 Impact Assessment

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:

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

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

Less than Significant Impact with Mitigation Incorporated. SC-OR, as a public lead agency, has not received any formal requests for notification from any State tribes, pursuant to AB52. Nonetheless cultural resources inventories/pedestrian surveys/cultural evaluation reports for the Project area, were conducted by qualified archaeological consultants: ECORP in December of 2019 with subsequent updating in February 2021. A record search at the Northeast Center of the California Historical Resources Information System, California State University, Chico. In addition, a record search of the Native American Heritage Commission (NAHC) Sacred Lands File were also conducted by ECORP, which resulted in declarations that no sacred sites or tribal cultural resources are known to exist within the Project site or in the vicinity.

In addition to the searches of the Sacred Lands File, NAHC provided each a list of local Native American Tribes. A list of four local Native American Tribes to ECORP in November 2019. These tribes are anticipated by NAHC to have knowledge of cultural resources specific to each tribe in the vicinity of the Project.

The NAHC provided the following list of four Native American Tribes to ECORP on January 8, 2020. The following four tribes were contacted by ECORP in a letter dated January 15, 2020.

1. *KonKow Valley Band of Maidu, Jessica Lopez, Chairperson*
2. *Mechoopda Indian Tribe, Dennis Ramirez, Chairperson*
3. *Mooretown Rancheria of Maidu Indians, Guy Taylor*
4. *Mooretown Rancheria of Maidu Indians, Benjamin Clark, Chairperson*

ECORP Consulting received one comment letter from the Mooretown Rancheria Tribe requesting they be notified in the event any information, human remains or other tribal cultural items are found so they can process them according to tribal custom. A copy of Tribal correspondence can be found within the Cultural Resources Inventory Survey prepared by ECORP (**Appendix C**).

No archaeological resources were identified as documented in either of the cultural surveys/evaluations contained in **Appendix C**. Therefore, it is concluded, barring evidence to the contrary, that there is little or no chance the Project will cause a substantial adverse change to the significance of a tribal cultural resource as defined.

3.19.3.1 Mitigation

In the event potential tribal cultural resources or suspected tribal human remains are discovered during site disturbing activities it is recommended that Mitigation Measures **CUL-1a, b, and c** , described above in Section **3.6**, would mitigate potential impacts to less than significant.

3.20 Utilities and Service Systems

Table 3-26. Utilities and Service Systems Impacts

Utilities and Service Systems					
	Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Require or result in the construction of new water or water, wastewater treatment facilities or storm drainage, electric power, natural gas or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b)	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
c)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d)	Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e)	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

3.20.1 Environmental Setting

The Project site is located within the City of Oroville, Butte County, which is served by the existing WWTP. The site and surrounding area is essentially fully developed with urban residential, commercial and industrial uses. The site is already served by existing utility services as described below.

3.20.1.1 Water Supply

The Project site is located within the northern portion of the Wyandotte Creek subbasin of the Sacramento Valley Groundwater Basin, as defined by the California Department of Water Resources (DWR) Groundwater Bulletin 118. Declines in groundwater basin storage and groundwater overdraft are recurring problems throughout California. Wyandotte Creek subbasin is identified by DWR as a Medium Priority subbasin.

The Project area is served by California Water Service, Oroville District, and according to the 2015 Urban Water Management Plan[43], "the Oroville District has surplus water in most years." Furthermore, Cal Water, the local domestic water purveyor, has made the determination that "the combined surface water and groundwater supply of the Oroville District is projected to be able to serve all demands under all hydrologic conditions."[44]

[43] CalWater-Oroville. Urban Water Management Plan. https://www.calwater.com/docs/uwmp2015/oro/2015_Urban_Water_Management_Plan_Final_(ORO).pdf Accessed 9 November 2018.
[44] Ibid.

3.20.1.2 Wastewater Collection and Treatment

The Project involves improvements to an existing WWTP intended to meet increasingly stringent waste discharge requirements. The Project would beneficially impact the City's wastewater collection and treatment and would not adversely affect the facilities.

3.20.1.3 Landfills

The closest landfill to the Project site is the Neal Road Recycling and Waste Facility located approximately 15.5 miles north-northwest of the site.

3.20.2 Regulatory Setting

3.20.2.1 Federal

Clean Water Act: The Clean Water Act (CWA) is intended to restore and maintain the chemical, physical, and biological integrity of the nation's waters (33 CFR 1251). The regulations implementing the CWA protect waters of the U.S. including streams and wetlands (33 CFR 328.3). The CWA requires states to set standards to protect, maintain, and restore water quality by regulating point source and some non-point source discharges. Under Section 402 of the CWA, the National Pollutant Discharge Elimination System (NPDES) permit process was established to regulate these discharges.

3.20.2.2 State

State Water Resources Control Board's Waste Discharge Requirement (WDR) Program: State regulations pertaining to the treatment, storage, processing, or disposal of solid waste are found in Title 27, CCR, Section 20005, *et seq*. (hereafter Title 27). In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to Section 20230 of Title 27.

Assembly Bill 2882: AB 2882 relates to water conservation programs and authorizes any public entity that supplies water at retail or wholesale for the benefit of persons within the service area or area of jurisdiction of the public entity to adopt and enforce, by ordinance or resolution, a water conservation program to reduce the quantity of water used by those persons for the purpose of conserving the water supplies of the public entity.

This bill authorizes a public entity to adopt allocation-based conservation water pricing meeting certain requirements. The bill would require that revenues derived from allocation-based conservation water pricing not exceed the reasonable cost of water service, including basic costs and incremental costs, as defined.

California Green Building Standards Code: Part 11 of Title 24, CCR, is the California Green Building Standards Code, also known as the CAL Green Code. CAL Green applies to the planning, design, operation, construction, use, and occupancy of every newly-constructed building or structure on a statewide basis, including additions and alterations to existing buildings which increase the building's conditioned area, interior volume, or size. The purpose of CAL Green is to improve public health, safety, and general welfare through enhanced design and construction of buildings using concepts which reduce negative impacts and promote those principles which have a positive environmental impact and encourage sustainable construction practices.

CAL Green also specifies requirements for applications regulated by the California Building Standards Commission (BSC), California Energy Commission (CEC), Division of the State Architect (DSA), Department

of Public Health (CDPH), Office of Statewide Health Planning and Development (OSHPD), and the Department of Water Resources (DWR).

Section 5.408 of Cal Green requires a minimum of 65% of nonhazardous construction and demolition waste be recycled and/or salvaged for reuse.

3.20.2.3 Local

Oroville 2030 General Plan[45]: The Oroville 2030 General Plan sets for the following goals and policies regarding utilities and service systems and which have potential relevance to the Project's CEQA review:

Policy P16.7: Encourage new development to use construction materials that have been recycled or contain recycled content.

Policy P17.7: New development shall comply with Green Building Standards adopted by the California Building Standards Commission at the time of building permit application.

Policy P6.10: Encourage the use of drought-resistant landscaping and the use of reclaimed wastewater for agriculture and landscape irrigation supply water. Ensure that all reclaimed wastewater complies with State wastewater treatment and reclamation regulations and standards.

Policy P6.11: Support all efforts to encourage water conservation by Oroville residents and businesses, and public agencies, including working with water providers, to implement water conservation programs and incentives that facilitate conservation efforts.

Goal PUB-7: Collect, treat, and dispose of wastewater in ways that are safe, sanitary, environmentally acceptable, and financially sound.

Policy P7.1: Ensure that adequate wastewater collection and wastewater treatment services continue to be available to developed properties throughout the Planning Area.

Policy P7.9: Encourage SCOR to begin planning and implementing expansions to the existing Regional Wastewater Treatment Master Plan to meet future demand for wastewater treatment generated by this General Plan at least four years prior to reaching the capacity of existing facilities.

Goal PUB-8: Collect, store, and dispose of stormwater in ways that are safe, sanitary, environmentally acceptable, and financially sound.

Policy P8.1: Use a site-specific stormwater drainage plan or the stormwater drainage master plan to be prepared under A8.1 to determine whether to require storm drainage analysis for projects within the Planning Area, and, if necessary, make storm drainage improvements a condition of development approval.

Policy P8.2: Encourage project design that minimizes the potential for wind and water erosion to occur. Where necessary, require the preparation and implementation of a soil erosion plan, including soil erosion mitigation during construction.
Policy P8.3: Encourage the utilization of Best Engineering Practices for stormwater collection and disposal.

Policy P8.9: Require installation of temporary drainage facilities as necessary during construction activities in order to adequately mitigate stormwater impacts.

[45] Oroville 2030 General Plan. http://www.cityoforoville.org/home/showdocument?id=12187 Accessed 23 October 2018.

Goal PUB-9: Collect, store, transport, recycle and dispose of solid waste in ways that are safe, sanitary, and environmentally acceptable, while striving to reduce the overall generation of solid waste.

Policy P9.3: Reduce the use of non-biodegradable and non-recyclable materials by encouraging Oroville residents, businesses, and industries to seek waste reduction at the source, including reduced use of packaging and use of reusable, rather than disposable products.

Policy P9.4: Support innovative programs that recognize local businesses', agencies' and organizations' efforts to reduce waste.

3.20.3 Impact Assessment

a) Would the project require or result in the construction of new water or wastewater treatment or storm water drainage, electric power, natural gas or telecommunication facilities the construction or expansion of which could cause significant environmental effects?

Less than Significant Impact. The Project involves improvements to an existing WWTP and does not propose any uses that would create additional demand for domestic water, nor would the Project result in an increase in wastewater. Furthermore, the Project would not require the construction of new water or wastewater treatment facilities or the expansion of existing facilities. There is no population increase associated with Project and operations will not require additional staffing or maintenance. Therefore, Project-related impacts to water or wastewater treatment facilities would be less than significant.

b) Does the Project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

No Impact. The Project involves improvements to the existing WWTP. The Project would have sufficient water supplies and be available to serve the project future development during normal, dry and multiple dry years. Impacts would be less than significant.

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

No Impact. The Project involves improvements to the existing WWTP. There is no population increase associated with Project and operations would not require additional staffing or maintenance. There would be no impact.

d) Would the project generate solid waste in excess of State or local standards in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less than Significant Impact. The construction phase of the Project would generate solid waste in the form of construction debris. However, the Project would comply with Section 5.408 of the California Green Building Standards Code, which requires a minimum of 65% of nonhazardous construction and demolition waste be recycled and/or salvaged for reuse. The operational phase of the Project would continue to produce biosolids, which are transferred to Neal Road Recycling and Waste Facility after treatment. The Project involves improvements to an existing WWTP in order to meet increasingly stringent waste discharge requirements. Operation of the proposed improvements would not increase the output of biosolids in quantity or frequency. Furthermore, operations would not require additional staffing or maintenance, and therefore solid waste associated with employees and vendors onsite would be unchanged from existing conditions. Any Project-related impacts associated with landfill capacity and solid waste disposal would be less than significant.

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

No Impact. The Project would continue to comply with all federal, State, and local statutes and regulations related to solid waste. Therefore, there would be no impact.

3.21 Wildfire

Table 3-27. Wildfire Impacts

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

3.21.1 Environmental Setting

The Project is located within the southern portion of Butte County in the Sacramento Valley within the City of Oroville and its South Oroville Industrial District. The Project site comprises the existing WWTP in the South Oroville Industrial District abutting South 5th Avenue. The Project is surrounded by land planned and zoned for industrial use. Pursuant to Government Code 51175-89, the California Department of Forestry and Fire Protection (CAL FIRE) identifies areas of Very High Fire Hazard Severity Zones (VHFHSZ) and publishes maps illustrating these locations. As shown on **Figure 3-10**, the Project site is not within such a zone.

The site does straddle Moderate and Urban Local Responsibility Zones, also shown on **Figure 3-10**. The responsibility for the prevention and suppression of fires within these zones belongs to the City Fire Department and pursuant to any mutual aid agreements with e Butte County Fire Department (BCFD) and the California Department of Forestry and Fire Protection (CAL FIRE).

3.21.2 Regulatory Settings

3.21.2.1 Federal

There are no federal regulations, plans, programs, or guidelines associated with wildfires that are applicable to the Project.

3.21.2.2 State

Given the project is not located in a High Fire Hazard Severity Zone, there are no state regulations, plans, programs, or guidelines associated with wildfires that are applicable to the Project.

3.21.2.3 Local

Oroville 2030 General Plan[46]: The Oroville 2030 General Plan sets for the following goals and policies regarding wildfires and which have potential relevance to the Project's CEQA review since the Project is not located in or near a FHSZ:

Policy HS-P11.1: Fire hazards shall be considered in all land use and zoning decisions, environmental review, subdivisions review and the provision of public services.

Policy HS-P11.2: Create communities that are resistant to wildfire by supporting the implementation of community wildfire protection plans and wildfire fuel load reduction measures in coordination with the appropriate government, community group, or non-profit organization and California Department of Forestry and Fire Protection (CAL FIRE).

Policy HS-P11.3: The County supports the Wildfire Mitigation Action Plan, the Butte County Local Hazard Mitigation Plan (LHMP), and the Butte Unit Community Wildfire Protection Plan prepared by CAL FIRE and will cooperate with the Butte County Fire Department and the Butte County Fire Safe Council in implementing these plans.

Goal HS-11: Reduce risks from wildland and urban fire.

3.21.3 Impact Assessment

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? and,

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

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

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

Less than Significant Impacts. The nearest FHSZ, according to CAL FIRE[47], is located approximately 1.4-miles northeast of the Project (see **Figure 3-10.** Therefore, the site is at minimal risk to wildland type fires. The existing WWTP is located within the City of Oroville's urban area of responsibility for fire suppression and prevention but is situated on a flat site that is not subject to downslope instability or landslides. The Project does not include any residential components and is not located within a flood zone (see **Figure 3-7**) that would subject it to post-fire run-off or debris flow related to flooding. The Project would be subject to local building permit approvals including compliance with the California Fire Code requirements applicable to the facilities being constructed. This impact would be less than significant.

[46] Oroville 2030 General Plan. http://www.cityoforoville.org/home/showdocument?id=12187 Accessed 23 October 2018.
[47] CAL FIRE. Butte County FHSZ Map. http://fire.ca.gov/fire_prevention/fhsz_maps_butte Accessed 28 November 2018.

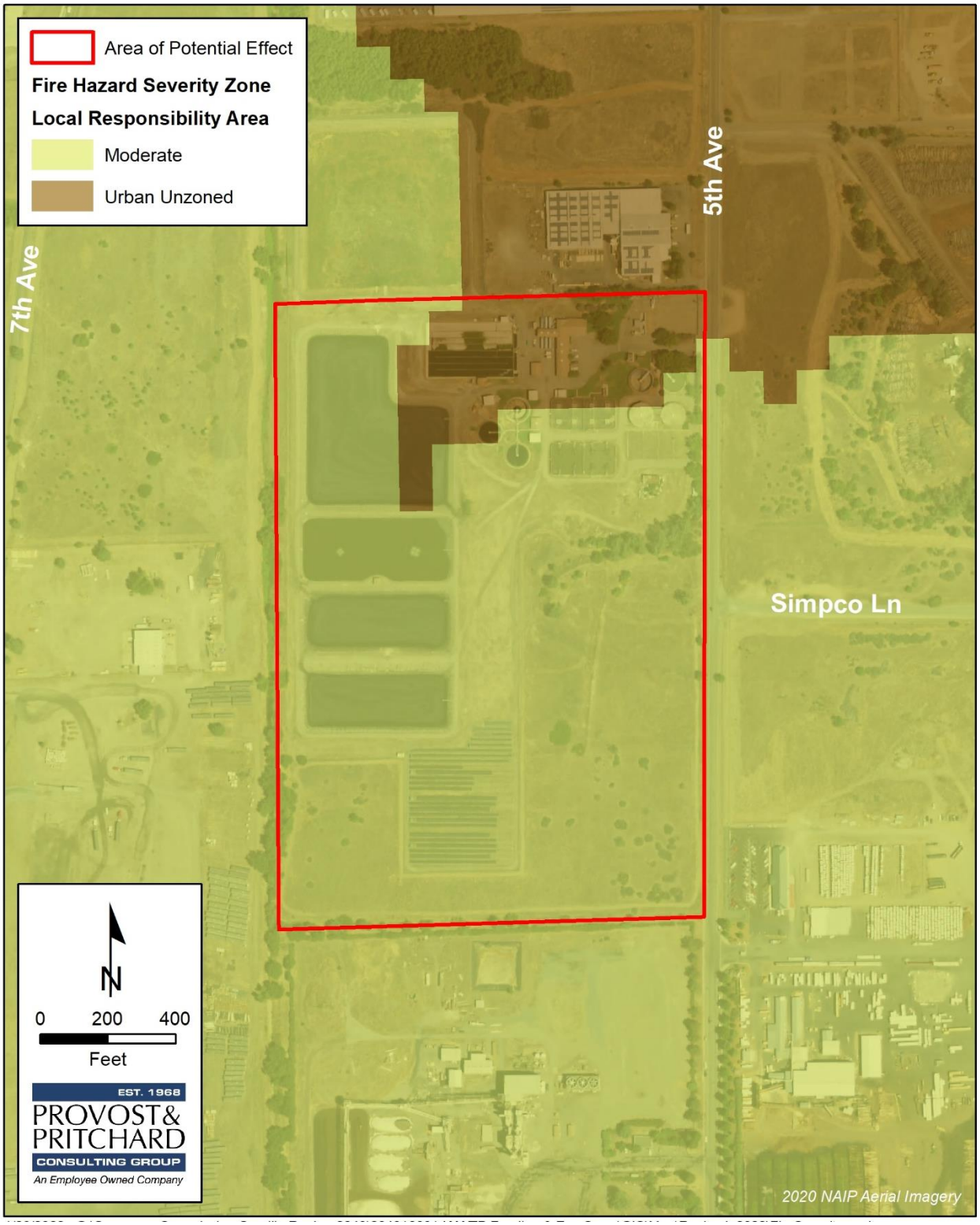

Figure 3-10. Fire Hazard Severity Zone Map

3.22 CEQA Mandatory Findings of Significance

Table 3-28. Mandatory Findings of Significance Impacts

Mandatory Findings of Significance				
Does the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

3.22.1 Impact Assessment

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

Less than Significant Impact with Mitigation Incorporated. The analysis conducted in this Initial Study/Mitigated Negative Declaration results in a determination that the Project, with incorporation of mitigation measures, would have a less than significant effect on the environment. The potential for impacts to biological resources and cultural resources from the implementation of the Project would be less than significant with the incorporation of the mitigation measures discussed in **Chapter 4** . Accordingly, the Project would involve no potential for significant impacts through the degradation of the quality of the environment, the reduction in the habitat or population of fish or wildlife, including endangered plants or animals, the elimination of a plant or animal community or example of a major period of California history or prehistory.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Less than Significant Impact. CEQA Guidelines Section 15064(i) States that a Lead Agency shall consider whether the cumulative impact of a project is significant and whether the effects of the project are cumulatively considerable. The assessment of the significance of the cumulative effects of a project must, therefore, be conducted in connection with the effects of past projects, other current projects, and probable future projects. The Project involves improvements to the existing WWTP in order to upgrade and replace aged or obsolete equipment, improve the quality of effluent discharged into the Feather River, and to reduce odors associated with the wastewater treatment process. No additional roads would be constructed as a result of the Project, nor would any additional public services be required. The Project is intended to improve the municipal wastewater treatment process and would not result in direct or indirect population growth. Therefore, implementation of the Project would not result in significant cumulative impacts and all potential impacts would be reduced to less than significant through the implementation of mitigation measures and basic regulatory requirements incorporated into future Project design.

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

Less than Significant Impact. The Project would involve improvements to the existing WWTP. The Project in and of itself would not create a significant hazard to the public or the environment. On the contrary, implementation of the Project would improve the quality of effluent discharged into the Feather River and mitigate odors associated with the wastewater treatment process. Construction-related air quality/dust exposure impacts could occur temporarily as a result of construction. However, implementation of basic regulatory requirements identified in this IS/MND would ensure that impacts are less than significant. Therefore, the Project would not have any direct or indirect adverse impacts on humans. This impact would be less than significant.

Chapter 4 Mitigation Monitoring and Reporting Program

This Mitigation Monitoring and Reporting Program (MMRP) has been formulated based upon the findings of the Initial Study/Mitigated Negative Declaration (IS/MND) for the existing SC-OR Wastewater Treatment Plant (WWTP) Upgrade Project (Project) in the City of Oroville. The MMRP lists mitigation measures recommended in the IS/MND for the proposed Project and identifies monitoring and reporting requirements.

Table 4-1 presents the mitigation measures identified for the proposed Project. Each mitigation measure is numbered with a symbol indicating the topical section to which it pertains, a hyphen, and the impact number. For example, AIR-2 would be the second mitigation measure identified in the Air Quality analysis of the IS/MND.

The first column of **Table 4-1** identifies the mitigation measure. The second column, entitled "When Monitoring is to Occur," identifies the time the mitigation measure should be initiated. The third column, "Frequency of Monitoring," identifies the frequency of the monitoring of the mitigation measure. The fourth column, "Agency Responsible for Monitoring," names the party ultimately responsible for ensuring that the mitigation measure is implemented. The last columns will be used by the County to ensure that individual mitigation measures have been complied with and monitored.

Table 4-1. Mitigation Monitoring and Reporting Program

Mitigation Monitoring and Reporting Program					
Mitigation Measures	**When Monitoring is to Occur**	**Frequency of Monitoring**	**Agency Responsible for Monitoring**	**Method to Verify Compliance**	**Verification of Compliance**
Biological Resources					
Valley Elderberry Beetle					
BIO 1a Fencing and Avoidance Areas					
All areas to be avoided during construction activities shall be fenced and/or flagged as close to construction limits as possible. This includes the required 20-foot no-disturbance buffers around elderberry shrubs, as well as any other areas within 165 feet of the shrub clusters that may feasibly be avoided. Fencing would be inspected by a qualified biologist prior to the start of work.	Prior to construction and during construction	Daily	SC-OR		
BIO-1b Worker Education					
Prior to the start of work a qualified biologist shall provide training for all contractors, work crews, and any onsite personnel on the status of the VELB, its host plant and habitat, the need to avoid damaging the APE's elderberry shrubs, and the possible penalties for non-compliance.	Prior to the start of construction	One training prior to the start of construction	SC-OR		
BIO 1c Timing					
As much as feasible, all activities occurring within 165 feet of an elderberry shrub shall be conducted outside of the flight season of the VELB (March-July).	During construction activities	Daily from March through July	SC-OR		
BIO 1d Chemical Usage					
Throughout the operational life of the project, herbicides shall not be used within the dripline of elderberry shrubs, and insecticides shall not be used within 100 feet of an elderberry shrub. All chemicals shall be applied using a backpack sprayer or similar direct application method.	Prior to construction and during construction	Daily	SC-OR		
Burrowing Owl					
BIO-2a Take Avoidance Surveys					
Take avoidance surveys for burrowing owls shall be conducted by a qualified biologist within 30 days prior to the start of construction activities in the APE's disturbed	Within 30 days prior to the start of construction	One survey conducted within 30 days	SC-OR		

Mitigation Monitoring and Reporting Program					
Mitigation Measures	**When Monitoring is to Occur**	**Frequency of Monitoring**	**Agency Responsible for Monitoring**	**Method to Verify Compliance**	**Verification of Compliance**
savanna habitat. The surveys shall be conducted according to methods described in the Staff Report on Burrowing Owl Mitigation (CDFG 2012). The survey shall cover proposed work areas and adjacent lands within 200 meters, where potential nesting or roosting habitat is present ("survey area").	activities in the APE's disturbed savanna habitat.	prior to the start of construction			
BIO-2b Avoidance of Nest Burrows					
During the burrowing owl breeding season (February 1-August 31), any active nest burrows that are identified shall be avoided by a minimum distance of 200 meters. The avoidance areas shall be enclosed with temporary fencing to prevent encroachment by construction equipment and workers. Buffers shall remain in place for the duration of the breeding season, unless otherwise arranged with CDFW. After the breeding season, passive relocation of any remaining owls may take place as described below.	Prior to construction and during construction	During the burrowing owl breeding season (February 1-August 31	SC-OR		
BIO-2c Avoidance or Passive Relocation of Resident Owls					
During the non-breeding season (September 1-January 31), resident owls occupying burrows in the APE's disturbed savanna habitat shall either be avoided or passively relocated to alternative habitat. If avoidance is elected, a 50-meter no-disturbance buffer shall be established around the occupied burrows, to remain in place until a qualified biologist determines that the burrows are no longer active. If the applicant chooses to passively relocate resident owls, this activity shall be conducted in accordance with a relocation plan prepared by a qualified biologist.	Prior to construction and during construction	During the non-breeding season (September 1-January 31)	SC-OR		
Nesting Raptors and Migratory Birds					
BIO-3a: Avoidance of Nesting Birds					
In order to avoid impacts to nesting raptors and migratory birds, construction shall occur, where possible, outside the nesting season, or between September 1st and January 31st.	During construction activities	Daily, during construction activities	SC-OR	Written record of starts/stops/resumptions of all construction periods.	

Mitigation Monitoring and Reporting Program					
Mitigation Measures	**When Monitoring is to Occur**	**Frequency of Monitoring**	**Agency Responsible for Monitoring**	**Method to Verify Compliance**	**Verification of Compliance**
BIO-3b: Pre-Construction Nesting Bird Survey					
If construction must occur during the nesting season (February 1 – August 31), a qualified biologist shall conduct pre-construction surveys for active raptor and migratory bird nests within 30 days of the onset of these activities. Nest surveys shall include all areas on and within 500 feet of the APE, where accessible. If no active nests are found within the survey area, no further mitigation is required.	Within 30 days prior to the start of work performed from February 1 to August 31	Once at the beginning of any construction and again after any 30-day period of construction suspension.	SC-OR	Written documentation by qualified biologist submitted to and approved by SCOR.	
BIO-3c: Establish Buffers					
Should any active nests be discovered in or near proposed construction zones, the biologist would identify a suitable construction-free buffer around the nest. This buffer would be identified on the ground with flagging or fencing and would be maintained until a qualified biologist has determined that the young have fledged.	On discovery of active nests	Once, per nest	SC-OR	Written documentation by qualified biologist submitted to and approved SCOR	
Roosting Bats including the Townsend's Big-eared Bat					
BIO 4a Temporal Avoidance					
To avoid potential impacts to maternity bat roosts, tree removal and building demolition/relocation shall occur outside of the period between April 1 and September 30, the time frame within which colony-nesting bats generally assemble, give birth, nurse their young, and ultimately disperse.	Tree removal and building demolition/relocation should occur outside of the period between April 1 and September 30	Daily between April 1 and September 30	SC-OR		
BIO-4b Preconstruction Surveys					
If tree removal or building demolition/relocation must occur between April 1 and September 30, then within 30 days prior to these activities, a qualified biologist shall survey the affected features for roosting bats. The biologist shall look for individuals, guano, and staining, and shall listen for bat vocalizations. If necessary, the biologist shall wait for nighttime emergence of bats from roost sites. If no bats are	Within 30 days prior to the start of work performed from April 1 to September 30	One survey conducted within 30 days prior to the start of construction activities occurring between April 1	SC-OR		

Mitigation Monitoring and Reporting Program					
Mitigation Measures	**When Monitoring is to Occur**	**Frequency of Monitoring**	**Agency Responsible for Monitoring**	**Method to Verify Compliance**	**Verification of Compliance**
observed to be roosting or breeding, then no further action would be required, and the activities could proceed.		and September 30			
BIO-4c Minimization					
If a non-breeding bat colony is detected in any of the trees or buildings to be removed, the individuals shall be humanely evicted under the direction of a qualified biologist to ensure that bats are not harmed by these activities.	Prior to construction and during construction	Daily prior to and during construction activities	SC-OR		
BIO-4d Avoidance of Maternity Roosts					
If a maternity colony is detected in any of the trees or buildings to be removed, the biologist shall identify a suitable disturbance-free buffer around the colony. The buffer shall remain in place until the biologist determines that the nursery is no longer active.	Prior to construction and during construction	Daily prior to and during construction activities	SC-OR		
Degradation of Water Quality in Seasonal Drainages and Downstream Waters					
BIO-5a: Erosion Control Measures					
The applicant shall define the limits of any construction within the Project area. Wattles or other appropriate erosion controls shall be placed between ground-disturbing activities and areas where sedimentation could flow out of the site.	Prior to construction and during construction	Daily, during ground-disturbing activities	SC-OR	Written/photographic evidence retained in the project file.	
BIO-5b: Storm Water Pollution Prevention Plan					
The applicant shall arrange for the preparation of a Storm Water Pollution Prevention Plan (SWPPP) that identifies measures to prevent erosion and sedimentation from construction activities and measures to prevent contaminants from entering downstream waters. The SWPPP shall be implemented in full during project construction.	Prior to construction and during construction	Daily, during construction activities	SC-OR	Retention of approved SWPPP in the file.	

Mitigation Monitoring and Reporting Program					
Mitigation Measures	**When Monitoring is to Occur**	**Frequency of Monitoring**	**Agency Responsible for Monitoring**	**Method to Verify Compliance**	**Verification of Compliance**
BIO-5c: Use of Best Management Practices					
Best Management Practices (BMPs) shall be implemented as appropriate. BMP's may include measures in BIO-5a and BIO-5b above, and may include any number of additional measures appropriate for this particular site and this particular project, including, but not-limited to, grease traps in staging areas, regular site inspections for pollutants that could be carried by runoff into natural drainages, etc.	During construction	Daily, during construction	SC-OR	Retention of written/photographic documentation of all BMPs utilized and maintained throughout construction.	
Cultural Resources					
CUL-1a: : Subsurface Deposits					
If subsurface deposits believed to be cultural or human in origin are discovered during construction, all work shall halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for pre-contact and historic archaeologist, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find. If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required.	In the event subsurface deposits believed to be cultural or human in origin	During excavation or construction activities	SC-OR	Written reports by qualified archaeologist documenting actions and methodologies taken for mitigation if cultural artifacts are discovered.	
CUL-1b: Archaeological Resources					
If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, he or she shall immediately notify SC-OR and USDA. The agencies shall consult on a finding of eligibility and implement appropriate treatment measures if the find is determined to be a Historical Resource under CEQA or a Historic Property under Section 106. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not a Historical Resource under CEQA or Historic Property under Section 106; or 2) that the	In the event that the find does represent a cultural resource from any time period or cultural affiliation	During excavation or construction activities	SC-OR	Written reports by qualified archaeologist, coroner, or tribal representatives documenting actions and methodologies taken for mitigation if human remains are discovered.	

Mitigation Monitoring and Reporting Program					
Mitigation Measures	**When Monitoring is to Occur**	**Frequency of Monitoring**	**Agency Responsible for Monitoring**	**Method to Verify Compliance**	**Verification of Compliance**
treatment measures have been completed to their satisfaction.					
CUL-1c: Human or potentially human remains					
If the find includes human remains, or remains that are potentially human, he or she shall ensure reasonable protection measures are taken to protect the discovery from disturbance (AB 2641). The archaeologist shall notify the Butte County Coroner (per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California PRC and AB 2641 will be implemented. If the Coroner determines the remains are Native American and not the result of a crime scene, the Coroner will notify the NAHC, who then will designate a Native American Most Likely Descendant (MLD) for the project (§ 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC may mediate (§ 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.	In the event that human remains, or remains that are potentially human are found	During excavation or construction activities	SC-OR	Written reports by qualified archaeologist, coroner, or tribal representatives documenting actions and methodologies taken for mitigation if human remains are discovered.	

Mitigation Monitoring and Reporting Program					
Mitigation Measures	**When Monitoring is to Occur**	**Frequency of Monitoring**	**Agency Responsible for Monitoring**	**Method to Verify Compliance**	**Verification of Compliance**
Hazards and Hazardous Materials					
HAZ-1a (Renovation/Demolition involving materials containing asbestos)					
Prior to proceeding with planned renovation and/or demolition operations involving specified portions of the referenced commercial property, have all building materials identified as containing asbestos in amounts (>0.1%) which would be impacted by planned work operations removed by a qualified, licensed abatement contractor with a demonstrated history of similar projects and regulatory compliance. Ensure that all work operations are conducted in accordance with applicable EPA and OSHA requirements. The Contractor would be required to document evidence of current training, licensing, and asbestos specific insurance coverage.	Prior to construction and during construction	Daily, during ground-disturbing activities	SC-OR		
HAZ-1b (Asbestos – Non-Friable to Friable conditions)					
Compliance with the notification requirements of Cal-OSHA and the air district and pay fees (if required). Wait the required ten (10) working-days after filing the notification before proceeding with regulated renovation activities exceeding the threshold amount (>160 s.f. or 260 l.f.) of RACM, and/or any non-friable ACM which becomes friable, or "any" demolition based on NESHAP and NESHAP requirements.	Prior to construction and during construction	Daily, during ground-disturbing activities	SC-OR		
HAZ-1c (Hazard Communication Training - Lead)					
Upon commencing work operations involving disturbance of lead, the Contractor engaged in the work shall conduct an "Initial Exposure Assessment" for each planned "trigger task" in accordance with Cal/OSHA regulations to determine potential lead exposures to workers. Prior to commencing such operations, the Contractor must assume workers would be exposed to airborne levels above the PEL and must provide workers with Hazard Communication Training, and personal protective equipment, including HEPA-equipped respirators. A hand-washing facility must be present at the worksite.	Prior to construction and during construction	Daily, during ground-disturbing activities	SC-OR		

Mitigation Monitoring and Reporting Program					
Mitigation Measures	**When Monitoring is to Occur**	**Frequency of Monitoring**	**Agency Responsible for Monitoring**	**Method to Verify Compliance**	**Verification of Compliance**
HAZ-1d (Disposal – Lead Containing Paint)					
Prior to Disposal of lead-containing paint or elements which include lead-containing paint, the State of California requires that representative sample(s) of the waste stream waste (along with the substrate where bonded) be submitted to an accredited laboratory and that a Total Threshold Limit Concentration (TTLC) test be performed to determine the total lead content.	Prior to construction and during construction	Daily, during ground-disturbing activities	SC-OR		
HAZ-1e (Toxicity Characteristic Leaching Procedure)					
Dependent upon the result, a SW846 (STLC) may be required to determine the amount of leachable lead. These tests would determine transportation and disposal requirements and may greatly impact the ultimate cost of the work. Due to potential delays associated with conducting the analysis of the waste, it is recommended that the waste characterization be initiated prior to soliciting bids for the work.	Prior to construction and during construction	Daily, during ground-disturbing activities	SC-OR		
Hydrology and Water Quality					
HYD-1a: Erosion Control Measures					
The applicant shall define the limits of any construction within the APE. Wattles or other appropriate erosion controls will be placed between ground-disturbing activities and areas where sedimentation could flow out of the APE.	Prior to construction and during construction	Daily, during ground-disturbing activities	SC-OR	Retention of written/photographic documentation of all BMPs utilized and maintained throughout construction.	
HYD-1b: Storm Water Pollution Prevention Plan					
The applicant shall arrange for the preparation of a Storm Water Pollution Prevention Plan (SWPPP) that identifies measures to prevent erosion and sedimentation from construction activities and measures to prevent contaminants from entering downstream waters. The SWPPP shall be implemented in full during project construction.	Prior to construction and during construction	Daily, during construction activities	SC-OR	Retention of approved SWPPP in the file.	
HYD-1c: Use of Best Management Practices					

Mitigation Monitoring and Reporting Program					
Mitigation Measures	**When Monitoring is to Occur**	**Frequency of Monitoring**	**Agency Responsible for Monitoring**	**Method to Verify Compliance**	**Verification of Compliance**
BMPs shall be implemented as appropriate. BMP's may include measures in a and b above, and may include any number of additional measures appropriate for this particular site and this particular project, including, but not-limited to, grease traps in staging areas, regular site inspections for pollutants that could be carried by runoff into natural drainages, etc.	During construction	Daily, during construction	SC-OR	Retention of written/photographic documentation of all BMPs utilized and maintained throughout construction.	

Appendix A

CalEEMod Output Files

Appendix B

Biological Evaluation

Appendix C

Cultural Resources Inventory and Historical Property Evaluation Report

Appendix D

USDA NRCS Soil Resource Report

Appendix E

Pre-Demolition Asbestos Survey & Lead Based Paint Inspection Report