
**OROVILLE FACILITIES
ENTERPRISE RECREATION AREA UPGRADES
FERC PROJECT NO. 2100**



**FINAL
CEQA INITIAL STUDY AND MITIGATED NEGATIVE
DECLARATION**

October 2024



**State of California
California Natural Resources Agency
DEPARTMENT OF WATER
RESOURCES
Oroville Field Division**

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COMMONLY USED TERMS, ACRONYMS & ABBREVIATIONS

AB	Assembly Bill
ADA	Americans with Disabilities Act of 1990
amsl	above mean sea level
AQP	Air Quality Plan
BCAQMD	Butte County Air Quality Management District
BCFD	Butte County Fire Department
BCSO	Butte County Sheriff's Office
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
CAP	Climate Action Plan
CARB	California Air Resources Board
CCR	California Code of Regulations
CDC	California Department of Conservation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CH ₄	methane
CHP	California Highway Patrol
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
CRHR	California Register of Historic Resources
CWPP	Community Wildfire Prevention Plan
DPM	diesel particulate matter
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
ESA	environmentally sensitive area
FERC	Federal Energy Regulatory Commission
IS/MND	Initial Study/Mitigated Negative Declaration
MMRP	Mitigation and Monitoring Reporting Program
N ₂ O	nitrogen dioxide
NO _x	nitrogen oxides
NRHP	National Register of Historic Places

O3	ozone
PM2.5	particulate matter 2.5 microns or less in diameter
PM10	particulate matter 10 microns or less in diameter
PRC	Public Resources Code
Project	Oroville Facilities Enterprise Recreation Area Upgrades
ROG	reactive organic gases
SB	Senate Bill
SMAQMD	Sacramento Metropolitan Air Quality Management District
SRA	State Recreation Area
State	State of California
SWPPP	Stormwater Pollution Prevention Plan
U.S.	United States
VMT	vehicle miles traveled

PREFACE

INTRODUCTION/OVERVIEW

The Department of Water Resources (SCRWA) distributed the Draft Initial Study/Mitigated Negative Declaration (IS/MND) for the Oroville Facilities Enterprise Recreation Area Upgrades (Project) for public review on September 16, 2024 with the public review period ending on October 16, 2024. During this time, one comment letter was received.

The Final IS/MND has been prepared pursuant to the California Environmental Quality Act (CEQA, California Public Resources Code, Section 21000 et seq.), and in accordance with the Guidelines for Implementation of CEQA (14 CCR 15000 et seq.).

CONTENTS OF THE FINAL ISMND

This final version of the IS/MND includes changes made to clarify information presented in the Draft IS/MND and only minor technical changes or additions have been made. These changes and additions to the IS/MND do not raise important new issues related to significant effects on the environment. The ISMND has been completely reprinted from the Draft IS/MND and changes made since public review are signified as a replacement, addition, or revision to existing text. Revisions to existing text are signified by a marker line on the side of the page (as shown to the left), ~~strikeout~~ (i.e., ~~strikeout~~) where text is removed, and by underlined text (i.e., underline) where text is added for clarification. The Final ISMND contains all comments received on the Draft IS/MND in Appendix D.

1.0 INTRODUCTION

1.1 BACKGROUND

The California Department of Water Resources (DWR) proposes the Oroville Facilities Enterprise Recreation Area Upgrades (Project) that will extend the existing boat ramp, install a new restroom facility, conduct existing trail upgrades, update site accessibility, and add picnic tables. This Initial Study/Mitigated Negative Declaration (IS/MND) describes and evaluates the potential environmental impacts associated with the Project in accordance with the laws and rules governing the California Environmental Quality Act (CEQA) process contained in the CEQA statute (Public Resources Code [PRC] Section 21000, et seq.), the CEQA Guidelines (California Code of Regulations [CCR], Title 14, Section 15000, et seq.), published court decisions interpreting CEQA, and locally adopted CEQA procedures. Table 1.1-1 provides the CEQA Appendix G overview of the Project.

1.2 PROJECT OVERVIEW

Table 1.2-1 provides an overview of the Project in accordance with CEQA Guidelines Appendix G.

Table 1.2-1. Project Overview

Item	Title	Details
1.	Project Title	Oroville Facilities Enterprise Recreation Area Upgrades
2./5.	Lead Agency/Project Sponsor's Name and Address	California Department of Water Resources 460 Glen Drive Oroville, California 95966
3.	Contact Person and Phone Number	Contact: Cassandra Evenson Phone: (530) 534-2411 Email: Cassandra.Evenson@water.ca.gov
4.	Project Location	The Project is located in Butte County, California, on the South Fork of Lake Oroville on the northeast slope of the existing Enterprise area within the Lake Oroville State Recreation Area (SRA), which is owned by the California Department of Water Resources and licensed by the Federal Energy Regulatory Commission (FERC).
6./7.	General Plan Designation and Zoning	Butte County General Plan: Public Butte County Zoning: Public
8.	Description of Project	The Project involves the extension of the existing boat ramp and additional lower water ramp access, with a new parking area between the two. Additionally, the Project includes the expansion of existing restroom facilities and the addition of a trail for access to the new picnic area.

Item	Title	Details
9.	Surrounding Land Uses and Setting	The Project is surrounded predominantly by rural and developed areas, including, but not limited to, a State Recreation Area, open space, the City of Oroville, unincorporated communities, and associated infrastructure, such as roads and highways, and electrical utility lines that traverse the area.
10.	Other Public Agencies Whose Approvals Are Required (e.g., permits, financing approval, or participation agreement)	• FERC Project Number (No.) 2100 hydropower license recreation plan modification (completed) • United States (U.S.) Army Corps of Engineers (Clean Water Act [CWA] Section 404 Regional General Permit) • Central Valley Regional Water Quality Control Board (Programmatic 401 Certification issued) and potentially State Dredge and Fill Procedures approvals • State Historic Preservation Officer – National Historic Preservation Act Section 106 Concurrence

1.3 CEQA ENVIRONMENTAL REVIEW PROCESS

CEQA is the State of California’s (State) environmental law that generally requires State and local government agencies to inform decision-makers and the public about the potential adverse environmental impacts of proposed projects, and to reduce those adverse environmental impacts to the extent feasible. The intent of CEQA is to foster good planning and to inform agencies and the public about environmental issues during the planning process.

DWR has prepared this IS/MND to evaluate the Project for potential environmental effects in compliance with CEQA. DWR is the Lead Agency under CEQA and, in accordance with PRC Section 21067, has the principal responsibility for approving and carrying out the Project.

Based on the analysis presented in Chapter 3.0 of this IS/MND, and the field surveys conducted in support of that analysis, DWR has concluded that the Project has the potential to result in impacts on certain resources. However, potentially significant impacts would be reduced to a less-than-significant level with the implementation of DWR’s mitigation measures, as presented in Chapter 3.0. As such, when viewed in light of the whole record, substantial evidence supports DWR’s determination that the Project would not have a significant effect on the environment (CEQA Guidelines Sections 15063[a] and 15070[a]). Under CEQA Guidelines Section 15382, a significant effect on the environment is defined as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by a project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.

Since mitigation measures would reduce all potentially significant impacts to less-than-significant levels, an IS/MND has been deemed the appropriate CEQA disclosure document. Mitigation measures presented in this IS/MND will form the basis of DWR’s

Mitigation, Monitoring, and Reporting Program (MMRP) for the Project and future State permits, should they be required. The MMRP for the Project is included as Appendix C.

As the Lead Agency, DWR is also responsible for implementing and monitoring all components of the Project and maintaining documentation of compliance. A trustee agency is a public agency having jurisdiction by law over natural resources affected by a project that are held in trust for the people of the State. The RWQCB and CDFW, as trustee agencies, may use this CEQA document to issue a CWA Section 401 Water Quality Certification (WQC) or Lakebed Alteration Agreement (LSAA), respectively

The public and other local and State resource agencies ~~will be~~ were given the opportunity to review and comment on this document during the 30-day public review period (September 16 to October 16, 2024). DWR received a total of one comment on the Draft IS/MND. DWR staff has considered these comments and found that no substantial edits or revisions requiring recirculation are warranted. ~~Comments received during the 30-day review period will be considered by DWR prior to determining whether to adopt the IS/MND and approve the Project.~~

1.4 DOCUMENT ORGANIZATION

This IS/MND is organized as follows:

- **1.0 Introduction.** This chapter provides introductory information about the Project, the CEQA environmental review process, and document organization.
- **2.0 Project Description.** This chapter presents a detailed description of the Project, including its location, purpose, and components. This chapter also discusses Project construction and anticipated regulatory requirements.
- **3.0 Environmental Evaluation.** This chapter evaluates the Project's potential for substantial deviation from baseline conditions that would result in significant environmental impacts. Significant impacts are analyzed in accordance with the CEQA Guidelines.
- **4.0 List of Preparers.** This chapter includes a list of report preparers.
- **5.0 References Cited.** This chapter lists the references used in preparation of this IS/MND.

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2.0 PROJECT DESCRIPTION

DWR is proposing new and upgraded facilities in the Enterprise area of the Lake Oroville SRA. Under the Project, DWR would: (1) extend the existing Enterprise Boat Ramp; (2) construct a new, nearby boat ramp; (3) add a new parking lot situated between the boat ramp and the new ramp and a new parking lot access road; (4) improve existing restroom facilities to comply with the Americans with Disabilities Act of 1990 (ADA); (5) add a new picnic area; (6) update an existing trail to connect to the new picnic area; and (7) implement cut, fill, borrow, and bank stabilization associated with Project construction.

This section describes the location, purpose, and components of the Project, including individual features of the Project and the activities, access, equipment, and schedule associated with Project construction. In addition, this section discusses recreation facilities operation and maintenance of the Project once constructed and anticipated need for regulatory permits.

2.1 PROJECT LOCATION

The Project site is located on the South Fork of Lake Oroville on the northeast slope of the existing Enterprise area within the Lake Oroville SRA (Figure 2.2-1) and within the *Forbestown, California* U.S. Geological Survey (USGS) 7.5-minute quadrangle. To access the Project site from the City of Oroville, head east on Highway 162, then east on Forbestown Road, and then north on Lumpkin Road. Next, turn west onto Enterprise Road and continue approximately 0.3 miles; the Enterprise Boat Ramp and Day Use Area are located at the end of Enterprise Road.

2.2 PROJECT PURPOSE

Lake Oroville is the second largest lake in the State and a vital recreation resource. With Lake Oroville's inclusion in the State Water Project, rainfall and water releases cause the lake's water levels to fluctuate throughout the year. The Enterprise Boat Ramp is the only direct access to the South Fork of Lake Oroville for motorized boats; currently, this boat ramp is accessible only when lake water elevations are above approximately 837 feet (255 meters) above mean sea level (amsl).

As such, the primary purpose of the Project – which would extend the existing Enterprise Boat Ramp and add a new ramp – is to provide recreationists and emergency services personnel direct and safe access to the South Fork of the lake for longer periods of time during the year as lake levels fluctuate. This access would be crucial particularly when water levels in Lake Oroville are lower – a condition exacerbated by drought conditions throughout California. As such, when lake elevations are between 837 feet (255 meters) amsl and 750 feet (229 meters) amsl, the primary use of the facility would change from shoreline access only to a boat launch facility.

The Project is also necessary to better facilitate vehicle access to the Enterprise area with a new parking lot and access road; improve existing restroom facilities to be ADA-compliant; and provide complementary recreational opportunities at Enterprise (e.g.,

2.3 PROJECT COMPONENTS

The following provides a more detailed discussion of each of the Project's proposed components, including Project features, Project construction, and operation and maintenance of the Project's recreation facilities.

2.3.1 Project Features

To improve access during drought years and extreme low water events, the three main project features will all be installed below the lake's high water mark of 900ft elevation.

2.3.1.1 *Existing Enterprise Boat Ramp Extension*

The existing Enterprise Boat Ramp is approximately 460 feet by 35 feet. Under the Project, the existing Enterprise Boat Ramp would be extended west and south of the lowest elevation of the ramp to better facilitate low-water access for boaters and emergency responders. The boat ramp extension would be approximately 70 feet by 35 feet and would include an additional fill skirt that may be a combination of dirt and rip rap for bank stabilization (Figure 2.3-1).

2.3.1.2 *New Enterprise Boat Ramp*

The existing Enterprise Boat Ramp is approximately 460 by 35 feet. The new boat ramp would be located between approximately 810 feet (247 meters) amsl and 750 feet (229 meters) amsl. It would be a two-lane, 40-foot-wide concrete ramp with three 70-foot-wide turning areas. Each lane would be 15 feet wide. The additional 10-foot-wide lane would be for a mobile floating dock that would move up and down the ramp with the water level to aid in boarding boats. The dock would be removed when water levels are deep enough for lake access from the new Enterprise Boat Ramp extension.

2.3.1.3 *New Enterprise Parking Lot and Access Road*

The new Enterprise Parking Lot would be located between the existing Enterprise Boat Ramp and the new boat ramp. The new parking lot would connect to the existing Enterprise Boat Ramp via a 24-foot-wide by 100-foot-long concrete access road. The construction of this road would include a bank cut on the east side and a fill area on the west side, with associated rip rap stabilization. The entrance to the new Enterprise Parking Lot would be at approximately 840 feet (256 meters) amsl and would extend to approximately 810 feet (247 meters) amsl, with enough room for approximately 13 parking spots (Figure 2.3-1 and Figure 2.3-2).

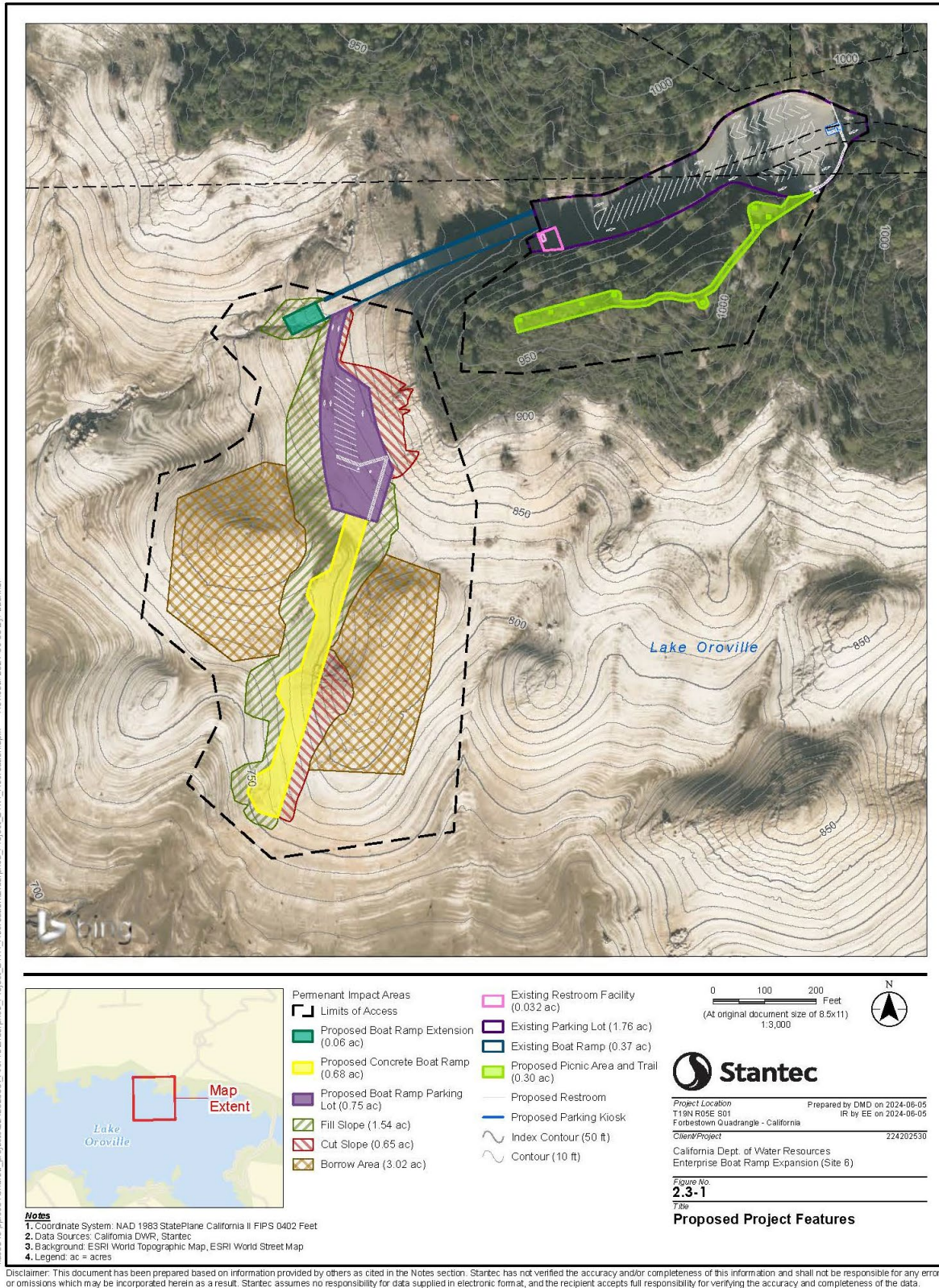


Figure 2.3-1. Project Features



Source: California Department of Water Resources (photo taken April 19, 2022)

Figure 2.3-2. Location of Proposed New Boat Ramp and Parking Lot

2.3.1.4 Ancillary Facility Upgrades

The ancillary facilities will all be installed above the lake level on and connected to the existing boat ramp parking lot. The Project entails the installation of a portable building (entry kiosk), the addition of a new restroom facility (vault toilet), upgrades to the user trail, slurry seal parking lot, restripe pavement markings, and the addition of a picnic tables (Figure 2.3-1).

The addition of the portable entry kiosk will include a concrete foundation as well as also placement of removable bollards to protect the kiosk. A utility pull box will be installed within the kiosk foundation with conduit installed via trench north from the foundation to the edge of pavement.

The Project would upgrade the existing, 17-foot by 50-foot restroom to a 30-foot by 50-foot facility that meets ADA accessibility requirements (i.e., an additional 650 square feet). This expansion would require excavation of the hillside behind the existing restroom facility, which could provide fill material for the boat ramp extension component of the Project, potentially reducing the height of the hill by up to 75 feet.

The existing trail upgrades would require minor grading and the addition of 50 feet for a trail base and stabilization. Once stabilized and upgraded, the trail would be approximately 600 feet long, and would provide safe access to the new picnic area that would be located on the hill to the southwest of the parking lot (Figure 2.3-3). Up to 10 picnic tables would be located on a 20-foot by 200-foot area graded with native material.

Upgrades to the existing trail and the addition of picnic tables will be developed primarily with the use of hand tools. Tree removal is not anticipated.

Other miscellaneous upgrades to the Enterprise facilities include restriping and reconfiguring parking space layout, installing new accessible parking signposts (2), installing a paved path from the kiosk to the new restroom, extend the existing handrail near the existing vault toilet, and replacing the concrete slab in the location of existing accessible parking near the existing vault toilet.



Source: California Department of Water Resources (photo taken June 11, 2024)

Figure 2.3-3. Location of Proposed Trail and Picnic Tables

2.3.1.5 Associated Cut, Fill, Borrow, and Bank Stabilization

To construct the features that are below the high water level, where determined necessary, the fill slopes along the new parking lot, access road, and new boat ramp may have rock slope protection or rock rip rap. Two borrow sites within the Project area would be used to provide fill for the ramp. The borrow sites would be excavated to a depth of less than approximately 75 feet from original grade and would be blended into the surrounding topography. The total cut, fill, and borrow areas are shown in Figure 2.3-1.

2.3.2 Project Construction

The Project would be constructed at elevations ranging between approximately 990 feet (302 meters), down to approximately 750 feet (229 meters) amsl. The construction of the boat ramp extension, new boat ramp, parking lot and access road, and associated cut, fill, borrow, and bank stabilization activities would comprise an approximate 17-acre work area, mostly below 900 feet (274 meters) amsl, which is Lake Oroville's ordinary high water mark (OHWM). The restroom facility upgrades and construction of the new picnic area and trail connection would occur above 940 feet (287 meters) amsl. Excavation would include taking borrow material from a nearby hill potentially reducing hill height by 75 feet or less, and all other excavations would not exceed 30 feet in depth below existing ground level. The following describes the activities, access, equipment, and schedule associated with Project construction.

2.3.2.1 *Construction Access and Staging*

Access to the existing Enterprise Boat Ramp and Day Use Area parking lot would be via Enterprise Road. Staging would be in an approximate 1-acre corner of the existing paved boat ramp parking lot. Construction may proceed from the lower elevations in the lake and progress upwards towards the existing parking lot. In-water work activities are not anticipated for construction but may be needed for adjustments to the areas designed for rip rap placement.

2.3.3 Project Equipment

The anticipated construction equipment utilized for demolition, excavation, and construction includes, but is not limited to:

- Backhoe
- Bulldozer
- Cable winch
- Concrete truck
- Dump truck
- Excavator (tracked)
- Grader
- Pick-up truck
- Roller/compactor

2.3.4 Project Footprint Summary

The upland Project staging and access areas would be located on developed portions of the lake shore (i.e., existing access road and existing Enterprise parking lot). The work below the 900 ft elevation high water mark, including the existing boat ramp extension, the new boat ramp, the new access road, the new parking lot, and their associated cut/fill and sediment borrow sites footprints are depicted and quantified in Figure 2.3-1.

2.3.5 Construction Schedule

DWR anticipates that construction of the Project would require approximately five months. Construction of the entire Project would be dependent on the lake water level being below 730 feet (223 meters) amsl. As such, the Project may still be partially completed if the lake elevation was not conducive to a full build-out; and construction of

the remaining features would resume once the lake water level was again below 730 feet (223 meters) amsl. DWR estimates work could begin – pending permit approval, final design, funding, construction award, and lake levels below 730 feet (223 meters) amsl – on October 1, 2024. Given the number of variables, the start date (including year) is subject to change but is estimated to occur during the lowest lake levels.

2.3.6 Operation and Maintenance

2.3.6.1 *Recreation Facilities Operation*

The Project at completion would provide recreationists and emergency services personnel with direct and safe access to the South Fork of Lake Oroville for additional months of the year, including in drought years when water levels are extremely low. More specifically, as noted in Section 2.2, the new boat ramp would extend the operation of Enterprise as a boating facility as water levels fluctuate. In addition, while the restroom facilities would be improved to be ADA-compliant, overall restroom facility operation would remain unchanged.

2.3.6.2 *Recreation Facilities Maintenance*

Recreation facilities maintenance is primarily associated with regular upkeep (weekly during summer months and monthly during winter months) related to the restroom and picnic area facilities. These facilities would be inspected annually to verify bank stabilization and to ensure that concrete surfaces are sturdy. Stabilization or repaving would occur as needed. During operation of the boat ramp, the boarding dock would require regular maintenance due to the fluctuation of the water levels. Dock maintenance is based on the rate of change in water levels and would vary in frequency between daily to weekly.

2.4 ANTICIPATED REGULATORY PERMITS AND APPROVALS

The following permits will likely be required, as the Project is proposed to be constructed within a FERC boundary, and potentially within waters of the United States and waters of the State.

- FERC Project No. 2100 hydropower license recreation plan modification and associated National Environmental Protection Act compliance (completed)
- U.S. Army Corps of Engineers (CWA Section 404 Regional General Permit #2) (in progress)
- State Historic Preservation Officer – National Historic Preservation Act Section 106 Concurrence (in progress)
- Central Valley RWQCB Water Quality Certification (in progress)
- State Historic Preservation Officer – National Historic Preservation Act Section 106 Concurrence (in progress)
- CDFW Lake and Streambed Alteration Agreement Application (in progress) .

3.0 ENVIRONMENTAL EVALUATION

3.1 AESTHETICS

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?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?				X
c) In non-urbanized areas, would the project 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 a publicly accessible vantage point). If the Project is in an urbanized area, the potential of the project to conflict with applicable zoning and other regulations governing scenic quality?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				X

3.1.1 Environmental Impact Analysis

Would the Project:

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

Finding: Less Than Significant Impact

A scenic vista is generally defined as a view of undisturbed natural lands exhibiting a unique or unusual feature that makes up an important or dominant portion of the viewshed. Scenic vistas may also be represented by a particular distant view that provides visual relief from less attractive views of nearby features. Other designated federal and State lands, as well as local open space or recreational areas, may also offer scenic vistas if they represent a valued aesthetic view within the surrounding landscape of nearby features.

Scenic resources in Butte County are shown on Figure COS-7 of the Butte County General Plan and include both land- and water-based scenic areas such as Table Mountain, Lake Oroville, and the Thermalito Afterbay (Butte County 2019). Lake

Oroville is the only area in the General Plan that is described as having scenic vistas. Additionally, the County has designated several scenic highway zones (shown on Figure COS-9 of the General Plan), including portions of State Routes 70 and 162, and several county roads near Forbestown (Butte County 2019). The General Plan protects these resources through implementation of several goals and policies protecting resources (e.g., Goals COS-17 and COS-18) and zoning ordinance restrictions.

The Project would occur in an area with existing day use facilities, including an existing boat ramp, parking lot, and restroom facility. The quality of scenic views typically enjoyed by visitors to the Project site could be temporarily reduced during construction. Worker vehicles and maintenance equipment could temporarily obstruct views of the lake and surrounding area; however, the presence of these vehicles and equipment would be short-term, lasting a few days to weeks, and would not result in permanent adverse effects to the existing scenic resources in the area.

Once constructed, the boat ramp extension, new boat ramp, and new parking lot and access road would blend with the existing character of the day use area, which already provides a boat ramp and parking lot, and would not obstruct or otherwise substantially alter existing scenic views of Lake Oroville and the surrounding area. Project construction would result in the addition of 650 square feet to the restroom facility; however, the exterior façade would remain substantially similar to existing conditions. Although there would be a new picnic area and upgrades to the existing trail, these modifications, too, would be consistent with the existing character of the day use area. Moreover, with the new picnic area situated on a hilltop, the Project would provide visitors with additional access to expansive views of the lake and surrounding area. Therefore, the Project would not have a substantial adverse effect on a scenic vista and impacts would be less than significant.

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

Finding: No Impact

The nearest State-designated scenic highway is State Route 70, which passes over the west branch of the Feather River north of the Project area. This roadway is listed as an eligible State scenic highway (Caltrans 2021). However, as shown on Figure 2.2-1, no maintenance or construction activities occur in this area. Therefore, the Project would not substantially damage scenic resources within a State scenic highway, and no impact would occur.

c) In non-urbanized areas, would the project 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 a publicly accessible vantage point). If the Project is in an urbanized area, the potential of the project to conflict with applicable zoning and other regulations governing scenic quality?

Finding: Less Than Significant Impact

The Project is located in a non-urbanized area associated with Lake Oroville. Nearby viewers would be limited to employees, recreational users, and other motorists passing through the area, all of whom would have temporary and limited public views of the Project area.

As discussed under question 'a' above, Project construction would involve short-term, temporary impacts to scenic views and the visual character of the Enterprise area. During Project operation, the boat ramp extension, new boat ramp, and new parking lot and access road would blend with the existing character of the day use area, and would not obstruct or otherwise substantially alter existing scenic views of Lake Oroville and the surrounding area. The visual character of the improved restroom facility would be substantially similar to existing conditions, and the new picnic area and trail modification would be consistent with the existing character of the day use area. Therefore, since the Project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings, impacts would be less than significant.

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

Finding: No Impact

Construction activities would occur between the daytime hours of 7:00 AM and sunset during the weekdays, and if needed, between 8:00 AM and 6:00 PM on Saturdays. No nighttime work is anticipated. Additionally, the Project does not include the construction of any new structures that would introduce new lighting or glare to the Project area. Thus, no impact would occur.

3.1.2 Mitigation Measures

None required.

3.2 AGRICULTURE AND FORESTRY RESOURCES

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	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?				X
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				X
d) Result in the loss of forestland or conversion of forestland to non-forest use?				X
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 forestland to non-forest use?				X

3.2.1 Environmental Impact Analysis

Would the Project:

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

Finding: No Impact

As part of its nationwide Land Inventory and Monitoring (LIM) system, the U.S. Department of Agriculture, Soil Conservation Service developed definitions for Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Urban Built-up Land. These LIM definitions have been modified for use

in California. The most significant modification is that Prime Farmland and Farmland of Statewide Importance must be irrigated. Farmland of Local Importance has been identified by local advisory committees and varies from county to county, as intended by the LIM. Mapping of Grazing Land as part of an Important Farmland Map is unique to California (DOC 2023a).

The Project would not convert any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. The areas within and surrounding the Project are classified as Other Land in the Farmland Mapping and Monitoring Program (FMMP) (DOC 2023b) and do not contain farmland. The Project would not convert any farmland to non-agricultural uses as designated by the FMMP. Therefore, the Project would have no impact on State-designated farmland.

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

Finding: No Impact

The California Land Conservation Act of 1965 (Williamson Act) enables private landowners to contract with counties and cities to voluntarily restrict their land to agricultural and compatible open-space uses. In return for this guarantee by landowners, taxes are assessed based on the agricultural value of the land rather than the market value, which typically results in a substantial reduction in property taxes.

The Project area is not zoned for agricultural use; therefore, no conflicts with agricultural zoning would occur. In addition, the Project area is not classified as farmland by the FMMP (DOC 2023b) and there are no properties registered under the Williamson Act (Butte County 2015). Therefore, the Project would not impact or change agricultural uses, nor impact existing zoning for agriculture use or Williamson Act contract lands.

c) Conflict with existing zoning for, or cause rezoning of, forestland (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])?

Finding: No Impact

The Project area consists of disturbed areas and oak woodlands. The Project area is zoned Public (P) (Butte County 2023). Hazard trees in the upland portion of the Project near the existing trail and proposed picnic area that sustained burn damage during the 2020 North Complex fire would be removed. However, since the Project area is not located on land zoned as forest or timberland, the Project would not conflict with existing zoning for forestry or timberland resources. Thus, there would be no impact to forestland or timberland.

d) Result in the loss of forestland or conversion of forestland to non-forest use?

Finding: No Impact

The Project area is zoned as Public (P) (Butte County 2023). As noted under question 'c' above, hazard trees in the upland portion of the Project that sustained burn damage during the 2020 North Complex fire would be removed. This removal would not result in the loss of forestland or conversion of forestland and, therefore, no impact would occur.

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 forestland to non-forest use?

Finding: No Impact

The Project area is zoned as Public (P) (Butte County 2023). Furthermore, the Project area is not classified as farmland by the FMMP (DOC 2023b). Rather, the Project is located at an existing recreational facility that is currently disturbed with day uses and associated infrastructure. The Project is the expansion and improvement of those day use facilities and would not result in conversion of farmland to non-agricultural use or conversion of forestland to non-forest use. As such, there would be no impact.

3.2.2 Mitigation Measures

None required.

3.3 AIR QUALITY

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?			X	
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?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

3.3.1 Environmental Impact Analysis

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

Finding: Less Than Significant Impact

The Project is located within the jurisdiction of the Butte County Air Quality Management District (BCAQMD). Growth assumptions (and associated emission projections) within the BCAQMD are included in the Sacramento Valley Planning Area 2015 Triennial Air Quality Attainment Plan (AQP) (BCAQMD 2014). Generally, a project would be deemed inconsistent with an air quality plan if it would result in or induce growth in population, employment, land use, or regional vehicle miles traveled (VMT) that is inconsistent with the growth assumption in the AQP.

According to the Butte County General Plan, the Project site is designated for public land uses that allow for recreational facilities. As discussed in Chapter 2.0, Project components would also be associated with recreational uses. As such, the Project would be consistent with the General Plan and growth projections in the AQP (Butte County 2019). Moreover, as shown below in the response to question 'b,' the criteria air pollutant emissions are far below BCAQMD thresholds. Therefore, the Project would not conflict or obstruct implementation of the applicable AQP, and the impact would be less than significant.

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?

Finding: Less Than Significant Impact

The BCAQMD has identified project-level air quality significance thresholds for criteria air pollutants for which the region is in non-attainment (Table 3.3-1). Criteria air pollutants include ozone (O₃), nitrogen dioxide, carbon monoxide, sulfur dioxide, particulate matter 2.5 microns or less in diameter (PM_{2.5}), particulate matter 10 microns or less in diameter (PM₁₀), and lead. Reactive organic gases (ROG) and nitrogen oxides (NO_x) are considered criteria air pollutants, but these pollutants are widely emitted from new development and are known as precursors to O₃. As such, ROG and NO_x emissions are considered in the basin.

Table 3.3-1. BCAQMD Construction and Operational Significance Thresholds

Pollutant	Construction Thresholds Daily	Construction Thresholds Annual	Operational Thresholds (Daily)
Reactive organic gases	137 pounds/day	4.5 tons/year	25 pounds/day
Nitrous oxides	137 pounds/day	4.5 tons/year	25 pounds/day
Particulate matter 10 microns diameter or less	80 pounds/day	—	80 pounds/day

Source: BCAQMD 2014

According to the BCAQMD, projects that do not exceed the significance thresholds would not have a cumulatively considerable net increase for any criteria air pollutant for which the region is in non-attainment (BCAQMD 2014). The BCAQMD is currently in non-attainment for State and federal ozone and State PM₁₀ standards (BCAQMD 2018).

The BCAQMD recommends using the California Emissions Estimator Model (CalEEMod) to calculate project emissions of criteria air pollutants. Emission estimates were prepared in CalEEMod version 2020.4.0 for Project construction and operation and are provided below in Tables 3.3-2 and Tables 3.3-3, respectively.

Table 3.3-2. Project Construction Emissions

Scenario	Reactive Organic Gases	Nitrous Oxides	Particulate Matter 10 Microns Diameter or Less
2023 Daily Maximum Emissions (pounds/day)	3.16	34.79	2.74
Daily Thresholds (pounds/day)	137	137	80
Exceed?	No	No	No

Scenario	Reactive Organic Gases	Nitrous Oxides	Particulate Matter 10 Microns Diameter or Less
2023 Annual Emissions (tons/year)	0.16	1.67	0.10
Annual Thresholds (tons/year)	4.5	4.5	-
<i>Exceed?</i>	No	No	No

Table 3.3-3. Project Operational Emissions

Scenario	Reactive Organic Gases	Nitrous Oxides	Particulate Matter 10 Microns Or Less In Diameter
2023 Daily Maximum Emissions (pounds/day)	0.13	0.01	0.01
Daily Thresholds (pounds/day)	25	25	80
<i>Exceed?</i>	No	No	No

3.3.1.1 Construction Emissions

Construction emissions would be generated from off-road construction equipment and mobile-source emissions from employee, vendor, and hauling trips. Construction is anticipated to take place over a period of five months. Anticipated construction equipment is included in Section 2.3.2.2. Construction vehicle trip and trip distance estimates are based on modeling defaults for Butte County. As shown in Table 3.3-2, construction emissions would be below BCAQMD daily and annual construction emission thresholds and, as a result, would not result in a cumulatively significant impact.

3.3.1.2 Operational Emissions

Operational emissions would be substantially similar to existing conditions, and would be generated from mobile sources (i.e., worker and visitor vehicle trips to and from the Enterprise area). Regular maintenance of the picnic area and trail is expected to occur weekly in the summer and monthly in the winter. Maintenance of the boat ramps would occur daily or weekly. Maintenance activities and frequency would be similar to existing conditions.

The extended boating access infrastructure improvements and 10 new picnic tables may result in the addition of some new recreationists to the Enterprise area during the year; however, these upgrades are not anticipated to substantially increase the number of visitors (i.e., personal vehicles) beyond current conditions. As shown in Table 3.3-3,

operational emissions would be below BCAQMD daily and annual construction emission thresholds and, therefore, would not result in a cumulatively significant impact.

c) Expose sensitive receptors to substantial pollutant concentrations?

Finding: Less Than Significant Impact

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities associated with those land uses. Sensitive population groups include children, the elderly, the acutely ill, and chronically ill, especially those with cardiovascular diseases. Examples of sensitive receptors include hospitals, residences, convalescent facilities, and schools (EPA 2022). The nearest sensitive receptor is located approximately 0.1 miles northeast of the Project site.

During construction, operation of off-road equipment and diesel-powered vehicle trips would generate diesel particulate matter (DPM), a type of toxic air contaminant. However, equipment is not anticipated to be running continuously, Project construction would be short-term in nature, and construction-related DPM emissions would cease once construction ended. Therefore, existing receptors would not be exposed to DPM emissions from construction for an extended period of time.

Project operation would be similar to existing conditions. Trips to the Enterprise area from visitors and maintenance workers would likely continue to take place in passenger vehicles, which are generally battery- or gasoline-powered and do not produce DPM. Therefore, the Project would not expose sensitive receptors to substantial pollutant concentrations and the impact would be less than significant.

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

Finding: Less than Significant Impact

Odor impacts from Project development could result from either the release of new sources of odor near existing receptors or the movement of new receptors near existing odor sources. Neither construction of the Project nor regular maintenance activities during Project operation would result in the emission of substantial odor sources, such as commercial cooking equipment, combustion or evaporation of fuels, sewer systems, or solvents and surface coatings. Odor created by the Project would be limited to diesel exhaust odors from the use of machinery potentially used for Project maintenance. These odors would be localized, temporary in nature and, with increasing distance, would dissipate rapidly from the area. Given the above, construction- and maintenance-related odor impacts would be less than significant.

3.3.2 Mitigation Measures

None required.

3.4 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 in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations, or by the California Department of Fish or U.S. Fish and Wildlife Service?			X	
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		X		
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			X	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan?				X

3.4.1 Environmental Impact Analysis

Would the Project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any 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?

Finding: Less Than Significant With Mitigation Incorporated

Species listed in local or regional plans, policies, or regulations, or regulated by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS), are called special-status species. The special-status species with the potential to be impacted by the Project were identified through desktop queries of the CDFW California Natural Diversity Database, The CDFW Biogeographic Information and Observation System Viewer Version 6.24.0501 USFWS Information for Planning and Consultation, California Native Plant Society lists and/or databases, and aerial photographs. The queries were further refined through research and reconnaissance-level biological field surveys, discussed below.

According to the database search results, occurrence records or potential of occurrence for 16 special status plant species, 6 wildlife species, and nesting raptors and migratory birds were identified within 2 miles of the Project area (USFWS 2024) or within the *Oroville Dam and Forbestown, California* 7.5-minute USGS quadrangles (CDFW 2024; CNPS 2024). The results of these occurrence records are provided in Appendix A. In addition to presenting the results of the desktop query mentioned above, Appendix A identifies the potential for each special status plant and wildlife species to occur within the Project area as none, low, moderate, or high. The potential to occur is based on the proximity to previous occurrences as reported in the database search results, existing vegetation communities and habitats, topography and elevation, soils, surrounding land uses, and habitat suitability observed at the Project site.

In April and October 2022, with site review updates in 2024, a DWR biologist conducted reconnaissance-level biological field surveys within the Project area. Data collection was focused on verifying and evaluating existing habitat data for special-status species within the Project area to determine the potential for special-status species, their suitable habitat, or other sensitive habitats known to occur within the Project vicinity. The study area included the proposed construction footprint, access, staging and laydown areas, and areas immediately adjacent that have the potential to be impacted by the Project (Figure 2.3-1).

Of the 16 special-status plant species and 6 special-status wildlife species identified in Appendix A, all special-status species, with the exception of nesting raptors and other migratory birds, were found to have either a low or no potential to occur within the Project area. Therefore, these species were eliminated from further analysis and discussion. Potential impacts to special-status plant and wildlife species, as well as nesting birds, are discussed and analyzed below.

Impacts to Special-Status Plant Species

Sixteen special status plant species were identified within the *Oroville Dam and Forbestown, California* 7.5-minute USGS quadrangles (CDFW 2024, CNPS 2024).

However, based on the existing vegetation communities and habitats, topography and elevation, soils, surrounding land uses, field survey results, and habitat suitability observed at the Project site, there is no potential for special-status plant species to occur within the Enterprise area. Therefore, no mitigation for special-status plant species is required.

Impacts to Special-Status Wildlife Species

Six special status wildlife species were identified within two miles of the Project area and/or the *Oroville Dam* and *Forbestown, California* 7.5-minute USGS quadrangles (CDFW 2024, USFWS 2024). However, based on the species' known ranges, topography and elevation, field survey results, and habitat suitability observed at the Project site, there is either a low or no potential for special-status wildlife species to occur within the Enterprise area, with the exception of nesting migratory birds. Impacts to nesting birds are discussed below.

Nesting Migratory Birds and Raptors

Federal Status: Migratory Bird Treaty Act; State Status: California Fish and Game Code Sections 3503, 3503.5, and 3800; Potential to Occur: High

Impacts to all native and migratory birds are protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (FGC) Sections 3503, 3503.5, and 3800. Suitable habitat for native and nesting birds exists within the Enterprise area, including habitats that may support species that nest in tree branches or cavities, in shrubs or undergrowth, on the ground, in burrows, or on human-made structures, including buildings, bridges, utility poles, and boat ramps. Common native and/or migratory bird species that have the potential to nest and forage within the Enterprise area may include ground-nesting species such as killdeer (*Charadrius vociferus*), shrub or grassland nesting birds such as bushtit (*Psaltiriparus minimus*), tree nesters like the California scrub-jay (*Aphelocoma californica*), and species that often nest on human-made structures like barn swallow (*Hirundo rustica*).

Project construction would begin outside the typical nesting season for birds in the region (approximately February 15 through August 31), and any impacts from Project activities would be incidental. The temporary disturbance caused by the construction of the Project, if continued through the beginning and into the nesting season, could have the potential to cause direct and indirect impacts, including nest abandonment and nest failure, which would be considered a significant impact. However, with the implementation of Mitigation Measure (MM) BIO-1, Pre-Construction Nesting Bird Surveys and Pre-Construction Environmental Awareness Training, impacts to nesting birds would be less than significant.

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

Finding: Less Than Significant Impact

According to local and regional plans, policies, and regulations, and CDFW and USFWS databases, the Enterprise area does not contain any riparian habitat or other sensitive natural communities. As noted in Section 2.3.2.1, construction of the boat ramp extension, new boat ramp, parking lot and access road, and associated cut, fill, borrow, and bank stabilization activities would occur in an approximate 17-acre work area, primarily located below Lake Oroville's OHWM, and while the Project will require borrow material taken from a nearby hill potentially reducing its height as much as 75 feet, no other excavation would exceed 30 feet in depth below existing ground level.

Within the lake's fluctuation zone located below the existing Enterprise Boat Ramp, vegetation consists mainly of ruderal species, including many annual forbs and grasses. The most dominant species are sky lupine (*Lupinus nanus*) and several clover species (*Acmispon* sp. and *Trifolium* sp.). Additionally, there are some scattered black willows (*Salix goodingii*) located above 800 feet (244 meters) amsl. Project construction may proceed from the lower elevations in the lake and progress upwards towards the existing parking lot; however, no in-water construction activities would occur except for possible placement of riprap at the toe of the boat ramp. Construction would be limited to areas outside of riparian habitats or other sensitive habitats; therefore, impacts would be less than significant.

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?

Finding: Less Than Significant With Mitigation Incorporated

Wetlands and waterways are protected from the placement of dredge and fill material under CWA Section 404 and California State Dredge and Fill Procedures. The wetland boundary or stream OHWM typically marks the outer edge of such sensitive habitats. As noted above, Project construction of the boat ramp extension, new boat ramp, parking lot and access road, and associated cut, fill, borrow, and bank stabilization activities would occur below Lake Oroville's OHWM. Although no in-water construction activities are anticipated to occur with the possible exception of riprap at the toe of the boat ramp, placement of the fill and work below the OHWM would likely require the following permits for Project work within the FERC boundary and within waters of the United States and waters of the State: U.S. Army Corps of Engineers (USACE) CWA Section 404 Regional General Permit #2 and Central Valley RWQCB CWA Section 401 WQC.

DWR would implement MM BIO-2, Water Quality Protections and Compensation for Direct Impacts to Waters of the U.S, and MM GEO-1, Sedimentation and Erosion Control Measures (described in Section 3.7), which would reduce potential impacts to areas below the OHWM to a less-than-significant level. DWR also would implement standard erosion and sediment control best management practices (BMP) during construction to further reduce potential impacts associated with Project construction.

These BMPs may include, but are not limited to, silt fencing, straw waddles, and covering spoil piles, among other standard practices.

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?

Finding: Less Than Significant Impact

Wildlife movement corridors have been recognized by USFWS and CDFW as important habitats worthy of conservation. Wildlife corridors provide seasonal migration channels (i.e., between winter and summer habitats); provide non-migratory wildlife with the opportunity to move within their home range for food, cover, and reproduction; and allow for dispersal of individuals to colonize new areas (CDFW 2023; USFWS 2023).

The Project is located largely below the OHWM of Lake Oroville, where there is limited suitable habitat available. In addition, construction of the Project would be temporary. As such, it is unlikely that the Project would interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors. In addition, the construction and operation of the Project would not impede the use of native wildlife nursery sites, as no such sites exist in the Enterprise area. Therefore, Project construction and operation would result in a less than significant impact.

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

Finding: No Impact

Project construction would require excavation of the hillside behind the existing restroom facilities, minor grading, the addition of a trail base, and stabilization for the trail upgrades. The picnic area, which will include up to 10 picnic tables, would be located on a 20-foot by 200-foot area graded with native material.

The upland area within the Project is within the boundary of the 2020 North Complex fire. In these areas, vegetation consists mainly of annual forbs, shrub species, and trees. The most dominant species present are toyon (*Heteromeles arbutifolia*) and oak species (*Quercus* sp.). Tree species include madrone (*Arbutus menziesii*), ponderosa pine (*Pinus ponderosa*), California black oak (*Quercus kelloggii*), and interior live oak (*Quercus wislizeni* var. *wislizeni*). The Project has been designed to avoid the removal of trees, with the exception of dead trees posing hazards to the public. The trees are predominately under 12 inches at diameter breast height and would be removed for safety purposes in the proposed picnic area and adjacent to the connecting trail. Stumps would be left in place. As such, since the Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, no impact would occur.

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?

Finding: No Impact

The Project would not conflict with any current habitat or natural community conservation plan, including the Butte Regional Conservation Plan (BRCP), which is both a federal Habitat Conservation Plan and a State Natural Community Conservation Plan; the Open Space Element of the Butte County General Plan; or any other approved local, regional, or State habitat conservation plan. The BRCP, which Butte County helped develop, aims to provide a more efficient, consistent, and effective alternative to mitigation planning and permitting on a project-by-project basis by offering a more streamlined process for the mitigation of biological resources impacts. The BRCP covers approximately 564,270 acres, primarily within western Butte County, including 14 plant species and 27 wildlife species, as well as various natural communities (Butte County Association of Governments 2019).

Species highlighted within the BRCP that have potential to occur within 2 miles of the Enterprise area and/or within the *Oroville Dam and Forbestown, California* USGS 7.5-minute quadrangles were evaluated and were assigned a level of potential to occur (refer to Appendix A, Table A-2). All species were determined to have either a low or no potential to occur in the Enterprise area. These species and their associated habitats were excluded from further analysis, because they would not be impacted as a result of Project implementation. Given the above, the Project would have no impact.

3.4.2 Mitigation Measures

The following Mitigation Measures would be implemented in conjunction with any Project activities that have the potential to impact biological resources, as described above and summarized in Appendix A.

3.4.2.1 *MM BIO-1: Pre-Construction Nesting Bird Surveys and Pre-Construction Environmental Awareness Training*

DWR shall implement one of the following measures, depending on the specific construction timeframe, in order to avoid disturbing nests protected by the MBTA and FGC 3502:

1. If construction activities are scheduled to occur during the nesting season (approximately February 15 through August 31) in locations with potentially active nests as defined by DWR biologists, a qualified environmental scientist shall conduct the following environmental awareness training and survey for nesting birds:
 - a. Project personnel shall receive environmental awareness training facilitated by a qualified environmental scientist. The training shall include instruction on how to recognize nesting bird behavior and their nests. The training shall cover relevant BMPs, avoidance and minimization measures, mitigation,

regulations, and the proper procedure(s) to follow in the event that an active bird nest is encountered within the Enterprise area. If a nesting bird is encountered in the work area, construction shall cease, and a qualified environmental scientist shall be notified for guidance before any construction activities are resumed.

- b. Pre-construction surveys shall be conducted within the Project area to identify potential nesting habitat within approximately 100 feet of planned work areas. Surveys shall be conducted within ~~one week~~ five days before initiation of construction activities at any time between February 15 and August 31. If no active nests are detected, no mitigation is required, and construction and maintenance activities may proceed; or
- c. If surveys indicate that migratory bird or other protected nests are found in any areas that would be directly affected by Project activities, a non-disturbance buffer shall be established around the site to avoid disturbance or destruction of the nest site until after the breeding season or after a qualified environmental scientist determines that the young have fledged (typically late June to mid-July). The extent of these buffers shall be determined by a qualified environmental scientist and shall depend on the species present, the level of noise or construction disturbance, line of sight between the nest and the disturbance, ambient levels of noise or other disturbances, and other topographical or artificial barriers.

If construction or maintenance activities begin outside the migratory bird breeding season (approximately September 1 through February 14), the activities may proceed until it is determined that an active migratory bird or other protected nest would be subject to abandonment as a result of Project activities. Optimally, all necessary vegetation removal shall be conducted before the breeding season so that nesting birds would not be present in the work area during construction. If any bird nests are in the work area under pre-existing construction conditions, then it is assumed that they are habituated (or will habituate) to the Project activities. Under this scenario, the pre-construction survey described previously should still be conducted on or after February 15 to identify any active nests in the vicinity. Active sites should be monitored by a qualified environmental scientist periodically until after the breeding season or after the young have fledged. If active nests are identified on or immediately adjacent to the work area, then all non-essential construction activities should be avoided in the immediate vicinity of the nest site.

Mitigation Measure BIO-1 Implementation

- **Responsible Party:** DWR shall have a qualified environmental scientist conduct the environmental awareness training and any pre-construction nesting surveys.
- **Timing:** The training shall occur once prior to the initiation of construction activities. One nesting survey shall be conducted by a qualified environmental scientist within ~~one week~~ five days of initiating proposed construction activities, if

the work begins between February 15 and August 31 and is located in an area with potential nesting habitat, per the determination of the qualified environmental scientist.

- **Monitoring and Reporting Program:** The training and survey shall be conducted by a qualified environmental scientist, and a brief technical memorandum documenting the training and survey results shall be kept on file with DWR.
- **Standards for Success:** Project personnel are trained in the key characteristics for identifying and avoiding impacts to nesting birds, which will lead to the minimization of bird nests being disturbed from Project activities.

3.4.2.2 MM BIO-2: Water Quality Protections and Compensation for Direct Impacts to Waters of the U.S.

In water work will be avoided to the extent feasible and likely only necessary for rip rap placement at the toe of the boat ramp, if at all. Placement of the fill and work below the OWHM when water levels are low will require the following permits for Project work within the FERC boundary and within waters of the United States and waters of the State: U.S. Army Corps of Engineers (USACE) CWA Section 404 Regional General Permit #2 and Central Valley RWQCB CWA Section 401 WQC.

Thus, DWR will apply for and obtain a CWA Section 404 Regional General Permit #2 and comply with the current USACE compensation schedule for any loss of waters of the U.S. DWR will work with the USACE to ensure that the local and federal “no net loss” of wetlands is properly upheld. For all activities that trigger the USACE CWA 404 permit, DWR will also apply for, obtain and comply with a CWA Section 401 WQC from the Central Valley RWQCB. This will at a minimum include water quality monitoring for in-water work to inform stop work actions and avoid spikes in turbidity above that allowed for in the Water Quality Certification. Additionally, DWR commits to compensation as required for dredge and fill impacts below the OHWM.

Mitigation Measure BIO-2 Implementation

- **Responsible Party:** DWR is responsible for applying for all permits and approvals needed to deposit fill in wetlands, and for work in waters of the U.S. and waters of the State.
- **Timing:** The CWA Section 404, and CWA 401 Permits will be obtained prior to construction.
- **Monitoring and Reporting Program:** DWR will obtain environmental permits prior to construction and will pay appropriate fees to comply with the regulatory agency compensatory mitigation schedule for temporary and permanent impacts to waters of the U.S. DWR will prepare a brief letter report on compliance with this Mitigation Measure and submit it to the Central Valley RWQCB for their files.

- **Standards for Success:** Appropriate State and federal permit compliance and compensation, including no net loss of waters of the U.S. resulting from Project implementation. Water Quality protections and monitoring will be in place and water quality standards in the project specific Water Quality Certification will not be exceeded.

3.5 CULTURAL RESOURCES

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?		X		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		X		
c) Disturb any human remains, including those interred outside of formal cemeteries?		X		

A cultural resources study was conducted to inform baseline conditions for cultural resources at the Project site. To identify cultural resources within the Project Site, the following tasks were completed: [1] A records search and literature review were conducted at the California Historic Resources Information System at the Northeast Information Center (NEIC), located at California State University, Chico; [2] Archival research consisting of a review of historic maps and aerial photographs to assess the potential for buried historic-period archaeological deposits; [3] an archaeological buried sensitivity analysis to assess the potential for buried prehistoric resources; [4] Pedestrian surveys of the Project site, completed in 2017 and 2022 by a qualified archaeologist

Records Search and Literature Review

On November 17, 2022, Stantec conducted a records search of pertinent cultural resources information curated by the California Historical Resources Information System at the NEIC. The search (File No. D22-406) included the Project Site and a distance of up to approximately 0.25 miles from its boundaries. The record search included the following: NRHP, California Register of Historical Resources (CRHR), California Historical Landmarks Listing, and California Point of Historical Interest.

No resources within the Project site were found to be listed on the NRHP, the CRHR, the California Historical Landmarks Listing, or the California Points of Historical Interest. Two close historic properties included in the California Historical Landmarks Listing (Bidwell's Bar No. 330 and Old Suspension Bridge No. 314) were found during the record search. However, both resources are located more than 1.5 miles from the Project site

The results of the record search indicate that no known cultural resources are present within the Project Site. Six known resources are located adjacent to the Project site, and 21 known resources are present within 0.25 miles of the Project Site. Results of the

records search indicate that two previous cultural resource investigations have been conducted within the Project Site (Table 3.5-1, below). In addition to the NEIC record search, previous work conducted by the Anthropology Studies Center at Sonoma State for DWR was also reviewed.

Table 3.5-1 Studies within Project Site

Report Number	Title	Date	Author
NEIC-6868	Oroville Facilities Relicensing Project Cultural Resources Inventory FERC Project No. 2100.	2003	Anthropological Studies Center (Sonoma State University)
NEIC-10351	The Archaeological Resources of Seven Reservoir Areas in Central and Northern California.	1952	Treganza, Adan

Archival Research

Stantec reviewed archival maps and aerial photographs to determine the presence of historic-period buildings and/or structures within the Project site and to assess the potential for historic-period archaeological deposits. Enterprise Road appears on the earliest maps (c. 1888) though the Project Site and is labeled as a secondary highway in 1948. Otherwise, there is no historical development within the Project Site. Therefore, it is unlikely that any historic-period archaeological deposits are located within the Project Site.

Archaeological Buried Sensitivity

A geoarchaeological assessment for the Project Site was conducted to identify the potential for the Project site to contain buried archaeological resources. Stantec reviewed the U.S. Geological Survey national database for geology and the U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) national database for soils. Geoarchaeological studies for the region suggest that the Lake Oroville area contains pre-Pleistocene age landforms and that soils in foothill settings on ridge tops and slopes are shaped by tectonic uplift and surface water erosion/runoff or alluvial/fluvial factors. Therefore, the landform predates human occupation by many thousands of years, limiting the likelihood of buried archaeological deposits. Additionally, the forces of downslope erosion and run-off would displace surface artifacts if any were present. Based on this analysis, the likelihood of pre-European contact resources within the Project Site is low.

Pedestrian Survey

On August 11, 2017 and May 18, 2022, Stantec archaeologists performed a pedestrian field survey of the Project Site. In general, surface visibility was high across the survey areas. The survey areas generally lacked vegetation because of annual inundation. Trowel and boot scrapes were used to remove silt deposits and expose native surfaces and soils in these areas. Eroded areas and recently exposed soils were carefully examined. Special attention was paid to all accessible bedrock outcrops and large boulders within the survey areas. The pedestrian survey did not identify any archaeological resources within the Project Site.

3.5.1 Environmental Impact Analysis

Would the Project:

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

Finding: Less Than Significant With Mitigation Incorporated

For a cultural resource to be considered a historical resource (i.e., eligible for listing in the California Register of Historical Resources), it must generally be 50 years or older. Under CEQA, historical resources can include pre-European contact (i.e., Native American) archaeological deposits, historic-period archaeological deposits, historic buildings, and historic districts. CEQA requires that agencies considering projects that are subject to discretionary action shall consider the potential impacts on cultural resources that may occur from project implementation

Built-Environment Resources

The Project site neither contains nor is adjacent to any built environment resource that qualifies as a historical resource for the purposes of CEQA. Therefore, development on the Project site would not have the potential to cause a substantial adverse change to the significance of any built environment historical resource, as defined in Section 15064.5 of the CEQA Guidelines. The Project would not demolish a significant historical resource or alter its physical characteristics, nor would it change elements within the historic setting of such a resource. Therefore, the Project would have no impact on built environment historical resources.

Archaeological Resources

Results of the records search and previous investigations discussed above indicate that no known archeological resources are located within the Project Site. Despite the negative results of the records search, literature review, and field survey, it cannot entirely be ruled out that archaeological deposits could be encountered during project construction activities such as earth-moving activities, debris and silt removal, and vegetation removal. Should archaeological deposits be encountered during project construction, a substantial adverse change in the significance of a historical resource

would occur from its demolition, destruction, relocation, or alteration such that the significance of the resource would be materially impaired (CEQA Guidelines Section 15064.5(b)(1)). Implementation of Mitigation Measure CUL-1: Cultural Resources Monitoring and MM CUL -2: Conduct Cultural Resource Awareness and Sensitivity Training, would ensure that impacts related to archaeological resources that qualify as historical resources would be reduced to less than significant.

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

Finding: Less Than Significant With Mitigation Incorporated

According to the CEQA Guidelines, “When a project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource” (CEQA Guidelines Section 15064.5(c)(1)). Those archaeological sites that do not qualify as historical resources shall be assessed to determine if these qualify as “unique archaeological resources” (California PRC Section 21083.2). As discussed above, excavations related to Project construction could encounter archaeological deposits and result in an adverse change to a buried archaeological deposit that could qualify as an archaeological resource. Thus, potentially significant impacts related to buried unidentified archaeological deposits resources could result from Earth-moving activities, debris and silt removal, and vegetation removal.

Implementation of Mitigation Measures CUL-1 and CUL-2 would ensure that impacts related to archaeological deposits that qualify as archaeological resource would be reduced to less than significant.

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

Finding: Less Than Significant With Mitigation Incorporated

As discussed above, there is a low potential for the disturbance of historical and/or archaeological resources and/or human remains as a result of the Project. In the event that human remains are identified during Project activities, these remains would be required to be treated in accordance with Section 7050.5 of the California Health and Safety Code and Section 5097.98 of the Public Resources Code, as appropriate. Section 7050.5 of the California Health and Safety Code states that, in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains are discovered has determined whether or not the remains are subject to the coroner’s authority. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission (NAHC) within 24 hours of this identification. The NAHC will identify a Native American Most Likely Descendent (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. Compliance with the California

Health and Safety Code and CUL-1: Cultural Resources Monitoring and MM CUL -2: Conduct Cultural Resource Awareness and Sensitivity Training would ensure that impacts to human remains would be reduced to less than significant.

3.5.2 Mitigation Measures

3.5.2.1 *MM CUL-1: Cultural Resources Monitoring*

Prior to any Project-related ground disturbance, DWR shall retain the services of a qualified archaeologist who meets the Secretary of the Interior's (SOI) Professional Qualifications Standards for Archaeology ¹to implement and oversee archaeological monitoring of earth-moving activities, debris and silt removal, and vegetation removal. If archaeological deposits are encountered during Project-related ground disturbance, the monitoring archaeologist shall have the authority to stop work in the area (50-foot radius).

Work shall not resume until the monitoring archaeologist under the oversight of the SOI qualified archaeologist in consultation with DWR has:

- a) Designated the deposit as an Environmentally Sensitive Area (ESA) to ensure avoidance. Protective fencing or other markers shall be erected around the ESA prior to any ground disturbing activities. To protect sensitive information and to discourage unauthorized disturbance or collection of artifacts, the ESA shall only be designated as an ESA, with no signage designating the area as culturally sensitive.
- b) Determined that the archaeological deposit does not qualify as a historical resource or unique archaeological resource pursuant to PRC Section 5024.1 or PRC Section 21083.2(g) and no further archaeological investigation is necessary.
- c) Should the monitoring archaeologist under the oversight of the SOI qualified archaeologist and, in consultation with DWR, determine the archaeological deposit does qualify as a historical resource or unique archaeological resource pursuant to PRC Section 5024.1 or PRC Section 21083.2(g), and avoidance (CUL_1 (a) [ESA]) is not feasible, a treatment plan with appropriate protection and preservation measures will be developed for review, approval, and implementation by DWR to mitigate impacts to the resource.

Each cultural resource monitor shall complete the Daily Field Monitoring Log provided. In the log, they shall record details of their monitoring activities and any observations made throughout the day. Daily monitoring logs shall be submitted nightly or, at the

¹ U.S. Department of the Interior. 1983. Archaeology and Historic Preservation; Secretary of the Interior's Standards and Guidelines. Available: <https://www.nps.gov/subjects/historicpreservation/upload/standards-guidelines-archeology-historic-preservation.pdf>

latest, within 24 hours. All activities associated with construction monitoring shall be summarized and provided in a monthly report to DWR.

Following the completion of all ground disturbance associated with Project construction, the results of the archeological monitoring will be summarized in a technical document. The technical document shall be provided to DWR for review and approval and submitted to the NEIC.

Mitigation Measure CUL-1 Implementation

- **Responsible Party:** DWR
- **Timing:** Prior to and during implementation of Project construction activities.
- **Monitoring and Reporting Program:** Each cultural resource monitor shall complete the Daily Field Monitoring Log provided. In the log, they shall record details of their monitoring activities and any observations made throughout the day. Daily monitoring logs shall be submitted nightly or, at the latest, within 24 hours. All activities associated with construction monitoring shall be summarized by the Cultural Resources Field Coordinator in a monthly report to be provided to DWR.

Following the completion of all ground disturbance associated with Project construction, the results of the archeological monitoring will be summarized in a technical document. The technical document shall be provided to DWR for review and approval and submitted to the NEIC.

- **Standards for Success:** Protection of historical resources, archaeological resources, and human remains. The evaluation and recording of any newly identified cultural resources and treatment by avoidance, protection, or documentation of any discovered resources that qualify as historically or archaeologically significant.

3.5.2.2 MM CUL-2: Conduct Cultural Resource Awareness and Sensitivity Training

Prior to any Project-related ground disturbance, DWR shall retain the services of an SOI qualified archaeologist to oversee and ensure that all construction workers involved in ground disturbing activities receive Cultural Resource Sensitivity and Awareness Training by an archaeologist who is experienced in teaching non-specialists to recognize archaeological resources in the event that any are discovered during construction.

Mitigation Measure CUL-2 Implementation

- **Responsible Party:** DWR

- **Timing:** DWR shall prepare and present the cultural resources awareness training. The training shall take place prior to construction and all construction staff (i.e., staff present at the initiation of the Project and any new staff) must attend the training prior to participating in any Project related activities.
- **Monitoring and Reporting Program:** Cultural Resource Worker Awareness Training document.
- **Standards for Success:** The identification of and prevention of any impacts to known or inadvertently discovered cultural resources during Project construction.

3.6 ENERGY

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

3.6.1 Environmental Impact Analysis

Would the Project:

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

Finding: Less Than Significant Impact

The energy requirements for the Project were determined using the construction estimates generated from the Air Quality CalEEMod modeling. The calculation worksheets for energy consumption are provided in Appendix B.

3.6.1.1 *Construction*

During construction, the Project would utilize petroleum fuel (diesel and gasoline) for off-road construction equipment and on-road vehicles. Project construction is not anticipated to consume any natural gas or electricity.

Off-road construction equipment would consume approximately 11,812 gallons of diesel fuel. On-road vehicles would use approximately 12,633 gallons of diesel and gasoline fuel from construction worker, vendor, and hauling truck trips. There are no unusual Project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in other parts of the State. Therefore, it is expected that construction fuel associated with the Project would not be any more inefficient, wasteful, or unnecessary than at other construction sites in the region. Given the above, impacts would be less than significant.

3.6.1.2 Operation

During operation, the Project would consume electricity and petroleum fuel. However, as compared to existing conditions, the additional energy demand necessary for the Project would be minor. The Project would extend the existing restroom by approximately 650 square feet, which would not significantly increase electricity requirements. Moreover, the Project would not result in any additional permanent vehicle or truck trips beyond what exists under current conditions. Therefore, Project operation would not result in inefficient, wasteful, or unnecessary energy use, and impacts would be less than significant.

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

Finding: Less Than Significant Impact

The Project would comply with federal, State, and local regulations aimed at reducing energy consumption. Local regulations have been developed in accordance with federal and State energy regulations, such as the California Energy Code Building Standards (CCR Title 24, Part 6), the CALGreen Code (CCR Title 24, Part 11), and Senate Bill (SB) 743, which are also aimed at reducing energy consumption. The Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Thus, the impact would be less than significant.

3.6.2 Mitigation Measures

None required.

3.7 GEOLOGY AND SOILS

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving:			X	
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.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?		X		
c) Be located on strata or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?			X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	

3.7.1 Environmental Impact Analysis

Would the Project:

a) Directly or indirectly cause 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.

Finding: Less Than Significant Impact

The Alquist-Priolo Earthquake Fault Zoning Act is the State law that focuses on hazards from earthquake fault zones. Its purpose is to mitigate the hazard of surface fault rupture by regulating structures designated for human occupancy near active faults, which include those faults that have ruptured within the last 11,000 years (DOC 2023). As required by the Act, the California Geological Survey has delineated Earthquake Fault Zones along known active faults in California. The Project area is not located in an Alquist-Priolo Fault Zone (Bryant and Hart 2007). The only active fault located in Butte County is the Cleveland Hills Fault, which is located approximately four miles south of the proposed Action area in the *Bangor, California* 7.5-minute USGS quadrangle. This fault was last active on August 1, 1975, which resulted in an earthquake with a magnitude of 5.7 approximately 7.5 miles south of Lake Oroville (Butte County 2019). However, the risk of fault rupture is not considered sufficient to restrict development within Butte County. The Project entails temporary construction, and operations following the Project will be similar to previous years. Therefore, the risk of loss, injury or death related to Project activities from a fault rupture would be less than significant.

ii) Strong seismic ground shaking?

Finding: Less Than Significant Impact

The ground shaking hazard within the Project area is generally low compared to areas of California with more frequent fault activity (i.e., areas near the San Andreas Fault system). However, a large earthquake on a nearby fault could cause substantial ground shaking within the Project area, potentially resulting in an increased risk of structural loss, injury, or death. However, there will be approximately 10-15 personnel present during the construction phase of the Project, depending on daily activities, and there are no permanent residents within the area, thereby minimizing exposure. Further, construction of the Project will be temporary (approximately five months), with operations occurring seasonally similar to previous years. Therefore, the Project-related risk of loss, injury or death from ground shaking are considered be less than significant.

iii) Seismic-related ground failure, including liquefaction?

Finding: Less Than Significant Impact

Seismic-related ground failure, including liquefaction, occurs when saturated sediments at or near the ground surface are loosely packed and take on a fluid-like quality as a result of powerful ground shaking (USGS 2017). Liquefaction is unlikely to occur within the Project area because, with the exception of the seismic events discussed above, most of the significant Quaternary and historical regional seismic activity is concentrated on faults located more than 60 miles to the north, east, and southeast of the Project area. Although the areas within the Project area are not within an Alquist-Priolo Earthquake Fault Zone, they are located approximately four miles north of the Cleveland Hills Fault, last active on August 1, 1975, which resulted in an earthquake with a magnitude of 5.7 approximately 7.5 miles south of Lake Oroville. Prior to the earthquake in 1975, three others were recorded since 1900 between magnitudes of 5.0 and 5.9 on the Richter scale (Toppozada and Morrison 1982). However, the Project area would not be susceptible to liquefaction due to the dry compacted and stable soils and, thus, there would be a less than significant impact.

iv) Landslides?

Finding: Less Than Significant Impact

Although landslides could occur in Butte County, they are uncommon, and most occur in areas that have historical landslide activity and have a greater than 15 percent slope. Within Butte County, the sites with the highest potential for landslides to occur are located in the central mountainous region where well-developed soils overlay impervious bedrock on steep slopes and can experience heavy rain events. Figure HS 6, Landslide Potential, within the Health and Safety Element of the Butte County General Plan, indicates that there is a high potential for landslides within the Project area (Butte County 2019). Landslides have occurred along the banks of Lake Oroville and are concentrated along the North Fork Feather River arm (Bloomer Hill area) and in the South Fork Feather River arm (Stringtown Mountain area) (DWR 2007). However, due to the dry compacted, stable, and vegetated soils within the Project area and temporary and minimal ground disturbance that would occur, the potential for a landslide is very low within the Project area. Therefore, there would be a less than significant impact relative to a landslide that would expose people or structures to potential substantial adverse effects.

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

Finding: Less Than Significant with Mitigation Incorporated

Soil types within the Project area are relatively shallow and well-drained in the upland areas. Where the Project area is beneath the OHWM of Lake Oroville, soils tend to be relatively compacted, gravelly and medium textured with finer subsoils, and may be susceptible to erosion due to wave and wind action. According to Figure HS-7, Erosion Hazard Potential, within the Health and Safety Element of the Butte County General Plan, the Project area falls within a severe erosion hazard potential zone or category (Butte County 2019). However, Project activities, including grading, bank cutting, rip rap stabilization, vegetation removal, and excavation will require temporary ground

disturbance, which could, in the interim, increase soil erosion. Additionally, temporary construction activities would disturb more than one acre of soil; as such, those activities would be subject to the requirements of the NPDES Construction General Permit. Therefore, MM GEO-1, Sedimentation and Erosion Control Measures, includes the submission of a Notice of Intent with the SWRCB Division of Water Quality that describes general information on the types of construction activities that would occur within the Project area.

A Stormwater Pollution Prevention Plan (SWPPP) would be prepared for coverage under the Statewide stormwater discharge permit program, administered by the SWRCB and required under Section 402 of the CWA. The NPDES program regulates industrial pollutant discharges, including construction activities, and the implementation of the SWPPP requires that pollutant sources, which may affect the quality of stormwater discharge, be properly identified and that BMPs be put in place to reduce pollutants in stormwater discharge during all maintenance activities (EPA 2022). Therefore, with the implementation of MM GEO-1, impacts to soil erosion or loss of topsoil would be less than significant.

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

Finding: Less Than Significant Impact

As discussed in a) and b) above, maintenance activities would result in less than significant impacts regarding the movement of soil, such as landslides, lateral spreading, or liquefaction. Maintenance activities do not include the extraction of groundwater or other subsurface materials and, therefore, would not cause land subsidence or the collapse or sinking of the ground's surface (USGS 2019). Therefore, impacts would be less than significant.

d) Be located on expansive soil, as defined in Table 18.1 B of the Uniform Building Code, creating substantial risks to life or property?

Finding: Less Than Significant Impact

Expansive or collapsible soils are characterized by the ability to undergo significant volume change (e.g., shrink and swell) as a result of variation in soil moisture content. As shown in Figure HS-8, Expansive Soil Potential, within the Health and Safety Element of the Butte County General Plan, the Project area is located in an area with very low expansive soil potential (Butte County 2019). Modifications to the existing restroom facilities will be located in the same location or within the immediate vicinity of existing structure and on previously disturbed or graded areas, and will be constructed in compliance with applicable Uniform Building Code regulations not creating substantial risks to life or property. Therefore, the potential impacts would be less than significant.

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

Finding: No Impact

Project activities do not require the use of septic tanks or alternative wastewater disposal systems and, therefore, no impacts would occur.

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

Finding: Less Than Significant Impact

The Project area is within the FERC Project No. 2100 boundary, which encompasses 41,100 acres and includes both power and non-power generating facilities both surrounding and associated with Lake Oroville. Within this boundary there are three areas that could be sensitive to disturbance of paleontological resources. These are in the vicinity of Lime Saddle where the blocks of Calaveras Limestone in the mélange sequence are known to contain fossils; an area about halfway along the Thermalito Diversion Pool that is crossed by an outcrop of the Monte del Oro Formation that is known to contain fossils; and the vicinity of the Thermalito Forebay and Afterbay that overlay the Laguna Formation, which in other places is known to contain vertebrate fossils (DWR 2007). The proposed construction activities for this project are not near any of the areas containing fossils.

3.7.2 Mitigation Measures

3.7.2.1 *MM GEO-1: Sedimentation and Erosion Control Measures*

In compliance with the requirements of the NDPES permit program, for ground disturbance greater than 1 acre, DWR shall obtain coverage under a Construction General Permit and prepare a SWPPP that incorporates measures or comparable BMPs that describe the site, erosion and sediment controls, means of waste disposal, implementation of approved local plans, control of post-construction sediment, erosion control measures, maintenance responsibilities, and non-stormwater management controls. DWR shall require all construction contractors to retain a copy of the approved SWPPP during maintenance activities and to implement the SWPPP. Additionally, the SWPPP shall require that all stormwater discharges are in compliance with all current requirements of the Construction General Permit.

Mitigation Measure GEO-1 Implementation

- **Responsible Party:** DWR shall obtain coverage under a Construction General Permit and prepare a SWPPP. This mitigation measure will be referenced in the plans and specifications bid for the Project.
- **Timing:** During construction activities and until the site is stabilized

- **Monitoring and Reporting Program:** The recording and evaluation of the SWPPP and erosion control practices shall be conducted by DWR and/or the contractor and kept on file at DWR's office.
- **Standards for Success:** Minimize on- and off-site erosion and prevent introduction of significant amounts of sediment into the lake or any stream or drainage. Ensure that all stormwater discharges are in compliance with all current requirements of the Construction General Permit.

3.8 GREENHOUSE GAS EMISSIONS

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

3.8.1 Environmental Impact Analysis

Would the Project:

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

Finding: Less Than Significant Impact

The BCAQMD has not established a threshold of significance for greenhouse gases (GHGs) as it is unlikely that any one project would substantially contribute to global climate change. The BCAQMD considers GHG impacts to be cumulative in nature and should be evaluated according to an applicable Climate Action Plan (CAP). If there is no applicable CAP, the BCAQMD states that the lead agency may consider GHG emissions of the project in relation to the goals of Assembly Bill 32 (2006), Senate Bill 375 (2009) and related legislation, or according to the criteria used by other jurisdictions with a similar air quality setting (BCAQMD 2014). As a result, in order to evaluate Project significance, emissions were compared against GHG thresholds established by the Sacramento Metropolitan Air Quality Management District (SMAQMD) (SMAQMD 2021). In addition, the Project was compared to the Butte County CAP and CARB's 2017 Scoping Plan in order to ensure that the Project will comply with local reductions and Assembly Bill 32 (2006). Reduction targets in the CAP call for a 15% reduction below baseline 2006 GHG emission levels by 2020 consistent with State guidelines, and a 42% reduction below baseline 2006 levels by 2030.

GHGs emitted from the combustion of fuels such as petroleum consist of carbon dioxide (CO₂), methane (CH₄), and nitrogen dioxide (N₂O), collectively reported as carbon dioxide equivalents (CO₂e). GHGs are also emitted from mobile sources such as on-road vehicles and construction equipment burning fuels such as gasoline, diesel, biodiesel, propane, or natural gas. Indirect GHG emissions result from electric power generated elsewhere that is used to operate process equipment, lighting, and utilities at a facility. The principal anthropogenic GHGs that enter the atmosphere are CO₂, CH₄,

N₂O, chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Among these GHGs, CO₂ emissions are the most abundant type of GHG emissions contributing to global climate change.

3.8.1.1 Construction

GHG emissions were estimated in CalEEMod; refer to Section 3.3 (Air Quality) for a discussion of inputs. Table 3.8-1 presents a summary of the construction GHG emissions. Total GHG emissions were compared against SMAQMD construction thresholds. Construction emissions were also amortized over a period of thirty years, as is standard in CEQA analysis, to evaluate the annual GHG construction emissions with operational emissions.

Table 3.8-1. Project Greenhouse Gases Construction Emissions

Year	Carbon Dioxide Equivalents (Total Metric Tons)
2023	376
Total	376
SMAQMD Threshold	1,100
Exceed?	No
Amortized Emissions	12.53

As shown in Table 3.8-1, construction emissions would fall below SMAQMD's construction threshold. Operational emissions are included in Table 3.8-2.

3.8.1.2 Operational

Operational emissions were also calculated within CalEEMod with inputs detailed in Section 3.3 (Air Quality). As shown in Table 3.8-2, operational emissions would fall below SMAQMD annual GHG thresholds.

Table 3.8-2. Project Greenhouse Gases Operational Emissions

Source	Carbon Dioxide Equivalents (Total Metric Tons)
Area	0.00
Energy	0.17
Mobile	1.60
Amortized Construction Emissions	12.53
Total	14.13

Source	Carbon Dioxide Equivalents (Total Metric Tons)
SMAQMD Threshold	1,100
Exceed?	No

As shown in Table 3.8-2, operational GHG emissions would not exceed SMAQMD annual operational thresholds. Therefore, GHG emissions would not result in a significant increase of emissions due to implementation of the Project. Thus, impacts would be less than significant.

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

Finding: Less Than Significant Impact

The Project would not conflict with any applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of GHGs. The primary applicable plans are the County of Butte County General Plan, the 2014 Butte County CAP, and CARB's 2017 Scoping Plan. CARB's 2017 Scoping Plan sets a framework for the State to meet SB 32, which sets GHG emission reductions for the year 2030 (CARB 2017).

3.8.1.3 Butte County General Plan

The Butte County General Plan includes a series of policies aimed at reducing air quality impacts and increasing energy efficiency, which in turn would reduce GHG emissions. The Project would be consistent with all applicable policies under the County General Plan. Specifically, the Project would be consistent with Policy COS-P5.1, which requires that air quality planning efforts be coordinated with local, regional, and State agencies; COS-P1.1 that requires GHG emission impacts from proposed development projects be evaluated as required under CEQA; and COS-P2.2, which requires new development to comply with Green Building Standards adopted by the California Building Standards Commission at the time of the building permit application submittal (Butte County 2019).

3.8.1.4 Butte County CAP

The Butte County CAP provides goals, policies, and programs to reduce GHG emissions, address climate change adaptation, and improve quality of life in the county. The CAP also supports Statewide GHG emission reduction goals identified in Assembly Bill 32 and SB 375. Most policies are aimed at new residential and non-residential building developments that would not be applicable to rural, recreational development. The Project would be consistent with Policy EN7 which encourages new non-residential buildings to meet or exceed CALGreen standards (Butte County 2014). The Project would upgrade an existing bathroom structure and all new water and energy features would be required to implement the latest CALGreen standards.

3.8.1.5 CARB 2017 Scoping Plan

The initial CARB Scoping Plan proposed a comprehensive set of actions designed to achieve the 2020 GHG reductions required under AB 32, and the 2017 Scoping Plan incorporated the 2030 GHG Reductions required under SB 32. Table 3.8-3 identifies the 2017 Scoping Plan measures and the Project's applicability.

Table 3.8-3. SB 32 Scoping Plan Consistency Analysis

Measure Name	Measure Description	Consistency Determination
SB 350 50% Renewable Mandate	Utilities subject to the legislation will be required to increase their renewable energy mix from 33% in 2020 to 50% in 2030.	Consistent. The Project would purchase electricity subject to the SB 350 Renewable Mandate.
Low Carbon Fuel Standard	This measure requires fuel providers to meet an 18% reduction in carbon content by 2030.	Consistent. Vehicles accessing the Project site would use fuel containing lower carbon content as the fuel standard is implemented.
Mobile Source Strategy (Cleaner Technology and Fuels Scenario)	Vehicle manufacturers will be required to meet existing regulations mandated by the LEV III and Heavy-Duty Vehicles programs. The strategy includes a goal of having 4.2 million ZEVs on the road by 2030 and increasing numbers of ZEV trucks and buses.	Consistent. Future maintenance workers and site visitors can be expected to purchase increasing numbers of more fuel efficient and zero emission cars and trucks each year.
Short-Lived Climate Pollutant (SLCP) Reduction Strategy	The strategy requires the reduction of SLCPs by 40% from 2013 levels by 2030 and the reduction of black carbon by 50% from 2013 levels by 2030.	Consistent. SLCPs include SFCs, black carbon, and methane. Black carbon is created from the burning of fuels such as coal, diesel, and biomass. Diesel equipment and vehicles would be used during Project construction, which would cease once construction ends. Project operations are not expected to generate significant levels of air quality or greenhouse gas emissions. Moreover, future maintenance workers and site visitors can be expected to purchase increasing numbers of more fuel efficient and zero emission cars and trucks each year.
SB 375 Sustainable Communities Strategies	Requires Regional Transportation Plans to include a sustainable communities' strategy for reduction of per capita vehicle miles traveled.	Not applicable. This policy is aimed at the local Council of Governments to prepare a Regional Transportation Plan.

Measure Name	Measure Description	Consistency Determination
Post-2020 Cap and Trade Program	The Post 2020 Cap and Trade Program continues the existing program for another 10 years. The Cap and Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers.	Consistent. The Post 2020 Cap and Trade program indirectly affects people who use the products and services produced by the regulated industrial sources when increased cost of products or services (i.e., such as electricity and fuel) are transferred to the consumers. The Cap and Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-State or imported. Accordingly, GHG emissions associated with CEQA projects' emissions associated with CEQA projects' electricity usage are covered by the Cap and Trade Program. The Cap and Trade program also covers fuel suppliers (e.g., natural gas and propane fuel providers, and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources during the program's first compliance period.

Source: CARB. 2017

As shown above, the Project would be consistent with the Butte County General Plan, Butte County CAP, and CARB's 2017 Final Scoping Plan and, as a result, the Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Thus, the impact would be less than significant.

3.8.2 Mitigation Measures

None required.

3.9 HAZARDS AND HAZARDOUS MATERIALS

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to <i>Government Code Section 65962.5</i> and, as a result, would it create a significant hazard to the public or the environment?				X
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 footprint?				X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X	

3.9.1 Environmental Impact Analysis

Would the Project:

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

Finding: Less Than Significant Impact

Proposed construction activities would involve the routine transport, use, or disposal of hazardous substances such as diesel fuels, gasoline, hydraulic fluids, and lubricants. However, all hazardous material use would be required to comply with all applicable local, State, and federal standards associated with the handling, storage, and disposal of hazardous materials. Use of hazardous materials in accordance with applicable standards ensures that any exposure of the public or the environment to hazard materials would result in a less than significant impact.

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?

Finding: Less Than Significant Impact

During construction, there is a possibility of accidental release of hazardous materials routinely used. However, all hazardous material use would be required to comply with all applicable local, State, and federal standards associated with the handling, storage, and disposal of hazardous materials. Moreover, the Project would be required to implement a SWPPP that would minimize the potential for, and effects from, spills of hazardous, toxic, and petroleum substances during construction activities. Therefore, the Project would not create a significant hazard to the public or the environment, resulting in a less than significant impact.

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

Finding: No Impact

No schools exist within one-quarter mile of the Project site and no new schools are being proposed for development in that area. Therefore, the Project would have no impact.

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?

Finding: No Impact

On January 13, 2023, a review of the California Department of Toxic Substances Control (DTSC) EnviroStor demonstrated that the Project is not located on or near a hazardous waste or border property as defined under Government Code Section 65962.5(a) (DTSC 2023). Therefore, the Project would have 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 or excessive noise for people residing or working in the Project footprint?

Finding: No Impact

There are no people residing within the Project area. The Project is not located within an airport land-use plan, within two miles of a public-use airport, or in the vicinity of a private airstrip. The nearest public-use airport is the Oroville Municipal Airport, which is located approximately 12 miles southwest of the Project site. The nearest private-use airport is the Brownsville Airpark located 7.3 miles south of the Project site. Therefore, the Project would not result in an airport-related safety hazard for people working in the Project area. Thus, the Project would have no impact.

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

Finding: No Impact

The Project is not located within any major thoroughfares that may be used as an evacuation route, and it does not contain any essential facilities for emergency response. Therefore, there would be no impact.

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

Finding: Less Than Significant Impact

The Project is in an area designated by the California Department of Forestry and Fire Protection (CAL FIRE) as a very high fire hazard severity zone (CAL FIRE 2022). No residences exist within the Project footprint, but workers constructing the Project would be temporarily exposed to the risk of wildfire that exists for the area over the five-month construction period. The Project is located within the State Responsibility Area where CAL FIRE works in collaboration with the Butte County Fire Divisions to provide wildfire protection. The Butte County Community Wildfire Protection Plan (CWPP) outlines fire management strategies (Butte County 2021). Implementation of this plan reduces worker exposure during construction. Therefore, the Project would not expose people or structures to risk from wildland fires and the impact would be less than significant.

3.9.2 Mitigation Measures

None required.

3.10 HYDROLOGY AND WATER QUALITY

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?		X		
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?				X
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:		X		
i) Result in substantial erosion or siltation on- or off-site;		X		
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site			X	
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			X	
iv) Impede or redirect flood flows.				X
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X	
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				X

3.10.1 Environmental Impact Analysis

Would the Project:

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

Finding: Less Than Significant with Mitigation Incorporated

The Project includes activities associated with the Oroville Facilities, which provide hydropower generation and water to the SWP for recreation, fish hatchery, and wildlife refuge operations, as well as water storage management for flood risk reduction. The Project would require earthwork, riprap, concrete, aggregate base rock, and drain rock. If improperly constructed, such activities have the potential to disturb soils, which could result in erosion from wind and/or water, potentially leading to sediment-laden stormwater runoff. Because Project construction would primarily occur in dry conditions but below the OHWM, DWR would obtain and adhere to applicable permits.

Furthermore, MM GEO-1, Implement Sedimentation and Erosion Control Measures, would be implemented during Project construction to avoid and minimize potential adverse impacts to water quality from erosion and sedimentation. MM GEO-1 also requires the preparation of a SWPPP for coverage under the NPDES permit program, administered by the SWRCB, and as required under Section 402 of the CWA. The NPDES program regulates industrial pollutant discharges, including construction activities, and the SWPPP requires that pollutant sources that may affect the quality of stormwater discharge be properly identified. The SWPPP also requires BMPs to be implemented to reduce pollutants in stormwater discharges during all Project activities.

Project construction will be conducted primarily conditions when lake levels are below the Project footprint; however, if necessary, depending on how low the lake levels drop during the construction year, some riprap placement and construction may need to occur in water within approximately 10 -15 feet of the shore. If minor in water work can't be avoided, DWR will implement the conditions in the project-specific CWA 401 Water quality Certification (MM BIO-02). These include but are not limited to the use of silt curtains if required, water quality monitoring, and adherence to permit-specified turbidity thresholds. Therefore, impacts to surface or groundwater quality associated with the Project would be less than significant, with mitigation. Specifically, with the implementation of MM BIO-2 and MM GEO-1, Project construction is not anticipated to result in a significant violation of water quality standards or wastewater discharge requirements, or otherwise substantially degrade surface or groundwater quality.

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

Finding: No Impact

The Project area is located within the lakebed of Lake Oroville (i.e., below the OHWM). While the Project will require borrow material taken from a hill within the Project area that could be reduced in height as much as 75 feet, the Project also includes soil and rock excavations that would be no greater than 30 feet in depth and are not expected to reach the groundwater table. Additionally, Project activities would not decrease groundwater supplies or interfere substantially with groundwater recharge, as no water would be pumped from any on- or off-site groundwater sources. All ground disturbance would be backfilled and graded to design specifications. Therefore, there would be no impact on groundwater supplies, recharge, or sustainable groundwater management.

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;

Finding: Less than Significant with Mitigation Incorporated

While ground disturbance activities have the potential to result in erosion or siltation, MM GEO-1 would be implemented to control erosion or siltation during Project activities. Disturbed areas within the Project area will be graded and compacted and fill slopes will be lined with rock slope protection to further reduce erosion. All temporarily disturbed areas will be returned to pre-Project contours and conditions, and temporarily disturbed areas above the OHWM will be stabilized to reduce potential for erosion of upland areas. Therefore, impacts would be less than significant with mitigation incorporated.

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

Finding: Less than Significant Impact

The Project has been designed to facilitate surface runoff so that it will not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. Lake Oroville itself is a flood control facility, and the Project has been designed in a way so as to not impact the functionality of that facility. Therefore, impacts would be less than significant.

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;

Finding: Less than Significant Impact

The Project has been designed so that runoff of water would flow to Lake Oroville, and thus, would not exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Lake Oroville itself is a flood control facility, and the Project has been designed in a way so as to not impact the functionality of that facility. Therefore, impacts would be less than significant.

iv) Impede or redirect flood flows.

Finding: No Impact

The Federal Emergency Management Agency (FEMA) Flood Map Service Center shows that the Project area is within FEMA's designated Zone A, "Without Base Flood Elevation." Per FEMA, Zone A delineates areas with a 1 percent annual chance of flooding; because detailed analyses are not performed for such areas, no depths or base flood elevations are shown within these zones (FEMA 2021). The Project would not create or contribute significant additional runoff above baseline conditions and, therefore, would not impede or redirect flood flows. As a result, no impacts would occur.

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

Finding: Less Than Significant Impact

As discussed above, the Project is located in areas that FEMA has designated as Zone A. Additionally, the Project is located within the Lake Oroville FERC license boundary. The Project would be constructed at existing facilities where pollutants are secured in accordance with local regulations. Further, the Project would not be constructed during flood events. Thus, the risk of pollutant release during Project inundation is less than significant.

The Project is located approximately 125 miles east of the Pacific Ocean and, therefore, is not located within a tsunami risk zone. Given the size of Lake Oroville, if seiche waves occurred, they would be small. Therefore, the risk of the release of pollutants due to Project inundation would be less than significant.

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

Finding: No Impact

The Project is located within the jurisdiction of the Central Valley RWQCB. As discussed in this IS/MND, the Project would obtain a 401 WQC.

Pursuant to CWA Section 303, the Central Valley RWQCB has adopted, and the SWRCB has approved, the Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plan), which was last amended in May 2018 (Central Valley RWQCB 2018). The Basin Plan performs a variety of functions, such as designating that beneficial uses within specified waters be protected, establishing water quality objectives to protect those uses, and setting forth a program for implementation needed to achieve those objectives. The Feather River and associated waterways are designated for the following beneficial uses: municipal and domestic supply, power, recreation, freshwater habitat, spawning, and wildlife habitat (Central Valley RWQCB 2018).

Project construction would be temporary in duration and would occur within the footprint of existing facilities. Therefore, the Project would continue to comply with the facilities' operational requirements and would not change designated beneficial uses through long-term alteration of flows or temperature changes. Thus, the Project would remain in compliance with the Basin Plan.

The Project does not require pumping of groundwater or any increases in the use or extraction of local groundwater and, therefore, would not conflict or obstruct implementation of a sustainable groundwater management plan. As such, there would be no impact.

3.10.2 Mitigation Measures

- Mitigation Measure GEO-1: Sedimentation and Erosion Control Measures (refer to Section 3.7 [Geology and Soils])
- Mitigation Measure BIO-2: Water Quality Protections and Compensation for Direct Impacts to Waters of the U.S.

3.11 LAND USE AND PLANNING

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

3.11.1 Environmental Impact Analysis

Would the Project:

a) Physically divide an established community?

Finding: No Impact

The Project site is located in the existing Enterprise area within the Lake Oroville SRA and is surrounded by rural recreational areas. The nearest established community to the Project site is Forbestown, located approximately 4.5 miles to the southeast. The Project would not involve the construction of facilities that would create a new physical barrier between any existing communities or restrict access to any nearby communities. Therefore, the Project would not physically divide an established community, and no impact would occur.

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?

Finding: Less Than Significant Impact

The Project site has a Butte County General Plan designation of “Public” and a zoning designation of “Public” (Butte County 2019, Butte County 2023). The Public land use designation allows for “large facilities owned and operated by government agencies, including schools, colleges, airports, dams and reservoirs, disposal sites, recreation facilities, conservation areas, fire stations and other government buildings and property” (Butte County 2019). The Project construction and operation activities have been analyzed for consistency with the relevant DWR and Butte County General Plans, policies, and regulations in each of the resource sections throughout this IS/MND. In this IS/MND, the Project was found to either be consistent with, or not subject to, the

aforementioned plans, policies, and regulations. Therefore, the potential land use impact is less than significant.

3.11.2 Mitigation Measures

None required.

3.12 MINERAL RESOURCES

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

3.12.1 Environmental Impact Analysis

Would the Project:

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Finding: No Impact

The Project site has not been designated by the California Department of Conservation (CDC) as an area of known mineral resources (CDC 2023). Therefore, the Project would not result in a loss of availability of a known mineral resource. As such, there would be no impact.

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

Finding: No Impact

There are no mineral resource recovery sites identified within or near the Project area in the Butte County General Plan (Butte County 2019). The Project would not result in impacts related to 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. Therefore, the Project would have no impact.

3.12.2 Mitigation Measures

None required.

3.13 NOISE

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards or other agencies?			X	
b) Generation of excessive groundborne vibration or groundborne noise levels?			X	
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 be residing or working in the Project area to excessive noise levels?				X

3.13.1 Environmental Impact Analysis

Would the Project:

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

Finding: Less Than Significant Impact

Noise is defined as unwanted sound; sound becomes unwanted when it creates a nuisance that interferes with normal activities, or when it causes physical harm and adversely affects human health. The standard unit of measurement for the loudness of sound is the decibel (dB). The zero point on the dB scale is based on the lowest sound level that a healthy, unimpaired human ear can detect. Changes of 3 dB or fewer are not perceptible to the human ear. A general rule for dB scale is that a 10-dB increase in sound is perceived as a doubling of loudness by the human ear (FHWA 2017). For example, a 55-dB sound level would sound twice as loud as a 45-dB sound level.

Noise-sensitive land uses are generally defined as locations where people reside. This can include where people live, sleep, recreate, worship, and study, and these places are generally considered to be sensitive to noise. Sensitive receptors near the Project area include rural residences and recreational users. The nearest residence is approximately 0.1 miles to the northeast of the Project. Additionally, recreational users

at Lake Oroville could also be exposed to construction noise generated from the Project.

Butte County has developed noise standards to limit noise impacts for sensitive receptors. These noise standards are included in Table 3.13-1, below. However, the Butte County Municipal Code exempts construction noise from these standards, provided that construction activities take place between sunrise and sunset on weekdays, between 8:00 AM and 6:00 PM on Saturdays, and 10:00 AM and 6:00 PM on Sundays, and do not occur on holidays (Butte County Municipal Code Chapter 41A-9).

Table 3.13-1. Butte County Maximum Allowable Noise Exposure to Non Transportation Sources

Noise Level Description	Daytime 7 AM–7 PM		Evening 7 PM–10 PM		Night 10 PM–7 AM	
	Urban	Non-urban	Urban	Non-urban	Urban	Non-urban
Hourly L_{eq} , dB	55	50	50	45	45	40
Maximum Level, dB	70	60	60	55	55	50

Source: Butte County 2019

Key:

dB = decibel

Leq = equivalent continuous noise level

Construction noise is difficult to quantify because of the many variables involved, including the specific equipment types, size of equipment used, percentage of time that each piece is in operation, condition of each piece of equipment, and number of pieces that would operate at the site. Construction equipment produces maximum noise levels when the equipment is operating under full power conditions (i.e., the equipment engine at maximum speed). However, equipment used at construction sites typically operates under less than full power conditions, or partial power. To characterize construction-period noise levels more accurately, the L_{eq} associated with each construction stage is calculated based on the quantity, type, and usage factors for each type of equipment that would be used during each construction stage. These noise levels are typically associated with multiple pieces of equipment simultaneously operating at partial power. The following noise levels would be associated with the anticipated construction equipment:

Table 3.13-2. Estimated Construction Equipment Noise Levels

Equipment	Usage (Percent)	Lmax (A-weighted decibels)	Leq (A-weighted decibels)	Distance to Nearest Receptor (feet)
Backhoe	40	57.1	53.1	528
Bulldozer	40	61.2	57.2	528
Concrete Truck	40	58.3	54.3	528
Dump Truck	40	56.0	52.0	528
Excavator	40	60.2	56.3	528
Grader	40	64.5	60.5	528
Pick-up Truck	40	54.5	50.5	528
Roller/compactor	20	59.5	52.5	528
Total		69.0	64.8	

Key:

Lmax = maximum noise level

Leq = equivalent continuous noise level

The maximum noise level associated with the on-site construction equipment at the nearest receptor is 69 dBA. This is the maximum noise level that could occur if all construction equipment were to operate at the same time, which is highly unlikely. More likely, noise levels would be variable depending on the location within the Project area.

Construction activities would take place between the hours of 7:00 AM to sunset on weekdays and, if needed, between 8:00 AM and 6:00 PM on Saturdays. Therefore, the construction schedule would limit potential effects related to noise exposure and would be consistent with the Butte County Municipal Code. Noise-related effects would be temporary and short-term. Thus, the Project would have a less than significant impact related to generation of noise in excess of standards.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Finding: Less Than Significant Impact

Vibration refers to groundborne noise and perceptible motion. Typical sources of groundborne vibration are construction activities (e.g., blasting, pile driving, and operating heavy-duty earth-moving equipment), steel-wheeled train operation, and occasional traffic on rough roads. The U.S. Department of Transportation, Federal Transit Administration (FTA) provides guidelines for maximum-acceptable vibration criteria for different types of land uses. These guidelines allow up to 80 vibration decibels (VdB) for residential uses and buildings where people normally sleep (FTA 2018). Construction activities may result in varying degrees of groundborne vibration, depending on the equipment and methods used. Construction equipment such as air compressors, light trucks, and hydraulic loaders generate little or no ground vibration. Occasionally, large, loaded trucks can cause perceptible vibration levels at close proximity. The FTA guidelines of 80 VdB for sensitive land uses provide the basis for determining the relative significance of potential Project-related vibration impacts.

The Project construction would not include activities such as blasting or pile driving that could cause excessive ground borne vibration. Therefore, the potential for the Project to result in the generation of excessive ground borne vibration or ground borne noise levels would be considered 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?

Finding: No Impact

The closest airport is the Brownsville Airpark, located approximately six miles to the southeast of the Project. Therefore, the Project would not be located within the vicinity of a private airstrip and would not expose people residing or working on the Project area to excessive noise levels. Therefore, no impacts would occur.

3.13.2 Mitigation Measures

None required.

3.14 POPULATION AND HOUSING

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

3.14.1 Environmental Impact Analysis

Would the Project:

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

Finding: No Impact

The Project would neither directly nor indirectly induce substantial unplanned growth in population. No new homes or businesses are proposed, and although a new access road and parking lot would be constructed as part of the Project, they would only be used for access to the new boat ramp and picnic area associated with the Project. No new residents or employees would occupy areas within the Project. Therefore, the Project would result in no impact.

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

Finding: No Impact

There are no residences within or near the Project area. The Project would not displace any existing residents or housing within the Project area. Therefore, no impacts would occur.

3.14.2 Mitigation Measures

None required.

3.15 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?				X
Police protection?				X
Schools?				X
Parks?			X	
Other public facilities?			X	

3.15.1 Environmental Impact Analysis

Would the Project:

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?

Finding: No Impact

CAL FIRE and the Butte County Fire Department (BCFD) provide fire and emergency services to the entire unincorporated county population, protecting over 1,600 square miles, except for the cities of Chico and Oroville, the town of Paradise and the El Medio Fire Protection District. Services include fire control for structural, vegetation, vehicular, and other unwanted fires; emergency medical services and technical rescue response; hazardous materials response; flood control assistance; fire prevention and public safety education, fire law enforcement, and arson investigation; and vegetation management (Butte County 2019).

Project operations would be similar to existing conditions, and as a result, would not create any new demand for fire protection. Furthermore, the Project does not adversely affect response times or alter any fire service facilities or capabilities. Therefore, there would be no impact to fire protection services.

Police Protection?

Finding: No Impact

The Butte County Sheriff's Office (BCSO) is responsible for law enforcement, criminal investigation, and crime prevention in the unincorporated areas of the county. BCSO works with the California Highway Patrol (CHP), which provides law enforcement services and traffic control for State roads and roads in the unincorporated portions of the county (Butte County 2019).

Project operations would be similar to existing conditions, and as a result, would not create any new demand for police protection. Further, the Project does not adversely affect response times or alter any police service facilities or capabilities. Therefore, there would be no impact to police protection services.

Schools?

Finding: No Impact

The Project would not create any new demand for additional school construction, nor does it affect the operations of existing schools. Therefore, there would be no impact to schools.

Parks?

Finding: Less Than Significant Impact

The Project would not create or alter demand for recreational services, nor would it interfere with public usage of existing recreational facilities. There would be a temporary five-month impact to the recreational area during construction, but other parks and recreation areas are open to the public and available in lieu of the recreational area. Therefore, the Project would have a less than significant impact on parks.

Other Public Facilities?

Finding: Less Than Significant Impact

The Project would temporarily impact public usage of recreational facilities during the five-month construction period. However, neither construction nor operation would impact the use of other public facilities. Therefore, the Project would have a less than significant impact.

3.15.2 Mitigation Measures

None required.

3.16 RECREATION

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			X	
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?			X	

3.16.1 Environmental Impact Analysis

Would the Project:

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?

Finding: Less Than Significant Impact

During Project construction there would be a temporary closure of portions of the existing Enterprise recreation area. This temporary closure could result in visitors making use of the nearby recreational areas. However, substantial physical deterioration of those nearby areas due to short-term use is not anticipated because the use would be temporary (approximately five months in duration). Additionally, there are multiple recreational areas within the vicinity that would help distribute users amongst several areas and would help ensure that visitor use not be concentrated at one particular recreational location. Therefore, the potential for Project construction activities to increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated is less than significant.

The completed Project would enable increased recreational access to the lake, as well as additional picnic area usage. However, operation of the Project would not have the potential to increase use to a degree that could substantially deteriorate the existing Enterprise recreational area. Therefore, no operational impact would occur.

Based on the assessment of construction and operational impacts, the overall potential for the Project to increase the use of existing neighborhood and regional parks or other

recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated would be considered less than significant.

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?

Finding: Less Than Significant Impact

The Project is located within the existing Enterprise recreational area and would temporarily restrict public access to portions of the area. However, this temporary restriction is not anticipated to cause a lasting negative impact on the recreational area, since the area would be restored to pre-Project condition with minor enhancements to the recreational facilities. As evaluated and concluded in this IS/MND, the Project would not have an adverse physical effect on the environment. Therefore, the potential for the Project to include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment during construction or operations would be considered less than significant.

3.16.2 Mitigation Measures

None required.

3.17 TRANSPORTATION

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

3.17.1 Environmental Impact Analysis

Would the Project:

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

Finding: Less Than Significant Impact

The Butte County General Plan accounts for regional movement and development throughout their respective planning area. Project construction activities would result in temporary disruption to the existing Enterprise Boat Ramp and Enterprise Road circulation; however, no road closures would occur as a result of the Project.

Additionally, construction activities within or adjacent to public roadways would be limited, and workers would follow standard signage and safety practices related to roadway safety, as required by DWR and State standards and regulations. Therefore, the Project would result in a less than significant impact related to conflict with a program, ordinance, or policy addressing the circulation system.

Once operational, the Project would result in an extension of the existing boat ramp and access road and would not result in conflicts with existing plans, ordinances, or policies related to the circulation system in the area. Thus, there would be no operational impact.

b) Would the project conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

Finding: Less Than Significant Impact

In accordance with SB 743 of 2018, CEQA Guidelines Section 15064.3 subdivision (b) was adopted in December 2018 by the California Natural Resources Agency. The updated CEQA Guidelines shifts transportation impact analysis from a level of service standard to a vehicle Miles Travelled (VMT) standard. This refers to the amount and distance of automobile travel attributable to a project. Further, this suggests a qualitative analysis to evaluate factors such as the availability of transit and proximity to other destinations for larger construction projects that are not presumed less than significant, and that do not have models or methods available to estimate VMT. From these updated CEQA Guidelines, the Office of Planning and Research (OPR) developed a Technical Advisory on Evaluating Transportation Impacts in CEQA, which contains OPR's technical recommendations regarding assessment of VMT, thresholds of significance, and mitigation measures (OPR 2018). This Technical Advisory includes a screening threshold of small projects, which states that, "...projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact" (OPR 2018).

The Project would result in temporary material haul trips and worker trips within the Project area. These truck trips would be limited in duration, confined to the construction period, and consist of a daily quantity averaging about 20 to 25 roundtrip worker and material haul trips per day. These truck trips would be periodic or sporadic over the course of the construction activities depending on the construction activity. These intermittent truck trips would not result in more than 110 vehicle trips per day. Additionally, the Project would not result in any additional permanent vehicle or truck trips beyond what exists under current conditions and, as such, would be consistent with the CEQA Guidelines Section 15064.3(b). Therefore, implementation of the Project would also be consistent with the CEQA Guidelines Section 15064.3(b), resulting in a less than significant impact.

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

Finding: Less Than Significant Impact

The Project would not increase hazards due to any proposed design features, nor would it create incompatible uses with the existing traffic operations. However, the movement of construction vehicles, equipment, and materials to and from the Project area has the potential to temporarily increase the risk of slow-moving vehicles or traffic hazards on roads with access to the Project site. The risk would be the highest when construction vehicles and equipment were in operation and may have to interact with general purpose vehicles (e.g., when entering the public right-of-way while exiting the Project site). Enterprise Road is used only for access to and from the existing Enterprise Boat Ramp. Therefore, construction activities within or adjacent to public roadways would be limited, and workers would follow standard signage and safety practices related to roadway safety, as required by DWR and State standards and regulations. Therefore,

construction of the Project would have a less than significant impact related to increases in hazards due to a geometric design feature or incompatible use.

Once constructed, the Project would result in an extension of the existing boat ramp and access road and would not result in incompatible uses or additional hazards beyond what currently exists in the area. Therefore, there would be no operational impact.

d) Result in inadequate emergency access?

Finding: No Impact

The purpose of the Project is to provide additional boating access at Enterprise by extending the existing boat ramp, which in turn would also provide additional access for emergency personnel during drought or low elevation periods at Lake Oroville. Therefore, once constructed, the Project would improve emergency access. Thus, no impact would occur.

3.17.2 Mitigation Measures

None required.

3.18 TRIBAL CULTURAL RESOURCES

Would the Project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21047 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:		X		
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		X		
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		X		

PRC Section 21080.3.1 requires that agencies formally consult with recognized California Native American tribes during the CEQA process to discuss potential impacts on tribal cultural resources. Prior to the release of a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report, the agency must initiate consultation with tribes that are traditionally and culturally affiliated with the geographic area of a proposed project if (1) the tribe requested of the agency, in writing, to be informed through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe; and (2) the tribe responds, in writing, within 30 days of receipt of the formal notification of a proposed project and requests consultation with the agency (PRC Section 21080.3.1(b)).

To identify areas within the Project site that may be considered sensitive by local indigenous tribal groups, Stantec, on behalf of DWR, submitted a request to the Native American Heritage Commission (NAHC) to review its Sacred Lands File (SLF) for the Project site. The NAHC is the official State repository of Native American sacred site location records in California. Stantec received a response on July 20, 2022, from the NAHC, stating that “A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information submitted for the

above referenced project. The results were positive.” A list of ten tribal contacts was provided with the NAHC response.

In October 2022, DWR sent letters via certified mail to each of the ten contacts from the list provided by NAHC informing them of the Project and formally inviting them to consultation pursuant to PRC Section 21080.3.1 (i.e., AB 52). Letters containing details about the Project and a location map were sent to the representatives from the following ten tribal groups:

- Berry Creek Rancheria of Maidu Indians
- Estom Yumeka Maidu Tribe of the Enterprise Rancheria
- Greenville Rancheria of Maidu Indians
- Konkow Valley Band of Maidu
- Mechoopda Indian Tribe of Chico Rancheria
- Mooretown Rancheria of Maidu Indians
- Nevada City Rancheria Nisenan Tribe
- Tsi Akim Maidu
- United Auburn Indian Community of the Auburn Rancheria
- Washoe Tribe of Nevada and California.

DWR received responses from nine of the ten tribes identified on the NAHC contact list. Of those responses, only Estom Yumeka Maidu Tribe of the Enterprise Rancheria requested consultation.

On November 4, 2022, DWR archaeologist and the Estom Yumeka Maidu Tribe of the Enterprise Rancheria Tribal Historic Preservation Officer (THPO) conducted an onsite meeting at the proposed project site. Both parties agreed the current project design avoided known cultural resources; however, due to the proximity of cultural resources in the surrounding area, archaeological and tribal monitoring was recommended.

On February 8, 2023, DWR held a follow-up meeting with Enterprise Tribal Council and the THPO. The Tribal Council agreed with the THPO’s conclusion that the project avoided cultural resources. Enterprise Rancheria requested to have tribal monitors on-site during construction-related ground disturbing activities. DWR agreed to the request and has determined that the consultation process is concluded, pursuant to PRC Section 21080.3.1 (i.e., AB 52) and PRC Section 21084.3.

3.18.1 Environmental Impact Analysis

Would the Project:

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

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

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

Finding: Less Than Significant with Mitigation Incorporated

No tribal cultural resources were identified during the consultation outreach by DWR; however, as discussed in Section 3.5 *Cultural Resources*, archaeological deposits that qualify as tribal cultural resources could be encountered during Project excavation. Such resources would be eligible for listing in the CRHR or a local register of historical resources, or the lead agency, in its discretion and supported by substantial evidence, could determine the resources to be significant pursuant to the criteria set forth in subdivision (c) of PRC Section 5024.1. Should deposits be encountered during Project excavation, this could result in an adverse change to a tribal cultural resource. Thus, significant impacts related to tribal cultural resources could result from construction of the Project.

Implementation of Mitigation Measures CUL-1 and CUL-2 described in Section 3.5 *Cultural Resources*, and TCR-1 and TCR-2 would ensure that impacts related to any tribal cultural resources that may be uncovered at the Project Site would be less than significant with mitigation through archaeological and tribal monitoring, implementation of cultural resources sensitivity training (including training regarding sensitivity to tribal cultural resources) for all construction crews participating in ground-disturbing activities, and requirements to stop work if archaeological deposits are encountered during ground-disturbing activities.

3.18.2 Mitigation Measures

3.18.2.1 *MM TCR-1: Tribal Monitoring*

Prior to any Project-related ground disturbance, DWR shall enter into a tribal monitoring agreement with the Estom Yumeka Maidu Tribe of the Enterprise Rancheria. If and archaeological deposit that could qualify as a tribal cultural resource is encountered during Project-related ground disturbance, the tribal monitor and the monitoring archaeologist shall have the authority to stop work in the area (50-foot radius).

Work shall not resume until the tribal monitor in consultation with DWR has:

- a) Designated the deposit as an ESA to ensure avoidance. Protective fencing or other markers shall be erected around the ESA prior to any ground disturbing activities. To protect sensitive information and to discourage unauthorized

disturbance or collection of artifacts, the ESA shall only be designated as an ESA, with no signage designating the area as culturally sensitive.

- b) Determined that the archaeological deposit does not meets the definition of a tribal cultural resource (PRC section 21074)
- c) Should the archaeological deposit meet the definition of a tribal cultural resource (PRC section 21074) a treatment plan with appropriate protection and preservation measures will be developed in coordination with and implemented by DWR to mitigate impacts to the resource.

Mitigation Measure TCR-1 Implementation

- **Responsible Party:** DWR
- **Timing:** Prior to and during implementation of Project -related ground disturbance
- **Monitoring and Reporting Program:** DWR cultural resources staff shall maintain a log for all monitoring activity and consultation
- **Standards for Success:** Protection of tribal cultural resources

3.18.2.2 MM TCR-2: Tribal Cultural Resources Sensitivity and Awareness Training

Prior to any Project-related ground disturbance, DWR shall ensure that all construction workers involved in ground disturbing activities receive Tribal Cultural Resources Sensitivity and Awareness Training by a representative of the Estom Yumeka Maidu Tribe of the Enterprise Rancheria. Construction staff directly overseeing or engaged in ground disturbing activities must participate in this training. This training shall be provided once to each worker involved in ground-disturbing activities before they begin work and shall be documented in training records submitted to DWR.

Mitigation Measure TCR-2 Implementation

- **Responsible Party:** DWR
- **Timing:** Prior to and during implementation of Project -related ground disturbance.
- **Monitoring and Reporting Program:** DWR cultural resources staff shall maintain training records.
- **Standards for Success:** Protection of tribal cultural resources.

3.19 UTILITIES AND SERVICE SYSTEMS

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

3.19.1 Environmental Impact Analysis

Would the Project:

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

Finding: Less Than Significant Impact

The Project would not require the construction of new water facilities, wastewater treatment facilities, stormwater drainage, natural gas, or telecommunications. Additionally, the Project would not require the expansion of existing water facilities, the construction of which could cause significant environmental effects. Although the

existing restroom in the area would be upgraded as part of the Project, all water and wastewater services required for this restroom would be provided through the existing system and would not require expansion. Any alterations to stormwater drainage patterns during construction would be restored to existing conditions once construction was complete. Therefore, the Project would not result in, nor require the construction of, new water, wastewater, stormwater, electrical power, natural gas, or telecommunications infrastructure. Thus, a less than significant impact would occur.

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

Finding: Less Than Significant Impact

The restroom facility expansion would not require any additional water supplies, as the restroom is merely being upgraded to meet ADA accessibility requirements, and not increase restroom capacity. Water would continue to be sourced from the existing system in the area. Thus, no additional water entitlements are necessary for construction or operation of the Project. Therefore, there would be a less than significant impact.

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?

Finding: Less Than Significant Impact

Similar to question 'b' above, the restroom facility upgrades would not require any additional wastewater supplies and would only be enhanced to meet ADA accessibility requirements. Wastewater services would continue to be supplied by the existing system in the area. Thus, no additional wastewater facilities are necessary for construction or operation of the Project. Therefore, there would be a less than significant impact.

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

Finding: Less Than Significant Impact

Butte County is required to comply with the California Integrated Waste Management Act of 1989, which requires cities and counties throughout the State to divert 50 percent of all solid waste from landfills through reduction, recycling, and composting. This regulation is also supported by local policies contained within the General Plans that encourage recycling efforts (i.e., Butte County General Plan Policy PUB-P11.2) (Butte County 2019).

Existing solid waste management facilities in Butte County consist of the following transfer stations: the Neal Road Recycling and Waste Facility (Neal Road Facility),

which is a large transfer station/materials recovery facility that includes a private wood waste recycler and two municipal wood waste recyclers. According to CalRecycle, the Neal Road Facility has a total remaining capacity of 20,847,970 cubic yards, a daily maximum permitted throughput of 1,500 tons of material per day and is estimated for closure in 2048 (CalRecycle 2023).

Soil excavated during construction would potentially be reused on-site, with a minor amount of unusable material hauled off-site. Additional construction debris could include vegetation from clearing brush and other miscellaneous materials. This solid waste generated from Project construction would not be expected to exceed the daily maximum capacity of the Neal Road Facility. Further, once construction has been completed, no additional solid waste would be generated by the Project. Therefore, there would be a less than significant impact.

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

Finding: No Impact

As discussed under item 'd' above, the Project would not result in substantial amounts of solid waste during construction or operation that would exceed the daily maximum capacity of the Neal Road Facility. Therefore, the Project would comply with CALGreen, which requires the diversion of 65 percent of construction material waste from landfills. Therefore, the Project would not conflict with federal, State, or local management and reduction statutes related to solid waste. Thus, there would be no impact.

3.19.2 Mitigation Measures

None required.

3.20 WILDFIRE

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

3.20.1 Environmental Impact Analysis

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?

Finding: Less Than Significant Impact

The Project and its adjacent areas are located within a State Responsibility Area that is designated with a moderate and very high fire hazard severity (CAL FIRE 2023). State Responsibility Areas include zones where the State is financially responsible for wildland fire protection (i.e., CAL FIRE). DWR has prepared Emergency Action Plans for several critical Oroville Field Division facilities that outline emergency response procedures during varying levels of incidents, including wildfire-related incidents.

Project construction would involve the use of construction equipment that could cause the unintentional release of sparks or heat from equipment into nearby flammable material (e.g., brush or grass), which could lead to ignition; thus, impairing emergency response plans or evacuation plans. However, all Project construction activities would be constructed in compliance with applicable local, State, and federal requirements, including the California Fire Code and DWR standards and procedures for fire protection. These standards and procedures limit the potential for construction equipment to spark a wildland or urban fire by requiring the implementation of appropriate fire protection systems, means of adequate ingress and egress of construction equipment and personnel, and use of fire-resistive construction equipment. Additionally, the majority of Project construction activities would occur within existing and previously disturbed areas where groundcover vegetation is minimal and less prone to flammability. This would limit the potential for Project construction activities to impair emergency response plans or evacuation plans. Therefore, construction of the Project would have a less than significant impact related to wildland fires.

Once operational (i.e., post-construction), the Project would not involve any activities that would impair adopted emergency response plans or emergency evacuation plans. Additionally, the improved boating access at Enterprise would provide increased access for emergency personnel during drought or low elevation periods at Lake Oroville. Therefore, once constructed, the Project would improve upon emergency access. Thus, no operational impact would occur.

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?

Finding: Less Than Significant Impact

The Project site is located within the existing Oroville Facilities Enterprise Recreation Area, and there are no residential units in or adjacent to the Project. Further, the Project would not result in a population increase in the area. Although the new picnic area and boat ramp would allow for increased capacity of recreational users, recreational uses would be consistent with the existing use of the area and would occur within the existing footprint. Thus, the Project would not exacerbate wildfire risks. Therefore, construction and operation of the Project would have a less than significant impact.

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?

Finding: Less Than Significant Impact

As discussed under question 'a' above, Project construction would be in compliance with applicable local, State, and federal requirements related to fire safety and would be confined to the duration of construction activities. Once constructed, the Project would

result in an extension of the existing recreational facilities in the area and would not result in additional impacts that could exacerbate fire risk. Therefore, impacts would be less than significant.

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

Finding: Less Than Significant Impact

There are no residential units or structures intended for human habitation in or adjacent to the Project area. Construction would occur within the existing footprint of the area and would not result in additional impacts related to downstream flooding or landslides, runoff, post-fire slope instability, or drainage changes. Therefore, impacts would be less than significant.

3.20.2 Mitigation Measures

None required.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

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

3.21.1 Environmental Impact Analysis

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?

Finding: Less Than Significant Impact

Project-related activities that could potentially degrade the quality of the surrounding environment were assessed for environmental degradation in Chapter 3.0 (Environmental Evaluation). Given the analysis outlined in this IS/MND and based on the aforementioned Mitigation Measures to be implemented on an as-needed basis, the potential for environmental harm (including impacts on biological resources and cultural resources), was determined to be less than significant.

Project-related activities would not include new mechanisms that would reasonably degrade the quality of the existing environment, substantially reduce existing habitat for fish or wildlife species, cause an existing fish or wildlife population to drop below self-sustaining levels, or threaten to eliminate an existing plant or animal community. Furthermore, as discussed in Section 3.4 (Biological Resources), Project activities would not reduce the number of, or restrict the range of, existing rare or endangered plant or animal species. No removal or encroachment of existing habitats beyond what currently exists at the Project location would be anticipated as a result of the Project.

As discussed in Section 3.5 (Cultural Resources), important historic and archaeological resources have been identified and it is feasible that additional artifacts could be located within the FERC Project No. 2100 boundary during sub-surface work. However, Project activities would include both limited construction and ground disturbance and would primarily occur within previously disturbed areas. Furthermore, as outlined in the Mitigation Measures for cultural resources, resources would be avoided and, therefore, examples of the major periods of California history and prehistory would be preserved.

As a result, with the implementation of the Mitigation Measures described in Sections 3.4 (Biological Resources) and 3.5 (Cultural Resources), Project-related activities would not 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 and prehistory. As such, with application of the aforementioned Mitigation Measures, the impacts would be reduced to a less-than-significant level.

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

Finding: Less Than Significant Impact

A cumulative impact could occur if a project would result in an incrementally considerable contribution to a significant cumulative impact when factoring in past, present, and reasonably foreseeable future projects for each resource area.

Past, present, and reasonably foreseeable projects in the geographic and temporal scope of this Project include the DWR Spillways Incident, a recent DWR fiber optic cable upgrade project, a DWR routine maintenance activities project, a DWR emergency bridge replacement on Craig Road as a result of fire damage, and future community-building projects in the City of Oroville (City of Oroville 2020). These projects were localized in nature; any future projects would be as well. The projects would be required to comply with all federal, State, and local laws as they pertain to their relative jurisdictions. The DWR projects listed above are non-routine repairs (i.e., not captured

within the existing FERC license) or significant upgrades to existing facilities and, thus, were covered under their own respective CEQA processes. Additionally, emergency projects, such as the Spillways Incident, are considered exempt from CEQA under PRC Section 5269.

If the potential impacts of projects (such as localized, permanent impacts to waters of the United States or riparian areas) are analyzed in conjunction with the repeated, yet temporary impacts resulting from the Project (i.e., routine maintenance activities on existing facilities), the impact determinations in this document would not change. This is because maintaining an upgraded or restored structure is essentially the operation of that structure. As such, it is not a new or additional impact beyond what was contemplated during the upgrade process. Additionally, maintenance activities involving the need to upgrade or repair existing Oroville Facilities would occur regardless of the Project. Therefore, when examined from a cumulative perspective, the Project is not anticipated to expand the existing footprint.

In this IS/MND, no direct, significant impacts were identified for the Project that could not be mitigated to a less-than-significant level. Additionally, when considering the Project in relation to other projects within the vicinity, it is not anticipated that Project activities would result in a contribution to any potentially significant cumulative impacts associated with these projects for the following reasons:

- Project activities would have no impact on agriculture and forestry resources, mineral resources, and population and housing.
- Project activities would have a less than significant impact on aesthetics, air quality, energy, greenhouse gas emissions, hazards and hazardous materials, land use and planning, noise, public services, recreation, transportation, utilities and service systems, and wildfire.
- When considered with past, present, and reasonably foreseeable future projects, the overlapping geographic scope of these resources is limited, and Project activities would not have a considerable contribution to a cumulative impact. As a result, cumulative impacts related to these resources would be very minor.
- Biological resources, cultural resources, geology and soils, hydrology and water quality, and tribal cultural resources impacts that could be generated by Project activities would be temporary and limited to the construction period (five months). Work crews and construction layouts would be relatively small and would include very few additional trips by construction workers traveling to the site. Project activities would be short in duration; would occur on mostly previously disturbed, developed, or paved areas; and would consist of relatively minor construction and upgrades. These impacts could be compounded if construction were to occur simultaneously or in a similar general area as the past, present, and reasonably foreseeable projects. However, the limited nature of construction activities required to complete the Project would not considerably contribute to any potential cumulative impacts.

As a result, potential impacts from Project activities, when combined with these cumulative projects, would not result in a cumulatively considerable impact. Therefore, cumulative impacts would be less than significant.

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

Finding: Less Than Significant Impact

The potential impacts of Project activities would be temporary, short-term, and site-specific. These impacts would be located at specific locations within the FERC Project No. 2100 boundary and would include limited adverse effects on biological, cultural, geological, hydrological, and tribal cultural resources. However, Project activities would comply with hazardous materials management regulations (refer to Section 3.8 [Hazards and Hazardous Materials]). These regulations include spill prevention and countermeasure planning where applicable (refer to Section 3.6 [Geology and Soils], and Section 3.9 [Hydrology and Water Quality]). Project activities would not include blasting or the use of loud equipment without proper protections (refer to Section 3.13 [Noise]); and they would include proper fire prevention and countermeasure preparedness (refer to Section 3.20 [Wildfire]). Therefore, the Project would not include any activities or uses that may cause substantial adverse effects on human beings, either directly or indirectly. Compliance with applicable local, State, and federal standards, as well as incorporation of Project Mitigation Measures as assessed throughout Chapter 3.0, would result in less than significant impacts.

3.21.2 Mitigation Measures

Refer to Mitigation Measures in Section 3.4 (Biological Resources), Section 3.5 (Cultural Resources), Section 3.7 (Geology and Soils), and Section 3.18 (Tribal Cultural Resources) for detailed descriptions of each Mitigation Measure.

The Mitigation Measures included in this IS/MND are listed below.

- MM BIO-1: Pre-Construction Nesting Bird Surveys and Pre-Construction Environmental Awareness Training
- MM BIO-2: Water Quality Protections and Compensation for Direct Impacts to Waters of the U.S.
- MM CUL-1: Cultural Resources Monitoring
- MM CUL-2: Conduct Cultural Resource Awareness and Sensitivity Training
- MM GEO-1: Sedimentation and Erosion Control Measures
- MM TCR-1: Tribal Monitoring
- MM TCR-2: Tribal Cultural Resource Sensitivity and Awareness Training

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4.0 LIST OF PREPARERS

The persons below were principally responsible for preparation of this ~~Draft~~-Final IS/MND.

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5.0 REFERENCES CITED

5.1 REFERENCES CITED – SECTION 1.0 INTRODUCTION

None.

5.2 REFERENCES CITED – SECTION 2.0 PROJECT DESCRIPTION

None.

5.3 REFERENCES CITED – SECTION 3.0 ENVIRONMENTAL CHECKLIST AND ENVIRONMENTAL EVALUATION

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Appendix A

Special Status Species and Habitat Discussion

APPENDIX A

SPECIAL STATUS SPECIES AND HABITAT DISCUSSION

NATURAL COMMUNITIES

To classify the natural communities, or vegetation types within the proposed Project area, the California Department of Fish and Wildlife (CDFW) and the California Native Plant Society (CNPS) standard classification system for floristically describing vegetation communities statewide were used; further translating to the National Vegetation Classification Standard. The CDFW and CNPS system has been compiled in *A Manual for California Vegetation (MCV)*, 2nd Edition (Sawyer et al. 2009)¹, and has been accepted and adopted by state and federal agencies. The MCV classifies natural communities in a hierarchy, with the most granular level being the Association, and associations are then grouped into alliances, alliances into Groups continuing upward ultimately to a Formation Class (CDFW 2024)². The MCV classifications replace lists of vegetation types developed for the California Natural Diversity Database (CNDDB) and classifications relate specifically to wildlife habitats by identifying unique characteristics; thus, distinguishing locales for threatened and endangered wildlife species.

¹ Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. *A Manual of California Vegetation*, Second Edition. California Native Plant Society, Sacramento. 1300 pp. Available at: <https://vegetation.cnps.org/>. Accessed June 2024.

² CDFW. 2024. California Department of Fish and Wildlife. Natural Communities. Available at: <https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities>. Accessed June 2024.

Disturbed Land / Ruderal and Non-Native Annual Grassland Herbaceous Alliance

Reconnaissance-level surveys conducted on April 19 and October 6, 2022 revealed the disturbed land/ruderal and non-native annual grassland vegetation community to be the most dominant within the proposed Project area, especially below the ordinary high water mark (OHWM) of Lake Oroville where the majority of the proposed Project is located. Within the proposed Project area, disturbed lands/ruderal land cover types include disturbed lands, existing roads/trails both paved and dirt, and existing/developed recreational facilities and parking lots. This landcover type is not classified as a natural community; however, it is common within the vicinity of most of the maintenance locations within the Project boundary.

Within the lake fluctuation zone below the OHWM and the existing Enterprise Boat Ramp, vegetation consists mainly of ruderal species, including many annual forbs and grasses. The most dominant species are sky lupine (*Lupinus nanus*) and several clover species (*Acmispon* sp. and *Trifolium* sp.). There are also some scattered black willows (*Salix goodingii*) above 800 feet (244 meters) above mean sea level (amsl).

Quercus wislizeni - Quercus chrysolepis (shrub) Shrubland Alliance **Canyon live oak - Interior live oak chaparral**

In addition to a disturbed land/ruderal landcover type, the upland area also contains areas that may be classified under the *Quercus wislizeni* – *Quercus chrysolepis* (shrub) Shrubland Alliance. This natural community is generally found at elevations ranging from approximately 984 to 7,217 feet (300 to 2,200 meters) on areas with variable topography with steep slopes possessing alluvial soils or bedrock (CNPS 2020)³. In contrast with the lower regions of the proposed Project area, upland areas are within the boundary of the 2020 North Complex fire and contain mainly of annual forbs, shrub species, and trees. The most dominant species present are oak species (*Quercus* sp.), toyon (*Heteromeles arbutifolia*). Tree species include madrone (*Arbutus menziesii*), ponderosa pine (*Pinus ponderosa*), California black oak (*Quercus kelloggii*), and interior live oak (*Quercus wislizeni* var. *wislizeni*).

Hydrological Features

The proposed Project area is located almost entirely below the OHWM of Lake Oroville. Access to the site will be along the existing Enterprise Road, boat ramp, and parking lot, which consist of paved areas. Staging will occur in an approximate one-acre corner of the existing paved boat ramp parking lot. Access will also occur immediately adjacent to the existing boat ramp and along the proposed boat ramp extension and proposed parking lot. These areas are a mix of bare dirt and rock and areas with limited vegetation (approximately 40%), including a mix of both native and non-native annual species. Construction work is scheduled for periods when lake levels are below 750 feet (229 meters) amsl in the proposed Project area.

³ CNPS. 2020. A Manual of California Vegetation Online.
Quercus wislizeni - *Quercus chrysolepis* (shrub) Shrubland Alliance. Available at:
<https://vegetation.cnps.org/alliance/581>. Accessed June 2024.

Vegetation below Lake Oroville's OHWM, where present and visible, was found to be a mix of both native and non-native invasive species including cheatgrass (*Bromus tectorum*), rat's-tail fescue (*Festuca myuros*), and common stork's-bill (*Erodium cicutarium*). While these species are not wetland indicators, the site would be considered waters of the United States and waters of the State given it is below the OHWM of Lake Oroville.

Wildlife Habitat

The natural communities and habitats present within the proposed Project area and immediate vicinity include limited suitable habitat and little to no habitat considered to be "high value" including habitats such as riparian and wetland habitats that have the potential to support a variety wildlife including birds, mammals, reptiles, amphibians, and invertebrates alike. High value habitats support wildlife species during all stages of their life cycles including breeding, feeding, nesting, and/or migration. The majority of the proposed Project area includes previously disturbed areas, which may provide lower quality habitat and may provide minimal suitable habitat for both special status vegetation and wildlife species.

Wildlife Migratory Corridors

Wildlife movement corridors have been recognized by U.S. Fish and Wildlife Service (USFWS) and CDFW as important habitats worthy of conservation. Wildlife corridors provide migration channels seasonally (i.e., between winter and summer habitats); provide non-migratory wildlife with the opportunity to move within their home range for food, cover, and reproduction; and allow for dispersal for individuals to colonize new areas (CDFW 2024⁴, USFWS 2024⁵). Due to the location of the proposed Project area being primarily beneath the OHWM of Lake Oroville, limited suitable habitat available within the proposed Project area, and temporary nature of the proposed Project construction, it is unlikely the proposed Project would 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.

Special Status Species

Study Methods

The special status species with the potential to occur within the proposed Project area were identified through desktop queries of the CDFW CNDDDB, USFWS Information for Planning and Consultation (IPaC), and CNPS lists and/or databases.

To determine whether proposed Project activities would have a substantial adverse impact on special status plant and wildlife species, a desktop query and analysis as well as reconnaissance-level biological field surveys conducted in April 2022 and October 2022. The desktop analysis was conducted prior to the reconnaissance-level biological

⁴ CDFW. 2024. California Department of Fish and Wildlife. California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California. Available at: <https://wildlife.ca.gov/conservation/planning/connectivity/CEHC>. Accessed June 2024.

⁵ USFWS. 2024. U.S. Fish and Wildlife Service. National Wildlife Refuge System. Wildlife Corridors. Available at: <https://www.fws.gov/refuges/features/wildlife-corridors.html>. Accessed June 2024.

field surveys and included areas within the proposed Project area as well as a two-mile buffer (CDFW CNDDDB and USFWS IPaC databases) or within the *Oroville Dam and Forbestown, California* U.S. Geological Survey (USGS) 7.5-minute quadrangles (CNPS database). Specially, the following resources were queried and reviewed:

- CDFW CNDDDB records of special status species within *Oroville Dam and Forbestown, California* USGS 7.5-minute quadrangles (CDFW 2024⁶).
- CDFW Biogeographic Information and Observation System Viewer Version 6.24.0501 (CDFW 2024⁷).
- California Native Plant Society Online Inventory of Rare and Endangered Plants of California for the *Oroville Dam and Forbestown, California* USGS 7.5-minute quadrangles (CNPS 2024⁸).
- U.S. Fish and Wildlife Service Information for Planning and Consultation list of federally listed species and critical habitat that may occur within two miles of the proposed Project area (USFWS 2024⁹).
- Aerial photographs (Google Earth Pro).

Endangered, threatened, rare, and/or special status species that were identified during the desktop query and analysis are compiled in Table A-1 and Table A-2 below. For the purpose of this Initial Study/Mitigated Negative Declaration (IS/MND), special status species are defined by the following parameters:

- Species listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (50 CFR 17.12 for listed plants, 50 CFR 17.11 for listed animals, and various notices in the Federal Register for proposed species).
- Species that are listed or proposed for listing by California as threatened or endangered under the California Endangered Species Act (14 CCR 670.5).

⁶ CDFW. 2024. California Department of Fish and Wildlife. California Natural Diversity Database Rarefind 5 Online Database 5.3.0. Available at: <https://wildlife.ca.gov/Data/CNDDDB/Maps-and-Data>. Accessed June 2024.

⁷ CDFW. 2024. Biogeographic Information and Observation System (BIOS) Online Viewer. Available at: <https://wildlife.ca.gov/Data/BIOS>. Accessed June 2024.

⁸ CNPS. 2024. California Native Plant Society. Rare Plant Program. Rare Plant Inventory (online edition, v9-5). Inventory of Rare and Endangered Plants for the *Oroville Dam and Forbestown, California* USGS 7.5-minute quadrangle. Available at: <https://www.rareplants.cnps.org>. Accessed June 2024.

⁹ USFWS. 2024. U.S. Fish and Wildlife Service Information for Planning and Consultation (IPaC) Trust Resource Report. USFWS Environmental Conservation Online System (ECOS). Available at: <https://ecos.fws.gov/ipac>. Accessed June 2024.

- Plants listed as rare under the California Native Plant Protection Act of 1977 (California Fish and Game Code 1900 et seq.).
- Plants considered by the CNPS to be Rank 1- a) “plants presumed extirpated in California and either rare or extinct elsewhere, or b) “rare, threatened, or endangered in California and elsewhere”.
- Plants considered by CNPS to be a Rank 2- a) Plants presumed extirpated in California, but common elsewhere, or b) “rare, threatened, or endangered in California and common elsewhere”.
- Plants considered by CNPS to be a Rank 3- “plants about which more information is needed” and cannot be yet be excluded from review.
- Plants considered by CNPS to be a Rank 4- “plants with limited distribution”.
- Plant and wildlife species that meet the definitions of “rare” or “endangered” under California Environmental Quality Act Guidelines Section 15380.
- Wildlife species designated by CDFW as Species of Special Concern (SSC), Fully Protected, or on Watch List.

Additionally, the potential for special status plant and wildlife species to occur within the proposed Project area is shown below in Table A-1 and Table A-2. The potential to occur is based on the proximity to previous occurrences as reported in the database search results, existing vegetation communities and habitats, topography and elevation, soils, surrounding land uses, and habitat suitability observed within the proposed Project area. The potential for each special status species in the table below is defined as follows:

- **None:** No suitable habitat exists within the proposed Project area and/or the proposed Project is outside the species known range. There is no potential for the species and/or habitat to occur.
- **Low:** Limited or marginal suitable habitat exists within the proposed Project area and the species is unlikely to occur.
- **Moderate:** Suitable habitat exists within the proposed Project area and the species may occur.
- **High:** The species is known to occur within the proposed Project area or ideal habitat exists within the proposed Project area and the species is likely to occur.

Species with a moderate potential or high potential to occur within the proposed Project area are further described in the impact assessment of Section 3.4 Biological Resources within this IS/MND.

Table A-1. Potentially Occurring Special Status Plant Species Within the Enterprise Recreation Area Upgrade Project Area, Butte County, California.

Species Name	Common Name	Legal Status ^{10, 11}			Geographic Distribution/ Floristic Province		Preferred Habitat ¹²	Identification Period	Potential to Occur Within the Project Area ^{13, 14}
		Federal	State, Local	CNPS	Low (feet)	High (feet)			
<i>Arctostaphylos mewukka</i> ssp. <i>truei</i>	True's manzanita	-	S3	4.2	1,395	4,560	Chaparral, lower montane coniferous forest.	Feb–Jul	None. No Suitable habitat in the Project area. No known occurrences from within the <i>Oroville Dam</i> and <i>Forbestown, California</i> USGS 7.5-minute quads.
<i>Brodiaea sierrae</i>	Sierra foothills brodiaea	-	S3	4.3	165	3,215	Chaparral, Cismontane woodland, lower montane coniferous forest.	May–Aug	None. No Suitable habitat in the Project area. No known occurrences from within the <i>Oroville Dam</i> and <i>Forbestown, California</i> USGS 7.5-minute quads.
<i>Bulbostylis capillaris</i>	Thread-leaved beakseed	-	S3	4.2	1,295	6,810	Lower montane coniferous forest, meadows and seeps, upper montane coniferous forest.	Jun–Aug	None. No Suitable habitat in the Project area. No known occurrences from within the <i>Oroville Dam</i> and <i>Forbestown, California</i> USGS 7.5-minute quads.

¹⁰ CDFW. 2024. State of California Natural Resources Agency. Department of Fish and Wildlife Biogeographic Data Branch. California Natural Diversity Database (CNDDB). Special Animals List. June 2024.

¹¹ Butte County Association of Governments. 2019. Butte Regional Conservation Plan. Available at: <https://wildlife.ca.gov/Conservation/Planning/NCCP/Plans/Butte-County>. Accessed: February 2023.

¹² California Native Plant Society (CNPS). 2024. Rare Plant Program. Rare Plant Inventory (online edition, v9-5). Available at: <https://www.rareplants.cnps.org>. Accessed June 2024.

¹³ CDFW. 2024. California Department of Fish and Wildlife. California Natural Diversity Database Rarefind 5 Online Database 5.2.14. Available at: <https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data>. Accessed June 2024.

¹⁴ CDFW. 2024. Biogeographic Information and Observation System (BIOS) Online Viewer. Available at: <https://wildlife.ca.gov/Data/BIOS>. Accessed June 2024.

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Species Name	Common Name	Legal Status ^{10, 11}			Geographic Distribution/ Floristic Province		Preferred Habitat ¹²	Identification Period	Potential to Occur Within the Project Area ^{13, 14}
		Federal	State, Local	CNPS	Low (feet)	High (feet)			
<i>Calycadenia oppositifolia</i>	Butte County calycadenia	-	S3	4.2	295	3,100	Chaparral, cismontane woodland, lower montane coniferous forest, meadows and seeps, valley and foothill grassland.	Apr–Jul	None. No Suitable habitat in the Project area. No known occurrences from within the <i>Oroville Dam</i> and <i>Forbestown, California</i> USGS 7.5-minute quads.
<i>Clarkia biloba ssp. brandegeeeae</i>	Brandegee's clarkia	-	S4	4.2	245	3,000	Chaparral, cismontane woodland, lower montane coniferous forest.	May–Jul	None. No suitable habitat in the Project area. Multiple occurrences from 1966–2008 within the <i>Oroville Dam</i> and <i>Forbestown, California</i> USGS 7.5-minute quadrangles (quads).
<i>Clarkia gracilis ssp. albicaulis</i>	White-stemmed clarkia	-	S3	1B.2	800	3,540	Sometimes serpentinite in chaparral and cismontane woodland.	May–Jul	None. No suitable habitat in the Project area. Two known occurrences from 1994 and 2003 within the <i>Oroville Dam</i> and <i>Forbestown, California</i> USGS 7.5-minute quads.
<i>Clarkia mosquinii</i>	Mosquin's clarkia	-	S2	1B.1	605	4,890	Rocky, roadsides in cismontane woodland and lower montane coniferous forest.	May–Jul	None. No suitable habitat in the Project area. Multiple occurrences from 1967–2016 within the <i>Oroville Dam</i> and <i>Forbestown, California</i> USGS 7.5-minute quads.

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Species Name	Common Name	Legal Status ^{10, 11}			Geographic Distribution/ Floristic Province		Preferred Habitat ¹²	Identification Period	Potential to Occur Within the Project Area ^{13, 14}
		Federal	State, Local	CNPS	Low (feet)	High (feet)			
<i>Erythranthe filicifolia</i>	Fern-leaved monkey flower	-	S2	1B.2	1,360	5,610	Chaparral, lower montane coniferous forest, meadows and seeps.	Apr–Jun	None. No suitable habitat in the Project area. No known occurrences from within the <i>Oroville Dam</i> and <i>Forbestown, California</i> USGS 7.5-minute quads.
<i>Erythranthe glaucescens</i>	Shield-bracted monkeyflower	-	S3	4.3	195	4,070	Chaparral, cismontane woodland, lower montane coniferous forest, Valley and foothill grassland.	Feb–Aug	None. No suitable habitat in the Project area. No known occurrences from within the <i>Oroville Dam</i> and <i>Forbestown, California</i> USGS 7.5-minute quads.
<i>Fissidens pauperculus</i>	Minute pocket moss	-	S2	1B.2	35	3,360	North Coast coniferous forest (damp coastal soil).	Year round	None. No Suitable habitat in the Project area. One known occurrence within the <i>Forbestown, California</i> USGS 7.5-minute quad (2003).
<i>Fritillaria eastwoodiae</i>	Butte County fritillary	-	S3	3.2	160	4,920	Chaparral, cismontane woodland, lower montane coniferous forest (openings).	Mar–Jun	None. No Suitable habitat in the Project area. Multiple occurrences from 1991–2012 within the <i>Oroville Dam</i> and <i>Forbestown, California</i> USGS 7.5-minute quads.
<i>Lilium humboldtii</i> ssp. <i>humboldtii</i>	Humboldt lily	-	S3	4.2	295	4,200	Chaparral, cismontane woodland, lower montane coniferous forest.	May–Aug	None. No Suitable habitat in the Project area. No known occurrences from within the <i>Oroville Dam</i> and <i>Forbestown, California</i> USGS 7.5-minute quads.

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Oroville Facilities Enterprise Recreation Area Upgrade Project (FERC PROJECT NO. 2100)

Species Name	Common Name	Legal Status ^{10, 11}			Geographic Distribution/ Floristic Province		Preferred Habitat ¹²	Identification Period	Potential to Occur Within the Project Area ^{13, 14}
		Federal	State, Local	CNPS	Low (feet)	High (feet)			
<i>Lupinus constancei</i>	Lassics lupine	E	CE	1B.1	4,920	6,560	Lower montane coniferous forest.	Jul	None. No Suitable habitat in the Project area. No known occurrences from within the <i>Oroville Dam</i> and <i>Forbestown, California</i> USGS 7.5-minute quads.
<i>Microseris sylvatica</i>	Sylvan microseris	-	S4	4.2	145	4,920	Chaparral, cismontane woodland, Great Basin scrub, pinyon and juniper woodland, Valley and foothill grassland (serpentine).	Mar–Jun	None. No Suitable habitat in the Project area. No known occurrences from within the <i>Oroville Dam</i> and <i>Forbestown, California</i> USGS 7.5-minute quads.
<i>Perideridia bacigalupii</i>	Bacigalupi's yampah	-	-	4.2	1,475	4,120	Chaparral, lower montane coniferous forest.	Jun–Aug	None. No suitable habitat within Project area. No known occurrences from within the <i>Oroville Dam</i> and <i>Forbestown, California</i> USGS 7.5-minute quads.
<i>Poa sierrae</i>	Sierra blue grass	-	S3	1B.3	1200	5,575	Openings in lower montane coniferous forest.	Apr–Jul	None. No Suitable habitat in the Project area. Two known occurrences from 2017 within the <i>Oroville Dam</i> and <i>Forbestown, California</i> USGS 7.5-minute quads.

Status Key:

- = no listing; E = endangered; T = threatened; E = endangered; CE = candidate endangered; R = rare

S1 = critically imperiled; S2 = imperiled; S3 = vulnerable; S4 = apparently secure

California Native Plant Society (CNPS Ranks):

Rank 1B.1 = CNPS Rank 1B.1: Plants rare, threatened or endangered in California and elsewhere (seriously threatened in California)

Rank 1B.2 = CNPS Rank 1B.2: Plants rare, threatened, or endangered in California and elsewhere (moderately threatened in California)

Rank 3.2 = Plants about which more information is needed (moderately threatened in California)

Rank 4.2 = Plants of limited distribution (moderately threatened in California)

Rank 4.3 = Plants of limited distribution (not very threatened in California)

Table A-2. Potentially Occurring Special Status Wildlife Species Within the Project Area of the Enterprise Recreation Area Upgrade Project, Butte County, California.

Common Name	Scientific Name	Federal, State, Local	Habitat/Range/ Life History	Observed Within the Project Boundary During April 2022 Surveys	Potential to Occur Within the Project Area ^{15, 16}
Invertebrates					
Monarch butterfly	<i>Danaus plexippus</i>	FC	Overwinter in coastal California, breed from the coast east to the Rocky Mountains. Reproduction is completely dependent on the presence of their larval host plants, primarily milkweeds in the genus <i>Asclepias</i> . ¹⁷	No	None. No suitable habitat within the Project area. No known occurrences within two miles of the Project area.
Amphibians and Reptiles					
California red-legged frog	<i>Rana draytonii</i>	FT, SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Coastal	No	None. No suitable habitat within the Project area. No known occurrences within two miles of the Project area.

¹⁵ CDFW. 2024. California Department of Fish and Wildlife. California Natural Diversity Database Rarefind 5 Online Database 5.3.0. Available at: <https://wildlife.ca.gov/Data/CNDDDB/Maps-and-Data>. Accessed June 2024.

¹⁶ CDFW. 2024. Biogeographic Information and Observation System (BIOS) Online Viewer. Available at: <https://wildlife.ca.gov/Data/BIOS>. Accessed June 2024.

¹⁷ CEC. 2009. Commission for Environmental Cooperation. Monarch Butterfly Monitoring in North America: Overview of Initiative and Protocols. Available at: <http://www.cec.org/files/documents/publications/2378-monarch-butterfly-monitoring-in-north-america-en.pdf>. Accessed June 2024.

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Common Name	Scientific Name	Federal, State, Local	Habitat/Range/ Life History	Observed Within the Project Boundary During April 2022 Surveys	Potential to Occur Within the Project Area ^{15, 16}
			Range of California, foothill range of the Sierra Nevada. ¹⁸		
Foothill yellow-legged frog (Feather River Clade)	<i>Rana boylei</i>	ST, BRCP	Frequents rocky streams and rivers with rocky substrate and open, sunny banks, in forests, chaparral, and woodlands. Sometimes found in isolated pools, vegetated backwaters, and deep, shaded, spring-fed pools. Coastal Range of California, foothill range of Sierra Nevada mountains, 6,365 feet (1,940 meters). ¹⁹	No	None. No suitable habitat within the Project area. No known occurrences within two miles of the Project area.
Northwestern pond turtle	<i>Actinemys marmorata</i>	PT, SSC	Found in perennial wetlands, ponds, creeks, and slow-moving sections of rivers with overhanging vegetation primarily at elevations up to 5,000 feet (1,524 meters). Prefers suitable basking sites, such as logs and rocks in full sun, above the waterline.	No	None. No suitable habitat within the Project area. No known occurrences within two miles of the Project area.
Birds					
Bald eagle	<i>Haliaeetus leucocephalus</i>	FD, BAGEPA,	Nests and winters within Northern California.	Yes	None. No suitable nesting habitat in the Project area. Two known

¹⁸ Nafis, G. 2024. California Herps - A Guide to the Amphibians and Reptiles of California. Available at: <http://www.californiaherps.com>. Accessed June 2024.

¹⁹ USFWS. 2024. U.S. Fish and Wildlife Service. Foothill Yellow-legged Frog Species Account. Available at: <https://www.fws.gov/species/foothill-yellow-legged-frog-rana-boylei>. Accessed June 2024.

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Common Name	Scientific Name	Federal, State, Local	Habitat/Range/ Life History	Observed Within the Project Boundary During April 2022 Surveys	Potential to Occur Within the Project Area ^{15, 16}
		SE, FP, BCC, BRCP	Foraging areas include rivers, reservoirs, lakes, estuaries, and coastal marine ecosystems. Nests in large, old-growth, or dominant trees near foraging habitat. ²⁰		nesting territories within the <i>Oroville Dam</i> and <i>Forbestown, California</i> USGS 7.5-minute quads (1999 and 2001). Known bald eagle territories in the region are regularly monitored by DWR and protective measures are implemented per the Oroville Facilities Biological Opinion and Bald Eagle Management Plans.
California spotted owl	<i>Strix occidentalis</i>	PT, SSC	Multi-layered forest habitat with high canopy closure with a mixture of tree sizes and densities, including large diameter old growth trees for nesting and roosting. Found in elevations up to approximately 8,500 feet (2,591 meters).	No	None. No suitable habitat in the Project area. According to the CNDDDB, there are two observations of California spotted owl approximately 1.5 miles to the southeast along Lumpkin Road from 2011 and 2012. Both observations were of single owls non-breeding owls.
Nesting raptors and other migratory birds.	N/A	MBTA, FGC	Found nesting in trees, shrubs, underground burrows, cavities, manmade structures, and riparian vegetation.	Yes	High. Suitable habitat in Project area.
Mammals					

Status Key: CDFW = California Department of Fish and Wildlife; USFWS = U.S. Fish and Wildlife
 - = no listing; FC = federal candidate; FE = federally threatened; FE = federally endangered; SE = state endangered; SSC = state species of special concern; ST = state threatened; WL = state watch list; FD = federally delisted; FP = state fully protected; BAGEPA = Bald and Golden Eagle Protection Act; BCC = USFWS bird of conservation concern; BRCP = Butte Regional Conservation Plan Covered Species; MBTA = Migratory Bird Treaty Act; BCC = USFWS bird of conservation concern; FGC = California Fish and Game Code

²⁰ USFWS. 2024. U.S. Fish and Wildlife Service. Bald Eagle Species Account. Available at: <https://www.fws.gov/species/bald-eagle-haliaeetus-leucocephalus>. Accessed June 2024.

Appendix B

CalEEMod Air Quality & Energy Modeling Data

Enterprise CEQA - Butte County AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	10.85	1000sqft	0.25	10,850.00	0
Other Non-Asphalt Surfaces	3.00	1000sqft	0.07	3,000.00	0
Parking Lot	13.00	Space	0.12	5,200.00	0
User Defined Recreational	4.00	User Defined Unit	0.11	4,650.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	71
Climate Zone	3			Operational Year	2024
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MW hr)	203.98	CH4 Intensity (lb/MW hr)	0.033	N2O Intensity (lb/MW hr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Construction Phase - Construction anticipated to take 5 months

Off-road Equipment - construction equipment list provided in Table 2.3-1. Concrete trucks accounted for in building construction vendor truck trips.

Off-road Equipment - construction equipment list provided in Table 2.3-1. Concrete trucks accounted for in building construction vendor truck trips.

Off-road Equipment - construction equipment list provided in Table 2.3-1. Concrete trucks accounted for in building construction vendor truck trips.

Off-road Equipment -

Vehicle Trips - it was conservatively assumed that maintenance of the picnic and trail would take place once a week all year while boat ramp maintenance would occur daily for the year. Therefore, 417 trips per year and 1.14 trips/day.0.105

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Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	50.00
tblConstructionPhase	NumDays	10.00	8.00
tblConstructionPhase	NumDays	2.00	50.00
tblGrading	AcresOfGrading	50.00	2.00
tblGrading	MaterialExported	0.00	23,000.00
tblLandUse	LandUseSquareFeet	0.00	4,650.00
tblLandUse	LotAcreage	0.00	0.11
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	0.11
tblVehicleTrips	SU_TR	0.00	0.11
tblVehicleTrips	WD_TR	0.00	0.11

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction

[illegible]

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-1-2023	8-31-2023	1.1861	1.1861
2	9-1-2023	9-30-2023	0.3247	0.3247
		Highest	1.1861	1.1861

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0231	0.0000	2.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.5000e-004	5.5000e-004	0.0000	0.0000	5.9000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.1684	0.1684	3.0000e-005	0.0000	0.1701
Mobile	9.5000e-004	1.7200e-003	9.0100e-003	2.0000e-005	1.6100e-003	2.0000e-005	1.6300e-003	4.3000e-004	2.0000e-005	4.5000e-004	0.0000	1.5687	1.5687	1.0000e-004	9.0000e-005	1.5981
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0240	1.7200e-003	9.2900e-003	2.0000e-005	1.6100e-003	2.0000e-005	1.6300e-003	4.3000e-004	2.0000e-005	4.5000e-004	0.0000	1.7376	1.7376	1.3000e-004	9.0000e-005	1.7688

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0231	0.0000	2.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.5000e-004	5.5000e-004	0.0000	0.0000	5.9000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.1684	0.1684	3.0000e-005	0.0000	0.1701
Mobile	9.5000e-004	1.7200e-003	9.0100e-003	2.0000e-005	1.6100e-003	2.0000e-005	1.6300e-003	4.3000e-004	2.0000e-005	4.5000e-004	0.0000	1.5687	1.5687	1.0000e-004	9.0000e-005	1.5981
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0240	1.7200e-003	9.2900e-003	2.0000e-005	1.6100e-003	2.0000e-005	1.6300e-003	4.3000e-004	2.0000e-005	4.5000e-004	0.0000	1.7376	1.7376	1.3000e-004	9.0000e-005	1.7688

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2023	6/12/2023	5	8	
2	Grading	Grading	6/13/2023	8/21/2023	5	50	
3	Building Construction	Building Construction	8/22/2023	10/30/2023	5	50	

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**Acres of Grading (Site Preparation Phase): 0****Acres of Grading (Grading Phase): 2****Acres of Paving: 0.44****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	1	8.00	158	0.38
Demolition	Graders	1	8.00	187	0.41
Demolition	Off-Highway Trucks	2	8.00	402	0.38
Demolition	Other Construction Equipment	1	8.00	172	0.42
Demolition	Rollers	1	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Off-Highway Trucks	2	8.00	402	0.38
Grading	Other Construction Equipment	1	8.00	172	0.42
Grading	Rollers	1	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	0	4.00	231	0.29
Building Construction	Excavators	1	8.00	158	0.38
Building Construction	Forklifts	0	6.00	89	0.20
Building Construction	Graders	1	8.00	187	0.41
Building Construction	Off-Highway Trucks	2	8.00	402	0.38

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Building Construction	Other Construction Equipment	1	8.00	172	0.42
Building Construction	Rollers	1	8.00	80	0.38
Building Construction	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	8	20.00	0.00	0.00	11.10	10.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	2,875.00	11.10	10.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	10.00	4.00	0.00	11.10	10.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction**3.2 Demolition - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0117	0.1082	0.0909	2.3000e-004		4.6000e-003	4.6000e-003		4.2300e-003	4.2300e-003	0.0000	20.6174	20.6174	6.6700e-003	0.0000	20.7841
Total	0.0117	0.1082	0.0909	2.3000e-004		4.6000e-003	4.6000e-003		4.2300e-003	4.2300e-003	0.0000	20.6174	20.6174	6.6700e-003	0.0000	20.7841

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.3000e-004	2.5100e-003	1.0000e-005	6.5000e-004	0.0000	6.5000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5380	0.5380	2.0000e-005	2.0000e-005	0.5440
Total	3.2000e-004	2.3000e-004	2.5100e-003	1.0000e-005	6.5000e-004	0.0000	6.5000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5380	0.5380	2.0000e-005	2.0000e-005	0.5440

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0117	0.1082	0.0909	2.3000e-004		4.6000e-003	4.6000e-003		4.2300e-003	4.2300e-003	0.0000	20.6173	20.6173	6.6700e-003	0.0000	20.7840
Total	0.0117	0.1082	0.0909	2.3000e-004		4.6000e-003	4.6000e-003		4.2300e-003	4.2300e-003	0.0000	20.6173	20.6173	6.6700e-003	0.0000	20.7840

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.2 Demolition - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2000e-004	2.3000e-004	2.5100e-003	1.0000e-005	6.5000e-004	0.0000	6.5000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5380	0.5380	2.0000e-005	2.0000e-005	0.5440
Total	3.2000e-004	2.3000e-004	2.5100e-003	1.0000e-005	6.5000e-004	0.0000	6.5000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5380	0.5380	2.0000e-005	2.0000e-005	0.5440

3.3 Grading - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1529	0.0000	0.1529	0.0831	0.0000	0.0831	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0730	0.6762	0.5680	1.4700e-003		0.0287	0.0287		0.0264	0.0264	0.0000	128.8584	128.8584	0.0417	0.0000	129.9003
Total	0.0730	0.6762	0.5680	1.4700e-003	0.1529	0.0287	0.1816	0.0831	0.0264	0.1095	0.0000	128.8584	128.8584	0.0417	0.0000	129.9003

Enterprise CEQA - Butte County AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.5600e-003	0.2034	0.0414	8.6000e-004	0.0243	1.8500e-003	0.0261	6.6800e-003	1.7700e-003	8.4500e-003	0.0000	82.9973	82.9973	1.5000e-004	0.0131	86.8885
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9800e-003	1.4300e-003	0.0157	4.0000e-005	4.0400e-003	2.0000e-005	4.0700e-003	1.0800e-003	2.0000e-005	1.1000e-003	0.0000	3.3627	3.3627	1.2000e-004	1.1000e-004	3.3997
Total	5.5400e-003	0.2048	0.0571	9.0000e-004	0.0283	1.8700e-003	0.0302	7.7600e-003	1.7900e-003	9.5500e-003	0.0000	86.3600	86.3600	2.7000e-004	0.0132	90.2882

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1529	0.0000	0.1529	0.0831	0.0000	0.0831	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0730	0.6762	0.5680	1.4700e-003		0.0287	0.0287		0.0264	0.0264	0.0000	128.8583	128.8583	0.0417	0.0000	129.9002
Total	0.0730	0.6762	0.5680	1.4700e-003	0.1529	0.0287	0.1816	0.0831	0.0264	0.1095	0.0000	128.8583	128.8583	0.0417	0.0000	129.9002

Enterprise CEQA - Butte County AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.5600e-003	0.2034	0.0414	8.6000e-004	0.0243	1.8500e-003	0.0261	6.6800e-003	1.7700e-003	8.4500e-003	0.0000	82.9973	82.9973	1.5000e-004	0.0131	86.8885
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9800e-003	1.4300e-003	0.0157	4.0000e-005	4.0400e-003	2.0000e-005	4.0700e-003	1.0800e-003	2.0000e-005	1.1000e-003	0.0000	3.3627	3.3627	1.2000e-004	1.1000e-004	3.3997
Total	5.5400e-003	0.2048	0.0571	9.0000e-004	0.0283	1.8700e-003	0.0302	7.7600e-003	1.7900e-003	9.5500e-003	0.0000	86.3600	86.3600	2.7000e-004	0.0132	90.2882

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0730	0.6762	0.5680	1.4700e-003		0.0287	0.0287		0.0264	0.0264	0.0000	128.8584	128.8584	0.0417	0.0000	129.9003
Total	0.0730	0.6762	0.5680	1.4700e-003		0.0287	0.0287		0.0264	0.0264	0.0000	128.8584	128.8584	0.0417	0.0000	129.9003

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.4 Building Construction - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7000e-004	6.9200e-003	1.7800e-003	3.0000e-005	9.4000e-004	5.0000e-005	9.9000e-004	2.7000e-004	5.0000e-005	3.2000e-004	0.0000	2.7821	2.7821	1.0000e-005	4.1000e-004	2.9055
Worker	9.9000e-004	7.2000e-004	7.8500e-003	2.0000e-005	2.0200e-003	1.0000e-005	2.0300e-003	5.4000e-004	1.0000e-005	5.5000e-004	0.0000	1.6814	1.6814	6.0000e-005	6.0000e-005	1.6998
Total	1.1600e-003	7.6400e-003	9.6300e-003	5.0000e-005	2.9600e-003	6.0000e-005	3.0200e-003	8.1000e-004	6.0000e-005	8.7000e-004	0.0000	4.4634	4.4634	7.0000e-005	4.7000e-004	4.6053

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0730	0.6762	0.5680	1.4700e-003		0.0287	0.0287		0.0264	0.0264	0.0000	128.8583	128.8583	0.0417	0.0000	129.9002
Total	0.0730	0.6762	0.5680	1.4700e-003		0.0287	0.0287		0.0264	0.0264	0.0000	128.8583	128.8583	0.0417	0.0000	129.9002

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.4 Building Construction - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7000e-004	6.9200e-003	1.7800e-003	3.0000e-005	9.4000e-004	5.0000e-005	9.9000e-004	2.7000e-004	5.0000e-005	3.2000e-004	0.0000	2.7821	2.7821	1.0000e-005	4.1000e-004	2.9055
Worker	9.9000e-004	7.2000e-004	7.8500e-003	2.0000e-005	2.0200e-003	1.0000e-005	2.0300e-003	5.4000e-004	1.0000e-005	5.5000e-004	0.0000	1.6814	1.6814	6.0000e-005	6.0000e-005	1.6998
Total	1.1600e-003	7.6400e-003	9.6300e-003	5.0000e-005	2.9600e-003	6.0000e-005	3.0200e-003	8.1000e-004	6.0000e-005	8.7000e-004	0.0000	4.4634	4.4634	7.0000e-005	4.7000e-004	4.6053

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	9.5000e-004	1.7200e-003	9.0100e-003	2.0000e-005	1.6100e-003	2.0000e-005	1.6300e-003	4.3000e-004	2.0000e-005	4.5000e-004	0.0000	1.5687	1.5687	1.0000e-004	9.0000e-005	1.5981
Unmitigated	9.5000e-004	1.7200e-003	9.0100e-003	2.0000e-005	1.6100e-003	2.0000e-005	1.6300e-003	4.3000e-004	2.0000e-005	4.5000e-004	0.0000	1.5687	1.5687	1.0000e-004	9.0000e-005	1.5981

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	1.14	1.14	1.14	4,354	4,354
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
User Defined Recreational	0.00	0.00	0.00		
Total	1.14	1.14	1.14	4,354	4,354

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	10.50	10.50	10.50	100.00	0.00	0.00	100	0	0
Other Non-Asphalt Surfaces	10.50	10.50	10.50	0.00	0.00	0.00	0	0	0
Parking Lot	10.50	10.50	10.50	0.00	0.00	0.00	0	0	0
User Defined Recreational	10.50	10.50	10.50	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.0 Energy Detail

5.1 Mitigation Measures Energy

[illegible]

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated

[illegible]

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

[illegible]

Enterprise CEQA - Butte County AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	1820	0.1684	3.0000e-005	0.0000	0.1701
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.1684	3.0000e-005	0.0000	0.1701

Enterprise CEQA - Butte County AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	1820	0.1684	3.0000e-005	0.0000	0.1701
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.1684	3.0000e-005	0.0000	0.1701

6.0 Area Detail**6.1 Mitigation Measures Area**

Enterprise CEQA - Butte County AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0231	0.0000	2.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.5000e-004	5.5000e-004	0.0000	0.0000	5.9000e-004
Unmitigated	0.0231	0.0000	2.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.5000e-004	5.5000e-004	0.0000	0.0000	5.9000e-004

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.6300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0194					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-005	0.0000	2.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.5000e-004	5.5000e-004	0.0000	0.0000	5.9000e-004
Total	0.0231	0.0000	2.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.5000e-004	5.5000e-004	0.0000	0.0000	5.9000e-004

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.6300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0194					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-005	0.0000	2.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.5000e-004	5.5000e-004	0.0000	0.0000	5.9000e-004
Total	0.0231	0.0000	2.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.5000e-004	5.5000e-004	0.0000	0.0000	5.9000e-004

7.0 Water Detail**7.1 Mitigation Measures Water**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Enterprise CEQA - Butte County AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**8.2 Waste by Land Use****Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	Number
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11.0 Vegetation

Enterprise CEQA - Butte County AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Enterprise CEQA
Butte County AQMD Air District, Summer

1.0 Project Characteristics**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	10.85	1000sqft	0.25	10,850.00	0
Other Non-Asphalt Surfaces	3.00	1000sqft	0.07	3,000.00	0
Parking Lot	13.00	Space	0.12	5,200.00	0
User Defined Recreational	4.00	User Defined Unit	0.11	4,650.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	71
Climate Zone	3			Operational Year	2024
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Construction Phase - Construction anticipated to take 5 months

Off-road Equipment - construction equipment list provided in Table 2.3-1. Concrete trucks accounted for in building construction vendor truck trips.

Off-road Equipment - construction equipment list provided in Table 2.3-1. Concrete trucks accounted for in building construction vendor truck trips.

Off-road Equipment - construction equipment list provided in Table 2.3-1. Concrete trucks accounted for in building construction vendor truck trips.

Off-road Equipment -

Vehicle Trips - it was conservatively assumed that maintenance of the picnic and trail would take place once a week all year while boat ramp maintenance would occur daily for the year. Therefore, 417 trips per year and 1.14 trips/day.0.105

Enterprise CEQA - Butte County AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	50.00
tblConstructionPhase	NumDays	10.00	8.00
tblConstructionPhase	NumDays	2.00	50.00
tblGrading	AcresOfGrading	50.00	2.00
tblGrading	MaterialExported	0.00	23,000.00
tblLandUse	LandUseSquareFeet	0.00	4,650.00
tblLandUse	LotAcreage	0.00	0.11
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	0.11
tblVehicleTrips	SU_TR	0.00	0.11
tblVehicleTrips	WD_TR	0.00	0.11

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	3.1602	34.7926	25.1133	0.0949	7.2932	1.2236	8.5168	3.6439	1.1284	4.7723	0.0000	9,502.2884	9,502.2884	1.8498	0.5796	9,721.2506
Maximum	3.1602	34.7926	25.1133	0.0949	7.2932	1.2236	8.5168	3.6439	1.1284	4.7723	0.0000	9,502.2884	9,502.2884	1.8498	0.5796	9,721.2506

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	3.1602	34.7926	25.1133	0.0949	7.2932	1.2236	8.5168	3.6439	1.1284	4.7723	0.0000	9,502.2884	9,502.2884	1.8498	0.5796	9,721.2506
Maximum	3.1602	34.7926	25.1133	0.0949	7.2932	1.2236	8.5168	3.6439	1.1284	4.7723	0.0000	9,502.2884	9,502.2884	1.8498	0.5796	9,721.2506

[illegible]

Enterprise CEQA - Butte County AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1264	3.0000e-005	3.1400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.7500e-003	6.7500e-003	2.0000e-005		7.1900e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	6.3400e-003	8.7700e-003	0.0547	1.0000e-004	9.2100e-003	1.0000e-004	9.3200e-003	2.4600e-003	1.0000e-004	2.5600e-003		10.1855	10.1855	6.0000e-004	5.3000e-004	10.3573
Total	0.1328	8.8000e-003	0.0579	1.0000e-004	9.2100e-003	1.1000e-004	9.3300e-003	2.4600e-003	1.1000e-004	2.5700e-003		10.1923	10.1923	6.2000e-004	5.3000e-004	10.3645

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1264	3.0000e-005	3.1400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.7500e-003	6.7500e-003	2.0000e-005		7.1900e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	6.3400e-003	8.7700e-003	0.0547	1.0000e-004	9.2100e-003	1.0000e-004	9.3200e-003	2.4600e-003	1.0000e-004	2.5600e-003		10.1855	10.1855	6.0000e-004	5.3000e-004	10.3573
Total	0.1328	8.8000e-003	0.0579	1.0000e-004	9.2100e-003	1.1000e-004	9.3300e-003	2.4600e-003	1.1000e-004	2.5700e-003		10.1923	10.1923	6.2000e-004	5.3000e-004	10.3645

Enterprise CEQA - Butte County AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2023	6/12/2023	5	8	
2	Grading	Grading	6/13/2023	8/21/2023	5	50	
3	Building Construction	Building Construction	8/22/2023	10/30/2023	5	50	

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 2****Acres of Paving: 0.44****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	1	8.00	158	0.38
Demolition	Graders	1	8.00	187	0.41
Demolition	Off-Highway Trucks	2	8.00	402	0.38
Demolition	Other Construction Equipment	1	8.00	172	0.42
Demolition	Rollers	1	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Enterprise CEQA - Butte County AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Off-Highway Trucks	2	8.00	402	0.38
Grading	Other Construction Equipment	1	8.00	172	0.42
Grading	Rollers	1	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	0	4.00	231	0.29
Building Construction	Excavators	1	8.00	158	0.38
Building Construction	Forklifts	0	6.00	89	0.20
Building Construction	Graders	1	8.00	187	0.41
Building Construction	Off-Highway Trucks	2	8.00	402	0.38
Building Construction	Other Construction Equipment	1	8.00	172	0.42
Building Construction	Rollers	1	8.00	80	0.38
Building Construction	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	8	20.00	0.00	0.00	11.10	10.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	2,875.00	11.10	10.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	10.00	4.00	0.00	11.10	10.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Enterprise CEQA - Butte County AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9180	27.0482	22.7199	0.0587		1.1489	1.1489		1.0570	1.0570		5,681.684 3	5,681.684 3	1.8376		5,727.623 6
Total	2.9180	27.0482	22.7199	0.0587		1.1489	1.1489		1.0570	1.0570		5,681.684 3	5,681.684 3	1.8376		5,727.623 6

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0953	0.0525	0.7505	1.6100e-003	0.1689	9.8000e-004	0.1698	0.0448	9.0000e-004	0.0457		163.1769	163.1769	5.3600e-003	4.7300e-003	164.7214
Total	0.0953	0.0525	0.7505	1.6100e-003	0.1689	9.8000e-004	0.1698	0.0448	9.0000e-004	0.0457		163.1769	163.1769	5.3600e-003	4.7300e-003	164.7214

Enterprise CEQA - Butte County AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.2 Demolition - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9180	27.0482	22.7199	0.0587		1.1489	1.1489		1.0570	1.0570	0.0000	5,681.684 3	5,681.684 3	1.8376		5,727.623 6
Total	2.9180	27.0482	22.7199	0.0587		1.1489	1.1489		1.0570	1.0570	0.0000	5,681.684 3	5,681.684 3	1.8376		5,727.623 6

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0953	0.0525	0.7505	1.6100e-003	0.1689	9.8000e-004	0.1698	0.0448	9.0000e-004	0.0457		163.1769	163.1769	5.3600e-003	4.7300e-003	164.7214
Total	0.0953	0.0525	0.7505	1.6100e-003	0.1689	9.8000e-004	0.1698	0.0448	9.0000e-004	0.0457		163.1769	163.1769	5.3600e-003	4.7300e-003	164.7214

Enterprise CEQA - Butte County AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.3 Grading - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1165	0.0000	6.1165	3.3227	0.0000	3.3227			0.0000			0.0000
Off-Road	2.9180	27.0482	22.7199	0.0587		1.1489	1.1489		1.0570	1.0570		5,681.684 3	5,681.684 3	1.8376		5,727.623 6
Total	2.9180	27.0482	22.7199	0.0587	6.1165	1.1489	7.2654	3.3227	1.0570	4.3797		5,681.684 3	5,681.684 3	1.8376		5,727.623 6

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1469	7.6920	1.6429	0.0346	1.0078	0.0738	1.0816	0.2764	0.0706	0.3470		3,657.427 1	3,657.427 1	6.8400e-003	0.5749	3,828.905 6
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0953	0.0525	0.7505	1.6100e-003	0.1689	9.8000e-004	0.1698	0.0448	9.0000e-004	0.0457		163.1769	163.1769	5.3600e-003	4.7300e-003	164.7214
Total	0.2422	7.7445	2.3934	0.0362	1.1767	0.0747	1.2514	0.3212	0.0715	0.3927		3,820.604 1	3,820.604 1	0.0122	0.5796	3,993.627 0

Enterprise CEQA - Butte County AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.3 Grading - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1165	0.0000	6.1165	3.3227	0.0000	3.3227			0.0000			0.0000
Off-Road	2.9180	27.0482	22.7199	0.0587		1.1489	1.1489		1.0570	1.0570	0.0000	5,681.684 3	5,681.684 3	1.8376		5,727.623 6
Total	2.9180	27.0482	22.7199	0.0587	6.1165	1.1489	7.2654	3.3227	1.0570	4.3797	0.0000	5,681.684 3	5,681.684 3	1.8376		5,727.623 6

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1469	7.6920	1.6429	0.0346	1.0078	0.0738	1.0816	0.2764	0.0706	0.3470		3,657.427 1	3,657.427 1	6.8400e-003	0.5749	3,828.905 6
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0953	0.0525	0.7505	1.6100e-003	0.1689	9.8000e-004	0.1698	0.0448	9.0000e-004	0.0457		163.1769	163.1769	5.3600e-003	4.7300e-003	164.7214
Total	0.2422	7.7445	2.3934	0.0362	1.1767	0.0747	1.2514	0.3212	0.0715	0.3927		3,820.604 1	3,820.604 1	0.0122	0.5796	3,993.627 0

Enterprise CEQA - Butte County AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.4 Building Construction - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9180	27.0482	22.7199	0.0587		1.1489	1.1489		1.0570	1.0570		5,681.684 3	5,681.684 3	1.8376		5,727.623 6
Total	2.9180	27.0482	22.7199	0.0587		1.1489	1.1489		1.0570	1.0570		5,681.684 3	5,681.684 3	1.8376		5,727.623 6

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.1300e-003	0.2621	0.0703	1.1600e-003	0.0390	1.9300e-003	0.0409	0.0112	1.8400e-003	0.0131		122.5961	122.5961	3.7000e-004	0.0182	128.0287
Worker	0.0476	0.0262	0.3753	8.1000e-004	0.0844	4.9000e-004	0.0849	0.0224	4.5000e-004	0.0229		81.5885	81.5885	2.6800e-003	2.3700e-003	82.3607
Total	0.0548	0.2883	0.4455	1.9700e-003	0.1234	2.4200e-003	0.1258	0.0336	2.2900e-003	0.0359		204.1845	204.1845	3.0500e-003	0.0206	210.3894

Enterprise CEQA - Butte County AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9180	27.0482	22.7199	0.0587		1.1489	1.1489		1.0570	1.0570	0.0000	5,681.684 3	5,681.684 3	1.8376		5,727.623 6
Total	2.9180	27.0482	22.7199	0.0587		1.1489	1.1489		1.0570	1.0570	0.0000	5,681.684 3	5,681.684 3	1.8376		5,727.623 6

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.1300e-003	0.2621	0.0703	1.1600e-003	0.0390	1.9300e-003	0.0409	0.0112	1.8400e-003	0.0131		122.5961	122.5961	3.7000e-004	0.0182	128.0287
Worker	0.0476	0.0262	0.3753	8.1000e-004	0.0844	4.9000e-004	0.0849	0.0224	4.5000e-004	0.0229		81.5885	81.5885	2.6800e-003	2.3700e-003	82.3607
Total	0.0548	0.2883	0.4455	1.9700e-003	0.1234	2.4200e-003	0.1258	0.0336	2.2900e-003	0.0359		204.1845	204.1845	3.0500e-003	0.0206	210.3894

4.0 Operational Detail - Mobile

Enterprise CEQA - Butte County AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.3400e-003	8.7700e-003	0.0547	1.0000e-004	9.2100e-003	1.0000e-004	9.3200e-003	2.4600e-003	1.0000e-004	2.5600e-003		10.1855	10.1855	6.0000e-004	5.3000e-004	10.3573
Unmitigated	6.3400e-003	8.7700e-003	0.0547	1.0000e-004	9.2100e-003	1.0000e-004	9.3200e-003	2.4600e-003	1.0000e-004	2.5600e-003		10.1855	10.1855	6.0000e-004	5.3000e-004	10.3573

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	1.14	1.14	1.14	4,354	4,354
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
User Defined Recreational	0.00	0.00	0.00		
Total	1.14	1.14	1.14	4,354	4,354

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	10.50	10.50	10.50	100.00	0.00	0.00	100	0	0
Other Non-Asphalt Surfaces	10.50	10.50	10.50	0.00	0.00	0.00	0	0	0
Parking Lot	10.50	10.50	10.50	0.00	0.00	0.00	0	0	0
User Defined Recreational	10.50	10.50	10.50	0.00	0.00	0.00	0	0	0

Enterprise CEQA - Butte County AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.483154	0.055228	0.190002	0.148740	0.046106	0.008769	0.010590	0.015505	0.000749	0.000411	0.034241	0.001163	0.005341
Other Non-Asphalt Surfaces	0.483154	0.055228	0.190002	0.148740	0.046106	0.008769	0.010590	0.015505	0.000749	0.000411	0.034241	0.001163	0.005341
Parking Lot	0.483154	0.055228	0.190002	0.148740	0.046106	0.008769	0.010590	0.015505	0.000749	0.000411	0.034241	0.001163	0.005341
User Defined Recreational	0.483154	0.055228	0.190002	0.148740	0.046106	0.008769	0.010590	0.015505	0.000749	0.000411	0.034241	0.001163	0.005341

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**5.2 Energy by Land Use - NaturalGas****Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Enterprise CEQA - Butte County AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**5.2 Energy by Land Use - NaturalGas****Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

Enterprise CEQA - Butte County AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1264	3.0000e-005	3.1400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.7500e-003	6.7500e-003	2.0000e-005		7.1900e-003
Unmitigated	0.1264	3.0000e-005	3.1400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.7500e-003	6.7500e-003	2.0000e-005		7.1900e-003

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0199					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1063					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.9000e-004	3.0000e-005	3.1400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.7500e-003	6.7500e-003	2.0000e-005		7.1900e-003
Total	0.1264	3.0000e-005	3.1400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.7500e-003	6.7500e-003	2.0000e-005		7.1900e-003

Enterprise CEQA - Butte County AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0199					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1063					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.9000e-004	3.0000e-005	3.1400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.7500e-003	6.7500e-003	2.0000e-005		7.1900e-003
Total	0.1264	3.0000e-005	3.1400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.7500e-003	6.7500e-003	2.0000e-005		7.1900e-003

7.0 Water Detail**7.1 Mitigation Measures Water**

Enterprise CEQA - Butte County AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**8.0 Waste Detail**

8.1 Mitigation Measures Waste**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	10.85	1000sqft	0.25	10,850.00	0
Other Non-Asphalt Surfaces	3.00	1000sqft	0.07	3,000.00	0
Parking Lot	13.00	Space	0.12	5,200.00	0
User Defined Recreational	4.00	User Defined Unit	0.11	4,650.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	71
Climate Zone	3			Operational Year	2024
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Construction Phase - Construction anticipated to take 5 months

Off-road Equipment - construction equipment list provided in Table 2.3-1. Concrete trucks accounted for in building construction vendor truck trips.

Off-road Equipment - construction equipment list provided in Table 2.3-1. Concrete trucks accounted for in building construction vendor truck trips.

Off-road Equipment - construction equipment list provided in Table 2.3-1. Concrete trucks accounted for in building construction vendor truck trips.

Off-road Equipment -

Vehicle Trips - it was conservatively assumed that maintenance of the picnic and trail would take place once a week all year while boat ramp maintenance would occur daily for the year. Therefore, 417 trips per year and 1.14 trips/day.0.105

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	50.00
tblConstructionPhase	NumDays	10.00	8.00
tblConstructionPhase	NumDays	2.00	50.00
tblGrading	AcresOfGrading	50.00	2.00
tblGrading	MaterialExported	0.00	23,000.00
tblLandUse	LandUseSquareFeet	0.00	4,650.00
tblLandUse	LotAcreage	0.00	0.11
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	1.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	0.11
tblVehicleTrips	SU_TR	0.00	0.11
tblVehicleTrips	WD_TR	0.00	0.11

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	3.1363	35.4596	25.0230	0.0947	7.2932	1.2237	8.5169	3.6439	1.1285	4.7725	0.0000	9,488.1550	9,488.1550	1.8499	0.5811	9,707.5643
Maximum	3.1363	35.4596	25.0230	0.0947	7.2932	1.2237	8.5169	3.6439	1.1285	4.7725	0.0000	9,488.1550	9,488.1550	1.8499	0.5811	9,707.5643

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	3.1363	35.4596	25.0230	0.0947	7.2932	1.2237	8.5169	3.6439	1.1285	4.7725	0.0000	9,488.1550	9,488.1550	1.8499	0.5811	9,707.5643
Maximum	3.1363	35.4596	25.0230	0.0947	7.2932	1.2237	8.5169	3.6439	1.1285	4.7725	0.0000	9,488.1550	9,488.1550	1.8499	0.5811	9,707.5643

[illegible]

Enterprise CEQA - Butte County AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1264	3.0000e-005	3.1400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.7500e-003	6.7500e-003	2.0000e-005		7.1900e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	5.0600e-003	0.0101	0.0518	9.0000e-005	9.2100e-003	1.0000e-004	9.3200e-003	2.4600e-003	1.0000e-004	2.5600e-003		9.3235	9.3235	6.6000e-004	5.7000e-004	9.5101
Total	0.1315	0.0101	0.0549	9.0000e-005	9.2100e-003	1.1000e-004	9.3300e-003	2.4600e-003	1.1000e-004	2.5700e-003		9.3303	9.3303	6.8000e-004	5.7000e-004	9.5173

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1264	3.0000e-005	3.1400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.7500e-003	6.7500e-003	2.0000e-005		7.1900e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	5.0600e-003	0.0101	0.0518	9.0000e-005	9.2100e-003	1.0000e-004	9.3200e-003	2.4600e-003	1.0000e-004	2.5600e-003		9.3235	9.3235	6.6000e-004	5.7000e-004	9.5101
Total	0.1315	0.0101	0.0549	9.0000e-005	9.2100e-003	1.1000e-004	9.3300e-003	2.4600e-003	1.1000e-004	2.5700e-003		9.3303	9.3303	6.8000e-004	5.7000e-004	9.5173

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2023	6/12/2023	5	8	
2	Grading	Grading	6/13/2023	8/21/2023	5	50	
3	Building Construction	Building Construction	8/22/2023	10/30/2023	5	50	

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 2****Acres of Paving: 0.44****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	1	8.00	158	0.38
Demolition	Graders	1	8.00	187	0.41
Demolition	Off-Highway Trucks	2	8.00	402	0.38
Demolition	Other Construction Equipment	1	8.00	172	0.42
Demolition	Rollers	1	8.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Off-Highway Trucks	2	8.00	402	0.38
Grading	Other Construction Equipment	1	8.00	172	0.42
Grading	Rollers	1	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	0	4.00	231	0.29
Building Construction	Excavators	1	8.00	158	0.38
Building Construction	Forklifts	0	6.00	89	0.20
Building Construction	Graders	1	8.00	187	0.41
Building Construction	Off-Highway Trucks	2	8.00	402	0.38
Building Construction	Other Construction Equipment	1	8.00	172	0.42
Building Construction	Rollers	1	8.00	80	0.38
Building Construction	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	8	20.00	0.00	0.00	11.10	10.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	2,875.00	11.10	10.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	8	10.00	4.00	0.00	11.10	10.50	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Enterprise CEQA - Butte County AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9180	27.0482	22.7199	0.0587		1.1489	1.1489		1.0570	1.0570		5,681.684 3	5,681.684 3	1.8376		5,727.623 6
Total	2.9180	27.0482	22.7199	0.0587		1.1489	1.1489		1.0570	1.0570		5,681.684 3	5,681.684 3	1.8376		5,727.623 6

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0816	0.0643	0.6257	1.4200e-003	0.1689	9.8000e-004	0.1698	0.0448	9.0000e-004	0.0457		143.9833	143.9833	5.9200e-003	5.4200e-003	145.7463
Total	0.0816	0.0643	0.6257	1.4200e-003	0.1689	9.8000e-004	0.1698	0.0448	9.0000e-004	0.0457		143.9833	143.9833	5.9200e-003	5.4200e-003	145.7463

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.2 Demolition - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9180	27.0482	22.7199	0.0587		1.1489	1.1489		1.0570	1.0570	0.0000	5,681.684 3	5,681.684 3	1.8376		5,727.623 6
Total	2.9180	27.0482	22.7199	0.0587		1.1489	1.1489		1.0570	1.0570	0.0000	5,681.684 3	5,681.684 3	1.8376		5,727.623 6

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0816	0.0643	0.6257	1.4200e-003	0.1689	9.8000e-004	0.1698	0.0448	9.0000e-004	0.0457		143.9833	143.9833	5.9200e-003	5.4200e-003	145.7463
Total	0.0816	0.0643	0.6257	1.4200e-003	0.1689	9.8000e-004	0.1698	0.0448	9.0000e-004	0.0457		143.9833	143.9833	5.9200e-003	5.4200e-003	145.7463

Enterprise CEQA - Butte County AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1165	0.0000	6.1165	3.3227	0.0000	3.3227			0.0000			0.0000
Off-Road	2.9180	27.0482	22.7199	0.0587		1.1489	1.1489		1.0570	1.0570		5,681.684 3	5,681.684 3	1.8376		5,727.623 6
Total	2.9180	27.0482	22.7199	0.0587	6.1165	1.1489	7.2654	3.3227	1.0570	4.3797		5,681.684 3	5,681.684 3	1.8376		5,727.623 6

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1367	8.3471	1.6774	0.0346	1.0078	0.0739	1.0817	0.2764	0.0707	0.3471		3,662.487 3	3,662.487 3	6.3700e-003	0.5757	3,834.194 4
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0816	0.0643	0.6257	1.4200e-003	0.1689	9.8000e-004	0.1698	0.0448	9.0000e-004	0.0457		143.9833	143.9833	5.9200e-003	5.4200e-003	145.7463
Total	0.2182	8.4115	2.3031	0.0360	1.1767	0.0749	1.2515	0.3212	0.0716	0.3928		3,806.470 6	3,806.470 6	0.0123	0.5811	3,979.940 7

Enterprise CEQA - Butte County AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.3 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.1165	0.0000	6.1165	3.3227	0.0000	3.3227			0.0000			0.0000
Off-Road	2.9180	27.0482	22.7199	0.0587		1.1489	1.1489		1.0570	1.0570	0.0000	5,681.684 3	5,681.684 3	1.8376		5,727.623 6
Total	2.9180	27.0482	22.7199	0.0587	6.1165	1.1489	7.2654	3.3227	1.0570	4.3797	0.0000	5,681.684 3	5,681.684 3	1.8376		5,727.623 6

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1367	8.3471	1.6774	0.0346	1.0078	0.0739	1.0817	0.2764	0.0707	0.3471		3,662.487 3	3,662.487 3	6.3700e-003	0.5757	3,834.194 4
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0816	0.0643	0.6257	1.4200e-003	0.1689	9.8000e-004	0.1698	0.0448	9.0000e-004	0.0457		143.9833	143.9833	5.9200e-003	5.4200e-003	145.7463
Total	0.2182	8.4115	2.3031	0.0360	1.1767	0.0749	1.2515	0.3212	0.0716	0.3928		3,806.470 6	3,806.470 6	0.0123	0.5811	3,979.940 7

Enterprise CEQA - Butte County AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9180	27.0482	22.7199	0.0587		1.1489	1.1489		1.0570	1.0570		5,681.684 3	5,681.684 3	1.8376		5,727.623 6
Total	2.9180	27.0482	22.7199	0.0587		1.1489	1.1489		1.0570	1.0570		5,681.684 3	5,681.684 3	1.8376		5,727.623 6

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.8500e-003	0.2842	0.0721	1.1600e-003	0.0390	1.9300e-003	0.0409	0.0112	1.8500e-003	0.0131		122.7698	122.7698	3.5000e-004	0.0183	128.2175
Worker	0.0408	0.0322	0.3129	7.1000e-004	0.0844	4.9000e-004	0.0849	0.0224	4.5000e-004	0.0229		71.9917	71.9917	2.9600e-003	2.7100e-003	72.8731
Total	0.0476	0.3164	0.3850	1.8700e-003	0.1234	2.4200e-003	0.1258	0.0336	2.3000e-003	0.0359		194.7615	194.7615	3.3100e-003	0.0210	201.0906

Enterprise CEQA - Butte County AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.9180	27.0482	22.7199	0.0587		1.1489	1.1489		1.0570	1.0570	0.0000	5,681.684 3	5,681.684 3	1.8376		5,727.623 6
Total	2.9180	27.0482	22.7199	0.0587		1.1489	1.1489		1.0570	1.0570	0.0000	5,681.684 3	5,681.684 3	1.8376		5,727.623 6

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.8500e-003	0.2842	0.0721	1.1600e-003	0.0390	1.9300e-003	0.0409	0.0112	1.8500e-003	0.0131		122.7698	122.7698	3.5000e-004	0.0183	128.2175
Worker	0.0408	0.0322	0.3129	7.1000e-004	0.0844	4.9000e-004	0.0849	0.0224	4.5000e-004	0.0229		71.9917	71.9917	2.9600e-003	2.7100e-003	72.8731
Total	0.0476	0.3164	0.3850	1.8700e-003	0.1234	2.4200e-003	0.1258	0.0336	2.3000e-003	0.0359		194.7615	194.7615	3.3100e-003	0.0210	201.0906

4.0 Operational Detail - Mobile

Enterprise CEQA - Butte County AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.0600e-003	0.0101	0.0518	9.0000e-005	9.2100e-003	1.0000e-004	9.3200e-003	2.4600e-003	1.0000e-004	2.5600e-003		9.3235	9.3235	6.6000e-004	5.7000e-004	9.5101
Unmitigated	5.0600e-003	0.0101	0.0518	9.0000e-005	9.2100e-003	1.0000e-004	9.3200e-003	2.4600e-003	1.0000e-004	2.5600e-003		9.3235	9.3235	6.6000e-004	5.7000e-004	9.5101

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	1.14	1.14	1.14	4,354	4,354
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
User Defined Recreational	0.00	0.00	0.00		
Total	1.14	1.14	1.14	4,354	4,354

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	10.50	10.50	10.50	100.00	0.00	0.00	100	0	0
Other Non-Asphalt Surfaces	10.50	10.50	10.50	0.00	0.00	0.00	0	0	0
Parking Lot	10.50	10.50	10.50	0.00	0.00	0.00	0	0	0
User Defined Recreational	10.50	10.50	10.50	0.00	0.00	0.00	0	0	0

Enterprise CEQA - Butte County AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.483154	0.055228	0.190002	0.148740	0.046106	0.008769	0.010590	0.015505	0.000749	0.000411	0.034241	0.001163	0.005341
Other Non-Asphalt Surfaces	0.483154	0.055228	0.190002	0.148740	0.046106	0.008769	0.010590	0.015505	0.000749	0.000411	0.034241	0.001163	0.005341
Parking Lot	0.483154	0.055228	0.190002	0.148740	0.046106	0.008769	0.010590	0.015505	0.000749	0.000411	0.034241	0.001163	0.005341
User Defined Recreational	0.483154	0.055228	0.190002	0.148740	0.046106	0.008769	0.010590	0.015505	0.000749	0.000411	0.034241	0.001163	0.005341

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Enterprise CEQA - Butte County AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**5.2 Energy by Land Use - NaturalGas****Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Enterprise CEQA - Butte County AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non- Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

Enterprise CEQA - Butte County AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1264	3.0000e-005	3.1400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.7500e-003	6.7500e-003	2.0000e-005		7.1900e-003
Unmitigated	0.1264	3.0000e-005	3.1400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.7500e-003	6.7500e-003	2.0000e-005		7.1900e-003

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0199					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1063					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.9000e-004	3.0000e-005	3.1400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.7500e-003	6.7500e-003	2.0000e-005		7.1900e-003
Total	0.1264	3.0000e-005	3.1400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.7500e-003	6.7500e-003	2.0000e-005		7.1900e-003

Enterprise CEQA - Butte County AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0199					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1063					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.9000e-004	3.0000e-005	3.1400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.7500e-003	6.7500e-003	2.0000e-005		7.1900e-003
Total	0.1264	3.0000e-005	3.1400e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.7500e-003	6.7500e-003	2.0000e-005		7.1900e-003

7.0 Water Detail

7.1 Mitigation Measures Water

Enterprise CEQA - Butte County AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**8.0 Waste Detail**

8.1 Mitigation Measures Waste**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Enterprise Project Construction Assumptions

Project Construction and Operations - Enterprise

Construction Phases

Phase Name	Start Date	End Date	Num Days Week	Num Days
Demolition	6/1/2023	6/12/2023	5	8
Grading	6/13/2023	8/21/2023	5	50
Building Construction	8/22/2023	10/30/2023	5	50

Off Road Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Excavators	1	8	158	0.38
Demolition	Graders	1	8	187	0.41
Demolition	Off-Highway Trucks	2	8	402	0.38
Demolition	Other Construction Equipment	1	8	172	0.42
Demolition	Rollers	1	8	80	0.38
Demolition	Rubber Tired Dozers	1	8	247	0.4
Demolition	Tractors/Loaders/Backhoes	1	8	97	0.37
Grading	Excavators	1	8	158	0.38
Grading	Graders	1	8	187	0.41
Grading	Off-Highway Trucks	2	8	402	0.38
Grading	Other Construction Equipment	1	8	172	0.42
Grading	Rollers	1	8	80	0.38
Grading	Rubber Tired Dozers	1	8	247	0.4
Grading	Tractors/Loaders/Backhoes	1	8	97	0.37
Building Construction	Excavators	1	8	158	0.38
Building Construction	Graders	1	8	187	0.41
Building Construction	Off-Highway Trucks	2	8	402	0.38
Building Construction	Other Construction Equipment	1	8	172	0.42
Building Construction	Rollers	1	8	80	0.38
Building Construction	Rubber Tired Dozers	1	8	247	0.4
Building Construction	Tractors/Loaders/Backhoes	1	8	97	0.37

Trips and VMT

Phase Name	Daily Worker Trip Number	Daily Vendor Trip Number	TOTAL Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length
Phase 1						
Site Preparation	20	0	0	16.8	-	20
Grading	20	0	2875	16.8	-	20
Paving	10	4	0	16.8	-	20

Stillwater Roadways Phase 2 Development—Energy Consumption Summary

Summary of Energy Use During Construction

(Annually)

Construction vehicle fuel

12,633 gallons (gasoline, diesel)

Construction equipment fuel

11,812 gallons (diesel)

Construction Vehicle Fuel Calculations (Page 1 of 2)

California Air Resource Board (CARB). 2021. EMFAC2017 Web Database. Website: <https://arb.ca.gov/emfac/2017/>.

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: County

Region: Butte

Calendar Year: 2023

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/year for CVMT and EVMT, trips/year for Trips, kWh/year for Energy Consumption, tons/year for Emissions, 1000 gallons/year for Fuel Consumption

VMT= Vehicle Miles Traveled

FE = Fuel Efficiency

Given								Calculations		
Region	Calendar Year	Vehicle Class	Model Year	Speed	Fuel	Population	VMT (mi/day)	Fuel Consumption (1000 gallons/day)	FE (mi/gallon)	VMT*FE
Butte	2023	HHDT	Aggregate	Aggregate	Gasoline	0.67129016	13353.779	3.460008626	3.85946395	51538.43
Butte	2023	HHDT	Aggregate	Aggregate	Diesel	2363.31674	113218298	19137.61667	5.91600825	6.7E+08
Butte	2023	LDA	Aggregate	Aggregate	Gasoline	66209.522	818616596	28624.55882	28.5984005	2.34E+10
Butte	2023	LDA	Aggregate	Aggregate	Diesel	420.324347	4297734.1	102.0388887	42.1185897	1.81E+08
Butte	2023	LDT1	Aggregate	Aggregate	Gasoline	10379.6019	103931280	4448.019327	23.3657437	2.43E+09
Butte	2023	LDT1	Aggregate	Aggregate	Diesel	10.6282482	44818.387	1.872979253	23.9289286	1072456
Butte	2023	LDT2	Aggregate	Aggregate	Gasoline	36425.322	455041154	19854.47183	22.9188244	1.04E+10
Butte	2023	LDT2	Aggregate	Aggregate	Diesel	109.668334	1445566.7	45.82541835	31.5450839	45600522
Butte	2023	LHDT1	Aggregate	Aggregate	Gasoline	4241.82354	46047031	5093.986827	9.03948759	4.16E+08
Butte	2023	LHDT1	Aggregate	Aggregate	Diesel	6434.61954	71260555	4499.598679	15.8370912	1.13E+09
Butte	2023	LHDT2	Aggregate	Aggregate	Gasoline	439.288469	5106135	613.2523832	8.32631899	42515309
Butte	2023	LHDT2	Aggregate	Aggregate	Diesel	1725.30022	20828309	1609.497931	12.9408735	2.7E+08
Butte	2023	MDV	Aggregate	Aggregate	Gasoline	30177.4002	347174895	18449.7333	18.8173395	6.53E+09
Butte	2023	MDV	Aggregate	Aggregate	Diesel	664.552738	8687023.1	360.9162866	24.0693573	2.09E+08
Butte	2023	MHDT	Aggregate	Aggregate	Gasoline	244.219818	3790203.2	790.1318207	4.79692509	18181321
Butte	2023	MHDT	Aggregate	Aggregate	Diesel	1758.67953	24121136	2835.833414	8.50583658	2.05E+08
Worker										
Sum of VMT*FE (Column BI)										4.32E+10
Total VMT										1.74E+09
Weighted Average Fuel Economy										24.86044
Vendor										
Sum of VMT*FE (Column BI)										2.75E+09
Total VMT										2.84E+08
Weighted Average Fuel Economy										9.670189
Haul										
Sum of VMT*FE (Column BI)										6.7E+08
Total VMT										1.13E+08
Weighted Average Fuel Economy										5.915766

Construction Vehicle Fuel Calculations (Page 2 of 2)**Construction****Schedule**

Source: CalEEMod

CalEEMod Run	Phase Name	Start Date	End Date	Num Days
Summer 1				
Demolition		6/1/2023	6/12/2023	5
Grading		6/13/2023	8/21/2023	5
Building Construction		8/22/2023	10/30/2023	5

Construction Trips and VMT

Phase Name	Trips per Day		Total Trips	Construction Trip Length in Miles			Number of Days per Phase	Trips per Phase			VMT per Phase			Fuel Consumption (gallons)			
	Worker Trip Number	Vendor Trip Number		Hauling Trip Number	Worker Trip Length	Vendor Trip Length		Hauling Trip Length	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trips	Vendor Trips	Hauling Trips	Worker Trips	Vendor Trips	Hauling Trips
Demolition	20	0	0	11.1	10.5	20	8	160	0	0	1,776	0	0	71.44	0.00	0.00	
Grading	20	0	2875	11.1	10.5	20	50	1,000	0	2,875	11,100	0	57,500	446.49	0.00	9,719.79	
Building Construction	10	4	0	11.1	10.5	20	50	500	2,000	0	5,550	21,000	0	223.25	2,171.62	0.00	
Total								18,426	21,000	57,500	741	2,172	9,720				

Construction Equipment Fuel Calculation (Page 1 of 2)

Source: Roadway Construction Model

Construction Schedule

Construction Area	Phase Type	Start Date	End Date	Num Days Week	Num Days
	Demolition	6/1/2023	6/12/2023	5	8
	Grading	6/13/2023	8/21/2023	5	50
	Building Construction	8/22/2023	10/30/2023	5	50

Phase Name	Offroad Equipment Type	Usage Hours	Number	HP	Number of Days	Load Factor	HP Hours	Fuel (gallons/HP-hour)	Diesel Fuel Usage
Demolition	Excavators	8	1	158	8	0.38	3842.56	0.020	75.93
Demolition	Graders	8	1	187	8	0.41	4906.88	0.021	104.14
Demolition	Off-Highway Trucks	8	2	402	8	0.38	19553.28	0.020	384.72
Demolition	Other Construction Equipment	8	1	172	8	0.42	4623.36	0.021	98.95
Demolition	Rollers	8	1	80	8	0.38	1945.60	0.019	37.75
Demolition	Rubber Tired Dozers	8	1	247	8	0.4	6323.20	0.020	129.51
Demolition	Tractors/Loaders/Backhoes	8	1	97	8	0.37	2296.96	0.019	43.93
Grading	Excavators	8	1	158	50	0.38	24016.00	0.020	474.59
Grading	Graders	8	1	187	50	0.41	30668.00	0.021	650.89
Grading	Off-Highway Trucks	8	2	402	50	0.38	122208.00	0.020	2,404.52
Grading	Other Construction Equipment	8	1	172	50	0.42	28896.00	0.021	618.41
Grading	Rollers	8	1	80	50	0.38	12160.00	0.019	235.94
Grading	Rubber Tired Dozers	8	1	247	50	0.4	39520.00	0.020	809.47
Grading	Tractors/Loaders/Backhoes	8	1	97	50	0.37	14356.00	0.019	274.59
Building Construction	Excavators	8	1	158	50	0.38	24016.00	0.020	474.59
Building Construction	Graders	8	1	187	50	0.41	30668.00	0.021	650.89
Building Construction	Off-Highway Trucks	8	2	402	50	0.38	122208.00	0.020	2,404.52
Building Construction	Other Construction Equipment	8	1	172	50	0.42	28896.00	0.021	618.41
Building Construction	Rollers	8	1	80	50	0.38	12160.00	0.019	235.94
Building Construction	Rubber Tired Dozers	8	1	247	50	0.4	39520.00	0.020	809.47
Building Construction	Tractors/Loaders/Backhoes	8	1	97	50	0.37	14356.00	0.019	274.59
Total Construction Equipment Fuel Consumption (gallons)								TOTAL	11,811.77

Notes:

Equipment assumptions are provided in the Roadway Construction output files.

Source of usage estimates: California Air Resource Board (CARB). 2022. OFFROAD2021 Emissions Inventory

Website: <https://arb.ca.gov/emfac/emissions-inventory/1858de04a6d6b82e26fb52258ce3499ee8e4f21b>

all emissions calculated conservatively using 2023 emission factors.

Construction Equipment Fuel Calculation (Page 2 of 2)

Model Output: OFFROAD2021 (v1.0.3) Emissions Inventory

Region Type: County

Region: Butte

Calendar Year: 2023

Scenario: All Adopted Rules - Exhaust

Vehicle Classification: OFFROAD2021 Equipment Types

Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsepower-hours/year for Horsepower-hours

Region	Calendar Year	Vehicle Category	Model Year	Horsepower r Bin	Fuel	Fuel Consumption	Horsepower_Hou rs_hhpy	Fuel (gallons/HP- hour)
Butte	2023	Construction and Mining - Excavators	Aggregate	100	Diesel	28565.41267	1452859.533	0.01966151
Butte	2023	Construction and Mining - Excavators	Aggregate	175	Diesel	60966.18775	3085106.463	0.019761453
Butte	2023	Construction and Mining - Excavators	Aggregate	25	Diesel	6.901659559	314.6536046	0.021934151
Butte	2023	Construction and Mining - Excavators	Aggregate	300	Diesel	77612.29095	3925060.736	0.019773526
Butte	2023	Construction and Mining - Excavators	Aggregate	50	Diesel	22250.24782	1013188.738	0.021960615
Butte	2023	Construction and Mining - Excavators	Aggregate	75	Diesel	289.9579725	14798.47232	0.019593777
Butte	2023	Construction and Mining - Graders	Aggregate	100	Diesel	3445.85743	165154.5169	0.020864446
Butte	2023	Construction and Mining - Graders	Aggregate	175	Diesel	37055.00724	1745929.619	0.021223655
Butte	2023	Construction and Mining - Graders	Aggregate	25	Diesel	4.277874983	181.9834831	0.023506941
Butte	2023	Construction and Mining - Graders	Aggregate	300	Diesel	76848.72532	3632264.332	0.02115725
Butte	2023	Construction and Mining - Graders	Aggregate	50	Diesel	143.2039298	6086.103955	0.023529656
Butte	2023	Construction and Mining - Graders	Aggregate	75	Diesel	53.21291134	2423.698491	0.021955252
Butte	2023	Construction and Mining - Off-Highway Trucks	Aggregate	100	Diesel	539.9325599	27261.36776	0.019805777
Butte	2023	Construction and Mining - Off-Highway Trucks	Aggregate	175	Diesel	21170.06331	1073727.772	0.019716416
Butte	2023	Construction and Mining - Off-Highway Trucks	Aggregate	25	Diesel	0	0	#DIV/0!
Butte	2023	Construction and Mining - Off-Highway Trucks	Aggregate	300	Diesel	43005.73543	2185733.057	0.019675658
Butte	2023	Construction and Mining - Off-Highway Trucks	Aggregate	50	Diesel	890.3386191	40796.48726	0.021823904
Butte	2023	Construction and Mining - Off-Highway Trucks	Aggregate	75	Diesel	298.4129125	15046.41879	0
Butte	2023	Construction and Mining - Other	Aggregate	100	Diesel	14557.62054	677078.2952	0.021500646
Butte	2023	Construction and Mining - Other	Aggregate	175	Diesel	8497.108135	397036.3593	0.021401335
Butte	2023	Construction and Mining - Other	Aggregate	25	Diesel	0	0	0
Butte	2023	Construction and Mining - Other	Aggregate	300	Diesel	11161.68205	518594.8973	0.021522931
Butte	2023	Construction and Mining - Other	Aggregate	50	Diesel	4990.257087	207934.9637	0.023999125
Butte	2023	Construction and Mining - Other	Aggregate	75	Diesel	1058.006462	50039.83924	0.021143283
Butte	2023	Construction and Mining - Rollers	Aggregate	100	Diesel	19445.88327	1001759.214	0.019411734
Butte	2023	Construction and Mining - Rollers	Aggregate	175	Diesel	20240.16961	1043972.271	0.019387651
Butte	2023	Construction and Mining - Rollers	Aggregate	25	Diesel	1.959720402	90.89336502	0.021560654
Butte	2023	Construction and Mining - Rollers	Aggregate	300	Diesel	3422.157027	176338.2668	0.019406775
Butte	2023	Construction and Mining - Rollers	Aggregate	50	Diesel	12525.41362	580593.2259	0
Butte	2023	Construction and Mining - Rollers	Aggregate	75	Diesel	131.0221674	6752.649874	0.019403074
Butte	2023	Construction and Mining - Rubber Tired Dozers	Aggregate	100	Diesel	1738.028036	84381.89399	0.020597168

Butte	2023 Construction and Mining - Rubber Tired Dozers	Aggregate	175 Diesel	2412.415458	117927.5448	0.02045676
Butte	2023 Construction and Mining - Rubber Tired Dozers	Aggregate	25 Diesel	0	0	#DIV/0!
Butte	2023 Construction and Mining - Rubber Tired Dozers	Aggregate	300 Diesel	2716.634709	132632.0555	0.02048249
Butte	2023 Construction and Mining - Rubber Tired Dozers	Aggregate	50 Diesel	552.6421465	24310.38033	0.022732764
Butte	2023 Construction and Mining - Rubber Tired Dozers	Aggregate	75 Diesel	593.7732932	28958.21455	0.020504486
Butte	2023 Construction and Mining - Tractors/Loaders/Backhoe: Aggregate		100 Diesel	299069.6313	15635858.71	0.019127164
Butte	2023 Construction and Mining - Tractors/Loaders/Backhoe: Aggregate		175 Diesel	52249.3797	2751390.493	0.018990172
Butte	2023 Construction and Mining - Tractors/Loaders/Backhoe: Aggregate		25 Diesel	0	0	#DIV/0!
Butte	2023 Construction and Mining - Tractors/Loaders/Backhoe: Aggregate		300 Diesel	32788.91158	1724065.239	0.019018371
Butte	2023 Construction and Mining - Tractors/Loaders/Backhoe: Aggregate		50 Diesel	18683.60151	889009.1758	0.021016208
Butte	2023 Construction and Mining - Tractors/Loaders/Backhoe: Aggregate		75 Diesel	2811.057786	147273.4827	0.019087332

Appendix C

Mitigation and Monitoring Reporting Program

**Oroville Facilities Enterprise
Recreation Area Upgrades
FERC Project No. 2100**
Mitigation Monitoring and Reporting Program

October 2024

Prepared for:
Department of Water Resources

Prepared by:
Stantec Consulting Services Inc.

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1 Introduction

This Mitigation Monitoring and Reporting Program (MMRP) was prepared pursuant to the California Environmental Quality Act (CEQA) Guidelines (Section 21081.6[a][1]), which require a public agency to adopt a monitoring and/or reporting program to ensure compliance with mitigation measures during Project implementation. This MMRP identifies the measures from the Draft Initial Study Mitigated Negative Declaration (ISMND) that apply to the Project as evaluated and documented in the ISMND. This MMRP identifies the required mitigation and environmental compliance steps to be completed in accordance with CEQA regulations and the parties responsible for implementation and monitoring.

2 Project Description

2.1 Project Location

The Project site is located on the South Fork of Lake Oroville on the northeast slope of the existing Enterprise area within the Lake Oroville SRA (Figure 2.2-1) and within the *Forbestown, California* U.S. Geological Survey (USGS) 7.5-minute quadrangle. To access the Project site from the City of Oroville, head east on Highway 162, then east on Forbestown Road, and then north on Lumpkin Road. Next, turn west onto Enterprise Road and continue approximately 0.3 miles; the Enterprise Boat Ramp and Day Use Area are located at the end of Enterprise Road.

2.2 Project Summary

DWR is proposing new and upgraded facilities in the Enterprise area of the Lake Oroville SRA. Under the Project, DWR would: (1) extend the existing Enterprise Boat Ramp; (2) construct a new, nearby boat ramp; (3) add a new parking lot situated between the boat ramp and the new ramp and a new parking lot access road; (4) improve existing restroom facilities to comply with the Americans with Disabilities Act of 1990 (ADA); (5) add a new picnic area; (6) update an existing trail to connect to the new picnic area; and (7) implement cut, fill, borrow, and bank stabilization associated with Project construction.

3 Procedures for Monitoring and Reporting

Department of Water Resources (DWR) will be responsible for mitigation measure implementation oversight and compliance documentation. DWR, at its discretion, may delegate implementation responsibility or portions thereof to a licensed contractor or other designated agent as long as DWR maintains final responsibility for ensuring that the actions are taken.

Oroville Facilities Enterprise Recreation Area Upgrades FERC Project No. 2100
MITIGATION MONITORING AND REPORTING PROGRAM
October 2024

DWR will be responsible for overall administration of the MMRP and for verifying that DWR staff members and/or the construction contractor and/or consultant have completed the necessary actions for each measure. DWR will designate a project manager to oversee the MMRP. The project manager will be charged with the following duties:

- Ensure that routine inspections of the construction site are conducted by appropriate DWR staff; check plans, reports, and other documents required by the MMRP; and conduct report activities;
- Serve as a liaison between DWR and other responsible agencies (where necessary), and the construction contractor regarding mitigation monitoring issues;
- Complete forms and maintain reports and other records and documents generated by the MMRP; and
- Coordinate and ensure that corrective actions or enforcement measures are taken, if necessary.

The responsible party for implementation of each item will identify the staff members responsible for coordinating with DWR on the MMRP.

4 CEQA Mitigation Measures

Table D-1 below describes the mitigation measures included in the Project. For each mitigation measure the required action, responsible party, implementation timing, and reporting requirements are described.

Table D-1 Summary of the Project Mitigation Measures

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program	Standards for Success
Biological Resources				
Mitigation Measure BIO-1: Pre-Construction Nesting Bird Surveys and Pre-Construction Environmental Awareness Training DWR shall implement one of the following measures, depending on the specific construction timeframe, in order to avoid disturbing nests protected by the MBTA and FGC 3502: 1. If construction activities are scheduled to occur during the nesting season (approximately February 15 through August 31) in locations with potentially active nests as defined by DWR biologists, a qualified environmental scientist shall conduct the following environmental awareness training and survey for nesting birds: a. Project personnel shall receive environmental awareness training facilitated by a qualified environmental scientist. The training shall include instruction on how to recognize nesting bird behavior and their nests. The training shall cover relevant BMPs, avoidance and minimization measures, mitigation, regulations, and the proper procedure(s) to follow in the event that an active bird nest is encountered within the Enterprise area. If a nesting bird is encountered in the work area, construction shall cease, and a qualified environmental scientist shall be notified for guidance before any construction activities are resumed. b. Pre-construction surveys shall be conducted within the Project area to identify potential nesting habitat within approximately 100 feet of planned work areas. Surveys shall be conducted within five days before initiation of construction activities at any time between February 15 and August 31. If no active nests are detected, no mitigation is required, and construction and maintenance activities may proceed; or c. If surveys indicate that migratory bird or other protected nests are found in any areas that would be directly affected by Project activities, a non-disturbance buffer shall be established around the site to avoid disturbance or destruction of the nest site until after the breeding season or after a qualified environmental scientist determines that the young have fledged (typically late June to mid-July). The extent of these buffers shall be determined by a qualified environmental scientist and shall depend on the species present, the level of noise or construction disturbance, line of sight between the nest and the disturbance, ambient levels of noise or other disturbances, and other topographical or artificial barriers.	DWR shall have a qualified environmental scientist conduct the environmental awareness training and any pre-construction nesting surveys.	The training shall occur once prior to the initiation of construction activities. One nesting survey shall be conducted by a qualified environmental scientist within five days of initiating proposed construction activities, if the work begins between February 15 and August 31 and is located in an area with potential nesting habitat, per the determination of the qualified environmental scientist.	The training and survey shall be conducted by a qualified environmental scientist, and a brief technical memorandum documenting the training and survey results shall be kept on file with DWR.	Project personnel are trained in the key characteristics for identifying and avoiding impacts to nesting birds, which will lead to the minimization of bird nests being disturbed from Project activities.

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Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program	Standards for Success
If construction or maintenance activities begin outside the migratory bird breeding season (approximately September 1 through February 14), the activities may proceed until it is determined that an active migratory bird or other protected nest would be subject to abandonment as a result of Project activities. Optimally, all necessary vegetation removal shall be conducted before the breeding season so that nesting birds would not be present in the work area during construction. If any bird nests are in the work area under pre-existing construction conditions, then it is assumed that they are habituated (or will habituate) to the Project activities. Under this scenario, the pre-construction survey described previously should still be conducted on or after February 15 to identify any active nests in the vicinity. Active sites should be monitored by a qualified environmental scientist periodically until after the breeding season or after the young have fledged. If active nests are identified on or immediately adjacent to the work area, then all non-essential construction activities should be avoided in the immediate vicinity of the nest site.				
Mitigation Measure BIO-2: Water Quality Protections and Compensation for Direct Impacts to Waters of the U.S. In water work will be avoided to the extent feasible and likely only necessary for rip rap placement at the toe of the boat ramp, if at all. Placement of the fill and work below the OWHM when water levels are low will require the following permits for Project work within the FERC boundary and within waters of the United States and waters of the State: U.S. Army Corps of Engineers (USACE) CWA Section 404 Regional General Permit #2 and Central Valley RWQCB CWA Section 401 WQC. Thus, DWR will apply for and obtain a CWA Section 404 Regional General Permit #2 and comply with the current USACE compensation schedule for any loss of waters of the U.S. DWR will work with the USACE to ensure that the local and federal “no net loss” of wetlands is properly upheld. For all activities that trigger the USACE CWA 404 permit, DWR will also apply for, obtain and comply with a CWA Section 401 WQC from the Central Valley RWQCB. This will at a minimum include water quality monitoring for in-water work to inform stop work actions and avoid spikes in turbidity above that allowed for in the Water Quality Certification. Additionally, DWR commits to compensation as required for dredge and fill impacts below the OHWM.	DWR is responsible for applying for all permits and approvals needed to deposit fill in wetlands, and for work in waters of the U.S. and waters of the State.	The CWA Section 404, and CWA 401 Permits will be obtained prior to construction.	DWR will obtain environmental permits prior to construction and will pay appropriate fees to comply with the regulatory agency compensatory mitigation schedule for temporary and permanent impacts to waters of the U.S. DWR will prepare a brief letter report on compliance with this Mitigation Measure and submit it to the Central Valley RWQCB for their files.	Appropriate State and federal permit compliance and compensation, including no net loss of waters of the U.S. resulting from Project implementation. Water Quality protections and monitoring will be in place and water quality standards in the project specific Water Quality Certification will not be exceeded.
Cultural Resources				
Mitigation Measure CUL-1: Cultural Resources Monitoring Prior to any Project-related ground disturbance, DWR shall retain the services of a qualified archaeologist who meets the Secretary of the Interior’s (SOI) Professional Qualifications	DWR	Prior to and during implementation of Project construction activities	Each cultural resource monitor shall complete the Daily Field Monitoring Log provided. In the log, they shall record details of	Protection of historical resources, archaeological resources, and human remains. The evaluation and recording of any newly

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program	Standards for Success
Standards for Archaeology ¹to implement and oversee archaeological monitoring of earth-moving activities, debris and silt removal, and vegetation removal. If archaeological deposits are encountered during Project-related ground disturbance, the monitoring archaeologist shall have the authority to stop work in the area (50-foot radius). Work shall not resume until the monitoring archaeologist under the oversight of the SOI qualified archaeologist in consultation with DWR has: a) Designated the deposit as an Environmentally Sensitive Area (ESA) to ensure avoidance. Protective fencing or other markers shall be erected around the ESA prior to any ground disturbing activities. To protect sensitive information and to discourage unauthorized disturbance or collection of artifacts, the ESA shall only be designated as an ESA, with no signage designating the area as culturally sensitive. b) Determined that the archaeological deposit does not qualify as a historical resource or unique archaeological resource pursuant to PRC Section 5024.1 or PRC Section 21083.2(g) and no further archaeological investigation is necessary. c) Should the monitoring archaeologist under the oversight of the SOI qualified archaeologist and, in consultation with DWR, determine the archaeological deposit does qualify as a historical resource or unique archaeological resource pursuant to PRC Section 5024.1 or PRC Section 21083.2(g),and avoidance (CUL_1 (a) [ESA]) is not feasible, a treatment plan with appropriate protection and preservation measures will be developed for review, approval, and implementation by DWR to mitigate impacts to the resource.			their monitoring activities and any observations made throughout the day. Daily monitoring logs shall be submitted nightly or, at the latest, within 24 hours. All activities associated with construction monitoring shall be summarized by the Cultural Resources Field Coordinator in a monthly report to be provided to DWR. Following the completion of all ground disturbance associated with Project construction, the results of the archeological monitoring will be summarized in a technical document. The technical document shall be provided to DWR for review and approval and submitted to the NEIC.	identified cultural resources and treatment by avoidance, protection, or documentation of any discovered resources that qualify as historically or archaeologically significant.
Mitigation Measure CUL-2: Conduct Cultural Resource Awareness and Sensitivity Training Prior to any Project-related ground disturbance, DWR shall retain the services of an SOI qualified archaeologist to oversee and ensure that all construction workers involved in ground disturbing activities receive Cultural Resource Sensitivity and Awareness Training by an archaeologist who is experienced in teaching non-specialists to recognize archaeological resources in the event that any are discovered during construction.	DWR	DWR shall prepare and present the cultural resources awareness training. The training shall take place prior to construction and all construction staff (i.e., staff present at the initiation of the Project and any new staff) must attend the training prior to	Cultural Resource Worker Awareness Training document.	The identification of and prevention of any impacts to known or inadvertently discovered cultural resources during Project construction.

¹ U.S. Department of the Interior. 1983. Archaeology and Historic Preservation; Secretary of the Interior's Standards and Guidelines. Available: <https://www.nps.gov/subjects/historicpreservation/upload/standards-guidelines-archeology-historic-preservation.pdf>

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program	Standards for Success
		participating in any Project related activities.		
Geology and Soils				
Mitigation Measure GEO-1: Sedimentation and Erosion Control Measures In compliance with the requirements of the NDPES permit program, for ground disturbance greater than 1 acre, DWR shall obtain coverage under a Construction General Permit and prepare a SWPPP that incorporates measures or comparable BMPs that describe the site, erosion and sediment controls, means of waste disposal, implementation of approved local plans, control of post-construction sediment, erosion control measures, maintenance responsibilities, and non-stormwater management controls. DWR shall require all construction contractors to retain a copy of the approved SWPPP during maintenance activities and to implement the SWPPP. Additionally, the SWPPP shall require that all stormwater discharges are in compliance with all current requirements of the Construction General Permit.	DWR shall obtain coverage under a Construction General Permit and prepare a SWPPP. This mitigation measure will be referenced in the plans and specifications bid for the Project.	During construction activities and until the site is stabilized.	The recording and evaluation of the SWPPP and erosion control practices shall be conducted by DWR and/or the contractor and kept on file at DWR's office.	Minimize on- and off-site erosion and prevent introduction of significant amounts of sediment into the lake or any stream or drainage. Ensure that all stormwater discharges are in compliance with all current requirements of the Construction General Permit.
Hydrology and Water Quality				
Mitigation Measure GEO-1: Sediment and Erosion Control Measures (See above under Geology and Soils)				
Mitigation Measure BIO-2: Water Quality Protections and Compensation for Direct Impacts to Waters of the U.S. (See above under Biological Resources)				
Tribal Cultural Resources				
Mitigation Measure TCR-1: Tribal Monitoring Prior to any Project-related ground disturbance, DWR shall enter into a tribal monitoring agreement with the Estom Yumeka Maidu Tribe of the Enterprise Rancheria. If an archaeological deposit that could qualify as a tribal cultural resource is encountered during Project-related ground disturbance, the tribal monitor and the monitoring archaeologist shall have the authority to stop work in the area (50-foot radius).	DWR	Prior to and during implementation of Project - related ground disturbance.	DWR cultural resources staff shall maintain a log for all monitoring activity and consultation.	Protection of tribal cultural resources.

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program	Standards for Success
Work shall not resume until the tribal monitor in consultation with DWR has: a) Designated the deposit as an ESA to ensure avoidance. Protective fencing or other markers shall be erected around the ESA prior to any ground disturbing activities. To protect sensitive information and to discourage unauthorized disturbance or collection of artifacts, the ESA shall only be designated as an ESA, with no signage designating the area as culturally sensitive. b) Determined that the archaeological deposit does not meets the definition of a tribal cultural resource (PRC section 21074) c) Should the archaeological deposit meet the definition of a tribal cultural resource (PRC section 21074) a treatment plan with appropriate protection and preservation measures will be developed in coordination with and implemented by DWR to mitigate impacts to the resource.				
Mitigation Measure TCR-2: Tribal Cultural Resources Sensitivity and Awareness Training Prior to any Project-related ground disturbance, DWR shall ensure that all construction workers involved in ground disturbing activities receive Tribal Cultural Resources Sensitivity and Awareness Training by a representative of the Estom Yumeka Maidu Tribe of the Enterprise Rancheria. Construction staff directly overseeing or engaged in ground disturbing activities must participate in this training. This training shall be provided once to each worker involved in ground-disturbing activities before they begin work and shall be documented in training records submitted to DWR.	DWR	Prior to and during implementation of Project - related ground disturbance	DWR cultural resources staff shall maintain training records.	Protection of tribal cultural resources.