APRIL 2021

Draft Initial Study and Mitigated Negative Declaration

EL DORADO CANAL DIVERSION VEGETATION MANAGEMENT PROJECT

El Dorado Irrigation District

Prepared for:
EL DORADO IRRIGATION DISTRICT 2890
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DRAFT

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Table of Contents

APPENDICES

FIGURES

TABLES

Acronyms and Abbreviations

Acronym/Abbreviation	Definition
AB	Assembly Bill
BMPs	best management practices
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO2e	carbon dioxide equivalent
dB	decibel
dBA	A-weighted decibel
EDCAQMD	El Dorado County Air Quality Management District
EID	El Dorado Irrigation District
EO	Executive Order
ENF	El Dorado National Forest
FERC	Federal Energy Regulatory Commission
GHG	greenhouse gas
GWP	global warming potential
IS	Initial Study
lbs/day	pounds per day
Ldn	day-night average sound level
Leq	equivalent sound level over a given period
MCAB	Mountain Counties Air Basin
MLD	most likely descendent
MMRP	mitigation monitoring and reporting program
MND	Mitigated Negative Declaration
MT	metric tons
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NR	Natural Resources
NOx	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
PAC	Protected Activity Center
PM2.5	particulate matter with an aerodynamic diameter less than or equal to 2.5 microns in size
PM10	particulate matter with an aerodynamic diameter less than or equal to 10 microns in size
ROG	reactive organic gas
SFNA	Sacramento Federal Nonattainment Area
SOx	sulfur oxides
SWPPP	Stormwater Pollution Prevention Plan
TAC	toxic air contaminants
TCRs	tribal cultural resources
TPZ	Timber Production Zone
USGS	U.S. Geological Survey
VOC	volatile organic compound

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1 Introduction

1.1 Project Overview

The El Dorado Irrigation District (EID) proposes to implement the El Dorado Canal Diversion Vegetation Management Project (Project) to reduce fire risk by treating vegetation on approximately 42-acres of EID property in the vicinity of the El Dorado Canal near the El Dorado Diversion Dam. The Project site is adjacent to U.S. Highway 50 approximately 1.5 miles southwest of the town of Kyburz in El Dorado County, California. Vegetation management proposed by EID is designed to protect critical water infrastructure facilities located in a very high fire hazard severity zone while also serving to reduce fuel loads and create defensible space for neighboring communities located in the wildland urban interface. Vegetation management activities that would be carried out under the Project include tree and brush removal, mastication and pruning to inhibit fire spread. The Project would be funded by a California Climate Investments Fire Prevention Grant administered by the California Department of Forestry and Fire Protection (CAL FIRE). The Fire Prevention program is designed to improve resiliency of forested and forest-adjacent communities and upper watershed forests while achieving climate goals.

1.2 California Environmental Quality Act Compliance

This Initial Study has been prepared per the requirements of the California Environmental Quality Act (CEQA) of 1970 (Public Resources Code [PRC] Section 21000, et seq.), and the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 et seq.).

1.3 Public Review Process

The Initial Study and the proposed Mitigated Negative Declaration will be circulated for public review for a period of 30 days, pursuant to CEQA Guidelines Section 15073(a). EID will provide public notice at the beginning of the public review period.

This draft Initial Study is being routed to State agencies through the Office of Planning and Research under a Notice of Completion. EID has posted a Notice of Intent to adopt a Mitigated Negative Declaration on EID's website and has provided the Notice of Intent to the County Clerk's office and via direct mailings and emails to other stakeholders, local agencies, and other parties that have expressed interest in the proposed project.

After the document has been noticed and made publicly available for 30 days EID will consider all comments received, revise the Initial Study as necessary, and schedule the project and this Initial Study for consideration by the EID Board of Directors. The scheduled Board hearing will be publicly noticed prior to the public hearing. The Board of Directors will accept any written and oral comments at the hearing and make a decision on the project.

Comments may be submitted to EID at dvenable@eid.org or by U.S. mail at

El Dorado Irrigation District
2890 Mosquito Road
Placerville, California 95667

The Notice of Intent to adopt a mitigated negative declaration pursuant to Sections 21092 and 21092.3 of the Public Resources Code and CEQA Guidelines Section 15072 is provided on the following page. The Notice of Intent identifies the location, time, and date of the public hearing at which EID's Board of Directors will consider approval of the proposed Project and this Initial Study and Mitigated Negative Declaration.

NOTICE OF INTENT
TO ADOPT A MITIGATED NEGATIVE DECLARATION and NOTICE OF PUBLIC HEARING

EL DORADO IRRIGATION DISTRICT EL DORADO CANAL DIVERSION VEGETATION MANAGEMENT PROJECT

The El Dorado Irrigation District (EID) proposes to adopt a Mitigated Negative Declaration (MND) pursuant to the California Environmental Quality Act (CEQA) (Section 15000 et seq., Title 14, California Code of Regulations) for the El Dorado Canal Diversion Vegetation Management Project (proposed Project). The proposed Project consists of the implementation of a vegetation management project on approximately 42-acres of EID property near the El Dorado Canal in the vicinity of the El Dorado Diversion Dam, immediately adjacent to U.S. Highway 50 and approximately 1.5 miles southwest of the town of Kyburz in El Dorado County, California. Vegetation management proposed by EID is designed to protect critical facilities located in a very high fire hazard severity zone while serving to reduce fuel loads and create defensible space for neighboring communities located in the wildland urban interface. The proposed Project would be funded by a California Climate Investments Fire Prevention Grant administered by the California Department of Forestry and Fire Protection. The Fire Prevention program is designed to improve resiliency of forested and forest-adjacent communities and upper watershed forests.

The proposed Project would employ a variety of vegetation management prescriptions such as mechanical mastication and hand treatments, removal of fuel ladders, and tree pruning to inhibit vertical fire spread and the potential for crown fire. Planning and layout for the treatments will occur in spring of 2021. Fuels reduction work is planned to begin in late summer to early fall of 2021 with treatments occurring through February 2022. The proposed Project site is not identified on the lists specified in Government Code section 65962.5. EID is the lead agency under CEQA for the proposed Project and has directed the preparation of an Initial Study (IS) for the proposed project in accordance with the requirements of CEQA, the State CEQA Guidelines, and EID's guidelines. The IS describes the proposed Project and assesses the proposed Project's potentially significant adverse impacts on the physical environment. It concludes that the proposed Project's potentially significant or significant adverse effects on the environment can be mitigated to less-than-significant levels; therefore, a proposed MND has been prepared.

Agencies and members of the public are invited to comment on the proposed IS/MND. The comment period is from April 23, 2021 to May 24, 2021. The proposed IS/MND can be reviewed at EID's Customer Service Building, 2890 Mosquito Road, Placerville, CA 95667 or on the EID web site at www.eid.org/ceqa. Comments must be received by 5:00 p.m. on May 26, 2021. Comments can be sent to Doug Venable, Environmental Review Analyst, El Dorado Irrigation District, at the address above or by email at dvenable@eid.org. EID will hold a public hearing to consider the IS/MND at 9:00 a.m. on June 14, 2021, or at a subsequent regularly scheduled meeting of the EID Board of Directors. Please check EID's website for information regarding the meeting time and format: https://www.eid.org/about-us/board-of-directors/meetings-agendas-and-minutes.

In accordance with the Americans with Disabilities Act (ADA) and California law, it is the policy of the El Dorado Irrigation District to offer its public programs, services and meetings in a manner that is readily accessible to everyone, including individuals with disabilities. If you are a person with a disability and require information or materials in an appropriate alternative format; or if you require any other accommodation for this meeting, please contact the EID ADA coordinator at 530.642.4045 or email at adacoordinator@eid.org at least 72 hours prior to the meeting. Advance notification within this guideline will enable the District to make reasonable accommodations to ensure accessibility.

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2 Summary of Findings

2.1 Environmental Factors Potentially Affected

This Initial Study analyzes the environmental impacts of the proposed Project consistent with the format and analysis prompts provided in Appendix G of the CEQA Guidelines. The analysis determined that the Project would result in impacts associated with the following resource categories: Biological Resources, Cultural Resources, Tribal Cultural Resources. The analysis determined that all impacts identified in this Initial Study would be less than significant with implementation of mitigation measures to avoid or minimize the impacts identified. Detailed analyses of impacts are provided under each resource section evaluated in this Initial Study.

2.2 Environmental Determination

EID finds that this Initial Study identifies potentially significant impacts, but that implementing the mitigation measures identified in Table 2-1, below, would avoid or minimize the impacts such that they would be less than significant. The proposed Project would result in no impacts that would remain significant following implementation of mitigation measures. All mitigation measures are identified by analysis topic in Table 2-1.

Table 2-1. Mitigation Measures

Topic-Number	Mitigation Measure
Biological Resources	
BIO-1	The following measures shall be implemented to avoid, minimize or reduce impacts to special-status plant species: • If more than five years have passed since the July 2020 rare plant survey or a subsequent rare plant survey, prior to ground-disturbance, a qualified botanist familiar with common and rare plant species of the Sierra Nevada region shall conduct surveys of all areas of potential project disturbance during the appropriate blooming period for potentially occurring special-status plant species. The purpose of the survey shall be to delineate and flag populations of special-status plant species for avoidance. If no special-status plants are identified, no further mitigation is necessary. Special-status plant populations identified during the pre- construction survey shall be mapped using a hand-held GPS unit and avoided where possible. Plant individuals or populations plus a 10-foot buffer shall be temporarily fenced during vegetation management activities with high-visibility fencing or prominently flagged.
BIO-2	To the extent feasible, El Dorado Irrigation District shall schedule vegetation removal activities during the non-breeding season for birds in the region (August 16 through February 14). If vegetation removal must be carried out during the breeding season, a qualified biologist shall conduct a nesting bird survey within 1 week prior to said activities to determine if any birds are nesting on or near the project site (including a 500-foot buffer for raptors). If any active nests are observed during surveys, a suitable avoidance buffer from the nests shall be determined and flagged by a qualified biologist based on species, location, and planned construction activities. Consultation with CDFW may be required to determine appropriate buffer distances. These nests shall be avoided until the chicks have fledged and the nests are no longer active, as determined by the qualified biologist.

Table 2-1. Mitigation Measures

Topic-Number	Mitigation Measure
BIO-3	Removal of potential roost habitat identified during the assessment shall be avoided during the bat maternity season (May 1 through August 15). If removal of potential roost habitat occurs outside of the maternity season, no further mitigation shall be required. If removal of potential roost habitat must be conducted during the maternity season, within 30 days prior to project activities a qualified biologist experienced with Sierra Nevada bat species shall conduct a survey to search for evidence of bat roosts in trees and structures subject to removal. If the survey identifies potential bat roosts, the biologist shall establish an appropriate buffer to project activities within which no disturbance shall occur until the end of the maternity season or until a qualified bat biologist has determined that the young are capable of flight. If an appropriate buffer from potential bat roosts cannot be observed, pre-construction inspections for bats shall be conducted using appropriate methods (e.g., camera inspection, exit survey with night optics, acoustic survey) within 2 weeks prior to said activities. If inspections determine that there is an active roost, removal of that roost feature will be delayed until the end of the maternity season or until a qualified bat biologist has determined that the young are capable of flight or the roost is inactive.
Cultural Resources	
CUL-1	EID shall implement the following measure to reduce or avoid impacts on undiscovered historic properties and archaeological resources. If buried or previously unidentified historic properties or archaeological resources are discovered during project activities, all work within a 100-foot radius of the find shall cease. EID shall retain a professional archaeologist meeting the Secretary of the Interior's Professional Standards for Archaeologists to assess the discovery and recommend what, if any, further treatment or investigation is necessary for the discovery. Any necessary treatment/investigation shall be developed and coordinated with the State Historic Preservation Officer or others as necessary, and shall be completed before project activities resume in the vicinity of the discovery.
CUL-2	EID shall implement the following measures to reduce or avoid impacts related to undiscovered burials. In accordance with the California Health and Safety Code, if human remains are uncovered during ground-disturbing activities, all potentially damaging ground-disturbance in the area of the burial and a 100-foot radius shall halt and the El Dorado County Coroner shall be notified immediately. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are, or are believed to be, those of a Native American, then Federal laws governing the disposition of those remain would come into effect. Specifically, the Native American Graves Protection and Repatriation Act (NAGPRA), Pub L. 101-601, 25 U.S.C. 3001 et seq., 104 Stat. 3048 requires federal agencies and institutions that receive federal funding to return Native American cultural items to lineal descendants and culturally affiliated Indian Tribes and Native Hawaiian organizations. Cultural items include human remains, funerary objects, sacred objects, and objects of cultural patrimony. NAGPRA also has established procedures for the inadvertent discovery of Native American cultural items on Federal or Tribal lands, which includes consultation with potential lineal descendants or Tribal officials as part of their compliance responsibilities. California law recognizes the need to protect Native American human burials, skeletal remains, and items associated with Native American burials from vandalism and inadvertent destruction. EID shall ensure that the procedures for the treatment of Native American human remains contained in California Health and Safety Code Sections 7050.5 and 7052 and Public Resources Code Section 5097 are followed.

Table 2-1. Mitigation Measures

Topic-Number	Mitigation Measure
Tribal Cultural Resources	
TCR-1	**Implement Best Management Practices to Reduce or Avoid Impacts on Tribal Cultural Resources.** EID shall implement the following measure to reduce or avoid impacts on Tribal Cultural Resources (TCRs). If interested Native American Tribe(s) provide information demonstrating the significance of the project site and substantial evidence supporting the determination that the site is highly sensitive for TCRs, EID will conduct a site visit with Tribal Representatives to evaluate the potential for TCRs at the project site. If Tribal Representatives and EID determine the site is highly sensitive for TCRs and that the proposed project may have a significant impact on TCRs, EID, in consultation with Tribal Representatives or others, will develop and implement best management practices (BMPs) to reduce or avoid impacts on TCRs. BMPs may include, but are not limited to: 1) modify the proposed project to preserve the TCRs in place, 2) establish exclusion zones and/or minimize work activities in proximity to TCRs, 3) provide notice at least seven days prior to the start of the project to invite Tribal Representatives to observe and inspect the project site during initial ground disturbing activities, 4) prepare a TCR awareness brochure and provide TCR training to construction personnel, 5) provide notice at least seven days prior to the start of the project to invite Tribal Representatives to provide training of construction personnel involved in project implementation.
TCR-2	**Address Previously Undiscovered Tribal Cultural Resources**. EID shall implement the following measure to reduce or avoid impacts and address the evaluation and treatment of inadvertent/unanticipated discoveries of potential Tribal Cultural Resources (TCRs) during the project's ground disturbing activities. If any suspected TCRs are discovered during ground disturbing construction activities, all work shall cease within the immediate vicinity of the discovery, or an agreed upon distance based on the project area and nature of the discovery. EID shall invite a Tribal Representative from culturally affiliated tribes to visit the site and examine the discovery to determine whether or not the discovery represents a TCR (PRC §21074). Tribal Representatives shall have 48 hours to respond to EID's notification and schedule a site visit. If the discovery represents a TCR, EID will work with Tribal Representatives or others to develop recommendations for culturally-appropriate treatment. The contractor shall implement any measures determined by EID to be necessary. Work at the discovery location will not resume until the agreed upon treatment has been implemented to the satisfaction of EID.

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3 Initial Study Checklist

1. Project title:

El Dorado Canal Diversion Vegetation Management Project

2. Lead agency name and address:

El Dorado Irrigation District
2890 Mosquito Road
Placerville, California 95667

3. Contact:

Contact: Doug Venable, Environmental Review Analyst
Phone: 530.642.4187
Email: dvenable@eid.org

4. Project location:

As shown in Figures 1 and 2, the approximately 42-acre Project site is located on EID property north and south of the El Dorado Canal near the El Dorado Diversion Dam, immediately adjacent to U.S. Highway 50 and approximately 1.5 miles southwest of the town of Kyburz in El Dorado County, California. The proposed treatment areas are primarily located on the south side of U.S. Highway 50 and south of the South Fork American River with only a small portion of the proposed treatment area occurring on the north side of the river and U.S. Highway 50. The site is located in Sections 29, 31, and 32 Township 11 North, and Range 15 East of the "Kyburz, CA" U.S. Geological Survey 7.5-minute quadrangle. The approximate center of the project site corresponds to 38.763942° north latitude and -120.321886° west longitude.

5. Project sponsor's name and address:

El Dorado Irrigation District
2890 Mosquito Road
Placerville, California 95667

6. General plan designation:

The El Dorado County General Plan (General Plan) (2015) applies a Natural Resources (NR) land use designation to the Project site.

7. Zoning:

The Project site is assigned Timber Production Zone (TPZ) zoning per the El Dorado Ordinance Code (2012).

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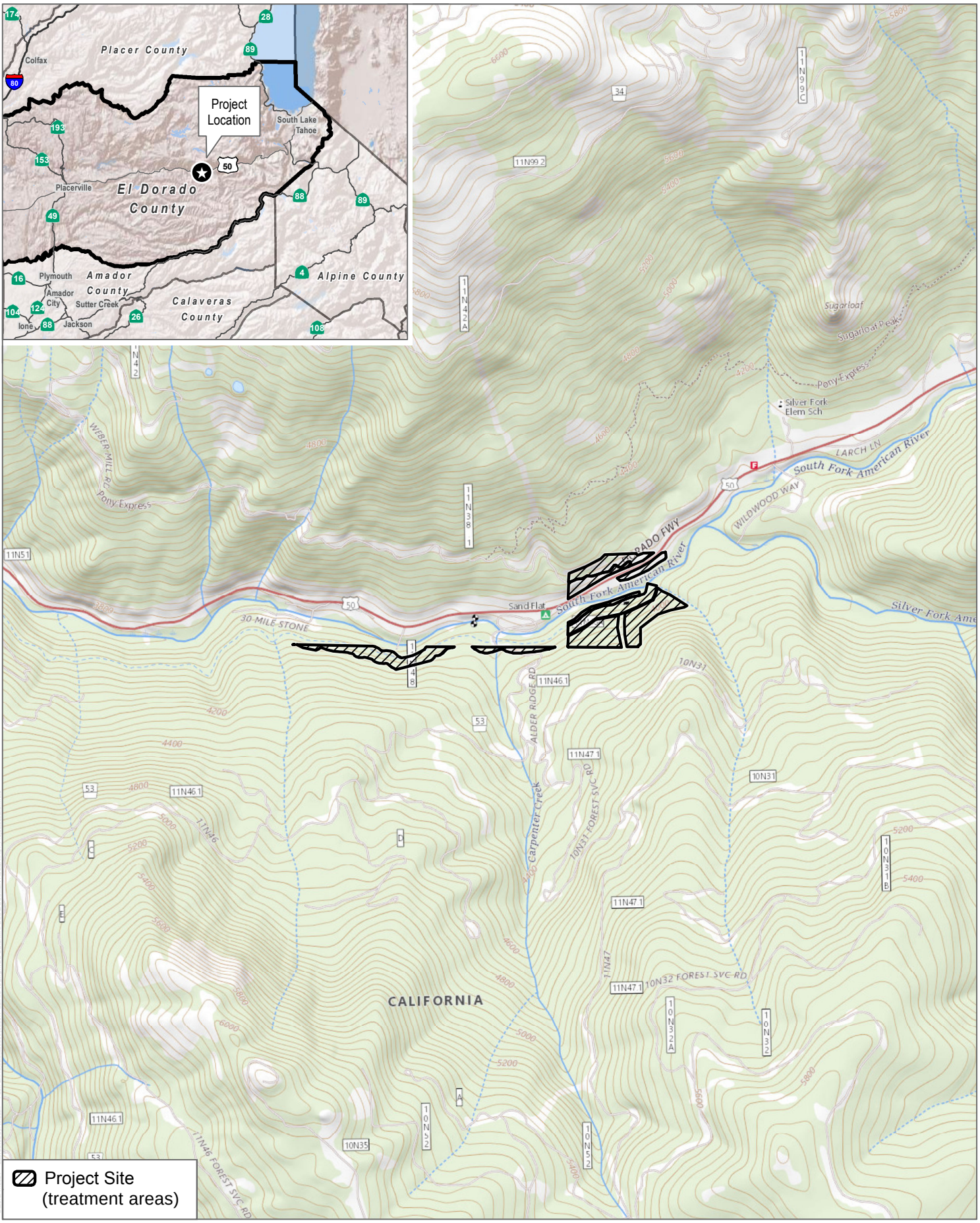

SOURCE: USGS National Map, OpenStreetMap
USGS 7.5 minute Kyburz guadrangle, Township 11N / Range 15E / Sections 29, 31, 32

DUDEK

0 1,000 2,000 Feet

FIGURE 1

Project Location

El Dorado Canal Diversion Vegetation Management Project

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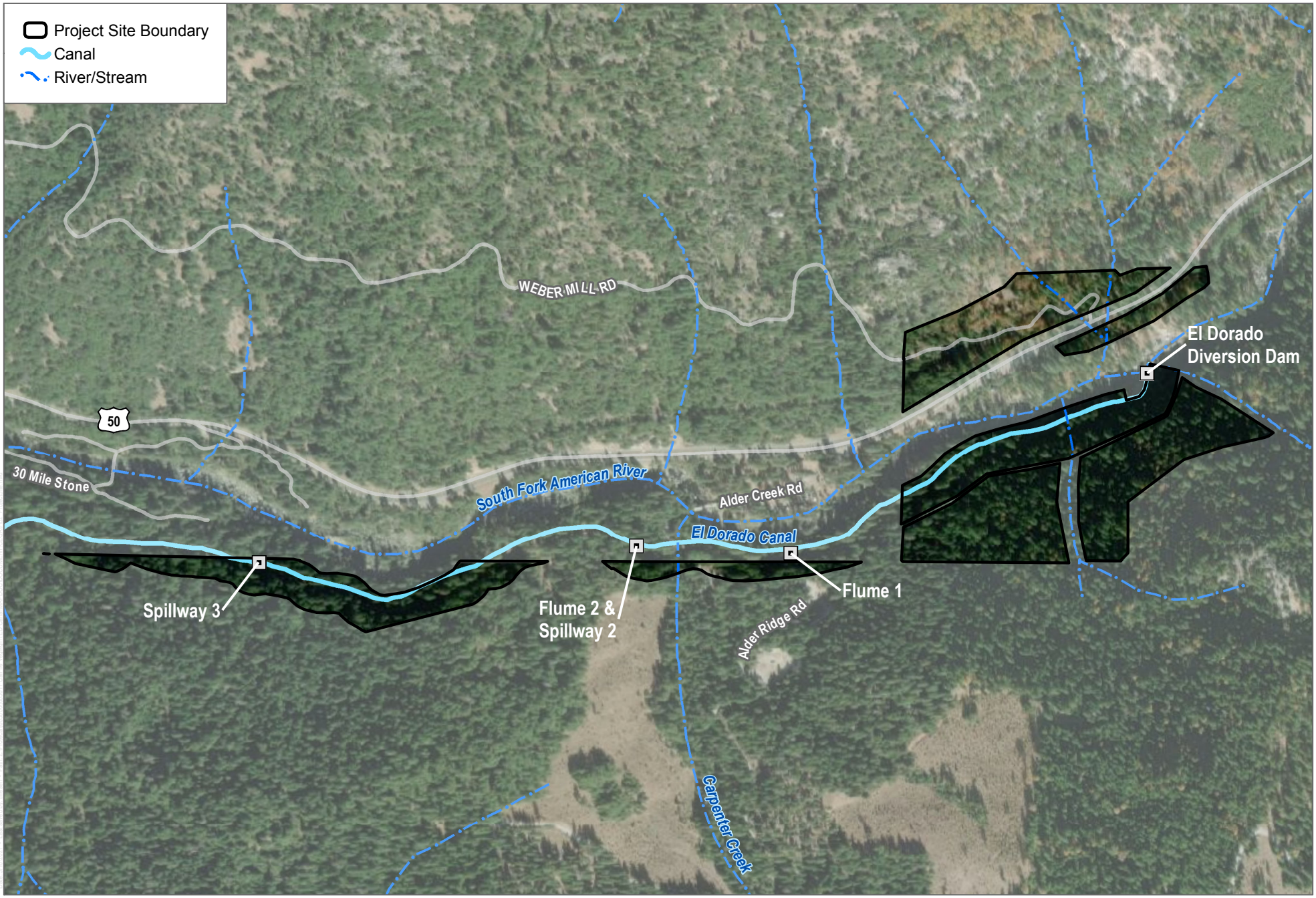

SOURCE: Esri and Digital Globe, OpenStreetMap, NRCS Soils

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0 330 660 Feet

FIGURE 2

Project Site

El Dorado Canal Diversion Vegetation Management Project

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Project Description

Project Site Characteristics

The Project site consists of approximately 42 acres of steep, forested land located on and adjacent to the El Dorado Canal within a very high fire hazard severity zone as mapped by CAL FIRE (CAL FIRE 2020). The site is characterized primarily by undeveloped dense to moderately dense mixed Ponderosa pine and white fir, conifer forest with smaller areas of black oak woodland. The site is within the Upper South Fork American River watershed and surface runoff on the site is generally to the South Fork American River via ephemeral and perennial drainages, or as sheet flow down hillsides. Elevations on the project site range from 3,875 to 4,075 feet above mean sea level. The region surrounding the Project site receives approximately 52 inches of rainfall and 61 inches of snowfall annually.

The Project site is located on lands owned by EID. Surrounding land is mostly undeveloped forest land. The Project site is located between the unincorporated communities of Pollock Pines and Kyburz. U.S. Highway 50 provides regional access to these communities and the Project area. EID's El Dorado Canal and El Dorado Diversion Dam and other infrastructure is within or immediately adjacent to the Project site.

Background and Context

EID is a public water agency headquartered on the western slope of the Sierra Nevada mountain range in El Dorado County serving a population of more than 100,000 people through more than 38,000 active water meter connections. EID's water system contains more than 1,250 miles of pipe, 27 miles of ditches, five water treatment plants, and 37 storage tanks and/or reservoirs.

The El Dorado Canal conveys water approximately 22 miles from the El Dorado Diversion Dam located on the South Fork American River near Kyburz to the El Dorado Forebay located in Pollock Pines. This infrastructure provides a primary source of drinking water for El Dorado County as well as the sole source of water for EID's hydroelectric facilities. The risk of wildfire along the El Dorado Canal presents a dangerous hazard to critical water conveyance facilities owned and operated by EID. EID proposes to implement a vegetation management project on the El Dorado Canal to reduce the risk of wildfire damage to these critical water infrastructure facilities.

Vegetation management proposed by EID is designed to protect critical facilities located in a very high fire hazard severity zone while serving to reduce fuel loads and create defensible space for neighboring communities located in the wildland urban interface. The Project would be funded by a California Climate Investments Fire Prevention Grant administered by the California Department of Forestry and Fire Protection (CAL FIRE). The Fire Prevention program is designed to improve resiliency of forested and forest-adjacent communities and upper watershed forests while achieving climate goals.

Project Goals and Objectives

The primary goal of the Project is to return the Project area to a more managed, fire resistant condition and to protect local communities and EID's critical infrastructure and water quality from the effects of catastrophic wildfire. The Project objectives include:

1. Prevent wildfires and protect communities, infrastructure, and forest resources within the wildland urban interface;
2. Implement vegetation prescriptions to reduce fire hazard, improve tree growth, and increase forest resiliency;

3. Implement vegetation prescriptions to reduce the rate of spread, duration and intensity, and fuel ignition into the crowns of conifer forests;
4. Retain and enhance ecosystem processes to create a fire resilient landscape which is compatible with the fuel hazard reduction prescriptions; and
5. Support a collaborative approach to create fire resilient and fire-adapted communities in the region.

The Project is designed to protect over 4,600 habitable structures in the vicinity of Kyburz and the surrounding communities including Pollock Pines, Fresh Pond, Riverton, Whitehall and Silver Fork, and to protect EID's critical water conveyance infrastructure from wildfire threat. By reducing the risk of uncontrolled and catastrophic wildfire, the Project would help reduce the potential for future greenhouse gas emissions produced during uncontrolled wildfire events and would increase the carbon sequestration capacity of the forest in the treated areas.

Project Activities and Treatment Methodologies

Vegetation treatment prescriptions would occur on approximately 42 acres along the El Dorado Canal near the El Dorado Diversion Dam located immediately adjacent to U.S. Highway 50 west of Kyburz on the South Fork American River. The Project would employ a variety of vegetation management prescriptions such as mechanical mastication and hand treatments, removal of fuel ladders, and tree pruning to inhibit vertical fire spread and the potential for crown fire.

Mastication is a fuel reduction treatment method used in forestry management and includes mechanical grinding of shrubs and undergrowth in the forest into smaller chips or chunks that settle into a mulch layer on the forest floor. The Project includes mechanical mastication treatments on slopes of less than 45 percent; to protect sensitive habitats and waterways mastication would not occur within 100 feet of stream zones or riparian habitat. Both standing ladder fuels and existing ground fuels up to 10-inches diameter at breast height (dbh) would be masticated to a height of six inches above the ground.

Pruning and removal of ladder fuels is the cutting of lower branches of trees to reduce vertical continuity of fuels. Pruning may be conducted in conjunction with thinning. Pruning all branches within ten feet of the ground, combined with thinning and the removal or mastication of flammable shrubs and ladder fuels, mimics natural conditions of recurring and low intensity fires and reduces the likelihood that a ground fire will migrate vertically into tree crowns resulting in a higher intensity burn, high tree mortality, and faster rate of spread. Hand thinning treatments associated with the Project would be carried out by hand crews with chainsaws whose task would be to remove smaller diameter trees, generally up to 10-inches dbh, to thin the forest and mimic a later successional forest condition that is less prone to catastrophic wildfire. Small trees and other materials removed by pruning and hand thinning would be chipped and broadcast onsite or cut into smaller pieces (lopped) and scattered to a maximum depth of 12 inches in areas away from remaining trees.

Table 1, below, identifies treatment units, treatment type, acreage proposed for mechanical and hand treatments, and a description of the type of vegetation management treatments that would occur as part of the Project. It is anticipated that work would generally be initiated in the units identified for mastication treatments and hand treatments would follow, although different treatments could be carried out concurrently. It is expected that the work could take six to seven months to complete.

Table 3-1. El Dorado Canal Diversion Vegetation Management Treatment Areas

Unit Name	Treatment Type	Mechanical treated acres	Hand Treatment Acres	Total Acres	Description
Below Weber Mill Rd. above Hwy 50	hand thin & chip	0	2.5	2.5	Fell/lop all vegetation < 10" dbh, prune residual to 10', hand thin and chip
Above Weber Mill Rd.	mastication, hand treatment & prune	2	2	4	Combination of machine mastication maximum depth of 6", hand pile all vegetation <10" dbh, prune residual up to 10', hand thin and chip
Between diversion dam and Hwy 50	hand thin & chip & prune	0	1.8	1.8	Fell/lop all vegetation < 10" dbh, prune residual to 10', hand thin and chip
Below Canal	lop & scatter & prune	0	1.4	1.4	Lop and scatter 50' from centerline of El Dorado Canal all vegetation < 10" dbh, prune residual up to 10'
Above Canal	mastication, hand treatment & prune	10.4	12.5	22.9	Combination of machine mastication maximum to a depth of 6" all vegetation <10" dbh, fell/hand pile from centerline of canal 150' all vegetation <10"dbh. On slopes over 45% fell/lop all vegetation < 10"dbh to a resting height of 12" from ground. Prune all residual tree crowns up to 10' from ground.
Flume 1, Spillway 2 & 3	hand treatment & prune	0	9.5	9.5	Lop and scatter 50' from centerline of El Dorado Canal all vegetation < 10" dbh, prune residual up to 10'
Total		**12.4**	**29.7**	**42.1**	

Where chipping is specified, all vegetative material from cutting and pruning that is a minimum of 1-inch in diameter and 2 feet in length will be chipped and broadcast on the ground as mulch to a maximum depth of 4 inches. All project activities would be carried out in compliance with the California Forest Practice Rules.

Equipment

Equipment used at the Project site would include boom or track mounted masticator, tracked chipper, personnel van, service trucks, chainsaws, pole saws, and hand tools.

Access and Staging

Access to the work site would be provided by paved and unpaved roads. Vehicles and equipment would be staged within the Project area within existing disturbed areas. Work activities would take place Monday through Friday during the hours of 7:00 a.m. to 7:00 p.m. and between 8 a.m. and 5 p.m. on weekends.

Project Schedule

Planning and layout for the treatments will occur in spring of 2021. Fuels reduction work is planned to begin in late summer to early fall of 2021 with treatments occurring through February 2022.

Project Authorization and Grant Funding

The Project would be financed with grant funds administered by CAL FIRE and financed with surplus funds from CAL FIRE grant number 5GG17111 (Weber Lake Vegetation Management Project). CAL FIRE authorized the Project on February 11, 2021.

Environmental Factors Potentially Affected

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

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

Determination (To be completed by the Lead Agency)

On the basis of this initial evaluation:

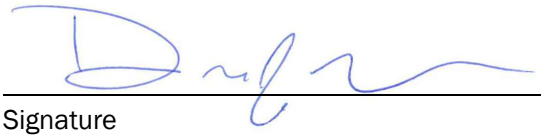
☐ I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

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

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

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

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



Signature

April 23, 2021

Date

Evaluation of Environmental Impacts

3.1 Aesthetics

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

Setting

Vegetation treatment prescriptions associated with the project would occur on approximately 42 acres of EID-owned land along the El Dorado Canal near the El Dorado Diversion Dam, adjacent to U.S. Highway 50 west of Kyburz on the South Fork American River. The project site is primarily located on the south side of U.S. Highway 50 and south of the South Fork American River with a small portion of the project site occurring on the north side of the river and U.S. Highway 50. Land uses surrounding the project site include forestlands of the Eldorado National Forest, the South Fork American River, residential home sites, outdoor recreation, and access roads/parking areas. Onsite vegetation consists primarily of Ponderosa pine and white fir forest plant communities.

A list of the County's significant scenic views and resources is provided in Table 5.3-1 of the El Dorado County General Plan EIR (El Dorado County, 2003). Many of these viewpoints are areas along highways where viewers can see large water bodies (e.g., Lake Tahoe and Folsom Reservoir), river canyons, rolling hills, or forests. Other viewpoints are the locations of historic structures or districts that are reminiscent of El Dorado County's heritage (El Dorado County, 2003). The Project site is not a component of any scenic view or resource identified by the El Dorado County General Plan. U.S. Highway 50 is designated a state scenic highway and bisects the Project area (Caltrans, 2019). Views from the highway to the Project area are largely obstructed by dense vegetation and topographical variations. Available views from the highway into the Project area are characterized by dense forest vegetation.

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

A scenic vista is generally defined as an expansive view of highly valued landscape observable from a publicly accessible vantage point. In the Project vicinity, publicly accessible vantage points are limited to public roads and recreation areas.

The Project would involve vegetation management activities designed to protect critical facilities located in a very high fire hazard severity zone while serving to reduce fuel loads and create defensible space for neighboring communities. The proposed treatment areas are not visible from any formally designated scenic vista or viewpoint as defined by the El Dorado County General Plan. Vegetation management activities associated with the Project would likely not be visible to motorists on U.S. Highway 50 due to the existing dense vegetative screening along the highway and intervening topography. The project would reduce surface fuels and ladder fuels, decrease crown density, and retain large, fire-resistant trees. The Project would maintain the scenic resources of the treatment areas by retaining the existing forested characteristics and protecting against catastrophic wildfire that could denude the landscape. As the Project site is not within view of any formally designated scenic vista, and since the project would not substantially alter the visual character of the forested site, it is expected that the Project would result in a **less than significant impact** associated with an adverse effect on a scenic vista.

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

By and large, vegetation treatment areas would not be visible from U.S. Highway 50, which is a designated scenic highway and vegetation modification would not change the overall forested condition of the treatment areas and visual character of the treatment areas as viewed from the surrounding area. There would be some hand work along Weber Mill Road and some portions of the treatment area would be intermediately visible from Weber Mill Road. However, the overall visual character of the treatment area within the forested landscape would be unchanged in the long term. No historic buildings would be affected by the proposed vegetation treatment activities and the Project would result in no change in rock outcroppings. Project implementation would primarily involve hand thinning and mechanical mastication of vegetation in select areas of the forest. Large trees would be preserved in the treatment areas. Work exclusion areas would be identified around riparian zones in accordance with the Forest Practice Rules, which would also help preserve the visual character of the treatment areas. Project activities would improve the long-term viability of the scenic landscape by creating conditions to promote a more fire resilient forest and would reduce the potential for wildfire to damage structures in the area. Vegetation treatment activities would also reduce the risk of catastrophic wildfire, which could denude the landscape and alter scenic resources in the area. Therefore, the project would have a **less than significant** impact.

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 publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The vegetation treatment areas are generally in non-urbanized locations largely characterized by undeveloped forestland. The project proposes the use of thinning and pruning, along with mechanical mastication where feasible, to restore the forest to a more fire resilient landscape. Project implementation could result in short-term effects to the existing visual character or quality of the public views in the project

area where mechanical mastication is anticipated to occur. However, the project site does not have established public access or recreation facilities and is generally only visible from a distance.

The project related vegetation treatments are not anticipated to substantially degrade the visual character or quality of public views of the project area, as the site would remain in a forested condition. Impacts associated with degradation of the existing visual character or quality of public views of the site and its surroundings would be **less than significant**.

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

Project implementation would not introduce new sources of substantial light or light that would adversely affect day or nighttime views in the area. The Project includes no night work and would require no artificial lighting. The Project would not create substantial light or glare that would affect day or nighttime views; this impact would be **less than significant**.

3.2 Agriculture and Forestry Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FORESTRY RESOURCES – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Setting

According to the California Department of Conservation's Farmland Mapping and Monitoring Program map for El Dorado County, the project area is not designated prime farmland, farmland of statewide importance, unique farmland, or farmland of local importance (CDC 2020). No properties used for agricultural purposes are in the project area, and the project site is neither on nor adjacent to any land designated as a Williamson Act parcel.

The Project would occur on EID property. No Farmland designations apply to the Project site, according to review of the Farmland Mapping and Monitoring Program (CDC 2020). The project site is within Timber Production Zone (TPZ) zone district and the El Dorado County General Plan applies a Natural Resources (NR) land use designation to the site.

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

The project would occur EID-owned lands that carry no formal Farmland designation and would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Department of Conservation, to non-agricultural use (CDC 2020). Therefore, the Project would have **no impact**.

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

The Project would occur EID-owned lands and would not conflict with existing zoning for agricultural use or a Williamson Act contract. Therefore, the Project would have **no impact**.

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

Vegetation treatment activities would not alter the land use, conflict with existing zoning or require or cause rezoning of forest land or timberland. Therefore, **no impact** would occur.

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

The project proposes the use of thinning and pruning, along with mechanical mastication where feasible, to restore the forest to a more fire resilient landscape. Treatment areas would remain forested following project implementation and no loss or conversion of forest land would occur. Additionally, vegetation

modification under the project would be conducted in a manner consistent with the prescribed management actions outlined in Section 1051.3 of the California Forest Practice Rules. The purpose of the Forest Practice Rules is to implement the provisions of the Z'berg-Nejedly Forest Practice Act of 1973 in a manner consistent with other laws, including but not limited to, the Timberland Productivity Act of 1982, CEQA, the Porter Cologne Water Quality Act, and the California Endangered Species Act. The Forest Practice Act requires activities such as logging and vegetation clearing for fuel reduction to avoid or substantially lessen significant adverse effects on the environment (CAL FIRE 2017). Since the project would not result in the loss of forest land or conversion of forest land to non-forest use and would follow the provisions set forth by the California Forest Practice Rules, the project would have **no impact** related to loss or conversion of forest land to non-forest use.

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

As described above, the project would not occur on lands zoned for agriculture uses or conflict with existing zoning for agricultural use or a Williamson Act contract. The project would not result in residential uses adjacent to farmland, nor would it result in or encourage the extension of roadways or public service/utility infrastructure into an undeveloped area. This project would not conflict with existing zoning for forestland, timberland or Timberland Production Zone, nor would it result in the conversion of forestland to non-forest use; **no impact** would occur.

3.3 Air Quality

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

Setting

The Project is located within the Mountain Counties Air Basin (MCAB) and is within the jurisdictional boundaries of the El Dorado County Air Quality Management District (EDCAQMD), which has jurisdiction over El Dorado County. Primary sources of air pollution in the Project vicinity include local vehicle and equipment emissions, industrial emissions from nearby metropolitan areas, emissions associated with wildfire and wood-burning appliances, and dust particulates.

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. Criteria air pollutants that are evaluated include volatile organic compounds (VOCs, also referred to as reactive organic gases (ROGs)), oxides of nitrogen (NO_x), carbon monoxide (CO), sulfur oxides (SO_x), particulate matter with an aerodynamic diameter less than or equal to 10 microns in size (PM_{10}), and particulate matter with an aerodynamic diameter less than or equal to 2.5 microns in size ($PM_{2.5}$). VOCs and NO_x are important because they are precursors to ozone (O_3) formation. Criteria air pollutant emissions from construction activities is typically associated with operation of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicle trips. Operational emission sources for a utility project such as a flume or canal replacement would typically include mobile (vehicle) sources related to maintenance and operation, and area sources associated with use of consumer products, as well as energy use associated with facility operations (power generation).

The significance criteria used to evaluate the Project impacts to air quality is based on the recommendations provided in Appendix G of the CEQA Guidelines. For the purposes of this air quality analysis, a significant impact would occur if the project would (14 CCR 15000 et seq.):

1. Conflict with or obstruct implementation of the applicable air quality plan.
2. 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.
3. Expose sensitive receptors to substantial pollutant concentrations.
4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

In addition, Appendix G of the CEQA Guidelines indicates that where available, the significance criteria established by the applicable air quality management district may be relied upon to determine whether a project would have a significant impact on air quality. The EDCAQMD has adopted thresholds to address the significance of air quality impacts resulting from a project. These thresholds are identified in Table 3. According to the EDCAQMD, if ROG and NO_x are less than significant during construction, then exhaust CO and PM_{10} are also considered to be less than significant. During operation, if ROG and NO_x are less than significant, then exhaust CO, nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and PM_{10} would also be considered less than significant.

Table AIR-1. EDCAQMD Air Quality Significance Thresholds

Pollutant	Construction Thresholds	Operational Thresholds
	Maximum Daily Emissions (lbs/day)	
ROG	82	82
NO_x	82	82

Source: EDCAQMD 2002.
Notes:

Construction Screening: If ROG and NO_x are less than significant during construction, then exhaust CO and PM_{10} would also be less than significant.
Operational Screening: If ROG and NO_x are less than significant during operation, then exhaust CO, NO_2, SO_2, and PM_{10} would also be less than significant.
EDCAQMD = El Dorado County Air Quality Management District; lbs/day = pounds per day; ROG = Reactive Organic Gases; NO_x = nitrogen oxides.

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

The Mountain Counties Air Basin (MCAB) is currently non-attainment for ozone (O3) (state and federal ambient standards) and particulate matter (PM10) (state ambient standard). While an air quality plan exists for ozone, none currently exists for particulate matter. The Sacramento Regional 2008 NAAQS (National Ambient Air Quality Standards) 8-Hour Ozone Attainment Plan and Reasonable Further Progress Plan (Ozone Attainment Plan) was developed for application within the Sacramento region, including the MCAB portion of El Dorado County (SMAQMD 2017). If a Project can demonstrate consistency with the Ozone Attainment Plan for ROG and NOx emissions, it would be determined that it would not have a significant cumulative impact with respect to ozone.

Projects within the MCAB portion of the County are considered consistent with the Ozone Attainment Plan if they are found to meet the following consistency criteria:

1. The project does not require a change in the existing land use designation (e.g., a general plan amendment or rezone), or projected emissions of ROG and NOx from a project are equal to or less than the emissions anticipated for the site if development occurred under the existing land use designation;
2. The project does not exceed the "project alone" significance criteria;
3. The lead agency for the project requires the project to implement any applicable emission reduction measures contained in and/or derived from SMAQMD's Ozone Attainment Plan; and
4. The project complies with all applicable district rules and regulations.

With regard to the first criteria for determining compliance of the Project with the Ozone Attainment Plan, it must be determined the population density and land use that would result from the Project are consistent with the growth assumptions used in the plans for the MCAB. The

Project includes no uses that would generate a long-term increase in population or vehicle miles traveled and does not propose additional land for development or require a change in land use designations applied to the project sites and would not result in a long-term increase in population or vehicle miles traveled in the region. Furthermore, the Project would not directly induce substantial population growth in the area because the Project includes no new housing. Therefore, the Project would be consistent with the regional growth forecasts and would not conflict with or exceed the assumptions of the Ozone Attainment Plan.

The second criterion requires that the Project's contribution to existing air quality violations be evaluated. Criteria air pollutant emissions associated with the Project activities were estimated using CalEEMod Version 2016.3.2 for the following emission sources: operation of off-road construction equipment and worker vehicles. Results of modeling determined that the Project would not contribute to an air quality violation because each of the treatment activity sites would not exceed the EDCAQMD thresholds of significance for either ROG or NOx emissions. See the evaluation of impacts under impact prompt *b* for emissions modeling results.

To evaluate consistency with the third criterion the Project's compliance with control measures in the Ozone Attainment Plan must be evaluated. Most of the control strategies in the Ozone Attainment Plan include measures in the categories of transportation and stationary sources. The non-regulatory control measures include on-road and off-road mobile incentive programs, and an emerging/voluntary urban forest development program. These are followed by the regulatory control measures which include indirect source rules and a variety of stationary and area-wide source control measures (CARB 2008). The California Air Resources Board's (CARB's) strategy for reducing mobile source emissions includes the following: new engine standards, reducing emissions from the in-use fleet, requiring the use of cleaner fuels, supporting the use of alternative fuels, and pursuing long-term advanced technology measures. The Project would not conflict with CARB's strategy for controlling mobile source emissions.

The final criterion requires evaluating Project compliance with EDCAQMD rules and regulations. Project activities will comply with all applicable EDCAQMD rules during implementation. The EDCAQMD has adopted rules designed specifically to address a variety of air quality impacts through measures that regulate various activities and their related air quality emissions. Rules designed to control air pollutant emissions, and which may be applicable to the Project include.

- Rule 210 related to the discharge of air contaminants
- Rule 223 related to fugitive dust
- Rule 223-1 related to fugitive dust from construction and disturbed areas
- Rule 223-2 related to asbestos
- Rule 300 relates to the regulating of the burning of wastes that result from land development clearing.

In summary, the Project does not conflict with the growth assumptions for the region, does not exceed the EDCAQMD significance thresholds, would be consistent with all control measures of the Ozone Attainment Plan, and would comply with applicable EDCAQMD rules. The Project would not conflict with or obstruct implementation of an applicable air quality plan and would therefore result in a **less than significant** impact associated with conflict or obstruction of an applicable air quality plan.

b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and the EDCAQMD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are used in the determination of whether a project's individual emissions would have a cumulatively considerable contribution on air quality. If a project's emissions would exceed the EDCAQMD significance thresholds, it would be considered to have a cumulatively considerable contribution. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant. A quantitative analysis was conducted to determine whether the Project would result in a cumulatively considerable net increase in emissions of criteria air pollutants for which the MCAB is designated as nonattainment under the National Ambient Air Quality Standards (NAAQS) or California Ambient Air Quality Standards (CAAQS).

Appendix G of the CEQA Guidelines indicates that, where available, the significance criteria established by the applicable air district may be relied upon to determine whether a project would have a significant impact on air quality. The EDCAQMD has established Air Quality Significance Thresholds which set forth

quantitative emissions significance thresholds below which a project would not have a significant impact on ambient air quality (EDCAQMD 2002). The quantitative air quality analysis provided herein applies the EDCAQMD thresholds to determine the potential for the Project to result in a significant impact under CEQA. The EDCAQMD significance thresholds for construction are as follows: 82 pounds per day for ROG and 82 pounds per day for NOx. The EDCAQMD significance thresholds for operations are as follows: 82 pounds per day for ROG and 82 pounds per day for NOx. The following discussion quantitatively evaluates Project-generated impacts associated with the proposed activities.

Proposed activities would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment and soil disturbance) and off-site sources (i.e., worker vehicle trips). The Project emissions can vary substantially from day to day, depending on the level of activity; the specific type of operation; and, for dust, the prevailing weather conditions. Therefore, such emission levels can only be approximately estimated with a corresponding uncertainty in precise ambient air quality impacts.

Furthermore, the Project would comply with all applicable EDCAQMD rules and regulations during the treatment activities including the following:

- Rule 210 related to the discharge of air contaminants
- Rule 223 related to fugitive dust
- Rule 223-1 related to fugitive dust from construction and disturbed areas
- Rule 223-2 related to asbestos
- Rule 300 relates to the regulating of the burning of wastes that result from land development clearing.

Table AIR-2 presents the maximum daily construction emissions results as estimated from CalEEMod for each site. Further details of the emissions calculations are provided in Appendix A.

Table AIR-2. Maximum Daily Unmitigated Construction Emissions

Unit Name	ROG	NO_x
	Pounds per day	
Below Weber Mill Rd. above Hwy 50	0.18	0.11
Above Weber Mill Rd.	0.97	7.95
Between diversion dam and Hwy 50	0.18	0.11
Below canal	0.18	0.11
Above canal	0.97	7.95
Flume 1, Spillway 2 & 3	0.18	0.11
EDCAQMD Construction Thresholds	*82*	*82*
Threshold exceeded?	**No**	**No**

Source: Attachment A.
Notes: ROG = reactive organic gases; NO_x = oxides of nitrogen.

As shown in Table AIR-1, ROG and NOx emissions for at each of the sites would not exceed the EDCAQMD significance thresholds; therefore the Project would have a **less than significant** impact. According to the EDCAQMD guidance, if ROG and NOx are less than significant during construction, then CO and PM10 are also assumed to be **less than significant**.

Health Effects of Criteria Air Pollutants. Project activities would not exceed the EDCAQMD emissions thresholds for any criteria air pollutants, including ROG and NOx.

Health effects associated with O3 include respiratory symptoms, worsening of lung disease leading to premature death, and damage to lung tissue (CARB 2019). ROG and NOx are precursors to O3, for which the MCAB is designated as nonattainment with respect to the NAAQS and CAAQS. The contribution of ROG and NOx to regional ambient O3 concentrations is the result of complex photochemistry. The increases in O3 concentrations in the MCAB due to O3 precursor emissions tend to be found downwind of the source location because of the time required for the photochemical reactions to occur. Further, the potential for exacerbating excessive O3 concentrations would also depend on the time of year that the ROG emissions would occur, because exceedances of the O3 NAAQS and CAAQS tend to occur between April and October when solar radiation is highest. Due to the lack of quantitative methods to assess this complex photochemistry, the holistic effect of a single project's emissions of O3 precursors is speculative. However, since the Project would not exceed the EDCAQMD emission thresholds, it can be concluded that the Project would not contribute to health effects associated with O3.

Health effects associated with NOx include lung irritation and enhanced allergic responses (CARB 2019). Because project-related NOx emissions would not exceed the EDCAQMD emission threshold, and because the MCAB is a designated attainment area for NO2 (and NO2 is a constituent of NOx) and the existing NO2 concentrations in the area are well below the NAAQS and CAAQS standards, it is not anticipated that the Project would cause an exceedance of the NAAQS and CAAQS for NO2 or result in potential health effects associated with NO2 and NOx.

Health effects associated with CO include chest pain in patients with heart disease, headache, light-headedness, and reduced mental alertness (CARB 2019). CO tends to be a localized impact associated with congested intersections. The Project would result in temporary traffic trips associated with the transport of equipment and worker crews, and would not result in significant impacts associated with CO emissions because the Project would not exceed the EDCAQMD significance thresholds for ROG and NOx as discussed previously. Thus, the Project's CO emissions would not contribute to significant health effects associated with this pollutant.

Health effects associated with PM10 include premature death and hospitalization, primarily due to exacerbation of respiratory disease (CARB 2019). Construction and operation of the Project would also not exceed thresholds for PM10 or PM2.5 and would not contribute to exceedances of the NAAQS and CAAQS for particulate matter or obstruct the MCAB from coming into attainment for these pollutants. As with CO, because the Project would not exceed the EDCAQMD significance thresholds for ROG and NOx, PM emissions would be considered less than significant as well. Due to the minimal contribution of PM10 and PM2.5 during implementation of the proposed activities and operation, it is not anticipated that the Project would result in potential health effects related to particulate matter.

In summary, because the Project would not exceed the EDCAQMD significance thresholds for ROG and NOx and because the EDCAQMD thresholds are based on levels that the MCAB can accommodate without affecting the attainment date for the AAQS and the AAQS are established to protect public health and welfare, it is anticipated that the Project would result in **less than significant** health effects associated with criteria air pollutants.

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

Air quality varies as a direct function of the amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and the prevailing meteorological conditions. Air quality problems arise when the rate of pollutant emissions exceeds the rate of dispersion. Reduced visibility, eye irritation, and adverse health impacts upon those persons termed "sensitive receptors" are the most serious hazards of existing air quality conditions. Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution, include children, the elderly, athletes, and people with cardiovascular and chronic respiratory diseases. Sensitive receptors include residences, schools, playgrounds, child-care centers, athletic facilities, long-term health-care facilities, rehabilitation centers, convalescent centers, and retirement homes. The discussion below reviews the significance of emissions within the context of potential impacts to sensitive receptors.

Toxic Air Contaminants. The greatest potential for toxic air contaminants (TACs) during construction would be diesel particulate matter (DPM) emissions from heavy equipment operations and/or heavy-duty trucks during implementation of the proposed treatment activities and the associated health impacts to sensitive receptors. Emissions of TACs are normally localized and not region-wide. EDCAQMD considers implementation of "project alone" mitigation requirements, and compliance with all applicable emission limits and mitigation measures required by EPA, CARB, EDCAQMD rules and regulations, and local ordinances sufficient for a finding of less than significant related to TACs. As discussed previously, the Project would result in a less than significant impact pertaining to PM10 emissions. Moreover, treatment activities would occur within a 4-month period each year, which equates to approximately 1% of the total 30-year analysis exposure period for residential receptors, after which project-related TAC emissions would cease. In addition, the Project would not require the extensive use of heavy-duty construction equipment, which is subject to CARB's Airborne Toxic Control Measures for in-use diesel construction equipment to reduce DPM emissions, and it would not involve extensive use of diesel trucks.

Therefore, the Project would not result in exposure of sensitive receptors in the vicinity of the project site to substantial TAC concentrations due implementation of the proposed treatment activities impacts would be **less than significant**.

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

It is possible that odors could be released during implementation of the proposed treatment activities. Objectionable odors could be generated from vehicles and/or equipment exhaust emissions. The proposed treatment activities would occur in areas located away from residences and other occupied facilities, and the Project includes no activities that are expected to result in odors inconsistent with normal motor vehicle or landscaping equipment operation therefore adverse effects are not anticipated. The potential release of odors associated with treatment activities and equipment would be minor, temporary, and unlikely to be detectable from rural residential or public places in the vicinity of the Project; impacts would be **less than significant**.

Mitigation Measures

No mitigation measures are necessary.

3.4 Biological Resources

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

Setting

A biological resources field survey was conducted of the approximately 42-acre project site on July 16, 2020. The findings and recommendations of the field survey are included in a biological resources assessment attached as Appendix C to this Initial Study. The field survey included identifying, characterizing, and documenting onsite vegetation communities and land cover types; a preliminary evaluation of potentially jurisdictional aquatic resources; and an assessment, based on field conditions, of the potential for special-status plant and animal species to occur within the project site boundaries. In addition to the general biological survey, a survey for special-

status plant species was performed in accordance with the following botanical survey protocol: the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFW 2018) and CNPS' Botanical Survey Guidelines (CNPS 2001).

Three natural vegetation communities and one terrestrial land cover type exist on the project site: Ponderosa pine-white pine forest, black oak woodland, black oak-deer brush scrub, and disturbed/developed. Additionally, there are three aquatic land cover types on the project site, including seep, ephemeral drainage, and riverine.

Table BIO-1. Vegetation Communities / Land Cover Types

Vegetation Community/Land Cover Type	Acreage
Terrestrial	
Ponderosa Pine – White Fir Forest	36.24
Black Oak Woodland	2.40
Black Oak – Deer Brush Scrub	1.20
Disturbed/Developed	1.35
Subtotal	*41.19*
Aquatic	
Seep	0.02
Ephemeral Drainage	0.09
Perennial Drainage	0.19
Subtotal	*0.30*
Total	**41.49**

Special Status Plants: Results of USFWS, CNDDB, CNPS, and USFS Region 5 searches revealed 24 special-status plant species that have potential to occur or that are known to occur in the Project region, which includes the Kyburz, CA and all surrounding eight USGS 7.5 minute quadrangles. Of these, 20 special-status plant species were removed from consideration due to lack of suitable habitat within or adjacent to the Project site, or due to the site being outside of the species' known geographic or elevation range. The remaining four special-status plant species determined to have some potential to occur on the Project site include: Pleasant Valley mariposa lily (*Calochortus clavatus* var. *avius*), Oregon fireweed (*Epilobium oreganum*), yellow bur navarretia (*Navarretia prolifera* ssp. *lutea*), and Sierra blue grass (*Poa sierrae*)

Special Status Wildlife: Results of the USFWS, CNDDB, USFS Region 5, and literature searches revealed 15 special-status wildlife species as present or potentially present in the Project region (see Attachment D, Special-Status Wildlife Potential to Occur). Of these, eight species were removed from consideration due to lack of suitable habitat on or adjacent to the Project site, or due to the site being outside of the species' known geographic or elevation range. The following were determined to have some potential to occur on the Project site: Foothill yellow-legged frog (*Rana boylii*), northern goshawk (*Accipiter gentilis*), California spotted owl (*Strix occidentalis* ssp. *occidentalis*), native and migratory birds, native bats (including Townsend's big-eared bat, pallid bat, and fringed myotis), and Pacific marten (*Martes caurina*).

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

The potential for special-status plants to occur on the Project site is generally low. Of the four special-status plant species with a potential to occur, one has moderate potential to occur, and three have a low potential to occur. No special-status plant species were documented within the Project site during the July 2020 site survey, which included protocol-level botanical surveys conducted within the bloom period for potentially occurring special status plant species. While no special-status plants were identified on the Project site during surveys, special-status plants could potentially establish on the site in future years. Mitigation Measure BIO-1, requires future plant surveys if the project is not implemented within five years and requires that surveys be carried out before ground disturbance and that avoidance and minimization measures be implemented should any special-status plants be identified during surveys. Mitigation Measure BIO-1 would ensure that the Project would not result in destruction of individual plants or populations of plants that could become established in the treatment area prior to disturbance. With implementation of Mitigation Measure BIO-1, impacts to special-status plants would be **less than significant**.

Foothill yellow-legged frogs prefer rocky streams in a variety of habitats including valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, ponderosa pine forest, mixed coniferous forest, coastal scrub, and mixed chaparral from near sea level to approximately 4,500 feet above mean sea level. In general, suitable breeding habitat for foothill yellow-legged frog on the South Fork American River and tributaries in the vicinity of the proposed vegetation treatment areas is extremely limited, due primarily to the steep channel gradients, relatively narrow confined channels, and lack of appropriate substrates. Additionally, the treatment areas are at an elevation of over 3000 feet where very few foothill yellow-legged frog populations have been documented elsewhere in the Sierra Nevada (Appendix C).The two perennial drainages located adjacent to or within the Project site, the South Fork American River, and Carpenter Creek, lack appropriate habitat for foothill yellow-legged frog and surveys conducted in the region have documented no foothill yellow-legged frog occurrences along the South Fork American River upstream of the intersection of Ice House Road and U.S. Highway 50, approximately 7.5 miles downstream and 1,000 feet lower in elevation than the Project site. As part of the Project, Forest Practice Rules (CAL FIRE 2020) watercourse protection zones would be flagged around all wetland and waters within the Project area and no ground disturbance would occur within proximity to the two perennial drainages. Exact watercourse protection zones are determined based on characteristics of the water courses, surrounding slopes, and beneficial uses of the watercourse as described in Table I of the Forest Practice Rules (CAL FIRE 2020). Watercourse protection zones would be delineated by a Registered Professional Forester prior to vegetation management activities. While no foothill yellow-legged frog were observed during site surveys and this species is unlikely to be found within the Project site due to marginal habitat conditions, avoidance of all wetland and waters through the implementation of watercourse protection zones, as required by the Forest Practice Rules, would further ensure that the Project would have no impact to foothill yellow-legged frog.

The Project involves tree and vegetation removal, which has the potential to impact native and migratory birds, including special-status species with a moderate to high potential to occur onsite, such as northern goshawk and California spotted owl. It is unlikely that special-status birds with a low potential to occur onsite would be impacted by the Project. However, implementation of Mitigation Measure BIO-2 would ensure that surveys for nesting birds be carried out prior to any Project activities that occur during the nesting season, and that impact avoidance and minimization measures are appropriately implemented if

any nests are discovered during surveys. Implementation of Mitigation Measure BIO-2 would ensure that any potential impacts to nesting birds would be less than significant.

Implementation of the Project could result in temporary and permanent impacts to native bats. If native bats are roosting on the Project site or vicinity, direct impacts could result from the permanent removal of roosting sites, such as trees and snags. With implementation of Mitigation Measure BIO-3, which requires surveys prior to any Project activities that occur during the maternity season to identify active roosts and implement impact avoidance and minimization measures if any roost sites are discovered, potential impacts to native bats would be avoided.

There is a low potential for other special-status mammals, specifically Pacific marten, to occur in or adjacent to the Project site. Pacific marten prefers remote wilderness undisturbed by human activity. The nearest documented occurrence for Pacific marten is approximately 12 miles northeast of the Project site. The Project site borders U.S. Highway 50 and a developed campground, further reducing the likelihood that Pacific martin would utilize the site for denning or migration. As such, no impact to Pacific marten is anticipated as a result of the Project.

The biological resources assessment concluded that there is low potential for other special-status mammals to occur in or adjacent to the Project site. No impact to other special-status mammals is anticipated to occur as a result of the Project.

Impacts to special-status species would be **less than significant with mitigation incorporated**.

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

Implementation of the Project would result in direct impacts to the Ponderosa pine–white fir forest, black oak woodland, and black oak-buckbrush scrub communities present on the project site. None of these vegetation communities are considered sensitive by the CDFW. Riparian habitat adjacent to Carpenter Creek and the South Fork American River is protected habitat. Permanent direct impacts to vegetation would result from vegetation trimming and removal; however, the Project activities would avoid all wetland and waters by implementing watercourse protection zones as required by the Forest Practice Rules. Watercourse protection zones would be established and observed along the perennial drainages and associated riparian habitat (CAL FIRE 2020). With implementation of the Forest Practice Rules, impacts to sensitive vegetation communities would be **less than significant**.

c) Would the project 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?

As previously discussed, there are two seeps, two perennial drainages, and numerous ephemeral drainages in the project site. All features are likely subject to the jurisdiction of the State, and the perennial drainages are likely also subject to federal jurisdiction. As part of the project, the watercourse protection zones described in the Forest Practice Rules (CAL FIRE 2020) will be implemented by a Registered Professional Forester. Watercourse protection zones are determined based on slope, beneficial uses, and whether they support fisheries or other aquatic wildlife species. Watercourse protection zones are excluded from

vegetation treatment areas to avoid impacts to sensitive riparian or wetland habitats. With implementation of watercourse protection zones, no impacts to wetlands or other waters are expected to occur as a result of project implementation.

If complete compliance with the watercourse protection zone measures described is not possible and avoidance of impacts to these drainages or wetlands is determined to be infeasible, regulatory permits in the form of a Nationwide Permit authorization from the U.S. Army Corps of Engineers, Water Quality Certification from the Regional Water Quality Control Board, and a Streambed Alteration Agreement from CDFW would be required. Additionally, any trimming or removal of vegetation adjacent to Carpenter Creek or along the South Fork American River would require authorization from CDFW under a Streambed Alteration Agreement. Compliance with the requirements of these federal and State authorizations would ensure that any impacts to wetland and other waters would be avoided, minimized, or mitigated. Compliance with the Forest Practice Rules and the terms and conditions of required permits, which ensure no net loss of waters, would ensure that impacts remain **less than significant**.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The South Fork American River provides riparian habitat linkages between landscape blocks. However, because the work will be temporary in nature, and with implementation of measures previously described, no substantial direct impacts to local or regional wildlife movements are expected to occur as a result of Project implementation. No wildlife nursery sites are in the Project site. The impact would be **less than significant**.

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

The Project would not conflict with any local policies or ordinances and would be consistent with provisions of the El Dorado County General Plan Conservation and Open Space Element. The Project is not within an important biological corridor or priority conservation area as identified in the General Plan. **No impact** would occur.

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

No draft or adopted habitat conservation plans, natural community conservation plans, or other approved local, regional, or state habitat conservation plans exist. **No impact** would occur.

Mitigation Measures:

BIO-1: The following measures shall be implemented to avoid, minimize or reduce impacts to special-status plant species:

- If more than five years have passed since the July 2020 rare plant survey or a subsequent rare plant survey, prior to ground-disturbance, a qualified botanist familiar with common and rare plant species of the Sierra Nevada region shall conduct surveys of all areas of potential Project disturbance during the appropriate blooming period for potentially occurring special-status plant species. The purpose of the survey shall be to delineate and flag populations of special-status plant species for avoidance. If no special-status plants are identified, no further

mitigation is necessary. Special-status plant populations identified during the pre-construction survey shall be mapped using a hand-held GPS unit and avoided where possible. Plant individuals or populations plus a 10-foot buffer shall be temporarily fenced during vegetation management activities with high-visibility fencing or prominently flagged.

BIO-2: To the extent feasible, El Dorado Irrigation District shall schedule vegetation removal activities during the non-breeding season for birds in the region (August 16 through February 14). If vegetation removal must be carried out during the breeding season, a qualified biologist shall conduct a nesting bird survey within 1 week prior to said activities to determine if any birds are nesting on or near the project site (including a 500-foot buffer for raptors). If any active nests are observed during surveys, a suitable avoidance buffer from the nests shall be determined and flagged by a qualified biologist based on species, location, and planned construction activities. Consultation with CDFW may be required to determine appropriate buffer distances. These nests shall be avoided until the chicks have fledged and the nests are no longer active, as determined by the qualified biologist.

BIO-3 Removal of potential roost habitat identified during the assessment shall be avoided during the bat maternity season (May 1 through August 15). If removal of potential roost habitat occurs outside of the maternity season, no further mitigation shall be required.

If removal of potential roost habitat must be conducted during the maternity season, within 30 days prior to project activities a qualified biologist experienced with Sierra Nevada bat species shall conduct a survey to search for evidence of bat roosts in trees and structures subject to removal. If the survey identifies potential bat roosts, the biologist shall establish an appropriate buffer to project activities within which no disturbance shall occur until the end of the maternity season or until a qualified bat biologist has determined that the young are capable of flight. If an appropriate buffer from potential bat roosts cannot be observed, pre-construction inspections for bats shall be conducted using appropriate methods (e.g., camera inspection, exit survey with night optics, acoustic survey) within 2 weeks prior to said activities. If inspections determine that there is an active roost, removal of that roost feature will be delayed until the end of the maternity season or until a qualified bat biologist has determined that the young are capable of flight or the roost is inactive.

3.5 Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

Setting

A cultural resources inventory report was prepared for the Project (Appendix D [confidential]) area to satisfy the requirements of CEQA and Section 106 of the National Historic Preservation Act (NHPA). The inventory included a records search of previous studies of the area of potential effect (APE) and a surrounding half-mile radius conducted by staff of the North Central Information Center (NCIC). In addition to the records search, the cultural resources inventory included a pedestrian survey of the APE, a search of the NAHC's Sacred Lands File, review of historic references, historic maps, and historic aerial photos taken in 1952. Aerial photos from 1993 to present were also reviewed for any indications of property usage and built environment. The APE evaluated by the inventory for the Project consists of all Project parcels and totals approximately 42 acres. The horizontal APE evaluated for the Project site represents the survey coverage area and consists of all areas where vegetation removal is proposed. The vertical APE evaluated by the inventory is described as the maximum depth below the surface to which excavations for the Project could extend and therefore all subsurface areas where archaeological deposits could be affected. The subsurface vertical APE varies across the Project site but is not expected to extend to a significant depth (mechanical treatments would be used for vegetation treatments above the existing ground surface), and was assumed conservatively to extend to no more than one foot below surface.

The NCIC records search identified 28 previous cultural resource investigations conducted within 0.5 mile of the Project site, covering approximately 60 percent of the total area surrounding the Project site within the record search radius. Previous studies revealed the presence of pre-contact sites, including lithic scatters, bedrock mortars, habitation sites and historical sites. Twelve previous studies covered the Project area and were conducted between 1969 and 2009.

The NCIC records search determined that 25 previously recorded pre-contact and historic-period cultural resources are located within 0.5 mile of the Project area. Of those, 11 are believed to be associated with Native American occupation of the vicinity, 12 are historic-period sites, and 2 are multi-component sites with both historic and pre-contact components. Two historic-period resources have been previously recorded within the Project area: P-09-599, historic-period El Dorado Hydroelectric Project system, which includes the EL Dorado Canal and Diversion Dam; and P-09-3676, historic-period Western States Gas & Electric Construction Camp C. No new cultural resources were identified during surveys conducted for the inventory.

P-09-599/CA-ELD-511H - Historic El Dorado Hydroelectric Project System

The historic-period El Dorado Hydroelectric Project system, also known as Federal Energy Regulatory Commission (FERC) Project 184 (Project 184), was first recorded in 1977 and has been recorded multiple times since. The El Dorado Diversion Dam and the El Dorado Canal are features of this overall system and are located within the current APE. FERC Project 184 includes four storage reservoirs (Lake Aloha, Echo Lake, Silver Lake, and Caples Lake), a

diversion dam and several smaller diversions on tributaries of the South Fork American River, a water conveyance facility consisting of canals, flumes, and tunnels, a forebay, penstock, and a powerhouse.

P-09-3676/CA-ELD-2401H - Historic-period Western States Gas & Electric Construction Camp C

This historic-period resource, originally recorded in 2002, consists of the remnants of the 1920s Western States Gas & Electric Construction Camp C. This site was the location of a camp associated with the development of the Western States Gas & Electric Company ditch and intake, which dates from 1914 to 1945. This site is located just west of the El Dorado Canal intake on the north bank of the South Fork American River. The site boundaries was determined by a 1922 plat map of the camp, which depicted 28 canvas tent-houses with wood floors and wood frames, a wood-framed kitchen and mess hall, a woodshed, a bath house, a foreman's house, and toilet.

The 2002 record states that much of the original camp was not visible, but three pits are located where the bath houses were historically. The pits were observed to be partially filled with 1960s and 1970s refuse. The remnants of the camp encompass an area of about 5,600 square meters, or 1.4 acres, limited to dirt pads where the mess hall and bath house were originally located. The site boundary, which was determined by the 1922 plat map of the camp, is composed of land on either side of the South Fork American River and has been subjected to past and recent ground disturbance. A small portion of the previously recorded site boundary overlaps the current Project area; however, the area has been continually used as an EID yard in association with the diversion dam.

During the pedestrian field survey of the APE, it was determined that the El Dorado Diversion Dam and the El Dorado Canal are in the same condition as described on the most recent updates to the records for the entire system and also has been well maintained since it was improved in 2001. During the pedestrian field survey, no remnants of the Western States Gas & Electric Construction Camp C were discernable within the Project area. The features recorded in 2002 (bath house, tent pads, and the pits filled with refuse) were relocated outside of the Project area.

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

The Project would not result in a significant impact to the significance of a historical resource with incorporation of Mitigation Measure CUL-1, as discussed further in b) below.

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

As discussed under 'setting' above, the NCIC records search indicates that two historic-period resources have been previously recorded within the Project area. These include the El Dorado Hydroelectric Project system (P-09-599/CA-ELD-511H), which includes the El Dorado Canal and Diversion Dam, and the Western States Gas & Electric Construction Camp C (P-09-3676/CA-ELD-2401H).

The historic period El Dorado Hydroelectric Project System (also referred to as FERC Project 184), has two features located within the Project area: The El Dorado Diversion Dam and the El Dorado Canal. In July of 2008, EID determined that the El Dorado Hydroelectric Project (FERC Project 184) was not eligible for inclusion in the NRHP under any criteria, and on August 11, 2008, the SHPO concurred with this determination. The El Dorado Diversion Dam and the El Dorado Canal were specifically named in the letters as features that are not individually eligible, as well as not eligible as part of the overall system. The cultural resources inventory prepared for the Project further determined that the El Dorado Hydroelectric Project

System is not eligible to the CRHR as a district, and the El Dorado Canal and Diversion Dam are not eligible to the CRHR as individual resources. The two resources of the System that have been determined individually eligible for inclusion for the NRHP, the Lake Aloha Dam Complex and the El Dorado Rock Wall Discontiguous District, both of which are located well outside of the Project area and would not be affected by the Project.

The1920s Western States Gas & Electric Construction Camp C, is located within and west of the existing EID yard located north of the diversion dam. However, only a small portion of the site boundary overlaps the current APE in an area that has been used as an EID yard in association with the diversion dam and continually landscaped and maintained. During the pedestrian field survey, no remnants of the site were discernable. The features recorded in 2002 (bath house, tent pads, and the pits filled with refuse) were relocated outside of the Project area. The cultural resources inventory concluded that the likelihood of subsurface deposits associated with the camp within the Project area is low and further concluded that any such deposits would have likely been destroyed by the past grading, landscaping, and continuous maintenance of the site. Therefore, the cultural resources inventory concluded that the site is not present within the Project area and would not be affected by the Project.

A search of the Sacred Lands File by the NAHC was retuned on December 4, 2020 and did not indicate the presence of Native American cultural resources in the Project area. The NAHC provided a list of Native American tribal representatives that have traditional associations to the Project area; all NAHC-listed representatives were contacted and no responses have been received to date. Tribal Cultural Resources are discussed further in Section 3.18.

The APE was surveyed by ECORP archaeologists on November 23 and 24, 2020, ECORP subjected all accessible portions of the Project area to an intensive pedestrian survey under the guidance of the Secretary of the Interior's Standards for the Identification of Historic Properties (NPS 1983) using transects spaced 15 to 30 meters apart. No new cultural resources were identified during the survey.

Based on the results of the NCIC records search, intensive pedestrian survey, NAHC and tribal correspondence, and review of previous technical studies for this area, no mitigation measures are necessary. However, due to the presence of alluvium along the South Fork American River and given the likelihood of pre-contact archaeological sites located along perennial waterways, the potential exists for buried pre-contact archaeological sites in the Project area. Mitigation Measure CUL-1 outlines the course of action in the event of an unanticipated archeological discovery to ensure appropriate actions are taken to minimize impacts to any unanticipated discovery that could occur during construction. Therefore, the Project would have a **less than significant impact with mitigation incorporated**.

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

While unlikely, there is some potential that earth disturbance associated with the Project could disturb or uncover human remains. With the implementation of Mitigation Measure CUL-2, which prescribes measures to appropriately address the inadvertent discovery of human remains, Project impacts from potential disturbance of human remains would be **less than significant with mitigation**.

Mitigation Measures

CUL-1: EID shall implement the following measure to reduce or avoid impacts on undiscovered historic properties and archaeological resources. If buried or previously unidentified historic properties or archaeological resources are discovered during project activities, all work within a 100-foot radius of the find shall cease. EID shall retain a professional archaeologist meeting the *Secretary of the Interior's Professional Standards for Archaeologists* to assess the discovery and recommend what, if any, further treatment or investigation is necessary for the discovery. Any necessary treatment/investigation shall be developed and coordinated with the State Historic Preservation Officer or others as necessary, and shall be completed before project activities resume in the vicinity of the discovery.

CUL-2: EID shall implement the following measures to reduce or avoid impacts related to undiscovered burials. In accordance with the California Health and Safety Code, if human remains are uncovered during ground-disturbing activities, all potentially damaging ground-disturbance in the area of the burial and a 100-foot radius shall halt and the El Dorado County Coroner shall be notified immediately. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are, or are believed to be, those of a Native American, then Federal laws governing the disposition of those remain would come into effect. Specifically, the Native American Graves Protection and Repatriation Act (NAGPRA), Pub L. 101-601, 25 U.S.C. 3001 et seq., 104 Stat. 3048 requires federal agencies and institutions that receive federal funding to return Native American cultural items to lineal descendants and culturally affiliated Indian Tribes and Native Hawaiian organizations. Cultural items include human remains, funerary objects, sacred objects, and objects of cultural patrimony. NAGPRA also has established procedures for the inadvertent discovery of Native American cultural items on Federal or Tribal lands, which includes consultation with potential lineal descendants or Tribal officials as part of their compliance responsibilities. California law recognizes the need to protect Native American human burials, skeletal remains, and items associated with Native American burials from vandalism and inadvertent destruction. EID shall ensure that the procedures for the treatment of Native American human remains contained in California Health and Safety Code Sections 7050.5 and 7052 and Public Resources Code Section 5097 are followed.

3.6 Energy

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. Energy – 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?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Setting

There are federal regulations addressing energy efficiency in the built environment, fuel efficiency for motor vehicles, energy sources used by the United States, and national conservation goals; none of these regulations and policies applies directly to the Project. Appendix F of the CEQA Guidelines calls for discussion of the potential energy impacts of projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. The State of California has passed several laws governing energy use. AB 32 establishes regulatory, reporting, and market procedures to achieve quantifiable reductions in GHG emissions and a cap on statewide GHG emissions; the most significant proposed GHG reductions are recommended through improving emission standards for light-duty vehicles, implementation of the Low-Carbon Fuel Standard, energy efficiency measures in buildings and appliances, and a renewable portfolio standard for electricity production. Title 24 sets the energy efficiency standards for residential and nonresidential buildings and the 2013 California Green Building Standards Code, or CALGreen Code (24 CCR 11), which took effect on January 1, 2014, requires buildings to reduce energy and water consumption and establishes specific performance standards that appliances and fixtures must meet. Under Senate Bill 350, signed into law in October 2015, the Clean Energy and Pollution Reduction Act of 2015 updates the Renewables Portfolio Standard and applies to all electricity retailers in California.

The Project would not include the construction or operation of facilities that would require electricity from a regional or local utility provider. Proposed activities would include fuel use for vehicles, trucks, hand-held machinery, and heavy-duty equipment during temporary vegetation treatment activities. Energy use associated with the Project would be limited to vehicle usage and short-term equipment and machinery usage.

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

Electricity

Electricity is not anticipated to be required for the proposed treatment activities. The amount of electricity used during construction would be minimal and related to potential use of some electric hand tools and devices (phones, laptops, tablets, GPS devices, etc.). The electricity used for construction activities would be temporary and minimal; therefore, Project construction would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of electricity. Impacts would be **less than significant**.

Natural Gas

Natural gas is not anticipated to be required for the proposed treatment activities. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed under the subsection "Petroleum." Any minor amounts of natural gas that may be consumed as a result of proposed energy

resources during vegetation management activities would be temporary and negligible and would not have an adverse effect; therefore, Project activities would not result in wasteful, inefficient, or unnecessary would not increase consumption of natural gas. Impacts would be **less than significant**.

Petroleum

Petroleum would be consumed throughout the duration of the Project. Fuel consumed by equipment used for vegetation management activities would be the primary energy resource expended over the course of the treatment activities. Worker and equipment transport vehicles would also result in petroleum consumption as would operation of heavy equipment. As previously discussed, treatment activities would occur over a 6- to 7-month period, beginning in the fall of 2021. Once treatment activities cease, petroleum use from off-road equipment and transportation vehicles would be completed and no long-term operational use of petroleum would result from the Project. Because of the short-term nature of the treatment activities, the Project's petroleum consumption would be negligible when compared to California's daily total use of approximately 1.8 million barrels of petroleum. As such, impacts would be **less than significant**.

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

The Project would follow applicable energy standards and regulations during onsite activities. In addition, any equipment utilized by the Project would be operated in accordance with all existing, applicable regulations at the time of the treatment activities. As such, impacts related to the Project's potential to conflict with plans for renewable energy and energy efficiency would be **less than significant**.

3.7 Geology and Soils

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS – Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

Setting

El Dorado County does not contain any known Alquist-Priolo Earthquake Fault Zones, as listed by the California Geological Survey. According to the Fault Activity Map of California and Adjacent Areas, no active faults are located on the Project site (California Department of Conservation, 2015). According to the Natural Resources Conservation Service's Web Soil Survey, two soil types are mapped on the Project site: Chaix coarse sandy loam, 30% to 75% slopes and Holland-Pilliken association, 30% to 50% slopes. The Chaix coarse sandy loam series consists of moderately deep, somewhat excessively drained soils formed in material weathered from acid intrusive indigenous rock; and the Holland-Pilliken association series consist of well-drained soils formed in material weathered from granitic rock.

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

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

ii) Strong seismic ground shaking?

iii) Seismic-related ground failure, including liquefaction?

iv) Landslides?

El Dorado County does not contain any known Alquist-Priolo Earthquake Fault Zones, as listed by the California Geological Survey. According to the Fault Activity Map of California and Adjacent Areas, no active faults are located on the Project site. According to the Fault Activity Map of California and Adjacent Areas, no active faults are located on the Project site. The closest fault is the Echo Lake Fault Zone, located over 15 miles east of the Project site. No portion of El Dorado County is located in a Seismic Hazard Zone (California Geological Survey identified areas prone to liquefaction and earthquake induced landslides).

The Project is limited to vegetation management activities and would not include the construction of any structures that would be subject to rupture of a known earthquake fault, strong seismic ground shaking, seismic related ground failure, or landslides. Risks associated with landslide or seismic activity would be **less than significant**.

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

Project implementation would include vegetation management activities that could result in soil erosion. Vegetation clearance conducted along steep slopes would take place by crews using handheld equipment rather than powered machinery to minimize soil disturbance. Some vegetation cleared would also be left in place for further slope stabilization. This approach will reduce disturbance of surface soils on steep slopes and reduce the potential for erosion. EID would follow all measures set forth in the California Forest Practice Rules to minimize soil erosion which would avoid potential for soil erosion. Impacts would be **less than significant**.

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

Project implementation is anticipated to result in minimal ground disturbance. In sloped areas where the greatest potential for landslide would occur, vegetation management activities would be limited to crews conducting thinning and pruning with chainsaws and hand tools. In addition, there are no structures proposed, so the Project would not expose soils to subsidence, liquefaction, or collapse, and would not pose a hazard to people or structures. Vegetation clearance would not pose a significant risk from landslides, lateral spreading, subsidence, liquefaction, or collapse. There would be **no impact**.

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

The Project would not include construction of habitable structures, and therefore is not expected to create substantial risks to life or property. Impacts would be **less than significant**.

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

The Project would not include permanent work or living facilities and thus would not require the use of septic tanks or alternative wastewater disposal systems. **No impact** would occur.

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

Paleontological resources are typically present in sedimentary rock formations. The likelihood of paleontological resources being present in the Project area is considered very low as El Dorado County's geology is primarily igneous (volcanic) where paleontological resources are not known to exist (El Dorado County 2003). The Project area does not contain any known fossil locations or known paleontological sites and minimal soil disturbance would occur as a result of the project. Impacts would be **less than significant**.

3.8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS – Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Setting

The California Natural Resources Agency adopted amendments to the CEQA Guidelines on December 30, 2009, which became effective on March 18, 2010. With respect to GHG emissions, the amended CEQA Guidelines state in Section 15064.4(a) that lead agencies should "make a good faith effort, to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions. 15064.7(c) of the CEQA Guidelines specifies that "[w]hen adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence." Similarly, the revisions to Appendix G, Environmental Checklist Form, which is often used as a basis for lead agencies' selection of significance thresholds, do not prescribe specific thresholds.

Rather, the CEQA Guidelines establish two CEQA thresholds related to GHGs, which will be used to discuss the significance of project impacts (14 CCR 15000 et seq., Appendix G):

1. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
2. Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Accordingly, the CEQA Guidelines do not prescribe specific methodologies for performing an assessment, establish specific thresholds of significance, or mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance that are consistent with the manner in which other impact areas are handled in CEQA (CNRA 2009).

EDCAQMD

California has 35 Air Pollution Control Districts (APCD) and Air Quality Management Districts (AQMDs), many of which are currently addressing climate change issues by developing significance thresholds, performance standards, and mitigation measures. At this time, there are no adopted quantitative federal or state guidelines for GHG emission impacts. EDCAQMD was part of the committee of air districts in the Sacramento Region involved in the development of GHG thresholds of 1,100 metric tons (MT) of CO_2e per year for the construction phase of projects or the operational phase of land use development projects, or 10,000 MT CO_2e per year from the operation of stationary sources. If the significance thresholds are exceeded, then the Project may have a cumulatively considerable contribution to a significant cumulative environmental impact, and all feasible mitigation is required. (SMAQMD 2014, 2019).

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

Construction of the Project would result in GHG emissions, which are primarily associated with use of off-road heavy equipment, worker vehicle trips, and gas-powered hand tools such as chainsaws. GHG emissions were modeled based on the treatment activity scenario described under *Project Description*, with treatment activities beginning in Fall 2021. Sources of GHG emissions include off-road equipment and off-site sources include worker vehicles. Emissions from onsite and off-site sources are combined for the purposes of this analysis and are presented below in Table GHG-1.

Table GHG-1. Estimated Annual Construction GHG Emissions

	CO_2	CH_4	N_2O	CO_2e
Unit Name	*Metric Tons*			
Below Weber Mill Rd. above Hwy 50	0.63	<0.01	0.00	0.63
Above Weber Mill Rd.	1.27	<0.01	0.00	1.27
Between diversion dam and Hwy 50	0.50	<0.01	0.00	0.50
Below canal	0.38	<0.01	0.00	0.38
Above canal	7.72	<0.01	0.00	7.75
Flume 1, Spillway 2 & 3	2.39	<0.01	0.00	2.39
			Total	**12.92**

Notes: CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent; <0.01 = value less than reported 0.01.
See Attachment A.

As shown in Table GHG-1, the Project's estimated annual GHG emissions from each of the proposed treatment sites would total approximately 13 MT CO_2e, which is well below the applied threshold of 1,100 MT CO_2e per year. Therefore, GHG emissions generated by the Project would have a **less than significant impact**.

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

Project Consistency with CARB's Scoping Plan

The Scoping Plan (approved by CARB in 2008 and updated in 2014 and 2017) provides a framework for actions to reduce California's GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. The Scoping Plan is not directly applicable to specific projects, nor is it intended to be used for project-level evaluations.[1] Under the Scoping Plan, however, there are several state regulatory measures aimed at the identification and reduction of GHG emissions. CARB and other state agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area source emissions (e.g., energy usage, high-GWP GHGs in consumer products) and changes to the vehicle fleet (i.e., hybrid, electric, and more fuel-efficient vehicles) and associated fuels (e.g., Low Carbon Fuel Standard), among others. To the extent that these regulations are applicable to the Project, the Project would comply will all regulations adopted in furtherance of the Scoping Plan to the extent required by law.

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

The Project would not impede the attainment of the most recent state GHG reduction goals identified in Senate Bill (SB) 32 and Executive Order (EO) S-3-05 and. SB 32 establishes a statewide goal of reducing GHG emissions to 40% below 1990 levels by 2030, while EO S-3-05 establishes a statewide goal of reducing GHG emissions to 80% below 1990 levels by 2050. While there are no established protocols or thresholds of significance for that future year analysis, CARB forecasts that compliance with the current Scoping Plan puts the state on a trajectory of meeting these long-term GHG goals, although the specific path to compliance is unknown (CARB 2014).

CARB has expressed optimism with regard to both the 2030 and 2050 goals. It states in the First Update to the Climate Change Scoping Plan that "California is on track to meet the near-term 2020 GHG emissions limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32" (CARB 2014, p. ES2). With regard to the 2050 target for reducing GHG emissions to 80% below 1990 levels, the First Update to the Climate Change Scoping Plan states the following (CARB 2014, p. 34):

> *This level of reduction is achievable in California. In fact, if California realizes the expected benefits of existing policy goals (such as 12,000 megawatts of renewable distributed generation by 2020, net zero energy homes after 2020, existing building retrofits under AB 758, and others) it could reduce emissions by 2030 to levels squarely in line with those needed in the developed world and to stay on track to reduce emissions to 80% below 1990 levels by 2050. Additional measures, including locally driven measures and those necessary to meet federal air quality standards in 2032, could lead to even greater emission reductions.*

[1] The Final Statement of Reasons for the amendments to the CEQA Guidelines reiterates the statement in the Initial Statement of Reasons that "[t]he Scoping Plan may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (CNRA 2009).

In other words, CARB believes that the state is on a trajectory to meet the 2030 and 2050 GHG reduction targets set forth in AB 32, EO B-30-15, and EO S-3-05. This is confirmed in the 2017 Scoping Plan, which states the following (CARB 2017):

> *The Scoping Plan builds upon the successful framework established by the Initial Scoping Plan and First Update, while also identifying new, technologically feasible, and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities.*

As discussed previously, the Project is consistent with CARB's 2017 Scoping Plan and would not conflict with California's trajectory toward future GHG reductions. In September 2018, EO B-55-18 was signed, which commits the state to total carbon neutrality by 2045. However, since the specific path to compliance for the state in regards to the long-term goals will likely require development of technology or other changes that are not currently known or available, specific additional reduction measures for the Project during the treatment activities would be speculative and cannot be identified at this time. The Project's consistency would assist in meeting the County's contribution to GHG emission reduction targets in California.

With respect to future GHG targets under SB 32 and EO S-3-05, CARB has also made clear its legal interpretation is that it has the requisite authority to adopt whatever regulations are necessary, beyond the AB 32 horizon year of 2020, to meet SB 32's 40% reduction target by 2030 and EO S-3-05's 80% reduction target by 2050; this legal interpretation by an expert agency provides evidence that future regulations will be adopted to further California on its trajectory toward meeting these future GHG targets.

Summary

Based on the considerations outlined above, the Project would not generate substantial GHG emissions or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs and no mitigation is required. This impact would be **less than significant**.

3.9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No 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?	☐	☐	☐	☒
d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

Setting

Hazardous materials stored and used in the area surrounding the Project site would likely be associated with common materials used in utility work, residential uses, and recreational activities, such as paints, cleaning solvents, bonding agents, and small quantity petroleum fuels and lubricants. The SWRCB GeoTracker and the California Department of Toxic Substances Control (DTSC) EnviroStor database were searched to identify toxic releases, hazardous waste, or other violations that could affect the Project site (SWRCB 2019; DTSC 2021). No active or closed cleanup sites are identified on the Project site or in the Project vicinity. No school exists within 0.25 mile of the Project site and the site is not near any private airstrip or within the boundaries of an airport land use plan.

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

Please refer to the discussion under b), below.

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

Project implementation is not anticipated to create a hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Vegetation clearance activities could result in temporary use, storage, and disposal of hazardous materials such as equipment fuel, however hazardous wastes would be disposed of in accordance with applicable federal, state, and local requirements. Project impacts would be **less than significant**.

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

The Project area is not located within 0.25 mile of any school. **No impact** would occur.

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

The Project site is not on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, therefore, 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 area?

The Project area is not located within an airport land use plan area or within 2 miles of a public or public use airport (El Dorado County Transportation Commission 2018). There would be **no impact**.

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

The Project would not include road closures or generate substantial traffic volumes that could create a hazard or slow the movement of vehicles. Therefore, Project implementation would not interfere with any adopted emergency response plan or emergency evacuation plan, including any EID emergency response plan or the El Dorado County Operational Area Multi-Hazard Functional Emergency Operations Plan, as implemented by the County Office of Emergency Services (OES) of the County Sheriff's Department. **No impact** would occur.

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

Project activities would temporarily introduce potential sources of fire ignition as a result of equipment operation and other treatment activities, which could temporarily increase the risk of wildfire. The Project is within a Very High Fire Hazard Severity Zone where an increased risk of wildfire would represent a significant impact to the environment and surrounding development and residents. However, Project activities would be implemented during periods of low fire danger when vegetation would not be susceptible to burning and is therefore not anticipated to result in increased risk of wildfire. Additionally, all work would be carried out consistent with the Forest Practice Rules and EID's fire prevention

policies that apply to all work carried out on EID facilities and lands. Including the implementation of a Fire Safety Plan during Project activities and prescribed fire watches deployed when weather and humidity conditions require.

The Project involves vegetation management with the intent to reduce the risk of wildfire exposure to people or structures and directly or indirectly reduce the risk of loss, injury, or death involving wildfire. Implementation of EID's proposed vegetation management project would reduce future fire intensity and severity to the Project areas by reducing surface fuels, increasing the height to tree canopy, decreasing crown density, and retaining large fire-resistant trees. Project-related activity would return the Project area to a managed, fire resistant condition that would benefit local communities and EID's critical infrastructure by create a fire resilient landscape which reduces the rate of spread, duration and intensity of future wildfires. Impacts would be **less than significant**.

3.10 Hydrology and Water Quality

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
X.	**HYDROLOGY AND WATER QUALITY – Would the project:**				
a)	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b)	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
	i) result in substantial erosion or siltation on or off site;	☐	☐	☒	☐
	ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;	☐	☐	☒	☐
	iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☐	☒
	iv) impede or redirect flood flows?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Setting

Climate in EID's service area is characterized by warm and dry weather in the summer, moderate to heavy precipitation in the winter, and wide temperature ranges. Strong flows of marine air from the Pacific Ocean result in heavy precipitation in the winter. Precipitation in the summer is generally limited to a few scattered thunderstorms during the summer months. The region surrounding the Project site receives approximately 52 inches of rainfall and 61 inches of snowfall annually. Average temperatures range from approximate 28°F to 92°F (WRCC 2021). Elevations on the Project site range from 3,875 to 4,075 feet above mean sea level.

The Project area lies within the Upper South Fork American River watershed and is not located within a 100-year floodplain (FEMA 2021). Two perennial waterways and several ephemeral drainages occur within the Project site.

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

There is the potential for erosion to occur with Project implementation that could result in the violation of water quality standards or water discharge requirements. Movement of surface soils will likely occur during the process of clearing the treatment area of vegetation and before new plant cover is established. The amount of soil erosion is influenced by clearance method, soil type, intensity of precipitation, slope angle, and the density of plants debris and litter remaining after treatment.

The Project would not require grading of soil to create access roads as work crews can utilize existing roads to access treatment areas. Vegetation management would occur by use of powered tools, machinery, and hand tools. No herbicides or other chemical treatments will be applied during the vegetation management. Vegetation management conducted along steep slopes would take place by crews using handheld equipment rather than motorized machinery. This approach would reduce potential for erosion because steep gradients can accumulate sediment and debris that can mobilize suddenly creating debris flows and severe scouring. Work exclusion areas would be identified around riparian zones in accordance with the Forest Practice Rules. This approach would provide a buffer of land that separates soil disturbed by vegetation management and minimize the potential for surface runoff to transport sediment to the drainage and create a potential for increased turbidity.

By following these techniques and complying with the best management practices outlined in the California Forest Practice Rules to minimize erosion, impacts would be **less than significant** level.

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

Project implementation would not involve extraction of groundwater or involve placement of impervious surfaces in an area designated for groundwater recharge. The Project would not deplete groundwater supplies and would not interfere with groundwater recharge. **No impact** would occur.

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

i) result in substantial erosion or siltation on or off site;

Vegetation management activities would not alter the course of a stream or river. Project implementation would not increase impervious surfaces. The Project would follow California Forest Practice Rules found in Title 14, California Code of Regulations, Chapters 4, 4.5, and 10 that require prescribed activities to reduce soil erosion and siltation of waterways, including buffers from sensitive stream zones and hand treatments only on steeply sloped treatment areas. Additionally, cut material would remain onsite as mulch and would act to protect soils from mechanical erosion from rain and concentrated stormwater. Therefore, Project impacts would be **less than significant**.

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

Project implementation would not introduce pavement or other impervious surfaces that would increase the rate of flow from surface runoff beyond existing conditions. Project-related activities would follow measures set forth in the California Forest Practice Rules to minimize surface runoff and protect soils. Therefore, the Project would not substantially increase the potential for onsite and off-site flooding by increasing the amount of surface runoff through the addition of impervious surfaces. Therefore, the Project would have **a less than significant** impact.

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

The Project does not drain to an existing stormwater drainage system. There would be no impact.

iv) impede or redirect flood flows?

The Project area is not located within a 100-year floodplain (FEMA 2021). Therefore, runoff flows from the Project area would not impede or redirect flood flows. There would be **no impact**.

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

The Project area is not located within a 100-year floodplain (FEMA 2021). There are no surface water bodies in the vicinity of the Project site that could generate damaging seiches (i.e., sloshing of water in an enclosed or restricted water body). The Project would have **no impact**.

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

Project activities would not result in conflicts with implementation of a water quality control plan or sustainable groundwater management plan. Vegetation management activities would not result in conditions that would alter or contribute to conflicts with an applicable water quality control plan or sustainable groundwater management plan.

Vegetation management can enhance ecosystem services, such as improve soil and water quality. In addition, vegetation management can lower the effects of a catastrophic wildfire on water quality, including degradation of water quality as shade is removed, increasing the water temperature and creating the potential for subsequent rain to carry sediment from newly exposed soil into waterways. There would be a **less than significant** impact.

3.11 Land Use and Planning

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. LAND USE AND PLANNING – Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

Setting

The Project site is located within EID-owned property, adjacent to U.S. Highway 50 and approximately 1.5 miles southwest of the town of Kyburz in El Dorado County, California. The surrounding land is mostly undeveloped forest land. The Project site is located between the unincorporated communities of Pollock Pines and Kyburz. U.S. 50 provides regional access to these communities and the Project area. The El Dorado County General Plan designates the Project site as Natural Resources (NR) and a Timber Production Zone (TPZ) zoning per the El Dorado Ordinance Code.

a) Would the project physically divide an established community?

The Project consists of the implementation of a vegetation management and fuels reduction plan. The Project site does not contain existing housing and the Project would not construct any buildings or structures or result in any other division of an established community**. No impact** would occur.

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

The Project would reduce the quantity of vegetation onsite, which would support the El Dorado County General Plan Public Health, Safety, and Noise Element, Fire Safety Goal 6.2 Fire Hazards which would "minimize fire hazards and risks in both wildland and developed areas." No component of the Project would conflict with the County's General Plan, or any other applicable land use policies or regulations. Therefore, **no impact** would occur.

3.12 Mineral Resources

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

Setting

There are no known mineral resources on or in the vicinity of the Project area. Additionally, the Project area is also not included in any Mineral Resources designation of the El Dorado General Plan.

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

See 'b' below.

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

The Project would implement a vegetation management plan and would result in no change in the availability of mineral resources or sites designated for recovery of important mineral resources. Therefore, the Project would have **no impact**.

3.13 Noise

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

Setting

The Project site would occur within the County of El Dorado near the unincorporated community of Kyburz. The Project site occurs on 42 acres of EID-owned land that is not within close proximity to any concentrations of residential or commercial land uses and is situated within a river canyon bisected by U.S. Highway 50, a source of substantial vehicle noise. Timber operations occur frequently in the vicinity of the project site as it is within an area zoned for timber production. Policy 6.5.1.11 in the El Dorado County General Plan, Health, Safety, and Noise Element states applicable noise standards "shall not apply to those activities associated with actual construction of a project as long as such construction occurs between the hours of 7 a.m. and 7 p.m., Monday through Friday, and 8 a.m. and 5 p.m. on weekends, and on federally recognized holidays". In addition, the standards "shall not apply to public projects to alleviate traffic congestion and safety hazards" (El Dorado County 2004).

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

The Project would generate noise associated with vegetation management, including operation of gas-powered equipment such as chain saws, mechanical masticators, trucks, and other equipment that would elevate noise levels in the vicinity of the work area temporarily during management activities. Vegetation management activities would be temporary and would be exempt from applicable noise standards since all Project activities would be carried out during normal daylight hours when noise generation from maintenance activities would be exempt from applicable noise standards identified by El Dorado County Policy 6.5.1.11. The Project would result in no permanent increase in noise levels over the existing

condition. Temporarily elevated noise levels as a result of vegetation management activities that would occur during noise-exempt days and hours would be **less than significant**.

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

The Project involves vegetation management and would not be expected to generate excessive ground-borne vibration or noise levels to on or offsite areas. Minor vibration and noise could be detectable to people very close to the work area as a result of equipment and vehicle operation but any detectable vibration or noise would be intermittent and temporary and would not affect sensitive receptors such as residential areas or schools, and is not likely to be distinguishable from vibration and noise generated by traffic on U.S. Highway 50 and would be consistent with ongoing timber operations in the area. Impacts associated with temporary ground-borne vibration related to the proposed vegetation management would be **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?

The Project would not be within two miles of a public or private airstrip or airport and the Project would not occur within an airport land use plan. Thus, the Project would have **no impact**.

3.14 Population and Housing

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING – 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)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Setting

The Project site is located on EID-owned land within the County of El Dorado. There are no existing homes within the Project site.

a) Would the project 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)?

See 'b' below.

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

The Project would implement a vegetation management and removal plan on EID owned land. The Project site does not contain existing housing. As the Project would result in vegetation management within existing site and includes no components, such as increased capacity or extension of infrastructure, that would indirectly generate increased population, the Project would not induce population growth. Therefore, the Project would result in **no impact** associated with inducing substantial population growth or construction of replacement housing due to displacement of people or existing housing

3.15 Public Services

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

Setting

The Project site is within the County of El Dorado and is served by El Dorado County Fire District, and El Dorado County Sheriff's Department.

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

Fire protection?

Police protection?

Schools?

Parks?

Other public facilities?

The Project would result in fuels reduction within approximately 42 acres of forested area and would not induce population growth and would generate no additional demand for fire protection, police protection, schools, or other public services. The Project would not require construction of new public services facilities to maintain existing service levels and performance objectives for services. As the Project is intended to reduce the onsite fuel load, it is intended to reduce the potential for wildland fire and could act to reduce the firefighting burden on firefighters during the fire season. Therefore, **no impact** would result from construction of new facilities to meet an increased demand for services as a result of the Project.

3.16 Recreation

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

Setting

The Project site is within EID-owned land within the County of El Dorado and near the community of Kyburz and adjacent to the Eldorado National Forest.

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

See 'b' below.

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

The Project includes no residential or recreational development, and Project implementation would result in no increase in population in the area that would require additional recreation facilities or generate increased demand for recreational facilities; workers carrying out the work would generally be from local areas and would be in the area temporarily to carry out treatment activities and would not be expected to utilize recreational facilities in the area such that deterioration of existing facilities could occur. The Project would therefore have a **less than significant impact** associated with deterioration of recreation facilities and **no impact** associated with construction of new recreation facilities.

3.17 Transportation

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

Setting

The Project site is 42 acres of EID-owned property near the unincorporated community of Kyburz and main regional access to the Project area would be provided via U.S. Highway 50 and private access roads on EID property.

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

The Project would not construct land uses that would result in an increase in traffic to the Project site after completion of the proposed vegetation management activities. There would be a slight increase in traffic to the Project site as a result of worker trips while treatment activities are being carried out, but this would be temporary and would not require street or lane closure or new roads. Therefore, the Project would not interfere with a plan, program, or policy directed at the circulation system nor would the Project conflict with adopted applicable policies or plans related to the performance of the circulation system. Therefore, the Project would have a **less than significant impact**.

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

CEQA Guidelines Section 15064.3, subdivision (b) Criteria for Analyzing Transportation Impacts includes provisions for evaluation a project's transportation impacts by using the vehicles miles traveled (VMT) metric. According to the guidelines, a lead agency may elect to be governed by the provisions of Section 15064.3 immediately; or beginning July 1, 2020, when the provisions apply statewide. CEQA Guidelines Section 15064.3, subdivision (b)(3) allows for a qualitative analysis of potential impacts related to VMT. The Project is not proposing a land use change and traffic volumes to the Project site following implementation of the Project would not change as compared to current traffic volumes. Therefore, while there would be a slight short-term increase in traffic volumes during Project implementation, long-term vehicle miles traveled would not increase as a result of the Project and the Project would have a **less than significant impact**.

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

The Project would not result in new roads or changes in the design of existing roads. **No impact.**

d) Would the project result in inadequate emergency access?

Emergency access would be maintained on all public roads at all times during Project activities. **No impact**.

3.18 Tribal Cultural Resources

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

Setting

Regulatory Framework

Passed in 2014, AB 52 requires consultation regarding projects that may affect a tribal cultural resource. The law provides for the inclusion of California tribes' expertise regarding cultural resources and a process for governing bodies to incorporate tribal knowledge into their CEQA review processes.

Tribal Correspondence

As discussed in Section 3.5, a cultural resources inventory report was prepared for the Project (Appendix D [confidential]) area to satisfy the requirements of CEQA and Section 106 of the National Historic Preservation Act (NHPA). The inventory included a records search of previous studies of the APE and a surrounding half-mile radius conducted by staff of the North Central Information Center (NCIC) as well as a pedestrian survey of the APE, a search of the NAHC's Sacred Lands File, review of historic references, historic maps, and historic aerial photos taken in 1952 and 1993. The NCIC records search identified 28 previous cultural resource investigations have been conducted within 0.5 mile of the property, covering approximately 60 percent of the total area surrounding the property within the record search radius. These studies revealed the presence of pre-contact sites, including lithic

scatters, bedrock mortars, habitation sites, and historical sites. The previous studies were conducted between 1969 and 2009.

The NCIC records search determined that 25 previously recorded pre-contact and historic-period cultural resources are located within 0.5 mile of the Project area. Of those, 11 are believed to be associated with Native American occupation of the vicinity and two resources are multi-component sites with both historic and pre-contact components.

Tribal consultation was conducted by EID. Letters were sent to the following tribal representatives on March 1, 2021 via certified mail :

- Regina Cuellar, Chairwoman, Shingle Springs Band of Miwok Indians
- Daniel Fonseca, Cultural Resources Director, Shingle Springs Band of Miwok Indians
- Michael Mirelez, Cultural Resource Coordinator, Torres Martinez Desert Cahuilla Indians
- Gene Whitehouse, Chairman, United Auburn Indian Community of the Auburn Rancheria
- Jason Camp, Tribal Historic Preservation Officer, United Auburn Indian Community of the Auburn Rancheria
- Marcos Guerrero, Cultural Resources Manager, United Auburn Indian Community of the Auburn Rancheria
- Raymond C. Hitchcock, Chairman, Wilton Rancheria
- Ralph Hatch, Director, Wilton Rancheria
- Erin Young, Chairwoman, Wopumnes Nisenan-Mewuk Nation of El Dorado County

EID received a consultation request from the United Auburn Indian Community of the Auburn Rancheria (UAIC) on March 11, 2021. The UAIC did not identify any known tribal cultural resources within the project boundary; however, the UAIC did provide information regarding appropriate mitigation measures for tribal cultural resources, which are incorporated into the mitigation measures herein. Please efer to Appendix E for further consultation information.

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

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

There are no known tribal cultural resources within the project boundary. Therefore, **no impact** to tribal cultural resources eligible for listing in the California Register of Historical Resources or in a local register of historical resources would result from implementation of the Project.

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

The Project would remove surface level vegetation within the 42 acres proposed for vegetation management. Though unlikely, soil disturbance during Project activities could damage previously unrecorded tribal cultural resources. As discussed under 'setting' above, the NCIC records search indicates that 11 sites associated with Native American occupation as well as two multi-component

sites have been previously recorded within the Project area. A search of the Sacred Lands File by the NAHC was retuned on December 4, 2020 and did not indicate the presence of Native American cultural resources in the Project area. The NAHC provided a list of Native American tribal representatives that have traditional associations to the Project area. EID contacted the tribal representatives listed in the setting section above. EID received one response from UAIC, which requested consultation. Based on the results of the NCIC records search, intensive pedestrian survey, NAHC and tribal correspondence, and review of previous technical studies for this area, no known tribal cultural resources exist on the Project site. However, due to the presence of alluvium along the South Fork American River and given the likelihood of tribal cultural resources located along perennial waterways, the potential exists for buried tribal cultural resources in the Project area. Mitigation Measures TCR-1 and TCR-2 were developed in consultation with UAIC representatives and outline protocol for any discovery of previously unknown tribal cultural resources to ensure appropriate actions are taken to minimize impacts to any discovery that could occur during treatment activities. Impacts to tribal cultural resources would be **less than significant with mitigation incorporated**.

Mitigation Measures

TCR-1 *Implement Best Management Practices to Reduce or Avoid Impacts on Tribal Cultural Resources (TCR).* EID shall implement the following measure to reduce or avoid impacts on Tribal Cultural Resources (TCRs). If interested Native American Tribe(s) provide information demonstrating the significance of the project site and substantial evidence supporting the determination that the site is highly sensitive for TCRs, EID will conduct a site visit with Tribal Representatives to evaluate the potential for TCRs at the project site. If Tribal Representatives and EID determine the site is highly sensitive for TCRs and that the Project may have a significant impact on TCRs, EID, in consultation with Tribal Representatives or others, will develop and implement best management practices (BMPs) to reduce or avoid impacts on TCRs. BMPs may include, but are not limited to: 1) modify the Project to preserve the TCRs in place, 2) establish exclusion zones and/or minimize work activities in proximity to TCRs, 3) provide notice at least seven days prior to the start of the project to invite Tribal Representatives to observe and inspect the project site during initial ground disturbing activities, 4) prepare a TCR awareness brochure and provide TCR training to construction personnel, 5) provide notice at least seven days prior to the start of the project to invite Tribal Representatives to provide training of construction personnel involved in project implementation.

TCR-2: *Address Previously Undiscovered Tribal Cultural Resources.* EID shall implement the following measure to reduce or avoid impacts and address the evaluation and treatment of inadvertent/unanticipated discoveries of potential Tribal Cultural Resources (TCRs) during the project's ground disturbing activities. If any suspected TCRs are discovered during ground disturbing construction activities, all work shall cease within the immediate vicinity of the discovery, or an agreed upon distance based on the project area and nature of the discovery. EID shall invite a Tribal Representative from culturally affiliated tribes to visit the site and examine the discovery to determine whether or not the discovery represents a TCR (PRC §21074). Tribal Representatives shall have 48 hours to respond to EID's notification and schedule a site visit. If the discovery represents a TCR, EID will work with Tribal Representatives or others to develop recommendations for culturally-appropriate treatment. The contractor shall implement any measures determined by EID to be necessary. Work at the discovery location will not resume until the agreed upon treatment has been implemented to the satisfaction of EID.

3.19 Utilities and Service Systems

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

Setting

The Project site is not currently served by and the Project would not require any water, wastewater, storm water, electric power, natural gas, or telecommunication facilities

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

See 'e' below.

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

See 'e' below.

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

See 'e' below.

d) Would the project 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?

See 'e' below.

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

The Project would involve vegetation management within EID-owned land. No structures or facilities would be constructed as a result of the Project and it would not increase demand for water supply, water, or wastewater treatment services. All materials produced by the Project would be green waste and would be utilized within the Project site for ground cover and slope stabilization. The Project would not substantially alter drainage patterns or increase runoff on the treatment sites, and therefore no new storm water drainage facilities or expansion of existing storm water facilities would be necessary. Therefore, **no impact** would occur.

3.20 Wildfire

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. WILDFIRE – 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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No 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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Setting

The Project site is located within a Wildland Urban Interface area, which are areas between development and undeveloped wildlands. The Project site is designated as a Very High, High, and Moderate Fire Hazard Severity Zone wildfire hazard area by CALFIRE and is within a state responsibility area. Battalion 1 of CAL FIRE's Amador-El Dorado Unit has primarily responsibility for response to wildland fires in the Project area (CAL FIRE 2018). Battalion 1 encompasses approximately 590,000 acres in El Dorado and Sacramento counties. El Dorado County communities within the Battalion include Camino, Diamond Springs, El Dorado, El Dorado Hills, Pioneer, Logtown, Latrobe, Nashville, Cameron Park, Placerville, Pleasant Valley, Pollock Pines, Rescue, Shingle Springs, and Grizzly Flats. Within Battalion 1, El Dorado Station 43 would provide first response to the Project site. El Dorado Station 43 houses two Type III fire engines and one Type II fire dozer (CAL FIRE 2018). It also houses one dozer tender unit and is the Battalion Chief Headquarters. El Dorado Station 43 is approximately 10 miles west of the Project area, at 5660 Mother Lode in Placerville.

a) Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

Emergency access would be maintained on all public roads at all times during Project activities. **No impact.**

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

The purpose of the Project would be the reduction of fuel load within the forested Project site. Implementation of the Project would support several wildfire strategic plans: California Strategic Fire Plan; 2012 Strategic Fire Plan for Amador-El Dorado- Sacramento Alpine Unit; 2015 CAL FIRE Amador- El Dorado Ranger Unit Strategic Fire Plan; National Cohesive Wildland Fire Management Strategy; and El Dorado County Community Wildfire Protection Plan (CWPP). The vegetation management activities proposed would help to reduce the risk of potential wildfires and, thus, the Project would have **no impact** related to exacerbating wildfire risks.

c) Would the project 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?

The Project would implement a vegetation reduction plan within EID-owned lands. The Project would not result in the installation of infrastructure that would result in an exacerbated fire risk. Therefore, the Project would have **no impact**.

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

The Project would not require grading, construct structures, or require any activities that would alter existing onsite drainage and slope. The Project would, through its fuel reduction and vegetation management, reduce the risk of runoff, post-fire slope instability, and adverse drainage changes as compared existing conditions. Therefore, the Project would have **no impact**.

3.21 Mandatory Findings of Significance

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

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

The Project treatment sites include riparian habitat and provide suitable habitat for nesting birds and other wildlife, as discussed in Section 3.4 of this Initial Study. With implementation of mitigation measures identified in Section 3.4 and as conditions of permit issuance by CDFW, the Project would not reduce habitat for fish or wildlife species, threaten to eliminate a plant or animal community, or adversely affect rare or endangered species. Implementation of Mitigation Measures BIO-1 through BIO-3 would ensure that Project impacts to biological resources would be **less than significant**.

As discussed in Section 3.5, two historic cultural resources sites have been identified within the Project APE. Implementation of Mitigation Measure CUL-1 would ensure that appropriate measures are implemented to ensure that impacts to these sites remain less than significant. Mitigation Measure CUL.2 would ensure that impacts to cultural resources that could be inadvertently discovered during Project activities would remain **less than significant**.

As discussed in Section 3.18 previously recorded pre-contact cultural resource sites have been identified within the Project APE and EID consulted with UAIC and no tribal cultural resources were identified on the Project site. Implementation of Mitigation Measures TCR-1 and TCR-2 would ensure that appropriate measures are implemented to ensure that impacts to any tribal cultural resources remain **less than significant**.

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

The Project would thin vegetation in forested areas within EID-owned land for the purpose of fuel reduction and defensible space management and would result in temporary impacts associated with fuel reduction activities. Cumulative impacts of the Project and other similar projects would result in **less than significant effects** identified throughout this Initial Study**.**

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

The Project effects are primarily short-term during vegetation reduction activities. The Project would be consistent with applicable local ordinances and policies related to land use, noise, and protection of natural resources and the environment, as disclosed by this Initial Study. Project emissions of ROG and NOX would remain below thresholds of significance for cumulative impacts. The Project would result in **less than significant impacts** associated with any cumulatively considerable impacts within any resource areas analyzed.

4 References and Preparers

4.1 References Cited

14 CCR 15000–15387 and Appendices A through L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

CAL FIRE 2020. California Fire Hazard Severity Zone Viewer, Fire and Resource Assessment Program. Available: https://egis.fire.ca.gov/FHSZ/. Accessed April 2021.

CAL FIRE. 2017. California Forest Practice Rules. Prepared for Licensed Timber Operator and California Registered Professional Foresters.

California Public Resources Code, Section 21000–21177. California Environmental Quality Act, as amended.

California Department of Conservation, 2015). Fault activity map of California, California Geologic Survey https://maps.conservation.ca.gov/cgs/fam/

California Department of Transportation. 2019. California Scenic Highway Mapping System Scenic Route 2019. Available: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm. Accessed March 2021.

CDC. 2020. California Important Farmland Finder. Farmland Mapping and Monitoring Program. 2014. https://maps.conservation.cagov/DLRP/CIFF/

ECORP Consulting, Inc. 2020. Cultural Resources Inventory and Evaluation Report El Dorado Canal Vegetation Management. 2020.

El Dorado County. 2003. El Dorado County General Plan, Visual Resources. Available: https://www.edcgov.us/government/planning/drafteir/volume1/documents/V1_53.pdf . Accessed March 2021.

_____. 2003. El Dorado County General Plan EIR. Available: https://www.edcgov.us/Government/planning/pages/draft_environmental_impact_report_(deir).aspx. Accessed March 2021.

Federal Emergency Management Agency. 2021. FEMA Flood Map. Available: https://msc.fema.gov/portal/search?AddressQuery=pollock%20pines#searchresultsanchor. Accessed March 2021.

USDA (U.S. Department of Agriculture). 2020a. Natural Resources Conservation Service (NRCS). Web Soil Survey. Accessed March 2021. http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm.

WRCC (Western Regional Climate Center). 2021. Pacific House, California (046597) Coop Station Monthly Climate Summary. Accessed March 2021. https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca6597

4.2 List of Preparers

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Appendix A

Draft MMRP

Draft El Dorado Canal Diversion Vegetation Management Project Mitigation Monitoring and Reporting Program

The California Environmental Quality Act (CEQA) requires that when a lead agency adopts a Mitigated Negative Declaration (MND), it shall prepare a mitigation monitoring and reporting program (MMRP) for all required mitigation measures (CEQA Guidelines Section 15097). This MMRP identifies the monitoring program for mitigation measures identified by the IS/MND to reduce or avoid impacts associated with implementing the proposed El Dorado Canal Diversion Vegetation Management Project. The MMRP shall be maintained by the El Dorado Irrigation District (EID).

Number	Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Mitigation Timing	Performance Evaluation Criteria
Biological Resources					
BIO-1	The following measures shall be implemented to avoid, minimize or reduce impacts to special-status plant species: If more than five years have passed since the July 2020 rare plant survey or a subsequent rare plant survey, prior to ground-disturbance, a qualified botanist familiar with common and rare plant species of the Sierra Nevada region shall conduct surveys of all areas of potential project disturbance during the appropriate blooming period for potentially occurring special-status plant species. The purpose of the survey shall be to delineate and flag populations of special-status plant species for avoidance. If no special-status plants are identified, no further mitigation is necessary. Special-status plant populations identified during the pre- construction survey shall be mapped using a hand-held GPS unit and avoided where possible. Plant individuals or populations plus a 10-foot buffer shall be temporarily fenced during vegetation management activities with high-visibility fencing or prominently flagged	EID	EID	*If more than five years after July 2020: • Survey within 14 days prior to vegetation treatment activities. • Protective measures throughout vegetation treatment activities.	• Measures implemented • Impacts to special-status plants avoided

Number	Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Mitigation Timing	Performance Evaluation Criteria
BIO-2	To the extent feasible, El Dorado Irrigation District shall schedule vegetation removal activities during the non-breeding season for birds in the region (August 16 through February 14). If vegetation removal must be carried out during the breeding season, a qualified biologist shall conduct a nesting bird survey within 1 week prior to said activities to determine if any birds are nesting on or near the project site (including a 500-foot buffer for raptors). If any active nests are observed during surveys, a suitable avoidance buffer from the nests shall be determined and flagged by a qualified biologist based on species, location, and planned construction activities. Consultation with CDFW may be required to determine appropriate buffer distances. These nests shall be avoided until the chicks have fledged and the nests are no longer active, as determined by the qualified biologist	Contractor/EID	EID	Prior to vegetation removal during the breeding season.	Avoidance of impacts to nesting birds.
BIO-3	Removal of potential roost habitat identified during the assessment shall be avoided during the bat maternity season (May 1 through August 15). If removal of potential roost habitat occurs outside of the maternity season, no further mitigation shall be required. If removal of potential roost habitat must be conducted during the maternity season, within 30 days prior to project activities a qualified biologist experienced with Sierra Nevada bat species shall conduct a survey to search for evidence of bat roosts in trees	Contractor/EID	EID	Initial survey within 30 days before removal of potential bat roosting habitat during the maternity season. Roost activity survey within 2 weeks before removal of potential bat roosting habitat during the maternity season.	Avoidance of impacts to active bat roosts.

Number	Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Mitigation Timing	Performance Evaluation Criteria
	and structures subject to removal. If the survey identifies potential bat roosts, the biologist shall establish an appropriate buffer to project activities within which no disturbance shall occur until the end of the maternity season or until a qualified bat biologist has determined that the young are capable of flight. If an appropriate buffer from potential bat roosts cannot be observed, pre-construction inspections for bats shall be conducted using appropriate methods (e.g., camera inspection, exit survey with night optics, acoustic survey) within 2 weeks prior to said activities. If inspections determine that there is an active roost, removal of that roost feature will be delayed until the end of the maternity season or until a qualified bat biologist has determined that the young are capable of flight or the roost is inactive				
Cultural Resources					
CUL-1	EID shall implement the following measure to reduce or avoid impacts on undiscovered historic properties and archaeological resources. If buried or previously unidentified historic properties or archaeological resources are discovered during project activities, all work within a 100-foot radius of the find shall cease. EID shall retain a professional archaeologist meeting the Secretary of the Interior's Professional Standards for Archaeologists to assess the discovery and recommend what, if any, further treatment or investigation is necessary for the discovery.	Contractor/EID	EID	Throughout vegetation treatment activities.	Impacts avoided to unanticipated archaeological resources.

Number	Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Mitigation Timing	Performance Evaluation Criteria
	Any necessary treatment/investigation shall be developed and coordinated with the State Historic Preservation Officer or others as necessary, and shall be completed before project activities resume in the vicinity of the discovery.				
CUL-2	EID shall implement the following measures to reduce or avoid impacts related to undiscovered burials. In accordance with the California Health and Safety Code, if human remains are uncovered during ground-disturbing activities, all potentially damaging ground-disturbance in the area of the burial and a 100-foot radius shall halt and the El Dorado County Coroner shall be notified immediately. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are, or are believed to be, those of a Native American, then Federal laws governing the disposition of those remain would come into effect. Specifically, the Native American Graves Protection and Repatriation Act (NAGPRA), Pub L. 101-601, 25 U.S.C. 3001 et seq., 104 Stat. 3048 requires federal agencies and institutions that receive federal funding to return Native American cultural items to lineal descendants and culturally affiliated Indian Tribes and Native Hawaiian organizations. Cultural items include	Contractor/EID	EID	Throughout vegetation treatment activities.	Compliance with California Health and Safety Code and NAGPRA. Impacts minimized or avoided to potential human remains.

Number	Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Mitigation Timing	Performance Evaluation Criteria
	human remains, funerary objects, sacred objects, and objects of cultural patrimony. NAGPRA also has established procedures for the inadvertent discovery of Native American cultural items on Federal or Tribal lands, which includes consultation with potential lineal descendants or Tribal officials as part of their compliance responsibilities. California law recognizes the need to protect Native American human burials, skeletal remains, and items associated with Native American burials from vandalism and inadvertent destruction. EID shall ensure that the procedures for the treatment of Native American human remains contained in California Health and Safety Code Sections 7050.5 and 7052 and Public Resources Code Section 5097 are followed				
Tribal Cultural Resources					
TCR-1	**Implement Best Management Practices to Reduce or Avoid Impacts on Tribal Cultural Resources.** EID shall implement the following measure to reduce or avoid impacts on Tribal Cultural Resources (TCRs). If interested Native American Tribe(s) provide information demonstrating the significance of the project site and substantial evidence supporting the determination that the site is highly sensitive for TCRs, EID will conduct a site visit with Tribal Representatives to evaluate the potential for TCRs at the project site. If Tribal Representatives and EID determine the site is highly sensitive for TCRs and that	Contractor/EID	EID	Throughout vegetation treatment activities.	Mitigation measure implemented to avoid or reduce impacts to potential TCRs.

Number	Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Mitigation Timing	Performance Evaluation Criteria
	the proposed project may have a significant impact on TCRs, EID, in consultation with Tribal Representatives or others, will develop and implement best management practices (BMPs) to reduce or avoid impacts on TCRs. BMPs may include, but are not limited to: 1) modify the proposed project to preserve the TCRs in place, 2) establish exclusion zones and/or minimize work activities in proximity to TCRs, 3) provide notice at least seven days prior to the start of the project to invite Tribal Representatives to observe and inspect the project site during initial ground disturbing activities, 4) prepare a TCR awareness brochure and provide TCR training to construction personnel, 5) provide notice at least seven days prior to the start of the project to invite Tribal Representatives to provide training of construction personnel involved in project implementation.				
TCR-2	**Address Previously Undiscovered Tribal Cultural Resources**. EID shall implement the following measure to reduce or avoid impacts and address the evaluation and treatment of inadvertent/unanticipated discoveries of potential Tribal Cultural Resources (TCRs) during the project's ground disturbing activities. If any suspected TCRs are discovered during ground disturbing construction activities, all work shall cease within the immediate vicinity of the discovery, or an agreed upon distance based on the project area and	Contractor/EID	EID	Throughout vegetation treatment activities.	Mitigation measure implemented in the event of TCR discovery and agreed upon measures implemented to satisfaction of EID.

Number	Mitigation Measure	Implementation Responsibility	Monitoring Responsibility	Mitigation Timing	Performance Evaluation Criteria
	nature of the discovery. EID shall invite a Tribal Representative from culturally affiliated tribes to visit the site and examine the discovery to determine whether or not the discovery represents a TCR (PRC §21074). Tribal Representatives shall have 48 hours to respond to EID's notification and schedule a site visit. If the discovery represents a TCR, EID will work with Tribal Representatives or others to develop recommendations for culturally-appropriate treatment. The contractor shall implement any measures determined by EID to be necessary. Work at the discovery location will not resume until the agreed upon treatment has been implemented to the satisfaction of EID.				

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Appendix B

AQ-GHG Outputs

CalEEMod Version: CalEEMod.2016.3.2

Date: 3/16/2021 2:50 PM

Below Weber Mill Rd. above Hwy 50

El Dorado-Mountain County County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	2.50	User Defined Unit	2.50	0.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EID Vegetation Managment Project - Below Weber Mill Rd. above Hwy 50. El Dorado County.

Land Use - Acres based on max area for hand treatment.

Construction Phase - Veg mgmt assumed to begin fall 2021. Duration based on 0.5 acres treated per day.

Off-road Equipment - Industrial saw assumed as surrogate for chainsaw/pole saws.

Off-road Equipment - Industrial saw assumed as surrogate for chainsaw/pole saws.

Trips and VMT - Approximately 12 workers at a specific site.

On-road Fugitive Dust - Default assumptions assumed.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	3.00	5.00
tblGrading	AcresOfGrading	0.00	7.50
tblLandUse	LotAcreage	0.00	2.50
tblOffRoadEquipment	HorsePower	81.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	15.00	24.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	4.0000e-004	2.5000e-004	2.5900e-003	1.0000e-005	4.7100e-003	1.0000e-005	4.7200e-003	6.2000e-004	0.0000	6.3000e-004	0.0000	0.6289	0.6289	2.0000e-005	0.0000	0.6294
Maximum	**4.0000e-004**	**2.5000e-004**	**2.5900e-003**	**1.0000e-005**	**4.7100e-003**	**1.0000e-005**	**4.7200e-003**	**6.2000e-004**	**0.0000**	**6.3000e-004**	**0.0000**	**0.6289**	**0.6289**	**2.0000e-005**	**0.0000**	**0.6294**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	4.0000e-004	2.5000e-004	2.5900e-003	1.0000e-005	4.7100e-003	1.0000e-005	4.7200e-003	6.2000e-004	0.0000	6.3000e-004	0.0000	0.6289	0.6289	2.0000e-005	0.0000	0.6294
Maximum	**4.0000e-004**	**2.5000e-004**	**2.5900e-003**	**1.0000e-005**	**4.7100e-003**	**1.0000e-005**	**4.7200e-003**	**6.2000e-004**	**0.0000**	**6.3000e-004**	**0.0000**	**0.6289**	**0.6289**	**2.0000e-005**	**0.0000**	**0.6294**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**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	Hand Treatment	Site Preparation	9/1/2021	9/7/2021	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Hand Treatment	Concrete/Industrial Saws	6	8.00	4	0.73
Hand Treatment	Graders	0	8.00	187	0.41
Hand Treatment	Scrapers	0	8.00	367	0.48
Hand Treatment	Tractors/Loaders/Backhoes	0	7.00	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
Hand Treatment	6	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Hand Treatment - 2021

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					3.9800e-003	0.0000	3.9800e-003	4.3000e-004	0.0000	4.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	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
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**3.9800e-003**	**0.0000**	**3.9800e-003**	**4.3000e-004**	**0.0000**	**4.3000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	4.0000e-004	2.5000e-004	2.5900e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.4000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6289	0.6289	2.0000e-005	0.0000	0.6294
Total	**4.0000e-004**	**2.5000e-004**	**2.5900e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.4000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6289**	**0.6289**	**2.0000e-005**	**0.0000**	**0.6294**

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					3.9800e-003	0.0000	3.9800e-003	4.3000e-004	0.0000	4.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	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
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**3.9800e-003**	**0.0000**	**3.9800e-003**	**4.3000e-004**	**0.0000**	**4.3000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	4.0000e-004	2.5000e-004	2.5900e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.4000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.6289	0.6289	2.0000e-005	0.0000	0.6294
Total	**4.0000e-004**	**2.5000e-004**	**2.5900e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.4000e-004**	**2.0000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**0.6289**	**0.6289**	**2.0000e-005**	**0.0000**	**0.6294**

CalEEMod Version: CalEEMod.2016.3.2

Date: 3/16/2021 2:52 PM

Below Weber Mill Rd. above Hwy 50

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	2.50	User Defined Unit	2.50	0.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EID Vegetation Managment Project - Below Weber Mill Rd. above Hwy 50. El Dorado County.

Land Use - Acres based on max area for hand treatment.

Construction Phase - Veg mgmt assumed to begin fall 2021. Duration based on 0.5 acres treated per day.

Off-road Equipment - Industrial saw assumed as surrogate for chainsaw/pole saws.

Off-road Equipment - Industrial saw assumed as surrogate for chainsaw/pole saws.

Trips and VMT - Approximately 12 workers at a specific site.

On-road Fugitive Dust - Default assumptions assumed.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	3.00	5.00
tblGrading	AcresOfGrading	0.00	7.50
tblLandUse	LotAcreage	0.00	2.50
tblOffRoadEquipment	HorsePower	81.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	15.00	24.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.1677	0.0860	1.1544	3.0200e-003	1.8973	2.1500e-003	1.8995	0.2531	1.9800e-003	0.2550	0.0000	300.6199	300.6199	8.5100e-003	0.0000	300.8327
Maximum	**0.1677**	**0.0860**	**1.1544**	**3.0200e-003**	**1.8973**	**2.1500e-003**	**1.8995**	**0.2531**	**1.9800e-003**	**0.2550**	**0.0000**	**300.6199**	**300.6199**	**8.5100e-003**	**0.0000**	**300.8327**

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					
2021	0.1677	0.0860	1.1544	3.0200e-003	1.8973	2.1500e-003	1.8995	0.2531	1.9800e-003	0.2550	0.0000	300.6199	300.6199	8.5100e-003	0.0000	300.8327
Maximum	**0.1677**	**0.0860**	**1.1544**	**3.0200e-003**	**1.8973**	**2.1500e-003**	**1.8995**	**0.2531**	**1.9800e-003**	**0.2550**	**0.0000**	**300.6199**	**300.6199**	**8.5100e-003**	**0.0000**	**300.8327**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**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	Hand Treatment	Site Preparation	9/1/2021	9/7/2021	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Hand Treatment	Concrete/Industrial Saws	6	8.00	4	0.73
Hand Treatment	Graders	0	8.00	187	0.41
Hand Treatment	Scrapers	0	8.00	367	0.48
Hand Treatment	Tractors/Loaders/Backhoes	0	7.00	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
Hand Treatment	6	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Hand Treatment - 2021

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					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	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**	**1.5908**	**0.0000**	**1.5908**	**0.1718**	**0.0000**	**0.1718**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1677	0.0860	1.1544	3.0200e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		300.6199	300.6199	8.5100e-003		300.8327
Total	**0.1677**	**0.0860**	**1.1544**	**3.0200e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**300.6199**	**300.6199**	**8.5100e-003**		**300.8327**

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					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	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**	**1.5908**	**0.0000**	**1.5908**	**0.1718**	**0.0000**	**0.1718**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1677	0.0860	1.1544	3.0200e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		300.6199	300.6199	8.5100e-003		300.8327
Total	**0.1677**	**0.0860**	**1.1544**	**3.0200e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**300.6199**	**300.6199**	**8.5100e-003**		**300.8327**

CalEEMod Version: CalEEMod.2016.3.2

Date: 3/16/2021 2:53 PM

Below Weber Mill Rd. above Hwy 50

El Dorado-Mountain County County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	2.50	User Defined Unit	2.50	0.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EID Vegetation Managment Project - Below Weber Mill Rd. above Hwy 50. El Dorado County.

Land Use - Acres based on max area for hand treatment.

Construction Phase - Veg mgmt assumed to begin fall 2021. Duration based on 0.5 acres treated per day.

Off-road Equipment - Industrial saw assumed as surrogate for chainsaw/pole saws.

Off-road Equipment - Industrial saw assumed as surrogate for chainsaw/pole saws.

Trips and VMT - Approximately 12 workers at a specific site.

On-road Fugitive Dust - Default assumptions assumed.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	3.00	5.00
tblGrading	AcresOfGrading	0.00	7.50
tblLandUse	LotAcreage	0.00	2.50
tblOffRoadEquipment	HorsePower	81.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	15.00	24.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.1798	0.1062	1.0353	2.7300e-003	1.8973	2.1500e-003	1.8995	0.2531	1.9800e-003	0.2550	0.0000	271.4871	271.4871	7.7200e-003	0.0000	271.6801
Maximum	**0.1798**	**0.1062**	**1.0353**	**2.7300e-003**	**1.8973**	**2.1500e-003**	**1.8995**	**0.2531**	**1.9800e-003**	**0.2550**	**0.0000**	**271.4871**	**271.4871**	**7.7200e-003**	**0.0000**	**271.6801**

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					
2021	0.1798	0.1062	1.0353	2.7300e-003	1.8973	2.1500e-003	1.8995	0.2531	1.9800e-003	0.2550	0.0000	271.4871	271.4871	7.7200e-003	0.0000	271.6801
Maximum	**0.1798**	**0.1062**	**1.0353**	**2.7300e-003**	**1.8973**	**2.1500e-003**	**1.8995**	**0.2531**	**1.9800e-003**	**0.2550**	**0.0000**	**271.4871**	**271.4871**	**7.7200e-003**	**0.0000**	**271.6801**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**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	Hand Treatment	Site Preparation	9/1/2021	9/7/2021	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Hand Treatment	Concrete/Industrial Saws	6	8.00	4	0.73
Hand Treatment	Graders	0	8.00	187	0.41
Hand Treatment	Scrapers	0	8.00	367	0.48
Hand Treatment	Tractors/Loaders/Backhoes	0	7.00	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
Hand Treatment	6	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Hand Treatment - 2021

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					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	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**	**1.5908**	**0.0000**	**1.5908**	**0.1718**	**0.0000**	**0.1718**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1798	0.1062	1.0353	2.7300e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		271.4871	271.4871	7.7200e-003		271.6801
Total	**0.1798**	**0.1062**	**1.0353**	**2.7300e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**271.4871**	**271.4871**	**7.7200e-003**		**271.6801**

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					1.5908	0.0000	1.5908	0.1718	0.0000	0.1718			0.0000			0.0000
Off-Road	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**	**1.5908**	**0.0000**	**1.5908**	**0.1718**	**0.0000**	**0.1718**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1798	0.1062	1.0353	2.7300e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		271.4871	271.4871	7.7200e-003		271.6801
Total	**0.1798**	**0.1062**	**1.0353**	**2.7300e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**271.4871**	**271.4871**	**7.7200e-003**		**271.6801**

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Above Weber Mill Rd

El Dorado-Mountain County County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	4.00	User Defined Unit	4.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EID Vegetation Managment Project - Above Weber Mill Rd. above Hwy 50. El Dorado County.

Land Use - Acres based on max area for mechanical and hand treatment areas.

Construction Phase - Veg mgmt assumed to begin fall 2021. Duration based on 0.5 acres treated per day for hand treatment and 2 acres per day for mechanical treatment.

Off-road Equipment - Industrial saw assumed as surrogate for chainsaw/pole saws.

Off-road Equipment - Default equipment assumed.

Off-road Equipment - Industrial saw assumed as surrogate for chainsaw/pole saws.

Trips and VMT - Approximately 12 workers at a specific site.

On-road Fugitive Dust - Default assumptions assumed.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	8.00	1.00
tblConstructionPhase	NumDays	5.00	4.00
tblGrading	AcresOfGrading	0.00	0.50
tblLandUse	LotAcreage	0.00	4.00
tblOffRoadEquipment	HorsePower	81.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	15.00	24.00
tblTripsAndVMT	WorkerTripNumber	10.00	24.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	7.9000e-004	4.1700e-003	7.6200e-003	1.0000e-005	1.0000e-003	2.3000e-004	1.2200e-003	2.2000e-004	2.1000e-004	4.3000e-004	0.0000	1.2653	1.2653	2.2000e-004	0.0000	1.2708
Maximum	**7.9000e-004**	**4.1700e-003**	**7.6200e-003**	**1.0000e-005**	**1.0000e-003**	**2.3000e-004**	**1.2200e-003**	**2.2000e-004**	**2.1000e-004**	**4.3000e-004**	**0.0000**	**1.2653**	**1.2653**	**2.2000e-004**	**0.0000**	**1.2708**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	7.9000e-004	4.1700e-003	7.6200e-003	1.0000e-005	1.0000e-003	2.3000e-004	1.2200e-003	2.2000e-004	2.1000e-004	4.3000e-004	0.0000	1.2653	1.2653	2.2000e-004	0.0000	1.2708
Maximum	**7.9000e-004**	**4.1700e-003**	**7.6200e-003**	**1.0000e-005**	**1.0000e-003**	**2.3000e-004**	**1.2200e-003**	**2.2000e-004**	**2.1000e-004**	**4.3000e-004**	**0.0000**	**1.2653**	**1.2653**	**2.2000e-004**	**0.0000**	**1.2708**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**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	Hand Treatment	Site Preparation	9/8/2021	9/13/2021	5	4	
2	Mechanical Treatment	Grading	9/14/2021	9/14/2021	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Hand Treatment	Concrete/Industrial Saws	6	8.00	4	0.73
Mechanical Treatment	Excavators	1	8.00	158	0.38
Mechanical Treatment	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Mechanical Treatment	Graders	0	8.00	187	0.41
Mechanical Treatment	Rubber Tired Dozers	0	8.00	247	0.40
Hand Treatment	Rubber Tired Dozers	0	8.00	247	0.40
Hand Treatment	Tractors/Loaders/Backhoes	0	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
Hand Treatment	6	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Mechanical Treatment	4	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Hand Treatment - 2021

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	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
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**	**0.0000**	**0.0000**	**0.0000**

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	2.0000e-004	2.0700e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5031	0.5031	1.0000e-005	0.0000	0.5035
Total	**3.2000e-004**	**2.0000e-004**	**2.0700e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**5.9000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5031**	**0.5031**	**1.0000e-005**	**0.0000**	**0.5035**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	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
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**	**0.0000**	**0.0000**	**0.0000**

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	2.0000e-004	2.0700e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5031	0.5031	1.0000e-005	0.0000	0.5035
Total	**3.2000e-004**	**2.0000e-004**	**2.0700e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**5.9000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5031**	**0.5031**	**1.0000e-005**	**0.0000**	**0.5035**

3.3 Mechanical Treatment - 2021

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					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0000e-004	3.9200e-003	5.0300e-003	1.0000e-005		2.2000e-004	2.2000e-004		2.0000e-004	2.0000e-004	0.0000	0.6363	0.6363	2.1000e-004	0.0000	0.6415
Total	**4.0000e-004**	**3.9200e-003**	**5.0300e-003**	**1.0000e-005**	**2.7000e-004**	**2.2000e-004**	**4.9000e-004**	**3.0000e-005**	**2.0000e-004**	**2.3000e-004**	**0.0000**	**0.6363**	**0.6363**	**2.1000e-004**	**0.0000**	**0.6415**

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	8.0000e-005	5.0000e-005	5.2000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1258	0.1258	0.0000	0.0000	0.1259
Total	**8.0000e-005**	**5.0000e-005**	**5.2000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1258**	**0.1258**	**0.0000**	**0.0000**	**0.1259**

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					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0000e-004	3.9200e-003	5.0300e-003	1.0000e-005		2.2000e-004	2.2000e-004		2.0000e-004	2.0000e-004	0.0000	0.6363	0.6363	2.1000e-004	0.0000	0.6415
Total	**4.0000e-004**	**3.9200e-003**	**5.0300e-003**	**1.0000e-005**	**2.7000e-004**	**2.2000e-004**	**4.9000e-004**	**3.0000e-005**	**2.0000e-004**	**2.3000e-004**	**0.0000**	**0.6363**	**0.6363**	**2.1000e-004**	**0.0000**	**0.6415**

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	8.0000e-005	5.0000e-005	5.2000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1258	0.1258	0.0000	0.0000	0.1259
Total	**8.0000e-005**	**5.0000e-005**	**5.2000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1258**	**0.1258**	**0.0000**	**0.0000**	**0.1259**

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Above Weber Mill Rd

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	4.00	User Defined Unit	4.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EID Vegetation Managment Project - Above Weber Mill Rd. above Hwy 50. El Dorado County.

Land Use - Acres based on max area for mechanical and hand treatment areas.

Construction Phase - Veg mgmt assumed to begin fall 2021. Duration based on 0.5 acres treated per day for hand treatment and 2 acres per day for mechancial treatment.

Off-road Equipment - Industrial saw assumed as surrogate for chainsaw/pole saws.

Off-road Equipment - Default equipment assumed.

Off-road Equipment - Industrial saw assumed as surrogate for chainsaw/pole saws.

Trips and VMT - Approximately 12 workers at a specific site.

On-road Fugitive Dust - Default assumptions assumed.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	8.00	1.00
tblConstructionPhase	NumDays	5.00	4.00
tblGrading	AcresOfGrading	0.00	0.50
tblLandUse	LotAcreage	0.00	4.00
tblOffRoadEquipment	HorsePower	81.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	15.00	24.00
tblTripsAndVMT	WorkerTripNumber	10.00	24.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.9587	7.9268	11.2069	0.0175	0.8368	0.4419	1.2787	0.1385	0.4066	0.5451	0.0000	1,703.5121	1,703.5121	0.4622	0.0000	1,715.0680
Maximum	**0.9587**	**7.9268**	**11.2069**	**0.0175**	**0.8368**	**0.4419**	**1.2787**	**0.1385**	**0.4066**	**0.5451**	**0.0000**	**1,703.5121**	**1,703.5121**	**0.4622**	**0.0000**	**1,715.0680**

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					
2021	0.9587	7.9268	11.2069	0.0175	0.8368	0.4419	1.2787	0.1385	0.4066	0.5451	0.0000	1,703.5121	1,703.5121	0.4622	0.0000	1,715.0680
Maximum	**0.9587**	**7.9268**	**11.2069**	**0.0175**	**0.8368**	**0.4419**	**1.2787**	**0.1385**	**0.4066**	**0.5451**	**0.0000**	**1,703.5121**	**1,703.5121**	**0.4622**	**0.0000**	**1,715.0680**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**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	Hand Treatment	Site Preparation	9/8/2021	9/13/2021	5	4	
2	Mechanical Treatment	Grading	9/14/2021	9/14/2021	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Hand Treatment	Concrete/Industrial Saws	6	8.00	4	0.73
Mechanical Treatment	Excavators	1	8.00	158	0.38
Mechanical Treatment	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Mechanical Treatment	Graders	0	8.00	187	0.41
Mechanical Treatment	Rubber Tired Dozers	0	8.00	247	0.40
Hand Treatment	Rubber Tired Dozers	0	8.00	247	0.40
Hand Treatment	Tractors/Loaders/Backhoes	0	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
Hand Treatment	6	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Mechanical Treatment	4	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Hand Treatment - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	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**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1677	0.0860	1.1544	3.0200e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		300.6199	300.6199	8.5100e-003		300.8327
Total	**0.1677**	**0.0860**	**1.1544**	**3.0200e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**300.6199**	**300.6199**	**8.5100e-003**		**300.8327**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	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**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1677	0.0860	1.1544	3.0200e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		300.6199	300.6199	8.5100e-003		300.8327
Total	**0.1677**	**0.0860**	**1.1544**	**3.0200e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**300.6199**	**300.6199**	**8.5100e-003**		**300.8327**

3.3 Mechanical Treatment - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7910	7.8408	10.0525	0.0145		0.4398	0.4398		0.4046	0.4046		1,402.8922	1,402.8922	0.4537		1,414.2353
Total	**0.7910**	**7.8408**	**10.0525**	**0.0145**	**0.5303**	**0.4398**	**0.9700**	**0.0573**	**0.4046**	**0.4618**		**1,402.8922**	**1,402.8922**	**0.4537**		**1,414.2353**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1677	0.0860	1.1544	3.0200e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		300.6199	300.6199	8.5100e-003		300.8327
Total	**0.1677**	**0.0860**	**1.1544**	**3.0200e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**300.6199**	**300.6199**	**8.5100e-003**		**300.8327**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7910	7.8408	10.0525	0.0145		0.4398	0.4398		0.4046	0.4046	0.0000	1,402.8922	1,402.8922	0.4537		1,414.2353
Total	**0.7910**	**7.8408**	**10.0525**	**0.0145**	**0.5303**	**0.4398**	**0.9700**	**0.0573**	**0.4046**	**0.4618**	**0.0000**	**1,402.8922**	**1,402.8922**	**0.4537**		**1,414.2353**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1677	0.0860	1.1544	3.0200e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		300.6199	300.6199	8.5100e-003		300.8327
Total	**0.1677**	**0.0860**	**1.1544**	**3.0200e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**300.6199**	**300.6199**	**8.5100e-003**		**300.8327**

CalEEMod Version: CalEEMod.2016.3.2

Date: 3/16/2021 2:42 PM

Above Weber Mill Rd

El Dorado-Mountain County County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	4.00	User Defined Unit	4.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EID Vegetation Managment Project - Above Weber Mill Rd. above Hwy 50. El Dorado County.

Land Use - Acres based on max area for mechanical and hand treatment areas.

Construction Phase - Veg mgmt assumed to begin fall 2021. Duration based on 0.5 acres treated per day for hand treatment and 2 acres per day for mechancial treatment.

Off-road Equipment - Industrial saw assumed as surrogate for chainsaw/pole saws.

Off-road Equipment - Default equipment assumed.

Off-road Equipment - Industrial saw assumed as surrogate for chainsaw/pole saws.

Trips and VMT - Approximately 12 workers at a specific site.

On-road Fugitive Dust - Default assumptions assumed.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	8.00	1.00
tblConstructionPhase	NumDays	5.00	4.00
tblGrading	AcresOfGrading	0.00	0.50
tblLandUse	LotAcreage	0.00	4.00
tblOffRoadEquipment	HorsePower	81.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	15.00	24.00
tblTripsAndVMT	WorkerTripNumber	10.00	24.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.9708	7.9471	11.0878	0.0172	0.8368	0.4419	1.2787	0.1385	0.4066	0.5451	0.0000	1,674.3793	1,674.3793	0.4614	0.0000	1,685.9154
Maximum	**0.9708**	**7.9471**	**11.0878**	**0.0172**	**0.8368**	**0.4419**	**1.2787**	**0.1385**	**0.4066**	**0.5451**	**0.0000**	**1,674.3793**	**1,674.3793**	**0.4614**	**0.0000**	**1,685.9154**

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					
2021	0.9708	7.9471	11.0878	0.0172	0.8368	0.4419	1.2787	0.1385	0.4066	0.5451	0.0000	1,674.3793	1,674.3793	0.4614	0.0000	1,685.9154
Maximum	**0.9708**	**7.9471**	**11.0878**	**0.0172**	**0.8368**	**0.4419**	**1.2787**	**0.1385**	**0.4066**	**0.5451**	**0.0000**	**1,674.3793**	**1,674.3793**	**0.4614**	**0.0000**	**1,685.9154**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**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	Hand Treatment	Site Preparation	9/8/2021	9/13/2021	5	4	
2	Mechanical Treatment	Grading	9/14/2021	9/14/2021	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Hand Treatment	Concrete/Industrial Saws	6	8.00	4	0.73
Mechanical Treatment	Excavators	1	8.00	158	0.38
Mechanical Treatment	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Mechanical Treatment	Graders	0	8.00	187	0.41
Mechanical Treatment	Rubber Tired Dozers	0	8.00	247	0.40
Hand Treatment	Rubber Tired Dozers	0	8.00	247	0.40
Hand Treatment	Tractors/Loaders/Backhoes	0	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
Hand Treatment	6	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Mechanical Treatment	4	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Hand Treatment - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	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**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1798	0.1062	1.0353	2.7300e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		271.4871	271.4871	7.7200e-003		271.6801
Total	**0.1798**	**0.1062**	**1.0353**	**2.7300e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**271.4871**	**271.4871**	**7.7200e-003**		**271.6801**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	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**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1798	0.1062	1.0353	2.7300e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		271.4871	271.4871	7.7200e-003		271.6801
Total	**0.1798**	**0.1062**	**1.0353**	**2.7300e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**271.4871**	**271.4871**	**7.7200e-003**		**271.6801**

3.3 Mechanical Treatment - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7910	7.8408	10.0525	0.0145		0.4398	0.4398		0.4046	0.4046		1,402.8922	1,402.8922	0.4537		1,414.2353
Total	**0.7910**	**7.8408**	**10.0525**	**0.0145**	**0.5303**	**0.4398**	**0.9700**	**0.0573**	**0.4046**	**0.4618**		**1,402.8922**	**1,402.8922**	**0.4537**		**1,414.2353**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1798	0.1062	1.0353	2.7300e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		271.4871	271.4871	7.7200e-003		271.6801
Total	**0.1798**	**0.1062**	**1.0353**	**2.7300e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**271.4871**	**271.4871**	**7.7200e-003**		**271.6801**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7910	7.8408	10.0525	0.0145		0.4398	0.4398		0.4046	0.4046	0.0000	1,402.8922	1,402.8922	0.4537		1,414.2353
Total	**0.7910**	**7.8408**	**10.0525**	**0.0145**	**0.5303**	**0.4398**	**0.9700**	**0.0573**	**0.4046**	**0.4618**	**0.0000**	**1,402.8922**	**1,402.8922**	**0.4537**		**1,414.2353**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1798	0.1062	1.0353	2.7300e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		271.4871	271.4871	7.7200e-003		271.6801
Total	**0.1798**	**0.1062**	**1.0353**	**2.7300e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**271.4871**	**271.4871**	**7.7200e-003**		**271.6801**

CalEEMod Version: CalEEMod.2016.3.2

Date: 3/16/2021 2:56 PM

Between Diversion Dam and Hwy 50
El Dorado-Mountain County County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	1.80	User Defined Unit	1.80	0.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EID Vegetation Managment Project - Between Diversion Dam and Hwy 50. above Hwy 50. El Dorado County.

Land Use - Acres based on max area for hand treatment areas.

Construction Phase - Veg mgmt assumed to begin fall 2021. Duration based on 0.5 acres treated per day for hand treatment.

Off-road Equipment - Industrial saw assumed as surrogate for chainsaw/pole saws.

Off-road Equipment - Default equipment assumed.

Trips and VMT - Approximately 12 workers at a specific site.

On-road Fugitive Dust - Default assumptions assumed.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	2.00	4.00
tblGrading	AcresOfGrading	0.00	2.00
tblLandUse	LotAcreage	0.00	1.80
tblOffRoadEquipment	HorsePower	81.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	15.00	24.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	3.2000e-004	2.0000e-004	2.0700e-003	1.0000e-005	1.6500e-003	0.0000	1.6500e-003	2.7000e-004	0.0000	2.7000e-004	0.0000	0.5031	0.5031	1.0000e-005	0.0000	0.5035
Maximum	**3.2000e-004**	**2.0000e-004**	**2.0700e-003**	**1.0000e-005**	**1.6500e-003**	**0.0000**	**1.6500e-003**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**0.0000**	**0.5031**	**0.5031**	**1.0000e-005**	**0.0000**	**0.5035**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	3.2000e-004	2.0000e-004	2.0700e-003	1.0000e-005	1.6500e-003	0.0000	1.6500e-003	2.7000e-004	0.0000	2.7000e-004	0.0000	0.5031	0.5031	1.0000e-005	0.0000	0.5035
Maximum	**3.2000e-004**	**2.0000e-004**	**2.0700e-003**	**1.0000e-005**	**1.6500e-003**	**0.0000**	**1.6500e-003**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**0.0000**	**0.5031**	**0.5031**	**1.0000e-005**	**0.0000**	**0.5035**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**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	Hand Treatment	Site Preparation	9/15/2021	9/20/2021	5	4	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Hand Treatment	Concrete/Industrial Saws	6	8.00	4	0.73
Hand Treatment	Graders	0	8.00	187	0.41
Hand Treatment	Rubber Tired Dozers	0	7.00	247	0.40
Hand Treatment	Tractors/Loaders/Backhoes	0	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
Hand Treatment	6	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Hand Treatment - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0600e-003	0.0000	1.0600e-003	1.1000e-004	0.0000	1.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	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
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.0600e-003**	**0.0000**	**1.0600e-003**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	2.0000e-004	2.0700e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5031	0.5031	1.0000e-005	0.0000	0.5035
Total	**3.2000e-004**	**2.0000e-004**	**2.0700e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**5.9000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5031**	**0.5031**	**1.0000e-005**	**0.0000**	**0.5035**

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					1.0600e-003	0.0000	1.0600e-003	1.1000e-004	0.0000	1.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	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
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.0600e-003**	**0.0000**	**1.0600e-003**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	2.0000e-004	2.0700e-003	1.0000e-005	5.9000e-004	0.0000	5.9000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5031	0.5031	1.0000e-005	0.0000	0.5035
Total	**3.2000e-004**	**2.0000e-004**	**2.0700e-003**	**1.0000e-005**	**5.9000e-004**	**0.0000**	**5.9000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5031**	**0.5031**	**1.0000e-005**	**0.0000**	**0.5035**

CalEEMod Version: CalEEMod.2016.3.2

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Between Diversion Dam and Hwy 50

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	1.80	User Defined Unit	1.80	0.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EID Vegetation Managment Project - Between Diversion Dam and Hwy 50. above Hwy 50. El Dorado County.

Land Use - Acres based on max area for hand treatment areas.

Construction Phase - Veg mgmt assumed to begin fall 2021. Duration based on 0.5 acres treated per day for hand treatment.

Off-road Equipment - Industrial saw assumed as surrogate for chainsaw/pole saws.

Off-road Equipment - Default equipment assumed.

Trips and VMT - Approximately 12 workers at a specific site.

On-road Fugitive Dust - Default assumptions assumed.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	2.00	4.00
tblGrading	AcresOfGrading	0.00	2.00
tblLandUse	LotAcreage	0.00	1.80
tblOffRoadEquipment	HorsePower	81.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	15.00	24.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.1677	0.0860	1.1544	3.0200e-003	0.8368	2.1500e-003	0.8390	0.1385	1.9800e-003	0.1405	0.0000	300.6199	300.6199	8.5100e-003	0.0000	300.8327
Maximum	**0.1677**	**0.0860**	**1.1544**	**3.0200e-003**	**0.8368**	**2.1500e-003**	**0.8390**	**0.1385**	**1.9800e-003**	**0.1405**	**0.0000**	**300.6199**	**300.6199**	**8.5100e-003**	**0.0000**	**300.8327**

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					
2021	0.1677	0.0860	1.1544	3.0200e-003	0.8368	2.1500e-003	0.8390	0.1385	1.9800e-003	0.1405	0.0000	300.6199	300.6199	8.5100e-003	0.0000	300.8327
Maximum	**0.1677**	**0.0860**	**1.1544**	**3.0200e-003**	**0.8368**	**2.1500e-003**	**0.8390**	**0.1385**	**1.9800e-003**	**0.1405**	**0.0000**	**300.6199**	**300.6199**	**8.5100e-003**	**0.0000**	**300.8327**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**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	Hand Treatment	Site Preparation	9/15/2021	9/20/2021	5	4	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Hand Treatment	Concrete/Industrial Saws	6	8.00	4	0.73
Hand Treatment	Graders	0	8.00	187	0.41
Hand Treatment	Rubber Tired Dozers	0	7.00	247	0.40
Hand Treatment	Tractors/Loaders/Backhoes	0	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
Hand Treatment	6	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Hand Treatment - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	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**	**0.5303**	**0.0000**	**0.5303**	**0.0573**	**0.0000**	**0.0573**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1677	0.0860	1.1544	3.0200e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		300.6199	300.6199	8.5100e-003		300.8327
Total	**0.1677**	**0.0860**	**1.1544**	**3.0200e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**300.6199**	**300.6199**	**8.5100e-003**		**300.8327**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	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**	**0.5303**	**0.0000**	**0.5303**	**0.0573**	**0.0000**	**0.0573**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1677	0.0860	1.1544	3.0200e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		300.6199	300.6199	8.5100e-003		300.8327
Total	**0.1677**	**0.0860**	**1.1544**	**3.0200e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**300.6199**	**300.6199**	**8.5100e-003**		**300.8327**

CalEEMod Version: CalEEMod.2016.3.2

Date: 3/16/2021 2:59 PM

Between Diversion Dam and Hwy 50

El Dorado-Mountain County County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	1.80	User Defined Unit	1.80	0.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EID Vegetation Managment Project - Between Diversion Dam and Hwy 50. above Hwy 50. El Dorado County.

Land Use - Acres based on max area for hand treatment areas.

Construction Phase - Veg mgmt assumed to begin fall 2021. Duration based on 0.5 acres treated per day for hand treatment.

Off-road Equipment - Industrial saw assumed as surrogate for chainsaw/pole saws.

Off-road Equipment - Default equipment assumed.

Trips and VMT - Approximately 12 workers at a specific site.

On-road Fugitive Dust - Default assumptions assumed.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	2.00	4.00
tblGrading	AcresOfGrading	0.00	2.00
tblLandUse	LotAcreage	0.00	1.80
tblOffRoadEquipment	HorsePower	81.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	15.00	24.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.1798	0.1062	1.0353	2.7300e-003	0.8368	2.1500e-003	0.8390	0.1385	1.9800e-003	0.1405	0.0000	271.4871	271.4871	7.7200e-003	0.0000	271.6801
Maximum	**0.1798**	**0.1062**	**1.0353**	**2.7300e-003**	**0.8368**	**2.1500e-003**	**0.8390**	**0.1385**	**1.9800e-003**	**0.1405**	**0.0000**	**271.4871**	**271.4871**	**7.7200e-003**	**0.0000**	**271.6801**

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					
2021	0.1798	0.1062	1.0353	2.7300e-003	0.8368	2.1500e-003	0.8390	0.1385	1.9800e-003	0.1405	0.0000	271.4871	271.4871	7.7200e-003	0.0000	271.6801
Maximum	**0.1798**	**0.1062**	**1.0353**	**2.7300e-003**	**0.8368**	**2.1500e-003**	**0.8390**	**0.1385**	**1.9800e-003**	**0.1405**	**0.0000**	**271.4871**	**271.4871**	**7.7200e-003**	**0.0000**	**271.6801**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**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	Hand Treatment	Site Preparation	9/15/2021	9/20/2021	5	4	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Hand Treatment	Concrete/Industrial Saws	6	8.00	4	0.73
Hand Treatment	Graders	0	8.00	187	0.41
Hand Treatment	Rubber Tired Dozers	0	7.00	247	0.40
Hand Treatment	Tractors/Loaders/Backhoes	0	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
Hand Treatment	6	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Hand Treatment - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	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**	**0.5303**	**0.0000**	**0.5303**	**0.0573**	**0.0000**	**0.0573**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1798	0.1062	1.0353	2.7300e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		271.4871	271.4871	7.7200e-003		271.6801
Total	**0.1798**	**0.1062**	**1.0353**	**2.7300e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**271.4871**	**271.4871**	**7.7200e-003**		**271.6801**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	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**	**0.5303**	**0.0000**	**0.5303**	**0.0573**	**0.0000**	**0.0573**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1798	0.1062	1.0353	2.7300e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		271.4871	271.4871	7.7200e-003		271.6801
Total	**0.1798**	**0.1062**	**1.0353**	**2.7300e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**271.4871**	**271.4871**	**7.7200e-003**		**271.6801**

CalEEMod Version: CalEEMod.2016.3.2

Date: 3/16/2021 2:33 PM

Below Canal

El Dorado-Mountain County County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	1.40	User Defined Unit	1.40	0.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EID Vegetation Managment Project - Below Canal. El Dorado County.

Land Use - Acres based on max area for hand treatment areas.

Construction Phase - Veg mgmt assumed to begin fall 2021. Duration based on 0.5 acres treated per day for hand treatment.

Off-road Equipment - Industrial saw assumed as surrogate for chainsaw/pole saws.

Off-road Equipment - Default equipment assumed.

Trips and VMT - Approximately 12 workers at a specific site.

On-road Fugitive Dust - Default assumptions assumed.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	2.00	3.00
tblGrading	AcresOfGrading	0.00	1.50
tblLandUse	LotAcreage	0.00	1.40
tblOffRoadEquipment	HorsePower	81.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	15.00	24.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	2.4000e-004	1.5000e-004	1.5500e-003	0.0000	1.2400e-003	0.0000	1.2400e-003	2.0000e-004	0.0000	2.1000e-004	0.0000	0.3774	0.3774	1.0000e-005	0.0000	0.3776
Maximum	**2.4000e-004**	**1.5000e-004**	**1.5500e-003**	**0.0000**	**1.2400e-003**	**0.0000**	**1.2400e-003**	**2.0000e-004**	**0.0000**	**2.1000e-004**	**0.0000**	**0.3774**	**0.3774**	**1.0000e-005**	**0.0000**	**0.3776**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	2.4000e-004	1.5000e-004	1.5500e-003	0.0000	1.2400e-003	0.0000	1.2400e-003	2.0000e-004	0.0000	2.1000e-004	0.0000	0.3774	0.3774	1.0000e-005	0.0000	0.3776
Maximum	**2.4000e-004**	**1.5000e-004**	**1.5500e-003**	**0.0000**	**1.2400e-003**	**0.0000**	**1.2400e-003**	**2.0000e-004**	**0.0000**	**2.1000e-004**	**0.0000**	**0.3774**	**0.3774**	**1.0000e-005**	**0.0000**	**0.3776**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**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	Hand Treatment	Site Preparation	9/21/2021	9/23/2021	5	3	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Hand Treatment	Concrete/Industrial Saws	6	8.00	4	0.73
Hand Treatment	Graders	0	8.00	187	0.41
Hand Treatment	Rubber Tired Dozers	0	7.00	247	0.40
Hand Treatment	Tractors/Loaders/Backhoes	0	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
Hand Treatment	6	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Hand Treatment - 2021

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					8.0000e-004	0.0000	8.0000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	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
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**8.0000e-004**	**0.0000**	**8.0000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	2.4000e-004	1.5000e-004	1.5500e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3774	0.3774	1.0000e-005	0.0000	0.3776
Total	**2.4000e-004**	**1.5000e-004**	**1.5500e-003**	**0.0000**	**4.4000e-004**	**0.0000**	**4.4000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.3774**	**0.3774**	**1.0000e-005**	**0.0000**	**0.3776**

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					8.0000e-004	0.0000	8.0000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	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
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**8.0000e-004**	**0.0000**	**8.0000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	2.4000e-004	1.5000e-004	1.5500e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3774	0.3774	1.0000e-005	0.0000	0.3776
Total	**2.4000e-004**	**1.5000e-004**	**1.5500e-003**	**0.0000**	**4.4000e-004**	**0.0000**	**4.4000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.3774**	**0.3774**	**1.0000e-005**	**0.0000**	**0.3776**

CalEEMod Version: CalEEMod.2016.3.2

Date: 3/16/2021 2:34 PM

Below Canal

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	1.40	User Defined Unit	1.40	0.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EID Vegetation Managment Project - Below Canal. El Dorado County.

Land Use - Acres based on max area for hand treatment areas.

Construction Phase - Veg mgmt assumed to begin fall 2021. Duration based on 0.5 acres treated per day for hand treatment.

Off-road Equipment - Industrial saw assumed as surrogate for chainsaw/pole saws.

Off-road Equipment - Default equipment assumed.

Trips and VMT - Approximately 12 workers at a specific site.

On-road Fugitive Dust - Default assumptions assumed.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	2.00	3.00
tblGrading	AcresOfGrading	0.00	1.50
tblLandUse	LotAcreage	0.00	1.40
tblOffRoadEquipment	HorsePower	81.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	15.00	24.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.1677	0.0860	1.1544	3.0200e-003	0.8368	2.1500e-003	0.8390	0.1385	1.9800e-003	0.1405	0.0000	300.6199	300.6199	8.5100e-003	0.0000	300.8327
Maximum	**0.1677**	**0.0860**	**1.1544**	**3.0200e-003**	**0.8368**	**2.1500e-003**	**0.8390**	**0.1385**	**1.9800e-003**	**0.1405**	**0.0000**	**300.6199**	**300.6199**	**8.5100e-003**	**0.0000**	**300.8327**

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					
2021	0.1677	0.0860	1.1544	3.0200e-003	0.8368	2.1500e-003	0.8390	0.1385	1.9800e-003	0.1405	0.0000	300.6199	300.6199	8.5100e-003	0.0000	300.8327
Maximum	**0.1677**	**0.0860**	**1.1544**	**3.0200e-003**	**0.8368**	**2.1500e-003**	**0.8390**	**0.1385**	**1.9800e-003**	**0.1405**	**0.0000**	**300.6199**	**300.6199**	**8.5100e-003**	**0.0000**	**300.8327**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**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	Hand Treatment	Site Preparation	9/21/2021	9/23/2021	5	3	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Hand Treatment	Concrete/Industrial Saws	6	8.00	4	0.73
Hand Treatment	Graders	0	8.00	187	0.41
Hand Treatment	Rubber Tired Dozers	0	7.00	247	0.40
Hand Treatment	Tractors/Loaders/Backhoes	0	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
Hand Treatment	6	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Hand Treatment - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	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**	**0.5303**	**0.0000**	**0.5303**	**0.0573**	**0.0000**	**0.0573**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1677	0.0860	1.1544	3.0200e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		300.6199	300.6199	8.5100e-003		300.8327
Total	**0.1677**	**0.0860**	**1.1544**	**3.0200e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**300.6199**	**300.6199**	**8.5100e-003**		**300.8327**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	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**	**0.5303**	**0.0000**	**0.5303**	**0.0573**	**0.0000**	**0.0573**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1677	0.0860	1.1544	3.0200e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		300.6199	300.6199	8.5100e-003		300.8327
Total	**0.1677**	**0.0860**	**1.1544**	**3.0200e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**300.6199**	**300.6199**	**8.5100e-003**		**300.8327**

CalEEMod Version: CalEEMod.2016.3.2

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Below Canal

El Dorado-Mountain County County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	1.40	User Defined Unit	1.40	0.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EID Vegetation Managment Project - Below Canal. El Dorado County.

Land Use - Acres based on max area for hand treatment areas.

Construction Phase - Veg mgmt assumed to begin fall 2021. Duration based on 0.5 acres treated per day for hand treatment.

Off-road Equipment - Industrial saw assumed as surrogate for chainsaw/pole saws.

Off-road Equipment - Default equipment assumed.

Trips and VMT - Approximately 12 workers at a specific site.

On-road Fugitive Dust - Default assumptions assumed.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	2.00	3.00
tblGrading	AcresOfGrading	0.00	1.50
tblLandUse	LotAcreage	0.00	1.40
tblOffRoadEquipment	HorsePower	81.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	15.00	24.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.1798	0.1062	1.0353	2.7300e-003	0.8368	2.1500e-003	0.8390	0.1385	1.9800e-003	0.1405	0.0000	271.4871	271.4871	7.7200e-003	0.0000	271.6801
Maximum	**0.1798**	**0.1062**	**1.0353**	**2.7300e-003**	**0.8368**	**2.1500e-003**	**0.8390**	**0.1385**	**1.9800e-003**	**0.1405**	**0.0000**	**271.4871**	**271.4871**	**7.7200e-003**	**0.0000**	**271.6801**

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					
2021	0.1798	0.1062	1.0353	2.7300e-003	0.8368	2.1500e-003	0.8390	0.1385	1.9800e-003	0.1405	0.0000	271.4871	271.4871	7.7200e-003	0.0000	271.6801
Maximum	**0.1798**	**0.1062**	**1.0353**	**2.7300e-003**	**0.8368**	**2.1500e-003**	**0.8390**	**0.1385**	**1.9800e-003**	**0.1405**	**0.0000**	**271.4871**	**271.4871**	**7.7200e-003**	**0.0000**	**271.6801**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**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	Hand Treatment	Site Preparation	9/21/2021	9/23/2021	5	3	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Hand Treatment	Concrete/Industrial Saws	6	8.00	4	0.73
Hand Treatment	Graders	0	8.00	187	0.41
Hand Treatment	Rubber Tired Dozers	0	7.00	247	0.40
Hand Treatment	Tractors/Loaders/Backhoes	0	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
Hand Treatment	6	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Hand Treatment - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	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**	**0.5303**	**0.0000**	**0.5303**	**0.0573**	**0.0000**	**0.0573**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1798	0.1062	1.0353	2.7300e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		271.4871	271.4871	7.7200e-003		271.6801
Total	**0.1798**	**0.1062**	**1.0353**	**2.7300e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**271.4871**	**271.4871**	**7.7200e-003**		**271.6801**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	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**	**0.5303**	**0.0000**	**0.5303**	**0.0573**	**0.0000**	**0.0573**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1798	0.1062	1.0353	2.7300e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		271.4871	271.4871	7.7200e-003		271.6801
Total	**0.1798**	**0.1062**	**1.0353**	**2.7300e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**271.4871**	**271.4871**	**7.7200e-003**		**271.6801**

CalEEMod Version: CalEEMod.2016.3.2

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Above Canal

El Dorado-Mountain County County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	22.90	User Defined Unit	22.90	0.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EID Vegetation Managment Project - Above Canal. El Dorado County.

Land Use - Acres based on max area for mechanical and hand treatment areas.

Construction Phase - Veg mgmt assumed to begin fall 2021. Duration based on 2 acres per day for mechancial treatment and 0.5 acres treated per day for hand treatment.

Off-road Equipment - Industrial saw assumed as surrogate for chainsaw/pole saws.

Off-road Equipment - Default equipment assumed.

Off-road Equipment - Industrial saw assumed as surrogate for chainsaw/pole saws.

Trips and VMT - Approximately 12 workers at a specific site.

On-road Fugitive Dust - Default assumptions assumed.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	35.00	6.00
tblConstructionPhase	NumDays	10.00	25.00
tblGrading	AcresOfGrading	0.00	15.00
tblLandUse	LotAcreage	0.00	22.90
tblOffRoadEquipment	HorsePower	81.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	15.00	24.00
tblTripsAndVMT	WorkerTripNumber	10.00	24.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	4.8400e-003	0.0250	0.0462	9.0000e-005	0.0125	1.3500e-003	0.0139	2.0700e-003	1.2400e-003	3.3100e-003	0.0000	7.7173	7.7173	1.3400e-003	0.0000	7.7509
Maximum	**4.8400e-003**	**0.0250**	**0.0462**	**9.0000e-005**	**0.0125**	**1.3500e-003**	**0.0139**	**2.0700e-003**	**1.2400e-003**	**3.3100e-003**	**0.0000**	**7.7173**	**7.7173**	**1.3400e-003**	**0.0000**	**7.7509**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	4.8400e-003	0.0250	0.0462	9.0000e-005	0.0125	1.3500e-003	0.0139	2.0700e-003	1.2400e-003	3.3100e-003	0.0000	7.7173	7.7173	1.3400e-003	0.0000	7.7509
Maximum	**4.8400e-003**	**0.0250**	**0.0462**	**9.0000e-005**	**0.0125**	**1.3500e-003**	**0.0139**	**2.0700e-003**	**1.2400e-003**	**3.3100e-003**	**0.0000**	**7.7173**	**7.7173**	**1.3400e-003**	**0.0000**	**7.7509**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**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	Hand Treatment	Site Preparation	9/24/2021	10/28/2021	5	25	
2	Mechanical Treatment	Grading	10/29/2021	11/5/2021	5	6	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Hand Treatment	Concrete/Industrial Saws	6	8.00	4	0.73
Mechanical Treatment	Excavators	1	8.00	158	0.38
Mechanical Treatment	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Mechanical Treatment	Graders	0	8.00	187	0.41
Mechanical Treatment	Rubber Tired Dozers	0	8.00	247	0.40
Hand Treatment	Rubber Tired Dozers	0	8.00	247	0.40
Mechanical Treatment	Scrapers	0	8.00	367	0.48
Hand Treatment	Tractors/Loaders/Backhoes	0	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
Hand Treatment	6	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Mechanical Treatment	4	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Hand Treatment - 2021

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	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
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**	**0.0000**	**0.0000**	**0.0000**

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	1.9900e-003	1.2300e-003	0.0130	3.0000e-005	3.6700e-003	3.0000e-005	3.7000e-003	9.8000e-004	2.0000e-005	1.0000e-003	0.0000	3.1446	3.1446	9.0000e-005	0.0000	3.1468
Total	**1.9900e-003**	**1.2300e-003**	**0.0130**	**3.0000e-005**	**3.6700e-003**	**3.0000e-005**	**3.7000e-003**	**9.8000e-004**	**2.0000e-005**	**1.0000e-003**	**0.0000**	**3.1446**	**3.1446**	**9.0000e-005**	**0.0000**	**3.1468**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	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
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**	**0.0000**	**0.0000**	**0.0000**

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	1.9900e-003	1.2300e-003	0.0130	3.0000e-005	3.6700e-003	3.0000e-005	3.7000e-003	9.8000e-004	2.0000e-005	1.0000e-003	0.0000	3.1446	3.1446	9.0000e-005	0.0000	3.1468
Total	**1.9900e-003**	**1.2300e-003**	**0.0130**	**3.0000e-005**	**3.6700e-003**	**3.0000e-005**	**3.7000e-003**	**9.8000e-004**	**2.0000e-005**	**1.0000e-003**	**0.0000**	**3.1446**	**3.1446**	**9.0000e-005**	**0.0000**	**3.1468**

3.3 Mechanical Treatment - 2021

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					7.9500e-003	0.0000	7.9500e-003	8.6000e-004	0.0000	8.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3700e-003	0.0235	0.0302	4.0000e-005		1.3200e-003	1.3200e-003		1.2100e-003	1.2100e-003	0.0000	3.8181	3.8181	1.2300e-003	0.0000	3.8489
Total	**2.3700e-003**	**0.0235**	**0.0302**	**4.0000e-005**	**7.9500e-003**	**1.3200e-003**	**9.2700e-003**	**8.6000e-004**	**1.2100e-003**	**2.0700e-003**	**0.0000**	**3.8181**	**3.8181**	**1.2300e-003**	**0.0000**	**3.8489**

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	4.8000e-004	2.9000e-004	3.1100e-003	1.0000e-005	8.8000e-004	1.0000e-005	8.9000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7547	0.7547	2.0000e-005	0.0000	0.7552
Total	**4.8000e-004**	**2.9000e-004**	**3.1100e-003**	**1.0000e-005**	**8.8000e-004**	**1.0000e-005**	**8.9000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.7547**	**0.7547**	**2.0000e-005**	**0.0000**	**0.7552**

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					7.9500e-003	0.0000	7.9500e-003	8.6000e-004	0.0000	8.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3700e-003	0.0235	0.0302	4.0000e-005		1.3200e-003	1.3200e-003		1.2100e-003	1.2100e-003	0.0000	3.8180	3.8180	1.2300e-003	0.0000	3.8489
Total	**2.3700e-003**	**0.0235**	**0.0302**	**4.0000e-005**	**7.9500e-003**	**1.3200e-003**	**9.2700e-003**	**8.6000e-004**	**1.2100e-003**	**2.0700e-003**	**0.0000**	**3.8180**	**3.8180**	**1.2300e-003**	**0.0000**	**3.8489**

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	4.8000e-004	2.9000e-004	3.1100e-003	1.0000e-005	8.8000e-004	1.0000e-005	8.9000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.7547	0.7547	2.0000e-005	0.0000	0.7552
Total	**4.8000e-004**	**2.9000e-004**	**3.1100e-003**	**1.0000e-005**	**8.8000e-004**	**1.0000e-005**	**8.9000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.7547**	**0.7547**	**2.0000e-005**	**0.0000**	**0.7552**

CalEEMod Version: CalEEMod.2016.3.2

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Above Canal

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	22.90	User Defined Unit	22.90	0.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EID Vegetation Managment Project - Above Canal. El Dorado County.

Land Use - Acres based on max area for mechanical and hand treatment areas.

Construction Phase - Veg mgmt assumed to begin fall 2021. Duration based on 2 acres per day for mechancial treatment and 0.5 acres treated per day for hand treatment.

Off-road Equipment - Industrial saw assumed as surrogate for chainsaw/pole saws.

Off-road Equipment - Default equipment assumed.

Off-road Equipment - Industrial saw assumed as surrogate for chainsaw/pole saws.

Trips and VMT - Approximately 12 workers at a specific site.

On-road Fugitive Dust - Default assumptions assumed.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	35.00	6.00
tblConstructionPhase	NumDays	10.00	25.00
tblGrading	AcresOfGrading	0.00	15.00
tblLandUse	LotAcreage	0.00	22.90
tblOffRoadEquipment	HorsePower	81.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	15.00	24.00
tblTripsAndVMT	WorkerTripNumber	10.00	24.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.9587	7.9268	11.2069	0.0175	2.9578	0.4419	3.3997	0.3676	0.4066	0.7741	0.0000	1,703.5121	1,703.5121	0.4622	0.0000	1,715.0680
Maximum	**0.9587**	**7.9268**	**11.2069**	**0.0175**	**2.9578**	**0.4419**	**3.3997**	**0.3676**	**0.4066**	**0.7741**	**0.0000**	**1,703.5121**	**1,703.5121**	**0.4622**	**0.0000**	**1,715.0680**

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					
2021	0.9587	7.9268	11.2069	0.0175	2.9578	0.4419	3.3997	0.3676	0.4066	0.7741	0.0000	1,703.5121	1,703.5121	0.4622	0.0000	1,715.0680
Maximum	**0.9587**	**7.9268**	**11.2069**	**0.0175**	**2.9578**	**0.4419**	**3.3997**	**0.3676**	**0.4066**	**0.7741**	**0.0000**	**1,703.5121**	**1,703.5121**	**0.4622**	**0.0000**	**1,715.0680**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**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	Hand Treatment	Site Preparation	9/24/2021	10/28/2021	5	25	
2	Mechanical Treatment	Grading	10/29/2021	11/5/2021	5	6	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Hand Treatment	Concrete/Industrial Saws	6	8.00	4	0.73
Mechanical Treatment	Excavators	1	8.00	158	0.38
Mechanical Treatment	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Mechanical Treatment	Graders	0	8.00	187	0.41
Mechanical Treatment	Rubber Tired Dozers	0	8.00	247	0.40
Hand Treatment	Rubber Tired Dozers	0	8.00	247	0.40
Mechanical Treatment	Scrapers	0	8.00	367	0.48
Hand Treatment	Tractors/Loaders/Backhoes	0	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
Hand Treatment	6	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Mechanical Treatment	4	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Hand Treatment - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	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**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1677	0.0860	1.1544	3.0200e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		300.6199	300.6199	8.5100e-003		300.8327
Total	**0.1677**	**0.0860**	**1.1544**	**3.0200e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**300.6199**	**300.6199**	**8.5100e-003**		**300.8327**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	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**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1677	0.0860	1.1544	3.0200e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		300.6199	300.6199	8.5100e-003		300.8327
Total	**0.1677**	**0.0860**	**1.1544**	**3.0200e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**300.6199**	**300.6199**	**8.5100e-003**		**300.8327**

3.3 Mechanical Treatment - 2021

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					2.6513	0.0000	2.6513	0.2863	0.0000	0.2863			0.0000			0.0000
Off-Road	0.7910	7.8408	10.0525	0.0145		0.4398	0.4398		0.4046	0.4046		1,402.8922	1,402.8922	0.4537		1,414.2353
Total	**0.7910**	**7.8408**	**10.0525**	**0.0145**	**2.6513**	**0.4398**	**3.0910**	**0.2863**	**0.4046**	**0.6909**		**1,402.8922**	**1,402.8922**	**0.4537**		**1,414.2353**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1677	0.0860	1.1544	3.0200e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		300.6199	300.6199	8.5100e-003		300.8327
Total	**0.1677**	**0.0860**	**1.1544**	**3.0200e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**300.6199**	**300.6199**	**8.5100e-003**		**300.8327**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.6513	0.0000	2.6513	0.2863	0.0000	0.2863			0.0000			0.0000
Off-Road	0.7910	7.8408	10.0525	0.0145		0.4398	0.4398		0.4046	0.4046	0.0000	1,402.8922	1,402.8922	0.4537		1,414.2353
Total	**0.7910**	**7.8408**	**10.0525**	**0.0145**	**2.6513**	**0.4398**	**3.0910**	**0.2863**	**0.4046**	**0.6909**	**0.0000**	**1,402.8922**	**1,402.8922**	**0.4537**		**1,414.2353**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1677	0.0860	1.1544	3.0200e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		300.6199	300.6199	8.5100e-003		300.8327
Total	**0.1677**	**0.0860**	**1.1544**	**3.0200e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**300.6199**	**300.6199**	**8.5100e-003**		**300.8327**

CalEEMod Version: CalEEMod.2016.3.2

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Above Canal

El Dorado-Mountain County County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	22.90	User Defined Unit	22.90	0.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EID Vegetation Managment Project - Above Canal. El Dorado County.

Land Use - Acres based on max area for mechanical and hand treatment areas.

Construction Phase - Veg mgmt assumed to begin fall 2021. Duration based on 2 acres per day for mechancial treatment and 0.5 acres treated per day for hand treatment.

Off-road Equipment - Industrial saw assumed as surrogate for chainsaw/pole saws.

Off-road Equipment - Default equipment assumed.

Off-road Equipment - Industrial saw assumed as surrogate for chainsaw/pole saws.

Trips and VMT - Approximately 12 workers at a specific site.

On-road Fugitive Dust - Default assumptions assumed.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	35.00	6.00
tblConstructionPhase	NumDays	10.00	25.00
tblGrading	AcresOfGrading	0.00	15.00
tblLandUse	LotAcreage	0.00	22.90
tblOffRoadEquipment	HorsePower	81.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	15.00	24.00
tblTripsAndVMT	WorkerTripNumber	10.00	24.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.9708	7.9471	11.0878	0.0172	2.9578	0.4419	3.3997	0.3676	0.4066	0.7741	0.0000	1,674.3793	1,674.3793	0.4614	0.0000	1,685.9154
Maximum	**0.9708**	**7.9471**	**11.0878**	**0.0172**	**2.9578**	**0.4419**	**3.3997**	**0.3676**	**0.4066**	**0.7741**	**0.0000**	**1,674.3793**	**1,674.3793**	**0.4614**	**0.0000**	**1,685.9154**

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					
2021	0.9708	7.9471	11.0878	0.0172	2.9578	0.4419	3.3997	0.3676	0.4066	0.7741	0.0000	1,674.3793	1,674.3793	0.4614	0.0000	1,685.9154
Maximum	**0.9708**	**7.9471**	**11.0878**	**0.0172**	**2.9578**	**0.4419**	**3.3997**	**0.3676**	**0.4066**	**0.7741**	**0.0000**	**1,674.3793**	**1,674.3793**	**0.4614**	**0.0000**	**1,685.9154**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**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	Hand Treatment	Site Preparation	9/24/2021	10/28/2021	5	25	
2	Mechanical Treatment	Grading	10/29/2021	11/5/2021	5	6	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Hand Treatment	Concrete/Industrial Saws	6	8.00	4	0.73
Mechanical Treatment	Excavators	1	8.00	158	0.38
Mechanical Treatment	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Mechanical Treatment	Graders	0	8.00	187	0.41
Mechanical Treatment	Rubber Tired Dozers	0	8.00	247	0.40
Hand Treatment	Rubber Tired Dozers	0	8.00	247	0.40
Mechanical Treatment	Scrapers	0	8.00	367	0.48
Hand Treatment	Tractors/Loaders/Backhoes	0	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
Hand Treatment	6	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Mechanical Treatment	4	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Hand Treatment - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	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**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1798	0.1062	1.0353	2.7300e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		271.4871	271.4871	7.7200e-003		271.6801
Total	**0.1798**	**0.1062**	**1.0353**	**2.7300e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**271.4871**	**271.4871**	**7.7200e-003**		**271.6801**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	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**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1798	0.1062	1.0353	2.7300e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		271.4871	271.4871	7.7200e-003		271.6801
Total	**0.1798**	**0.1062**	**1.0353**	**2.7300e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**271.4871**	**271.4871**	**7.7200e-003**		**271.6801**

3.3 Mechanical Treatment - 2021

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					2.6513	0.0000	2.6513	0.2863	0.0000	0.2863			0.0000			0.0000
Off-Road	0.7910	7.8408	10.0525	0.0145		0.4398	0.4398		0.4046	0.4046		1,402.8922	1,402.8922	0.4537		1,414.2353
Total	**0.7910**	**7.8408**	**10.0525**	**0.0145**	**2.6513**	**0.4398**	**3.0910**	**0.2863**	**0.4046**	**0.6909**		**1,402.8922**	**1,402.8922**	**0.4537**		**1,414.2353**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1798	0.1062	1.0353	2.7300e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		271.4871	271.4871	7.7200e-003		271.6801
Total	**0.1798**	**0.1062**	**1.0353**	**2.7300e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**271.4871**	**271.4871**	**7.7200e-003**		**271.6801**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.6513	0.0000	2.6513	0.2863	0.0000	0.2863			0.0000			0.0000
Off-Road	0.7910	7.8408	10.0525	0.0145		0.4398	0.4398		0.4046	0.4046	0.0000	1,402.8922	1,402.8922	0.4537		1,414.2353
Total	**0.7910**	**7.8408**	**10.0525**	**0.0145**	**2.6513**	**0.4398**	**3.0910**	**0.2863**	**0.4046**	**0.6909**	**0.0000**	**1,402.8922**	**1,402.8922**	**0.4537**		**1,414.2353**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1798	0.1062	1.0353	2.7300e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		271.4871	271.4871	7.7200e-003		271.6801
Total	**0.1798**	**0.1062**	**1.0353**	**2.7300e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**271.4871**	**271.4871**	**7.7200e-003**		**271.6801**

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Flume 1 and Spillway 2&3

El Dorado-Mountain County County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	9.50	User Defined Unit	9.50	0.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EID Vegetation Managment Project - Flume 1 and Spillway 2&3. El Dorado County.

Land Use - Acres based on max area for hand treatment areas.

Construction Phase - Veg mgmt assumed to begin fall 2021. Duration based on 0.5 acres treated per day for hand treatment.

Off-road Equipment - Industrial saw assumed as surrogate for chainsaw/pole saws.

Off-road Equipment - Default equipment assumed.

Trips and VMT - Approximately 12 workers at a specific site.

On-road Fugitive Dust - Default assumptions assumed.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	19.00
tblLandUse	LotAcreage	0.00	9.50
tblOffRoadEquipment	HorsePower	81.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	15.00	24.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	1.5100e-003	9.3000e-004	9.8400e-003	3.0000e-005	2.7900e-003	2.0000e-005	2.8100e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.3899	2.3899	7.0000e-005	0.0000	2.3916
Maximum	**1.5100e-003**	**9.3000e-004**	**9.8400e-003**	**3.0000e-005**	**2.7900e-003**	**2.0000e-005**	**2.8100e-003**	**7.4000e-004**	**2.0000e-005**	**7.6000e-004**	**0.0000**	**2.3899**	**2.3899**	**7.0000e-005**	**0.0000**	**2.3916**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	1.5100e-003	9.3000e-004	9.8400e-003	3.0000e-005	2.7900e-003	2.0000e-005	2.8100e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.3899	2.3899	7.0000e-005	0.0000	2.3916
Maximum	**1.5100e-003**	**9.3000e-004**	**9.8400e-003**	**3.0000e-005**	**2.7900e-003**	**2.0000e-005**	**2.8100e-003**	**7.4000e-004**	**2.0000e-005**	**7.6000e-004**	**0.0000**	**2.3899**	**2.3899**	**7.0000e-005**	**0.0000**	**2.3916**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**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	Hand Treatment	Site Preparation	11/6/2021	12/2/2021	5	19	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Hand Treatment	Concrete/Industrial Saws	6	8.00	4	0.73
Hand Treatment	Rubber Tired Dozers	0	8.00	247	0.40
Hand Treatment	Tractors/Loaders/Backhoes	0	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
Hand Treatment	6	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Hand Treatment - 2021

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	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
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**	**0.0000**	**0.0000**	**0.0000**

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	1.5100e-003	9.3000e-004	9.8400e-003	3.0000e-005	2.7900e-003	2.0000e-005	2.8100e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.3899	2.3899	7.0000e-005	0.0000	2.3916
Total	**1.5100e-003**	**9.3000e-004**	**9.8400e-003**	**3.0000e-005**	**2.7900e-003**	**2.0000e-005**	**2.8100e-003**	**7.4000e-004**	**2.0000e-005**	**7.6000e-004**	**0.0000**	**2.3899**	**2.3899**	**7.0000e-005**	**0.0000**	**2.3916**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	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
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**	**0.0000**	**0.0000**	**0.0000**

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	1.5100e-003	9.3000e-004	9.8400e-003	3.0000e-005	2.7900e-003	2.0000e-005	2.8100e-003	7.4000e-004	2.0000e-005	7.6000e-004	0.0000	2.3899	2.3899	7.0000e-005	0.0000	2.3916
Total	**1.5100e-003**	**9.3000e-004**	**9.8400e-003**	**3.0000e-005**	**2.7900e-003**	**2.0000e-005**	**2.8100e-003**	**7.4000e-004**	**2.0000e-005**	**7.6000e-004**	**0.0000**	**2.3899**	**2.3899**	**7.0000e-005**	**0.0000**	**2.3916**

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Flume 1 and Spillway 2&3

El Dorado-Mountain County County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	9.50	User Defined Unit	9.50	0.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EID Vegetation Managment Project - Flume 1 and Spillway 2&3. El Dorado County.

Land Use - Acres based on max area for hand treatment areas.

Construction Phase - Veg mgmt assumed to begin fall 2021. Duration based on 0.5 acres treated per day for hand treatment.

Off-road Equipment - Industrial saw assumed as surrogate for chainsaw/pole saws.

Off-road Equipment - Default equipment assumed.

Trips and VMT - Approximately 12 workers at a specific site.

On-road Fugitive Dust - Default assumptions assumed.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	19.00
tblLandUse	LotAcreage	0.00	9.50
tblOffRoadEquipment	HorsePower	81.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	15.00	24.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.1677	0.0860	1.1544	3.0200e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833	0.0000	300.6199	300.6199	8.5100e-003	0.0000	300.8327
Maximum	**0.1677**	**0.0860**	**1.1544**	**3.0200e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**	**0.0000**	**300.6199**	**300.6199**	**8.5100e-003**	**0.0000**	**300.8327**

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					
2021	0.1677	0.0860	1.1544	3.0200e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833	0.0000	300.6199	300.6199	8.5100e-003	0.0000	300.8327
Maximum	**0.1677**	**0.0860**	**1.1544**	**3.0200e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**	**0.0000**	**300.6199**	**300.6199**	**8.5100e-003**	**0.0000**	**300.8327**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**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	Hand Treatment	Site Preparation	11/6/2021	12/2/2021	5	19	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Hand Treatment	Concrete/Industrial Saws	6	8.00	4	0.73
Hand Treatment	Rubber Tired Dozers	0	8.00	247	0.40
Hand Treatment	Tractors/Loaders/Backhoes	0	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
Hand Treatment	6	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Hand Treatment - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	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**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1677	0.0860	1.1544	3.0200e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		300.6199	300.6199	8.5100e-003		300.8327
Total	**0.1677**	**0.0860**	**1.1544**	**3.0200e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**300.6199**	**300.6199**	**8.5100e-003**		**300.8327**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	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**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1677	0.0860	1.1544	3.0200e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		300.6199	300.6199	8.5100e-003		300.8327
Total	**0.1677**	**0.0860**	**1.1544**	**3.0200e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**300.6199**	**300.6199**	**8.5100e-003**		**300.8327**

CalEEMod Version: CalEEMod.2016.3.2

Date: 3/16/2021 3:30 PM

Flume 1 and Spillway 2&3

El Dorado-Mountain County County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	9.50	User Defined Unit	9.50	0.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	70
Climate Zone	1			**Operational Year**	2023
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - EID Vegetation Managment Project - Flume 1 and Spillway 2&3. El Dorado County.

Land Use - Acres based on max area for hand treatment areas.

Construction Phase - Veg mgmt assumed to begin fall 2021. Duration based on 0.5 acres treated per day for hand treatment.

Off-road Equipment - Industrial saw assumed as surrogate for chainsaw/pole saws.

Off-road Equipment - Default equipment assumed.

Trips and VMT - Approximately 12 workers at a specific site.

On-road Fugitive Dust - Default assumptions assumed.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	19.00
tblLandUse	LotAcreage	0.00	9.50
tblOffRoadEquipment	HorsePower	81.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	15.00	24.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	0.1798	0.1062	1.0353	2.7300e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833	0.0000	271.4871	271.4871	7.7200e-003	0.0000	271.6801
Maximum	**0.1798**	**0.1062**	**1.0353**	**2.7300e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**	**0.0000**	**271.4871**	**271.4871**	**7.7200e-003**	**0.0000**	**271.6801**

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					
2021	0.1798	0.1062	1.0353	2.7300e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833	0.0000	271.4871	271.4871	7.7200e-003	0.0000	271.6801
Maximum	**0.1798**	**0.1062**	**1.0353**	**2.7300e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**	**0.0000**	**271.4871**	**271.4871**	**7.7200e-003**	**0.0000**	**271.6801**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**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	Hand Treatment	Site Preparation	11/6/2021	12/2/2021	5	19	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Hand Treatment	Concrete/Industrial Saws	6	8.00	4	0.73
Hand Treatment	Rubber Tired Dozers	0	8.00	247	0.40
Hand Treatment	Tractors/Loaders/Backhoes	0	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
Hand Treatment	6	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Hand Treatment - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	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**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1798	0.1062	1.0353	2.7300e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		271.4871	271.4871	7.7200e-003		271.6801
Total	**0.1798**	**0.1062**	**1.0353**	**2.7300e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**271.4871**	**271.4871**	**7.7200e-003**		**271.6801**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	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**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	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	0.1798	0.1062	1.0353	2.7300e-003	0.3066	2.1500e-003	0.3087	0.0813	1.9800e-003	0.0833		271.4871	271.4871	7.7200e-003		271.6801
Total	**0.1798**	**0.1062**	**1.0353**	**2.7300e-003**	**0.3066**	**2.1500e-003**	**0.3087**	**0.0813**	**1.9800e-003**	**0.0833**		**271.4871**	**271.4871**	**7.7200e-003**		**271.6801**

Appendix C

Bio Report

853 LINCOLN WAY, SUITE 208
AUBURN, CALIFORNIA 95603
T 530.887.8500 F 530.887.1250

March 22, 2021 8858.0017

Doug Venable
El Dorado Irrigation District
2890 Mosquito Road
Placerville, California 95667

Subject: Biological Resources Assessment for the El Dorado Canal Vegetation Management Project in El Dorado County, California

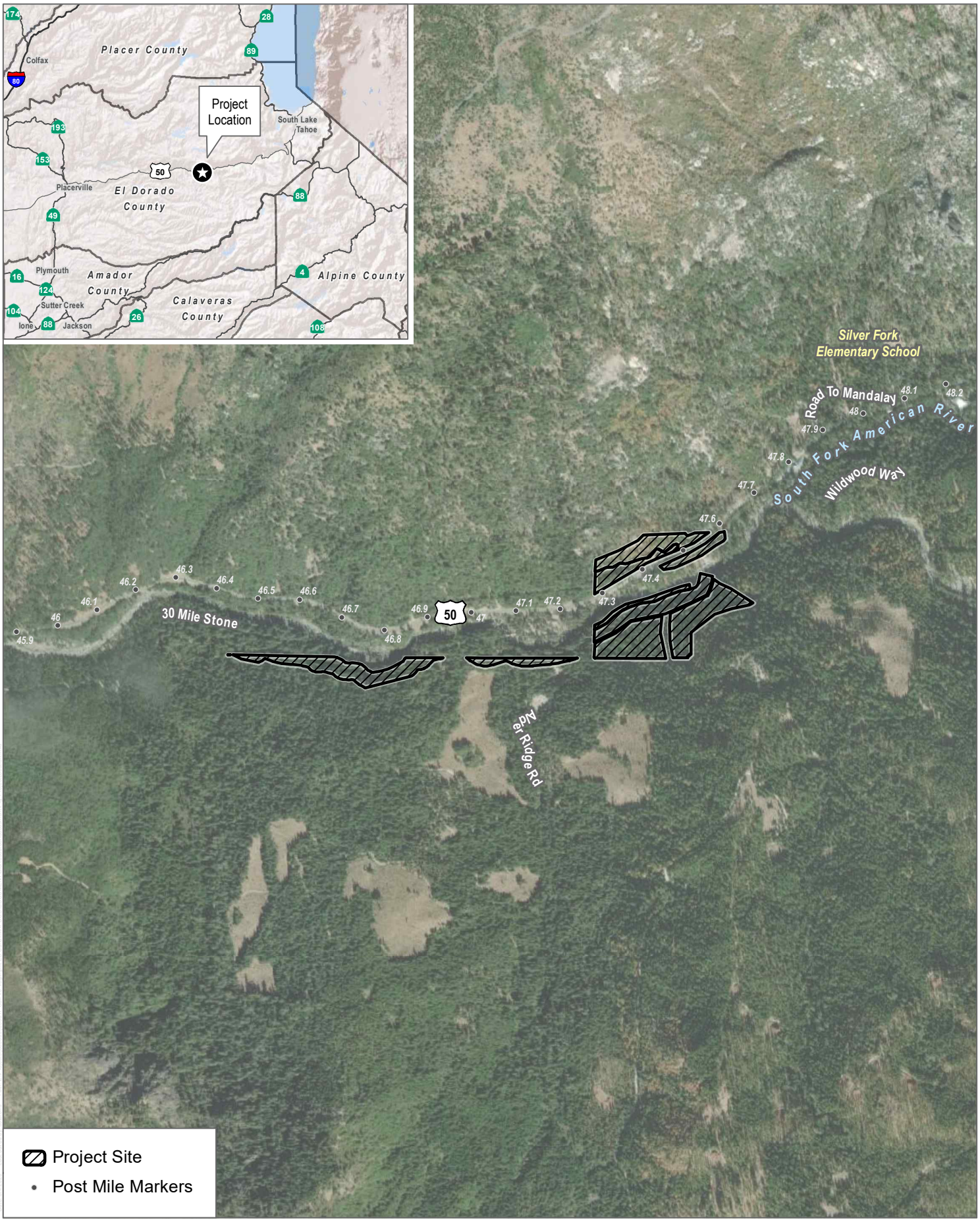
Dear Mr. Venable:

Dudek has prepared this Biological Resources Assessment in association with El Dorado Irrigation District's (District's) proposed El Dorado Canal California Department of Forestry and Fire Protection (CAL FIRE) Grant Vegetation Management Project (project) in El Dorado County, California (Figure 1, Project Location). The purpose of this Biological Resources Assessment is to identify and characterize existing onsite biological resources, with particular focus on the potential of the site to support special-status plant and wildlife species and other sensitive resources, such as wetlands and other aquatic features, and wildlife movement corridors that could be impacted by the project and / or present constraints to carrying out the project. This Biological Resources Assessment evaluates and summarizes potential impacts on biological resources that could occur with implementation of the vegetation management project.

1 Site Location

The approximately 42-acre project site is located on District owned lands, along the north and south sides of State Route 50 and approximately 1.5 miles southwest of Kyburz. The site is located in Section 29 Township 11 North, and Range 15 East of the "Kyburz, CA" U.S. Geological Survey 7.5-minute quadrangle. The approximate center of the project site corresponds to 38.763942° north latitude and -120.321886° west longitude.

The project site is located within the northern High Sierra Nevada geographic subdivision of the California Floristic Province (Jepson Flora Project 2020). The site is primarily located on the south side of State Route 50 and south of the South Fork American River with a small portion of the proposed project site occurring on the north side of the river and State Route 50. Elevations on the project site range from 3,875 to 4,075 feet above mean sea level. The region surrounding the project site receives approximately 52 inches of precipitation and 61 inches of snowfall annually. Average temperatures range from approximate 28°F to 92°F (WRCC 2020).



SOURCE: Esri and Digital Globe, OpenStreetMap

DUDEK

0 750 1,500 Feet

FIGURE 1

Site and Vicinity

Biological Resources Assessment for the El Dorado Canal Vegetation Management Project

2 Proposed Project

The El Dorado Canal conveys water approximately 22 miles from the El Dorado Diversion Dam located on the South Fork American River near Kyburz to the El Dorado Forebay located in Pollock Pines. This infrastructure provides a primary source of drinking water for El Dorado County as well as the sole source of water for District's hydroelectric facilities. The risk of wildfire along the El Dorado Canal presents a dangerous hazard to critical water conveyance facilities owned and operated by the District. The District proposes to implement a vegetation management project on the El Dorado Canal to reduce the risk of wildfire damage. Work would occur on approximately 42 acres along the El Dorado Canal near the El Dorado Diversion Dam located immediately adjacent to State Route 50 west of Kyburz on the South Fork American River. The proposed project is designed to protect over 4,600 habitable structures at Kyburz, in the downstream communities of Pollock Pines and the additional small communities of Fresh Pond, Riverton, Whitehall and Silver Fork, and to protect critical District water conveyance infrastructure from wildfire threat.

The project will employ a variety of vegetation management prescriptions such as mechanical mastication and hand treatments, removal of fuel ladders, and tree pruning to inhibit vertical fire spread and the potential for crown fire. Both standing ladder fuels and existing ground fuels up to 10-inches diameter at breast height (dbh) will be masticated to resting height of six inches from ground. Mechanical mastication treatments would occur on slopes less than 45 percent and would not occur within 100 feet of stream zones or riparian habitat. Hand treatments will involve an individual equipped with a chainsaw whose task would be to cut small trees per established specifications, generally up to 10-inches dbh. Small felled trees and other existing fuels would be lopped and scattered or piled. The District estimates that 90% of biomass will be chipped and broadcast onsite. It is estimated that up to 10% of the removed materials may be piled and burned in areas exceeding 45% slope which cannot be accessed by a mechanical chipper. Planning and layout for the treatments will occur in spring of 2021. Fuels reduction work is planned to begin in late summer to early fall of 2021 with treatments occurring through February 2022. Burning, if necessary, would occur in winter or spring during optimal burn weather conditions.

3 Regulatory Setting

3.1 Federal

Federal Endangered Species Act

The federal Endangered Species Act (FESA) prohibits the taking, possession, sale, or transport of endangered species. Pursuant to the requirements of FESA, a federal agency reviewing a project within its jurisdiction must determine whether any federally listed threatened or endangered species could be present on the project site, and determine the extent to which the project would potentially have an effect on such species. In addition, federal agencies are required to determine whether a project is likely to jeopardize the continued existence of any species proposed to be listed under FESA, or if it would result in the destruction or adverse modification of critical habitat designated for such species (16 USC 1536[3]–[4]). Projects that would result in "take" of any federally listed threatened or endangered species are required to obtain authorization from the National Marine Fisheries Service (for marine and anadromous fish species) and/or U.S. Fish and Wildlife Service (USFWS) (for all other species)

through either Section 7 (interagency consultation) or Section 10(a) (incidental take permit) of the FESA, depending on whether the federal government is involved in permitting or funding the project.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act regulates or prohibits taking, killing, possession of, or harm to migratory bird species listed in Title 50, Section 10.13 of the Code of Federal Regulations. The Migratory Bird Treaty Act is an international treaty for the conservation and management of bird species that migrate through more than one country and is enforced in the United States by USFWS. Hunting of specific migratory game birds is permitted under the regulations listed in Title 50, Section 20 of the Code of Federal Regulations. The Migratory Bird Treaty Act was amended in 1972 to include protection for migratory birds of prey (raptors). In late December 2017, the Department of Interior issued an opinion that interprets the above prohibitions as only applying to direct and purposeful actions the intent of which is to kill, take, or harm migratory birds; their eggs; or their active nests. Incidental take of birds, eggs, or nests that are not the purpose of such an action, even if there are direct and foreseeable results, are not prohibited. However, that opinion was struck down by a U.S. District Court in August 2020, reverting the prior interpretation of the Migratory Bird Treaty Act.

Clean Water Act – Section 404

The objective of the Clean Water Act (CWA) is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. Under Section 404 of the CWA, the U.S. Army Corps of Engineers (USACE) has the authority to regulate activities that could discharge fill or dredge material or otherwise adversely modify wetlands or other waters of the United States. USACE implements the federal policy embodied in Executive Order 11990, which is intended to result in no net loss of wetland values or function.

Clean Water Act – Section 401

The State Water Resources Control Board has authority over wetlands through Section 401 of the CWA, as well as the Porter–Cologne Act, California Code of Regulations Section 3831(k), and California Wetlands Conservation Policy. The CWA requires that an applicant for a Section 404 permit (to discharge dredge or fill material into waters of the United States) first obtain certification from the appropriate state agency stating that the fill is consistent with the state's water quality standards and criteria. In California, the authority to either grant certification or waive the requirement for permits is delegated by the State Water Resources Control Board to the nine regional boards. The Central Valley Regional Water Quality Control Board (RWQCB) has authority for Section 401 compliance in the project area. A request for certification is submitted to the RWQCB at the same time that an application is filed with USACE.

3.2 State

California Endangered Species Act

Under the California Endangered Species Act (CESA), the California Fish and Game Commission has the responsibility of maintaining a list of threatened and endangered species. CESA prohibits the take of state-listed threatened or endangered animals and plants unless otherwise permitted pursuant to CESA. Species determined

by the State of California to be candidates for listing as threatened or endangered are treated as if listed as threatened or endangered and are, therefore, protected from take. Pursuant to CESA, a state agency reviewing a project within its jurisdiction must determine whether any state-listed endangered or threatened species, or candidate species, could be potentially impacted by that project.

California Department of Fish and Wildlife Special Plants

For the purposes of this analysis, special plant species are defined as plants that are legally protected or that are otherwise considered sensitive by federal, state, or local resource conservation agencies. These species fall into one or more of the following categories:

- Listed by the federal government under the Federal Endangered Species Act of 1973 or the State of California under the California Endangered Species Act of 1970 as endangered, threatened, or rare.
- A candidate for federal or state listing as endangered or threatened.
- Taxa that are biologically rare, very restricted in distribution, or declining throughout their range but not currently threatened with extirpation.
- Population(s) in California that may be peripheral to the major portion of a taxon's range but are threatened with extirpation in California.
- Taxa closely associated with a habitat that is declining in California at a significant rate (e.g., wetlands, riparian, vernal pools, old growth forests, desert aquatic systems, native grasslands, valley shrubland habitats).
- Taxa considered to be "rare, threatened, or endangered in California" as defined by the California Department of Fish and Wildlife (CDFW) and assigned a California Rare Plant Rank (CRPR). The CDFW system includes six rarity and endangerment ranks for categorizing plant species of concern, as follows:
    - CRPR 1A – Plants presumed to be extinct in California
    - CRPR 1B – Plants that are rare, threatened, or endangered in California and elsewhere
    - CRPR 2A – Plants presumed to be extinct in California, but more common elsewhere
    - CRPR 2B – Plants that are rare, threatened, or endangered in California, but more common elsewhere
    - CRPR 3 – Plants about which more information is needed (a review list)
    - CRPR 4 – Plants of limited distribution (a watch list)

Plants ranked as CRPR 1A, 1B, 2A, or 2B may qualify as endangered, rare, or threatened species within the definition of California Environmental Quality Act (CEQA) Guidelines Section 15380. CDFW recommends that potential impacts to CRPR 1 and 2 species be evaluated in CEQA review documents. In general, CRPR 3 and 4 species do not meet the definition of endangered, rare, or threatened pursuant to State CEQA Guidelines Section 15380, but these species may be evaluated on a case-by-case basis.

California Department of Fish and Wildlife Species of Special Concern

CDFW maintains a list of vertebrate animal species considered of "special concern" because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction. A Species of Special

Concern is a species, subspecies, or distinct population of an animal native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria:

- Is extirpated from the state or, in the case of birds, is in its primary seasonal or breeding role
- Is listed as threatened or endangered federally, but not by the state
- Meets the state definition of threatened or endangered, but has not formally been listed
- Is experiencing, or formerly experienced, serious noncyclical population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for threatened or endangered status by the state
- Has naturally small populations exhibiting high susceptibility to risk from any factor(s) that, if realized, could lead to declines that would qualify it for threatened or endangered status by the state

Species of Special Concern are typically addressed within the context of the environmental document prepared pursuant to CEQA.

California Department of Fish and Wildlife Wetlands Protection Regulations

CDFW derives its authority to oversee activities that affect wetlands from state legislation. This authority includes Sections 1600–1616 of the California Fish and Game Code (Lake and Streambed Alteration Agreements), CESA (protection of state-listed species and their habitats, which could include wetlands), and the Keene–Nejedly California Wetlands Preservation Act of 1976 (states a need for an affirmative and sustained public policy program directed at wetlands preservation, restoration, and enhancement). In general, CDFW asserts authority over wetlands within the state through any of the following: review and comment on USACE Section 404 permits, review and comment on CEQA documents, preservation of state-listed species, or through Lake and Streambed Alteration Agreements.

California Department of Fish and Wildlife Sensitive Natural Communities

Sensitive natural communities are communities that have a limited distribution and are often vulnerable to the environmental effects of projects. These communities may or may not contain special-status species or their habitats. For purposes of this assessment, sensitive natural communities include vegetation communities listed in CDFW's California Natural Diversity Database (CNDDB) and communities listed in the Natural Communities List with a rarity rank of S1, S2, or S3 (S1: critically imperiled; S2: imperiled; S3: vulnerable). Additionally, all vegetation associations within the alliances with ranks of S1–S3 are considered sensitive habitats. CEQA requires that impacts to sensitive natural communities be evaluated and mitigated to the extent feasible.

California Fish and Game Code Section 1600 – Lake and Streambed Alteration Agreement

Under Sections 1600–1616 of the California Fish and Game Code, CDFW regulates activities that would alter the flow, bed, channel, or bank of streams and lakes. The limits of CDFW's jurisdiction are defined as the "bed, channel or bank of any river, stream, or lake designated by the department in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit" (Section 1601). In practice, CDFW usually marks its jurisdictional limit at the top of the stream or bank, or at the outer edge of the riparian vegetation, whichever is wider.

California Fish and Game Code – Sections 3503, 3511, 3513

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.5 protects all birds of prey (raptors) and their eggs and nests. Section 3511 states that fully protected birds or parts thereof may not be taken or possessed at any time. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the Migratory Bird Treaty Act.

California Fish and Game Code – Section 4150

California Fish and Game Code Section 4150 states that a mammal occurring naturally in California that is not a game mammal, fully protected mammal, or fur-bearing mammal is a non-game mammal. A non-game mammal may not be taken or possessed under Section 4150. All bat species occurring naturally in California are considered non-game mammals and are therefore prohibited from take, as stated in California Fish and Game Code Section 4150.

Porter–Cologne Water Quality Control Act

The Porter–Cologne Water Quality Control Act established the State Water Resources Control Board and the RWQCBs as the principal state agencies responsible for the protection of water quality in California. The Porter–Cologne Water Quality Control Act provides that "all discharges of waste into the waters of the State are privileges, not rights." Waters of the state are defined in Section 13050(e) of the Porter–Cologne Water Quality Control Act as "any surface water or groundwater, including saline waters, within the boundaries of the state." All dischargers are subject to regulation under the Porter–Cologne Water Quality Control Act, including both point and nonpoint source dischargers. The Central Valley RWQCB (Region 5) has the authority to implement water quality protection standards through the issuance of permits for discharges to waters at locations within its jurisdiction, including the project site.

California Forest Practice Rules- Sections 1051.3-1051.7

The purpose of the Forest Practice Rules is to implement the provisions of the Z'berg-Nejedly Forest Practice Act of 1973 in a manner consistent with other laws, including but not limited to, the Timberland Productivity Act of 1982, the California Environmental Quality Act (CEQA) of 1970, the Porter Cologne Water Quality Act, and the California Endangered Species Act. The Forest Practice Act requires activities such as logging and vegetation clearing for fuel reduction to avoid or substantially lessen significant adverse effects on the environment.

California Environmental Quality Act

CEQA Guidelines Section 15380(b) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain criteria. These criteria have been generally modeled after the definition in FESA and Chapter 1.5 of the California Fish and Game Code that addresses rare or endangered plants and animals. Appendix G of the CEQA Guidelines requires a lead agency to determine whether or not a project would "have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service." CEQA Guidelines Section 15065 requires that a lead agency find an impact to be significant if a project would "substantially reduce the number or restrict the range of an endangered, rare, or threatened species."

4 Methods

Information regarding biological and aquatic resources present within the project site was obtained through a review of pertinent literature, publicly available natural resource databases and other information, as well as a biological field survey; all are described in detail below.

4.1 Literature and Database Review

Special-status biological resources present or potentially present on the project site were identified through a literature search using the following sources: USFWS IPaC Trust Resource Report, CDFW's CNDDB, and the California Native Plant Society (CNPS) online Inventory of Rare and Endangered Vascular Plants. Dudek also reviewed current and historical aerial photography to identify any potentially jurisdictional wetlands or other waters based on aerial signatures, and reviewed the Natural Resources Conservation Service (USDA 2020a) Web Soil Survey to identify soil types mapped on the project site.

4.2 Biological Field Surveys

Dudek wildlife biologist Allie Sennett and botanist Laura Burris performed a field survey of the approximately 42–acre project site on July 16, 2020. The field survey included identifying, characterizing, and documenting onsite vegetation communities and land cover types; a preliminary evaluation of potentially jurisdictional aquatic resources; and an assessment, based on field conditions, of the potential for special-status plant and animal species to occur within the project site boundaries. In addition to the general biological survey, a survey for special-status plant species was performed in accordance with the following botanical survey protocol: the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFW 2018) and CNPS' Botanical Survey Guidelines (CNPS 2001).

The survey was conducted on foot to visually cover the entire project site. Field notes, an aerial photograph (Google Earth 2020) with an overlay of the property boundary, and a Trimble Geo 7X GPS unit were used to map vegetation communities and record any sensitive biological resources while in the field. Representative site photographs are included in Attachment A, Photo Log.

All plant species encountered during the field surveys were identified to the lowest taxonomic group possible and recorded directly into a field notebook. Common and scientific names for plant species with a CRPR (formerly CNPS List) follow the CNPS online Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2020). Nomenclature for all other plant species observed on the site follow The Jepson Manual, Vascular Plants of California, Second Edition (Jepson Flora Project 2020). Wildlife species detected during the field surveys by sight, calls, tracks, scat, or other signs were recorded directly into a field notebook. The site was scanned with and without binoculars to aid in the identification of wildlife. In addition to species detected during the surveys, expected wildlife use of the site was determined by known habitat preferences of local species and knowledge of their relative distributions in the area. Focused protocol-level surveys for special-status species were not conducted.

Dudek also evaluated the potential for aquatic features potentially under state and/or federal jurisdiction to occur on the project site. Potentially jurisdictional waters include the following:

- Waters of the United States, including wetlands, under the jurisdiction of USACE pursuant to Section 404

of the federal CWA

- Waters of the State, including wetlands, under the jurisdiction of the RWQCB pursuant to Section 401 of the CWA and the Porter-Cologne Act
- Waters of the State under the jurisdiction of CDFW, pursuant to Section 1602 of the California Fish and Game Code

Pursuant to the federal CWA, USACE, and RWQCB, jurisdictional areas include those supporting all three wetlands criteria described in the USACE Manual: hydric soils, hydrology, and hydrophytic vegetation. Areas regulated by the RWQCB are generally coincident with the USACE areas, but may also include isolated features that have evidence of surface water inundation pursuant to the state Porter-Cologne Act. These areas generally support at least one of the three USACE wetlands indicators but are considered isolated through the lack of surface water hydrology/connectivity downstream. The extent of CDFW regulated areas typically includes areas supporting a predominance of hydrophytic vegetation (i.e., 50% cover or greater) where associated with a stream channel. During the field survey conducted by Dudek on July 16, 2020, searches were conducted for any water features that potentially meet the criteria described above and for which a formal jurisdictional delineation would need to be conducted to confirm whether or not the features were under agency jurisdiction.

5 Results

5.1 Site Description

Soils

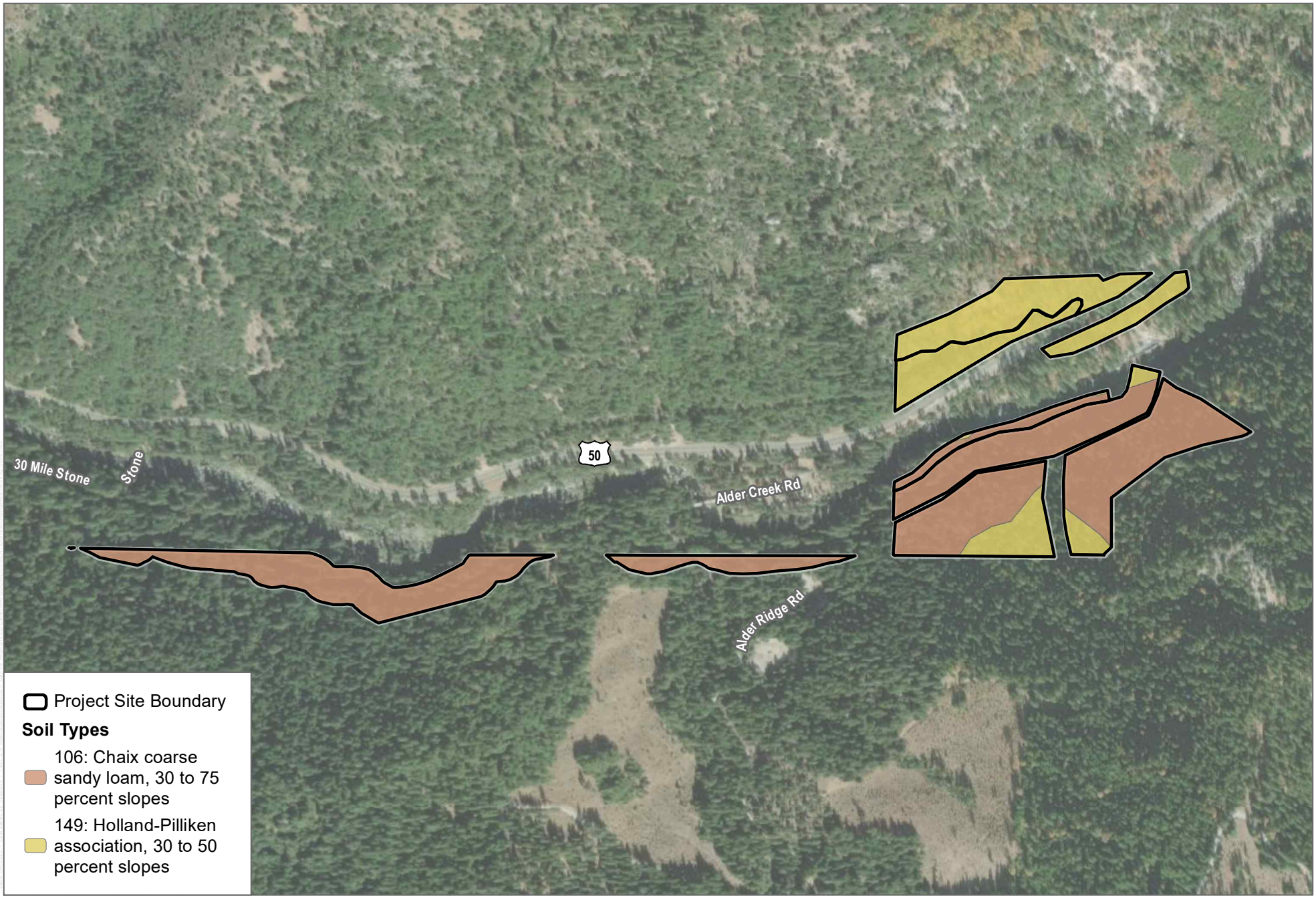
According to the Natural Resources Conservation Service (USDA 2020a), two soil types are mapped on the project site: Chaix coarse sandy loam, 30-75 percent slopes and Holland-Pilliken association, 30-50 percent slopes (Figures 2, Project Soils). The Chaix coarse sandy loam series consists of moderately deep, somewhat excessively drained soils formed in material weathered from acid intrusive indigenous rock; and the Holland-Pilliken association series consist of well-drained soils formed in material weathered from granitic rock. Neither of the soil types mapped on site are included on the U.S. Department of Agriculture's list of hydric soils (USDA 2020b), which are commonly associated with wetlands or other waters.

Hydrology

The project site is located within the Upper South Fork American River watershed in El Dorado County (Figure 3, Hydrologic Setting). Within and adjacent to the project site, the National Wetlands Inventory identifies the American River and Carpenter Creek as Riverine. Two seeps and several small drainages were identified during the site visit, which are discussed in Section 5.5, Wetlands and Other Waters (USFWS 2020). Surface runoff on the project site is generally directed towards the south fork of the American River via ephemeral drainages, or as sheet flow down hillsides.

Vegetation Communities and Land Cover Types

Three natural vegetation community and one terrestrial land cover type exist on the project site: Ponderosa pine-white pine forest, black oak woodland, black oak-deer brush scrub, and disturbed/developed (Figure 4, Vegetation Communities and Land Cover Types). Additionally, there are three aquatic land cover types on the project site, including seep, ephemeral drainage, and riverine. Vegetation communities and land cover types present on the project site are summarized in Table 1 and described further in the following text.



SOURCE: Esri and Digital Globe, OpenStreetMap, NRCS Soils

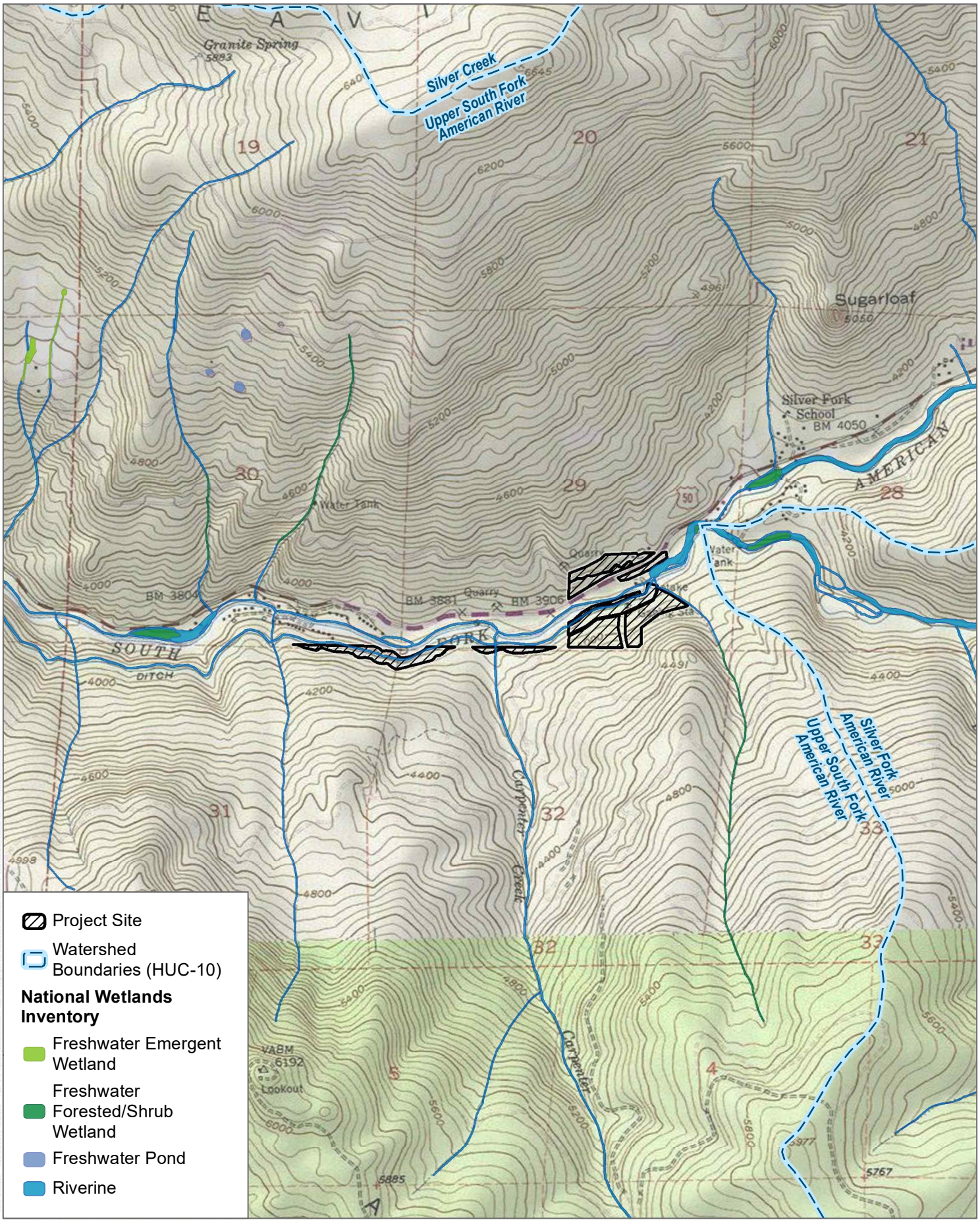
DUDEK

0 340 680 Feet

FIGURE 2

Soils Map

Biological Resources Assessment for the El Dorado Canal Vegetation Management Project



SOURCE: Esri and Digital Globe, OpenStreetMap

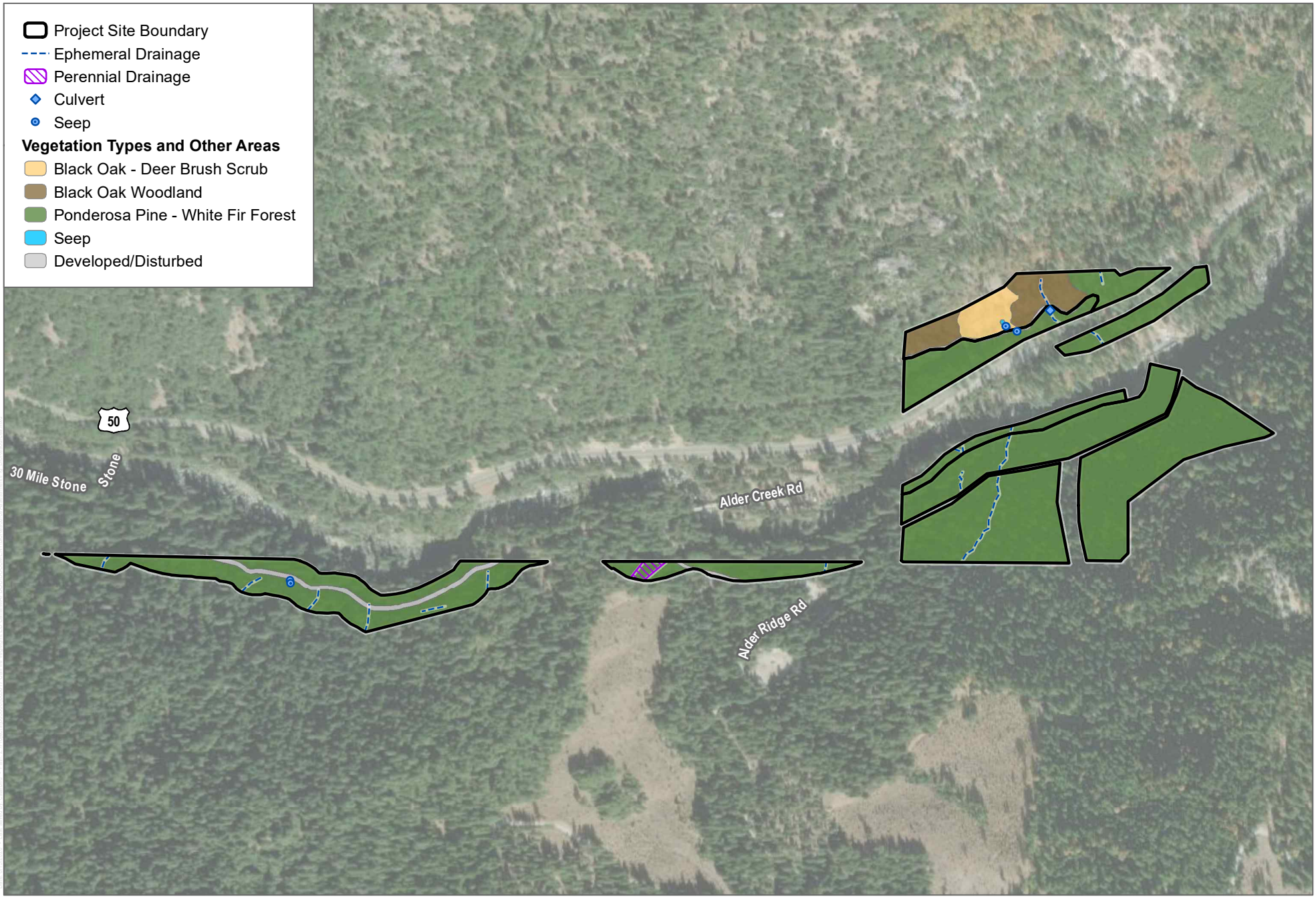
DUDEK

0 1,000 2,000 Feet

FIGURE 3

Hydrologic Setting

Biological Resources Assessment for the El Dorado Canal Vegetation Management Project



SOURCE: Esri and Digital Globe, OpenStreetMap, NRCS Soils

DUDEK

0 330 660 Feet

FIGURE 4

Natural Vegetation Communities and Land Cover Types

Biological Resources Assessment for the El Dorado Canal Vegetation Management Project

Table 1. Vegetation Communities and Land Cover Types on the Project Site

Vegetation Community/Land Cover Type	Acreage
Terrestrial	
Ponderosa Pine – White Fir Forest	36.24
Black Oak Woodland	2.40
Black Oak – Deer Brush Scrub	1.20
Disturbed/Developed	1.35
Subtotal	41.19
Aquatic	
Seep	0.02
Ephemeral Drainage	0.09
Perennial Drainage	0.19
Subtotal	0.30
Total	41.49

Ponderosa Pine - White Fir Forest (36.24 acres). This vegetation community dominates the generally undisturbed areas in the southern portions of the project site. The overstory is moderately dense and dominated by Ponderosa pine (*Pinus ponderosa*) and white fir (*Abies concolor*), with lesser abundance of Douglas fir (*Pseudotsuga menziesii*), incense cedar (*Calocedrus decurrens*), giant sequoia (*Sequioadendron giganteum*), black oak (*Quercus kelloggii*) and bigleaf maple (*Acer macrophyllum*). The shrub layer is sparse to absent, with the exception of scattered white fir and incense cedar saplings, and the herbaceous layer is mostly dominated by a thick layer of duff. Where present, vegetation includes Sierran mountain misery (*Chamaebatia foliolosa*) and snowberry (*Symphoricarpos* spp.).

Black Oak Woodland (2.4 acres). This vegetation community occurs north of State Route 50, on south-facing slopes adjacent to Weber Mill Road. The tree canopy is dense with black oak (*Quercus kelloggii*) saplings and young trees. This area appears to have been subject to fire in the last decade, which may account for the mid seral stage of plant succession on the slope. Openings in the black oak woodland support a more robust shrub and herb community containing deer brush, manzanita, and mountain monardella (*Monardella odoratissima*).

Black Oak – Deer Brush Scrub (1.2 acres). This vegetation community is similar to the black oak woodland described above; however, the black oak-deer brush scrub is co-dominated by black oak saplings and deer brush (*Ceanothus integerrimus*). The shrub canopy is continuous and dense, with little to no herbaceous undergrowth. Trees are sparse and consist of more mature black oak and an occasional ponderosa pine. Black oak – deer brush scrub occurs adjacent to black oak woodland on south-facing slopes in the northern portion of the project area, north of State Route 50.

Disturbed/Developed (1.35 acres). This land cover type is typical of the dirt roads and maintained bench of the El Dorado Canal. Disturbed/developed land cover type is either barren of vegetation or dominated by non-native plant species indicative of disturbed sites, such as field hedge parsley (*Torilis arvensis*), hedgehog dogtail grass (*Cynosurus echinatus*), and Jersey cudweed (*Pseudognaphalium luteoalbum*). Some native species, such as buckbrush and manzanita, are present intermittently along the side of the dirt and gravel access road in the northern portion of the project site. Roadside ditches, where present along the road, are typically sparse of vegetation or contain a similar plant assemblage as observed elsewhere in this cover type.

Seep (0.2 acres). Two seeps occur in the project area, one along the El Dorado Canal in the southwestern portion of the project area, and another on the south-facing slope in the northern portion of the project area. Both seeps are characterized by shallow groundwater that surfaces at the seeps, creating wetland areas dominated by herbaceous wetland species such as tapered rosette grass (*Panicum acuminatum*), common rush (*Juncus effusus*), and willowherb (*Epilobium ciliatum*). Thimbleberry (*Rubus parviflorus*) is common on the margins of the seep in the southern portion of the project area.

Ephemeral Drainage (0.09 acres). Twelve ephemeral drainages bisect the project site. These drainages appear to carry water only during and after rain events, as well as during snowmelt in the spring. The ephemeral drainages are primarily depicted as topographic channels in the hillsides and most often have similar vegetation as the surrounding vegetation community. In the southern portion of the project site, ephemeral drainages appear to channel water downhill and north towards the El Dorado Canal and the South Fork American River. Most of these drainages drain to the canal, while some are culverted and continue to the river. In the northern portion of the project site, ephemeral drainages channel water downhill and south towards the River, passing through culverts under State Route 50.

Perennial Drainage (0.19 acres). Two perennial drainages occur within the project site: one small perennial drainage named Carpenter Creek in the south-central portion of the project area, and the South Fork American River. Carpenter Creek carries water from the hills south of the El Dorado Canal, under the canal, and into the South Fork American River (refer to Figure 4). The South Fork American River is a perennial waterway that runs from east to west and bisects the project area, running generally parallel to and south of State Route 50. This land cover type includes the exposed granite boulders, open water, and riparian vegetation adjacent to the river. Common vegetation along the margin of the riverine habitat include white alder (*Alnus rhombifolia*), sandbar willow (*Salix exigua*), Indian rhubarb (*Darmera peltata*), beaked sedge (*Carex utriculata*), common monkeyflower (*Erythranthe guttata*), and scarlet monkeyflower (*Erythranthe cardinalis*).

Common Plant and Wildlife Species Observed

A total of 111 species of native or naturalized plants, 98 native (88%) and 13 non-native (12%), was recorded on the project site during the July 16, 2020 survey (see Appendix C). The Dudek biologists directly observed, or documented via scat, sign, or call, five wildlife species on the project site during the field survey. Observed wildlife primarily included resident and migratory bird species including turkey vulture (*Cathartes aura*), Steller's jay (*Cyanocitta stelleri*), and American robin (*Turdus migratorius*), as well as western fence lizard (*Sceloporus occidentalis*). Mule deer (*Odocoileus hemionus*) was detected via scat. Many wildlife species common to the region are mobile, cryptic, and/or active during limited periods of day, and could therefore be easily missed during a single daytime survey. A list of plant and wildlife species detected during the field survey is included as Attachment B, List of Species Observed on Site.

5.2 Special-Status Plants

Results of USFWS, CNDDB, CNPS, and USFS Region 5 searches revealed 24 special-status plant species that have potential to occur or that are known to occur in the project site region, which includes the Kyburz, CA and all surrounding eight USGS 7.5 minute quadrangles (see Attachment C, Special-Status Plants Potential to Occur). Of these, 20 special-status plant species were removed from consideration due to lack of suitable habitat within or adjacent to the project site, or due to the site being outside of the species' known geographic or elevation range. The remaining four special-status plant species have some potential to occur on the project site and are discussed in more detail below.

Pleasant Valley mariposa lily (*Calochortus clavatus* var. *avius*) is a USFS sensitive species and CRPR 1B.2 species with a low potential to occur on site. Pleasant Valley mariposa lily is a perennial bulbiferous herb found on exposed Josephine silt loam and volcanic soils in lower montane coniferous forest from approximately 1,000 to 5,905 feet above mean sea level. It blooms May through July (CNPS 2020). The forest onsite, especially in the southern portion of the project site, contains a high level of canopy cover and layer of organic material (i.e., decomposing leaves and pine needles) at the ground surface, which reduces habitat suitability for this species. The nearest documented occurrence is located in a ponderosa pine plantation on the south slopes of Peavine Ridge, approximately 1.5 miles northwest of the project site (CDFW 2020a). This species was not observed during the July 2020 survey, which was performed when it would be evident and identifiable.

Oregon fireweed (*Epilobium oreganum*) is a CRPR 1B.2 species with a low potential to occur on site. Oregon fireweed is a perennial herb found in mesic areas in lower montane coniferous forest and upper montane coniferous forest, as well as bogs and fens, and meadows and seeps from approximately 1,640 to 7,345 feet above mean sea level. It blooms June through September (CNPS 2020). The seeps in the forest onsite provide marginally suitable habitat for this species. The nearest documented occurrence is located approximately 7 miles northeast of the project site (CDFW 2020a). This species was not observed during the July 2020 survey, which was performed when it would be evident and identifiable.

Yellow bur navarretia (*Navarretia prolifera* ssp. *lutea*) is a USFS sensitive species and CRPR 4.3 species with a high potential to occur on site. Yellow bur navarretia is an annual herb found in chaparral and cismontane woodland from approximately 2,795 to 4,600 feet above mean sea level. It blooms May through July (CNPS 2020). The Jepson Flora Project (2020) describes its habitat as "dry, rocky flats near drainage channels." Although potential habitat on site is limited, there is suitable habitat in openings in the forest canopy along roadsides and ephemeral drainages. The nearest documented occurrence for this species is located just east of the project site, in Kyburz (CDFW 2020a). This species was not observed during the July 2020 survey, which was performed when it would be evident and identifiable.

Sierra blue grass (*Poa sierrae*) is a USFS sensitive species and CRPR 1B.3 species with a moderate potential to occur on site. Sierra blue grass is a perennial rhizomatous herb found in openings of lower montane coniferous forest from approximately 1,195 to 4,920 feet above mean sea level. It blooms April through July (CNPS 2020). Forested areas of the project site are generally well-shaded and contain a thick layer of pine duff on the ground, and therefore, provide relatively marginal habitat. The nearest documented occurrence is located approximately 15 miles north of the project area (CDFW 2020a). This species was not observed during the July 2020 survey, which was performed when it would be evident and identifiable.

5.3 Special-Status Wildlife

Results of the USFWS, CNDDB, USFS Region 5, and literature searches revealed 15 special-status wildlife species as present or potentially present in the project region (see Attachment D, Special-Status Wildlife Potential to Occur). Of these, eight species were removed from consideration due to lack of suitable habitat on or adjacent to the project site, or due to the site being outside of the species' known geographic or elevation range. The remaining special-status wildlife species have some potential to occur on the project site and are discussed further below.

Foothill yellow-legged frog (*Rana boylii*) is a USFS sensitive species and a state listed threatened species that occurs in both perennial stream habitat as well as seasonal streams with deep pools. This species prefers rocky streams in a variety of habitats including valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, ponderosa pine forest, mixed coniferous forest, coastal scrub, and mixed chaparral from near sea level to approximately 4,500 feet above mean sea level. They attach egg clusters to cobble and boulder substrates in moving water near stream margins. This species is rarely encountered far from permanent water sources and seldom travels overland between waterways.

In 2002, ECORP conducted extensive special-status amphibian surveys for California red-legged frog, foothill yellow-legged frog, and Sierra Nevada yellow-legged frog) throughout the South Fork American River and associated tributaries within the El Dorado Irrigation District (EID), Project 184 project area to determine the presence and distribution of these species (ECORP 2002). On the South Fork American River, FYLF surveys were conducted from east of Echo Lake downstream to El Dorado Powerhouse (located near Pollock Pines, California). Foothill yellow-legged frog were documented at 10 of the 29 sites surveyed during the 2002 surveys. Based on the results of these surveys, the highest elevation site that foothill yellow-legged frog were documented was Site 220R located approximately 1000 feet downstream of Ice House Road. In 2004, ECORP conducted focused foothill yellow-legged frog surveys on the South Fork American River and on selected tributary streams for EID as part of the Year 1 foothill yellow-legged frog monitoring program (ECORP 2005). Surveys were conducted at four breeding sites on the South Fork American River where tadpoles were observed (downstream of Ice House Road), and at several additional locations between Alder Creek and the Kyburz Diversion Dam. Results of these surveys did not document foothill yellow-legged frog occurrences on the South Fork American River between Alder Creek and the Kyburz Diversion Dam.

Results of surveys conducted in the upper reaches of the South Fork American River (upstream of Ice House Road) in 2002, and additional surveys conducted in 2004 between Alder Creek and the Kyburz Diversion Dam, indicate that suitable foothill yellow-legged frog breeding habitat and water temperatures are not present upstream of Alder Creek, and only marginal habitat is present between Alder Creek and the Riverton Bridge at Ice House Road. In general, suitable breeding habitat for foothill yellow-legged frog on the South Fork American River above the Riverton Bridge is extremely limited, due primarily to the moderately steep river gradient, relatively narrow confined channel, and the paucity of appropriate substrates (i.e., cobble, boulder, and gravel). Additionally, the reach is located above 915 m (3000 ft) where very few foothill yellow-legged frog populations have been documented on other regulated rivers in the Sierra Nevada (Seltenrich and Pool 2002).

Based on the information. it is highly unlikely that this species is present along the South Fork American River or in any of the tributary streams (including Carpenter Creek and No Name Creek) within or adjacent to the project site or in any other location upstream of the Riverton Bridge and Ice House Road.

Northern goshawk (*Accipiter gentilis*) is a USFS sensitive species and a CDFW species of special concern with a high potential to occur on site. Northern goshawk prefers to nest in remote forests with meadows and riparian habitat, away from paved roads. While the coniferous forest onsite provides potentially suitable habitat for this species, the developed campground in the southern portion of the project site and State Route 50 adjacent to the project site create high levels of human activity and disturbance. The nearest documented occurrence of this species is located less than one mile southeast of the project site, along the South Fork American River (CDFW 2020a). Thus, although unlikely, there is potential for this species to utilize the project site for nesting.

California spotted owl (*Strix occidentalis* ssp. *occidentalis*) is a USFS sensitive species and a CDFW species of special concern that usually nests in dense, old-growth conifer forests with multiple canopy layers and within 1,000 feet of permanent water (Shuford and Gardali 2008). Three activity centers have been documented within and directly adjacent to the project site (CDFW 2020). Although no nests were observed during the July 2020 surveys, the surveys were not conducted according to accepted survey protocol. California spotted owl could nest on or adjacent to the project site.

Native and migratory birds are present on site. Native birds of prey are protected by California Fish and Game Code Section 3503.5, and migratory bird species are protected by the federal Migratory Bird Treaty Act and Section 3503 of the California Fish and Game Code. Trees, shrubs, and human-made structures in or adjacent to the project site provide potential nesting habitat for several local and migratory bird species. Multiple common and migratory birds were detected during the July 2020 field survey, but no active nests were observed. A focused survey for nesting birds and birds of prey was not conducted during the field survey.

Native bats (including Townsend's big-eared bat, pallid bat, and fringed myotis) have a low to moderate potential to occur on site. Native bats are protected by California Fish and Game Code Section 4150; pallid bat (*Antrozous pallidus*) and Townsend's big-eared bat (*Corynorhinus townsendii*) are USFS sensitive species and CDFW species of special concern, and fringed myotis (*Myotis thysanodes*) is a USFS sensitive species. Potential roosting habitat on the project site is generally limited for pallid bat and Townsend's big-eared bat due to human disturbance in the area, as well as a lack of microhabitat features, such as rocky outcrops. Trees with exfoliating bark, crevices, and/or sufficient foliage in or adjacent to the project site provide potential roosting habitat for native bats, including fringed myotis. No roosting bats or their sign were identified during the field survey. However, neither a focused survey for roosting bats nor a formal habitat assessment was conducted during the survey for bat species.

Pacific marten (*Martes caurina*) is a USFS sensitive species with a low potential to occur on site. Pacific marten generally inhabits dense, old-growth forests in remote areas with abundant features for nesting and denning (e.g., large diameter tree cavities, snags, caves, and crevices in rocky areas) (CDFW 2020b). The project site is bisected by State Route 50, which provides a large human disturbance and movement barrier for this species. In addition, forested areas in the northern portion, and some of the southern portion of the project site, contain moderately-spaced trees characteristic of younger-growth stands with very limited denning opportunities. The nearest documented occurrences for Pacific marten are located approximately 12 miles northeast of the project area (CDFW 2020a). Pacific marten could use forested areas in the northeastern portion of the project site; however, the likelihood is low given the level of human activity in the project area, as well as the structure and characteristics of the forest onsite.

5.4 Sensitive Natural Vegetation Communities

The natural vegetation communities identified onsite are not considered sensitive by the CDFW. However, riparian

vegetation along the perennial drainages would be protected under the California Fish and Game Code, Section 1600 et seq, and seep habitat would be protected as wetland habitat under the State Porter Cologne Water Quality Control Act.

5.5 Wetlands and Other Waters

The USFWS National Wetland Inventory (USFWS 2020) identifies several riverine areas on the project site that are potentially jurisdictional waters (see Figure 3, Hydrologic Setting). A formal jurisdiction delineation of the project site was not conducted during the field survey. However, based on a reconnaissance review of wetlands and other waters in the project site, all wetland and water features including seeps, ephemeral drainages, and perennial drainages are likely jurisdictional under State water laws, and the perennial drainages are likely also jurisdictional under federal water laws (refer to Figure 4, Biological Resources for the locations of wetland and water resources). Both perennial drainages contained evidence of an Ordinary High Water Mark in the form of water staining on rocks, change in sediment texture, and change in vegetation composition and cover. The seeps contained saturated soils and a dominance of hydrophytic plant species. The existing canal on the project site is a constructed feature built in an area that historically lacked a drainage; as such, the canal is considered part of the built environment and not a waters of the U.S. or state.

The Forest Practice Rules establish class rankings for streams based on slope, beneficial uses, presence or capacity to support fisheries or other wildlife resources, and proximity to downstream waters and their classes. Based on the descriptions detailed in Table I of the Forest Practice Rules (CAL FIRE 2020), the wetlands and waters onsite and their associated watercourse class are described below:

South Fork American River: This perennial watercourse is considered Class I, which includes domestic supplies, including springs, on site and/or within 100 feet downstream of the operations area and/or fish always or seasonally present onsite, includes habitat to sustain fish migration and spawning. The South Fork American River supports fisheries resources.

Carpenter Creek: This perennial watercourse is considered Class II, which means that fish are always or seasonally present offsite within 1,000 feet downstream and/or aquatic habitat for nonfish aquatic species. While Carpenter Creek does not support fish, it does have potential to support other nonfish aquatic species. Additionally, the portion of Carpenter Creek within the project site is within 1,000 feet of the South Fork American River, which is a Class I stream.

Ephemeral Drainages: the ephemeral drainages onsite only contain water after rain events or during snow melt; thus, they are considered Class III, which include watercourses with no aquatic life present, but show evidence of sediment transport to Class I and II waters under normal high water flow conditions after completion of timber operations.

El Dorado Irrigation Canal: This man-made watercourse is a Class IV waterway. Class IV waterways include man-made watercourses typically used for established domestic, agricultural, hydroelectric power or other beneficial uses.

5.6 Wildlife Movement Corridors and Habitat Linkages

Wildlife corridors are landscape features, usually linear in shape, that facilitate the movement of animals (or plants) over time between two or more patches of otherwise disjunct habitat. Corridors can be small and even human made

(e.g., highway underpasses, culverts, bridges), narrow linear habitat areas (e.g., riparian strips, hedgerows), or wider landscape-level extensions of habitat that ultimately connect larger core habitat areas. Depending on the size and extent, wildlife corridors can be used during animal migration, foraging events, and juvenile dispersal. They ultimately serve to facilitate genetic exchange between core populations, provide avenues for plant seed dispersal, enable increased biodiversity and maintenance of ecosystem integrity within habitat patches, and help offset the negative impacts of habitat fragmentation (Hilty et al. 2006). Natural areas throughout the project site may provide value as potential wildlife corridors or habitat linkages between the surrounding rural, natural areas.

The California Essential Habitat Connectivity Project, developed by CDFW and the California Department of Transportation (Caltrans), intends to describe and depict a functional network of connected wildlands that is essential to the continued support of California's diverse natural communities in the face of human development and climate change (Caltrans et al. 2010). The Essential Habitat Connectivity Project identifies large, relatively natural habitat blocks (Natural Landscape Blocks) in California that support native biodiversity and depict the relative permeability of areas to provide some level of ecological connectivity (Essential Connectivity Areas) between these habitat blocks. The project site is not located within a Natural Landscape Block; however, the South Fork American River is identified as a Potential Riparian Connection (CDFW 2020b). The River and associated riparian area provide essential migratory functions for a number of different types of special-status and common wildlife species.

6 Potential Impacts/Mitigation Recommendations

6.1 Definition of Impacts

This section identifies the types of potential impacts that may occur as a result of implementation of the proposed project, including direct permanent impacts, direct temporary impacts, and indirect impacts.

Direct permanent impacts refer to the absolute and permanent physical loss of a biological resource due to clearing and grading associated with implementation of a project. Direct permanent impacts are analyzed in four ways: (1) permanent loss of vegetation communities and land covers that serve as habitat for special-status species occurring or potentially occurring on a site, (2) direct harm or mortality to individuals of special-status plant and wildlife species, (3) permanent loss of sensitive resources such as jurisdictional wetlands/waters, or (4) permanent loss of wildlife movement and habitat connectivity in an area.

Direct temporary impacts refer to a temporal loss of vegetation communities and land covers resulting from vegetation and land cover clearing and grading associated with implementation of a project. The main criterion for direct temporary impacts is that impacts would occur for a short period but would be reversible over time.

Indirect impacts are reasonably foreseeable effects caused by project implementation on remaining or adjacent biological resources outside the direct disturbance zone that may occur during grading or maintenance activities (i.e., short-term construction-related indirect impacts) or later in time as a result of the project (i.e., long-term, or operational, indirect impacts). Short-term indirect impacts can include dust, human activity, pollutants (including potential erosion), and noise that extend beyond the identified construction area. Long-term indirect impacts can include changes to hydrology, introduction of invasive species, dust, and noise that are operations-related and occur over the long term.

Potential impacts from project implementation on various special-status biological resource occurring or potentially occurring on the project site are discussed below; recommended measures to avoid/minimize these impacts are

also provided.

6.2 Impacts to Special-Status Plants

The potential for special-status plants to occur on the project site is generally low. Of the four special-status plant species with a potential to occur, one has moderate potential to occur, and three have a low potential to occur. As described above, no special-status plant species were documented within the project site during the July 2020 site survey, which included protocol-level botanical surveys and were conducted within the bloom period for potentially occurring special status plant species.

If the project does not occur within five years of the 2020 rare plant survey, implementation of the proposed project could result in impacts to special-status plant species if they become established on the project site in future years and the project site should be surveyed again. Impacts could include the destruction of individual plants or populations of plants that may become established in the construction footprint prior to ground disturbance. With implementation of the following measures, potential impacts to special-status plants would be avoided or minimized:

- If more than five years have passed since the July 2020 rare plant survey or a subsequent rare plant survey, prior to ground-disturbance, a qualified botanist familiar with common and rare plant species of the Sierra Nevada region shall conduct surveys of all areas of potential project disturbance during the appropriate blooming period for potentially occurring special-status plant species. The purpose of the survey shall be to delineate and flag populations of special-status plant species for avoidance. If no special-status plants are identified, no further mitigation is necessary. Special-status plant populations identified during the pre-construction survey shall be mapped using a hand-held GPS unit and avoided where possible. Plant individuals or populations plus a 10-foot buffer shall be temporarily fenced during vegetation management activities with high-visibility fencing or prominently flagged. If complete avoidance of populations is infeasible, further measures, as described below, shall be necessary.
- If avoidance of special-status plant species is not feasible, a qualified botanist shall prepare a Rare Plant Salvage and Translocation Plan prior to project implementation. The Rare Plant Salvage and Translocation Plan shall be reviewed and approved by CDFW or the USFS, as applicable, and shall include the following, at a minimum: identification of occupied habitat to be preserved and occupied habitat to be removed; identification of onsite or off-site preservation, restoration, or enhancement locations; methods for preservation, restoration, enhancement, and/or translocation; goals and objectives for preservation, restoration, enhancement, and/or translocation; replacement ratio and success standard of 1:1 for impacted-to-established acreage; a monitoring program to ensure mitigation success; adaptive management and remedial measures in the event that the performance standards are not achieved; and financial assurances for conservation of mitigation lands; and a mechanism for conservation of any mitigation lands required in perpetuity.

6.3 Impacts to Special-Status Wildlife

Foothill Yellow-legged Frog. It is highly unlikely for this species to occur within the two perennial drainages or any of the tributaries onsite. As part of the proposed project, Forest Practice Rules (CAL FIRE 2020) watercourse protection zones will be flagged around all wetland and waters within the project area. Additionally, no ground disturbance is anticipated to occur within proximity to the two perennial drainages. Exact watercourse protection zones are determined based on characteristics of the water courses, surrounding slopes, and beneficial uses of the watercourse as described in Table I of the Forest Practice Rules (CAL FIRE 2020). Watercourse protection zones

will be delineated by a Registered Professional Forester prior to vegetation management activities. See further discussion of watercourse protection zones in the discussion of potential impacts to wetlands and waters in Section 6.5, below. Since foothill yellow-legged frogs are not expected to occur within the project treatment area, and since avoidance measures would be observed for wetlands and waters as described under Section 6.5, below, no impacts to foothill yellow-legged frog are anticipated as a result of project implementation.

Native and Migratory Birds (including Northern Goshawk and California Spotted Owl). The proposed project involves tree and vegetation removal, which has the potential to impact native and migratory birds, including special-status species with a moderate to high potential to occur on site, such as northern goshawk and California spotted owl. It is unlikely that special-status birds with a low potential to occur on site would be impacted by the project. However, implementation of the following measures would ensure that any potential impacts to nesting birds would be avoided:

> To the extent feasible, El Dorado Irrigation District shall schedule vegetation removal activities during the non-breeding season for birds in the region (August 16 through February 14). If vegetation removal must be carried out during the breeding season, a qualified biologist shall conduct a nesting bird survey within 1 week prior to said activities to determine if any birds are nesting on or near the project site (including a 500-foot buffer for raptors). If any active nests are observed during surveys, a suitable avoidance buffer from the nests shall be determined and flagged by a qualified biologist based on species, location, and planned construction activities. Consultation with CDFW may be required to determine appropriate buffer distances. These nests shall be avoided until the chicks have fledged and the nests are no longer active, as determined by the qualified biologist.

Native Bats (including Fringed Myotis). Construction of the proposed project may result in temporary and permanent impacts to native bats. If native bats are roosting on the project site or vicinity, direct impacts could result from the permanent removal of roosting sites, such as trees and snags. With implementation of the following measures, potential impacts to native bats would be avoided:

- Removal of potential roost habitat identified during the assessment shall be avoided during the bat maternity season (May 1 through August 15). If removal of potential roost habitat occurs outside of the maternity season, no further mitigation shall be required.
- If removal of potential roost habitat must be conducted during the maternity season, a qualified biologist experienced with Sierra Nevada bat species shall conduct a survey to search for evidence of bat roosts in trees and structures subject to removal. If potential bat roosts are identified, pre-construction inspections for bats will be conducted using appropriate methods (e.g., camera inspection, exit survey with night optics, acoustic survey) within 2 weeks prior to said activities. If bats are found during inspections, removal of that roost feature will be delayed until the end of the maternity season or until a qualified bat biologist has determined that the young are capable of flight.

Other Special-Status Mammals. There is a low potential for other special-status mammals, specifically Pacific marten, to occur in or adjacent to the project site. Pacific marten prefers remote wilderness undisturbed by human activity. The nearest documented occurrence for Pacific marten is approximately 12 miles northeast of the project site. The project site borders State Route 50 and a developed campground, further reducing the likelihood that Pacific martin utilizes the site for denning or migration. As such, no impact to Pacific marten is anticipated as a result of the proposed project.

6.4 Impacts to Sensitive Vegetation Communities

Implementation of the proposed project would result in direct impacts to the ponderosa pine–white fir forest, black oak woodland, and black oak-buckbrush scrub communities present on the project site. None of these vegetation communities are considered sensitive by the CDFW. Riparian habitat adjacent to Carpenter Creek and the South Fork American River is protected habitat. Permanent direct impacts to vegetation would result from vegetation trimming and removal; however, the project proposes avoidance of all wetland and waters by implementing watercourse protection zones as required by the Forest Practice Rules. Watercourse protection zones would be established and observed along the perennial drainages and associated riparian habitat (CAL FIRE 2020). Refer to Section 6.5 for a full discussion of the watercourse protection zones. With implementation of the Forest Practice Rules, impacts to sensitive vegetation communities are not expected.

6.5 Impacts to Wetlands and Other Waters

As discussed in Section 5.5, Wetlands and Other Waters, there are two seeps, two perennial drainages, and numerous ephemeral drainages in the project site. All features are likely subject to the jurisdiction of the State, and the perennial drainages are likely also subject to federal jurisdiction. As part of the project, the watercourse protection zones described in the Forest Practice Rules (CAL FIRE 2020) will be implemented by a Registered Professional Forester. Watercourse protection zones are determined based on slope, beneficial uses, and whether they support fisheries or other aquatic wildlife species. Refer to Sections 916.5, 936.5, and 956.5: Procedure for Determining Watercourse and Lake Protection Zone (WLPZ) Widths and Protective Measures, and Table I of the 2020 Forest Practice Rules for additional information (CAL FIRE 2020).

With implementation of watercourse protection zones, no substantial impacts to wetlands or other waters are expected to occur as a result of project implementation. However, if complete compliance with the watercourse protection zone measures described is not possible and avoidance of impacts to these drainages or wetlands in infeasible, regulatory permits in the form of a Water Quality Certification from the Regional Water Quality Control Board, a Nationwide Permit authorization from ACOE, and a Streambed Alteration Agreement from CDFW would be required. Additionally, any trimming or removal of vegetation adjacent to Carpenter Creek or along the South Fork American River would require authorization from CDFW under a Streambed Alteration Agreement. Compliance with the requirements of these federal and State authorizations would ensure that any impacts to wetland and other waters would be avoided, minimized, or mitigated.

6.6 Impacts to Wildlife Movement Corridors and Habitat Linkages

As discussed in Section 5.6, Wildlife Movement Corridors and Habitat Linkages, the South Fork American River provides riparian habitat linkages between landscape blocks. However, because the work will be temporary in nature, and with implementation of measures described in Section 6.5, no substantial direct impacts to local or regional wildlife movements are expected to occur as a result of project implementation.

If you have any questions or concerns regarding the content of this report, please contact me at 916.835.9671 or lburris@dudek.com.

Sincerely,

Laura Burris
Senior Biologist/Botanist

Atts.: Attachment A, Photo Log
Attachment B, List of Species Observed On Site
Attachment C, Special-Status Plants Potential to Occur
Attachment D, Special-Status Wildlife Potential to Occur

cc: Markus Lang, Project Manager, Dudek

7 References Cited

CAL FIRE (California Department of Forestry and Fire Protection). 2020. California Forest Practice Rules, 2020. Title 14, California Code of Regulations Chapters 4, 4.5, and 10. Prepared for the California Licensed Timber Operators and California Registered Professional Foresters. Compiled by the California Department of Forestry and Fire Protection Resource Management, Forest Practice Program. Sacramento, California. Accessed August 2020. https://bof.fire.ca.gov/media/9478/2020-forest-practice-rules-and-act_final_ada.pdf.

Caltrans, CDFG, and FHWA (California Department of Transportation, California Department of Fish and Game, and Federal Highways Administration). 2010. *California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California*. Prepared by W.D. Spencer, P. Beier, K. Penrod, K. Winters, C. Paulman, H. Rustigian-Romsos, J. Strittholt, M. Parisi, and A. Pettler for Caltrans, CDFG, and FHWA. February 2010. http://www.scwildlands.org/.

CCH (Consortium of California Herbaria). 2020. Database. Last Updated August 2020. Assessed December 2020. http://ucjeps.berkeley.edu/consortium/.

CDFW (California Department of Fish and Wildlife). 2020a. California Natural Diversity Database (CNDDB). RareFind, Version 5. (Commercial Subscription). Sacramento, California: CDFW, Biogeographic Data Branch. Accessed July 2020. http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp.

CDFW. 2020b. “California Wildlife Habitat Relationships: Life History Accounts and Range Maps.” Accessed July 2020. https://www.wildlife.ca.gov/Data/CWHR/Life-History-and-Range.

CNPS (California Native Plant Society), Rare Plant Program. 2020. "Inventory of Rare and Endangered Plants" (online edition, v8-02). California Native Plant Society, Sacramento, CA. Accessed in November 2020. http://www.rareplants.cnps.org.

ECORP Consulting, Inc. 2002. Special-status amphibian surveys for EID Project 184, El Dorado County, California. Prepared for El Dorado Irrigation District.

ECORP Consulting, Inc. 2005. Results of the 2004 (Year 1) amphibian monitoring program for foothill yellow-legged frog and mountain yellow-legged frog, El Dorado Hydroelectric Project 184 (FERC Project No. 184). El Dorado County, California. Prepared for El Dorado Irrigation District.

Google Earth. 2020. Project Site at 38°44'59.82″ N and 120°31'52.14" W. Google Earth Pro (Version 7.3.2.5776). Pacific House, California: Google Earth Mapping Service. Accessed October 2020.

Hilty, J.A., W.Z. Lidicker, and A.M. Merenlender. 2006. *Corridor Ecology: The Science and Practice of Linking Landscapes for Biodiversity Conservation*. Washington, D.C.: Island Press.

Jepson Flora Project. 2020. Jepson eFlora. Berkeley, California: University of California. Accessed December 2020. http://ucjeps.berkeley.edu/IJM.html.

Seltenrich, C. P. and A. C. Pool. 2002. A standardized approach for habitat assessments and visual encounter surveys for the foothill yellow-legged frog (*Rana boylii*). Pacific Gas and Electric Company.

Shuford, W.D., and T. Gardali. 2008. "California Bird Species of Special Concern: A Ranked Assessment of Species, Subspecies, and Distinct Populations of Birds of Immediate Conservation Concern in California." *Studies of Western Birds 1*. Sacramento, CA: Western Field Ornithologists and California Department of Fish and Game. 450p.

USDA (U.S. Department of Agriculture). 2020a. Natural Resources Conservation Service (NRCS). Web Soil Survey. Accessed July 2020. http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm.

USDA. 2020b. NRCS. List of Hydric Soils. Accessed July 2020. https://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/.

USFS (U.S. Forest Service). 2013. Region 5 Regional Forester's 2013 Sensitive Plant Species List. Accessed December 2020. https://www.fs.usda.gov/main/r5/plants-animals/plants.

USFWS (U.S. Fish and Wildlife Service). 2020. "The National Wetlands Inventory." Accessed July 2020. fws.gov/wetlands/NWI/index.html.

WRCC (Western Regional Climate Center). 2020. Pacific House, California (046597) Coop Station Monthly Climate Summary. Accessed July 2020. https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca6597.

Attachment A

Photo Log

Photo 1. Representative view of the El Dorado Canal, facing east.

Photo 2. View of Carpenter Creek, facing south.

Photo 3. View of the southern seep adjacent to the El Dorado Canal, facing east.

Photo 4. Representative view of ephemeral drainage in ponderosa pine – white fir forest, facing north.

	
Photo 5. Representative view of black oak woodland in the northern portion of the project site, facing southeast.	Photo 6. View of the northern seep, facing southwest.
	
Photo 7. Representative view of black oak – deer brush scrub, facing southeast.	Photo 8. Representative view of the South Fork American River and associated riparian habitat, facing northeast.

Attachment B

List of Species Observed Onsite

VASCULAR SPECIES

EUDICOTS

ADOXACEAE—MUSKROOT FAMILY

Sambucus nigra ssp. *caerulea*—blue elderberry

ANACARDIACEAE—SUMAC OR CASHEW FAMILY

Rhus ovata—sugarbush

APIACEAE—CARROT FAMILY

Apiastrum angustifolium—mock parsley
Bowlesia incana—hoary bowlesia
Lomatium mohavense—Mojave desertparsley

APOCYNACEAE—DOGBANE FAMILY

Asclepias erosa—desert milkweed

ASTERACEAE—SUNFLOWER FAMILY

Adenophyllum porophylloides—San Felipe dogweed
Ambrosia acanthicarpa—flatspine bur ragweed
Ambrosia confertiflora—weakleaf bur ragweed
Ambrosia salsola var. *salsola*—burrobrush
Anisocoma acaulis—scalebud
Artemisia dracunculus—wild tarragon
Artemisia tridentata—big sagebrush
Baccharis salicifolia—mulefat
Baccharis sarothroides—desertbroom
Baccharis sergiloides—broom baccharis
Calycoseris parryi—yellow tackstem
Chaenactis fremontii—pincushion flower
Chaenactis stevioides—Esteve's pincushion
Dieteria asteroides var. *asteroides*—fall tansyaster
Encelia actoni—Acton's brittlebush
Ericameria brachylepis—chaparral goldenbush
Ericameria linearifolia—narrowleaf goldenbush
Eriophyllum wallacei—woolly easterbonnets
Geraea viscida—sticky geraea
Glebionis coronaria—crowndaisy*
Gutierrezia sarothrae—broom snake weed
Helianthus annuus—common sunflower

Isocoma acradenia var. *eremophila*—alkali goldenbush
Isocoma menziesii—Menzies's golden bush
Lactuca serriola—prickly lettuce*
Laennecia coulteri—Coulter's horseweed
Layia platyglossa—coastal tidytips
Leptosyne californica—California tickseed
Logfia arizonica—Arizona cottonrose
Logfia filaginoides—California cottonrose
Logfia gallica—narrowleaf cottonrose*
Malacothrix californica—California desertdandelion
Malacothrix coulteri—snake's head
Malacothrix glabrata—smooth desertdandelion
Oncosiphon piluliferum—stinknet*
Rafinesquia californica—California plumeseed
Senecio flaccidus var. *monoensis*—smooth threadleaf ragwort
Sonchus oleraceus—common sowthistle*
Stephanomeria exigua—small wirelettuce
Stephanomeria pauciflora—brownplume wirelettuce
Stephanomeria virgata ssp. *pleurocarpa*—wand wirelettuce
Stylocline gnaphaloides—mountain neststraw
Taraxacum officinale—common dandelion*
Uropappus lindleyi—Lindley's silverpuffs
Xanthium strumarium—cocklebur

BERBERIDACEAE—BARBERRY FAMILY
Berberis higginsiae—Higgins? barberry

BIGNONIACEAE—BIGNONIA FAMILY
Chilopsis linearis—desert willow

BORAGINACEAE—BORAGE FAMILY
Amsinckia intermedia—common fiddleneck
Amsinckia menziesii—Menzies' fiddleneck
Cryptantha micrantha—redroot cryptantha
Cryptantha muricata var. *jonesii*—pointed cryptantha
Cryptantha pterocarya—wingnut cryptantha
Emmenanthe penduliflora var. *penduliflora*—whisperingbells
Eriodictyon trichocalyx var. *lanatum*—hairy yerba santa
Eucrypta chrysanthemifolia var. *bipinnatifida*—spotted hideseed
Eucrypta chrysanthemifolia var. *chrysanthemifolia*—spotted hideseed
Harpagonella palmeri—Palmer's grapplinghook

Heliotropium curassavicum var. *oculatum*—seaside heliotrope
Pectocarya heterocarpa—chuckwalla combseed
Pectocarya linearis ssp. *ferocula*—sagebrush combseed
Pectocarya penicillata—sleeping combseed
Pectocarya recurvata—curvenut combseed
Pectocarya setosa—moth combseed
Phacelia cicutaria—caterpillar phacelia
Phacelia distans—distant phacelia
Plagiobothrys sp.—popcorn flower

BRASSICACEAE—MUSTARD FAMILY
Boechera pulchra—beautiful rockcress
Brassica tournefortii—Asian mustard*
Caulanthus lasiophyllus—California mustard
Descurainia pinnata ssp. *brachycarpa*—western tansymustard
Descurainia pinnata ssp. *glabra*—western tansymustard
Descurainia sophia—herb sophia*
Draba cuneifolia—wedgeleaf draba
Eruca vesicaria ssp. *sativa*—rocketsalad*
Hirschfeldia incana—shortpod mustard*
Lepidium lasiocarpum ssp. *lasiocarpum*—shaggyfruit pepperweed
Raphanus raphanistrum—wild radish*
Sisymbrium altissimum—tall tumblemustard*
Sisymbrium irio—London rocket*
Sisymbrium officinale—hedgemustard*
Sisymbrium orientale—Indian hedgemustard*
Thysanocarpus curvipes ssp. *eradiatus*—sand fringepod

CACTACEAE—CACTUS FAMILY
Cylindropuntia echinocarpa—Wiggins' cholla
Cylindropuntia ganderi—Gander's buckhorn cholla
Echinocereus engelmannii—Engelmann's hedgehog cactus
Ferocactus cylindraceus—California barrel cactus
Mammillaria tetrancistra—common fishhook cactus
Opuntia chlorotica—dollarjoint pricklypear
Opuntia ficus-indica—Barbary fig*
Opuntia phaeacantha—tulip pricklypear

CHENOPODIACEAE—GOOSEFOOT FAMILY
Allenrolfea occidentalis—iodine bush
Atriplex canescens—fourwing saltbush

Atriplex lentiformis—quailbush
Atriplex rosea—tumbling saltweed*
Bassia hyssopifolia—fivehorn smotherweed*
Chenopodium californicum—California goosefoot
Chenopodium fremontii—Fremont's goosefoot
Salsola australis—Russian thistle*
Salsola tragus—prickly Russian thistle*
Suaeda nigra—bush seepweed

CISTACEAE—ROCK-ROSE FAMILY
Crocanthemum scoparium—no common name

CONVOLVULACEAE—MORNING-GLORY FAMILY
Cuscuta californica var. *californica*—chaparral dodder

CRASSULACEAE—STONECROP FAMILY
Dudleya arizonica—chalk dudleya
Dudleya pulverulenta—chalk dudleya

EUPHORBIACEAE—SPURGE FAMILY
Euphorbia albomarginata—whitemargin sandmat
Euphorbia melanadenia—red-gland spurge
Stillingia linearifolia—queen's-root

FABACEAE—LEGUME FAMILY
Acmispon argophyllus var. *argophyllus*—silver bird's-foot trefoil
Acmispon brachycarpus—foothill deervetch
Acmispon glaber var. *brevialatus*—western bird's-foot trefoil
Acmispon haydonii—pygmy lotus
Acmispon strigosus—strigose bird's-foot trefoil
Astragalus coccineus—scarlet milkvetch
Astragalus didymocarpus var. *didymocarpus*—dwarf white milkvetch
Astragalus didymocarpus var. *obispoensis*—San Obispo milkvetch
Astragalus palmeri—Palmer's milkvetch
Lupinus concinnus—bajada lupine
Medicago polymorpha—burclover*
Melilotus indicus—annual yellow sweetclover*
Prosopis glandulosa var. *torreyana*—western honey mesquite
Prosopis pubescens—screwbean mesquite bosques
Senegalia greggii—Catclaw acacia thorn
Trifolium willdenovii—tomcat clover

GERANIACEAE—GERANIUM FAMILY

Erodium cicutarium—redstem stork's bill*
Geranium californicum—California cranesbill
Geranium molle—dovefoot geranium*

KRAMERIACEAE—RHATANY FAMILY

Krameria bicolor—white ratany
Krameria erecta—littleleaf ratany

LAMIACEAE—MINT FAMILY

Salvia carduacea—thistle sage
Salvia columbariae—chia

LOASACEAE—LOASA FAMILY

Mentzelia albicaulis—whitestem blazingstar
Mentzelia montana—variegated-bract blazingstar
Mentzelia veatchiana—Veatch's blazingstar

MALVACEAE—MALLOW FAMILY

Eremalche exilis—white mallow
Malva neglecta—common mallow*
Malva parviflora—cheeseweed mallow*
Sphaeralcea ambigua var. *ambigua*—apricot globemallow

MONTIACEAE—MONTIA FAMILY

Calyptridium monandrum—common pussypaws
Claytonia parviflora ssp. *viridis*—streambank springbeauty

NYCTAGINACEAE—FOUR O'CLOCK FAMILY

Boerhavia triquetra—slender spiderling
Mirabilis laevis var. *crassifolia*—California four o'clock
Mirabilis laevis var. *retrorsa*—wishbone-bush

OLEACEAE—OLIVE FAMILY

Fraxinus velutina—velvet ash

ONAGRACEAE—EVENING PRIMROSE FAMILY

Camissonia strigulosa—sandysoil suncup
Camissoniopsis micrantha—miniature suncup
Camissoniopsis pallida—paleyellow suncup
Eulobus californicus—California suncup
Oenothera californica ssp. *avita*—California evening primrose

Oenothera deltoides—birdcage evening primrose

OROBANCHACEAE—BROOM-RAPE FAMILY

Castilleja foliolosa—Texas Indian paintbrush
Cordylanthus rigidus—stiffbranch bird's beak

PAPAVERACEAE—POPPY FAMILY

Argemone munita—flatbud pricklypoppy
Eschscholzia californica—California poppy
Eschscholzia minutiflora—pygmy poppy
Papaver heterophyllum—windpoppy
Platystemon californicus—creamcups

PLANTAGINACEAE—PLANTAIN FAMILY

Collinsia concolor—Chinese houses
Penstemon centranthifolius—scarlet bugler

POLEMONIACEAE—PHLOX FAMILY

Eriastrum densifolium ssp. *elongatum*—giant woollystar
Eriastrum eremicum ssp. *eremicum*—desert woollystar
Gilia stellata—star gilia
Gilia transmontana—transmontane gilia
Linanthus bigelovii—Bigelow's linanthus
Loeseliastrum schottii—Schott's calico

POLYGONACEAE—BUCKWHEAT FAMILY

Centrostegia thurberi—red triangles
Chorizanthe fimbriata—fringed spineflower
Chorizanthe staticoides—turkish rugging
Eriogonum clavatum—Hoover's deserttrumpet
Eriogonum davidsonii—Davidson's buckwheat
Eriogonum elongatum var. *elongatum*—longstem buckwheat
Eriogonum fasciculatum var. *polifolium*—California buckwheat
Eriogonum wrightii var. *membranaceum*—bastardsage
Pterostegia drymarioides—woodland pterostegia

RANUNCULACEAE—BUTTERCUP FAMILY

Anemone tuberosa—tuber anemone
Delphinium parishii ssp. *subglobosum*—Colorado Desert larkspur

RHAMNACEAE—BUCKTHORN FAMILY

Ziziphus parryi var. *parryi*—Parry's jujube

RUBIACEAE—MADDER FAMILY

Galium aparine—stickywilly

RUTACEAE—RUE FAMILY

Thamnosma montana—turpentinebroom

SALICACEAE—WILLOW FAMILY

Populus fremontii ssp. *fremontii*—Fremont cottonwood
Salix exigua—sandbar willow
Salix gooddingii—black willow
Salix laevigata—red willow

SIMMONDSIACEAE—JOJOBA FAMILY

Simmondsia chinensis—jojoba

SOLANACEAE—NIGHTSHADE FAMILY

Datura wrightii—sacred thorn-apple
Lycium andersonii—Anderson's boxthorn
Nicotiana attenuata—coyote tobacco
Solanum elaeagnifolium—silverleaf nightshade*

TAMARICACEAE—TAMARISK FAMILY

Tamarix ramosissima—tamarisk*

VISCACEAE—MISTLETOE FAMILY

Phoradendron bolleanum—Bollean mistletoe
Phoradendron californicum—mesquite mistletoe

ZYGOPHYLLACEAE—CALTROP FAMILY

Larrea tridentata—creosote bush
Tribulus terrestris—puncturevine*

GYMNOSPERMS AND GNETOPHYTES

CUPRESSACEAE—CYPRESS FAMILY

Juniperus californica—California juniper

EPHEDRACEAE—EPHEDRA FAMILY

Ephedra aspera—rough jointfir
Ephedra californica—California joint fir
Ephedra viridis—Mormon tea

MONOCOTS

AGAVACEAE—AGAVE FAMILY

Agave deserti var. *deserti*—desert agave
Hesperoyucca whipplei—chaparral yucca
Yucca schidigera—Mojave yucca

ALLIACEAE—ONION FAMILY

Allium fimbriatum var. *fimbriatum*—fringed onion
Allium haematochiton—redskin onion

JUNCACEAE—RUSH FAMILY

Juncus mexicanus—Mexican rush

LILIACEAE—LILY FAMILY

Calochortus splendens—splendid mariposa lily

POACEAE—GRASS FAMILY

Bromus berteroanus—Chilean chess
Bromus diandrus—ripgut brome*
Bromus hordeaceus—soft brome*
Bromus madritensis—compact brome*
Bromus tectorum—cheatgrass*
Cynodon dactylon—Bermudagrass*
Cynosurus echinatus—annual dogtails*
Distichlis spicata—salt grass
Hordeum murinum ssp. *glaucum*—smooth barley*
Melica imperfecta—smallflower melicgrass
Polypogon monspeliensis—annual rabbitsfoot grass*
Schismus barbatus—common Mediterranean grass*
Sporobolus airoides—alkali sacaton
Stipa speciosa—desert needlegrass

THEMIDACEAE—BRODIAEA FAMILY

Dichelostemma capitatum—bluedicks

TYPHACEAE—CATTAIL FAMILY

Typha sp.—no common name

* signifies introduced (non-native) species

BIRDS

BLACKBIRDS, ORIOLES AND ALLIES

ICTERIDAE—BLACKBIRDS

Agelaius phoeniceus—red-winged blackbird
Agelaius tricolor—tricolored blackbird
Euphagus cyanocephalus—Brewer's blackbird
Icterus bullockii—Bullock's oriole
Icterus cucullatus—hooded oriole
Icterus parisorum—Scott's oriole
Quiscalus mexicanus—great-tailed grackle
Sturnella neglecta—western meadowlark
Xanthocephalus xanthocephalus—yellow-headed blackbird
Molothrus ater—brown-headed cowbird*

BUSHTITS

AEGITHALIDAE—LONG-TAILED TITS AND BUSHTITS

Psaltriparus minimus—bushtit

CARDINALS, GROSBEAKS AND ALLIES

CARDINALIDAE—CARDINALS AND ALLIES

Passerina amoena—lazuli bunting
Pheucticus melanocephalus—black-headed grosbeak
Piranga ludoviciana—western tanager

FALCONS

FALCONIDAE—CARACARAS AND FALCONS

Falco columbarius—merlin
Falco sparverius—American kestrel

FINCHES

FRINGILLIDAE—FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

Haemorhous mexicanus—house finch
Spinus lawrencei—Lawrence's goldfinch
Spinus psaltria—lesser goldfinch

FLYCATCHERS

TYRANNIDAE—TYRANT FLYCATCHERS

Contopus sordidulus—western wood-pewee
Empidonax difficilis—Pacific-slope flycatcher
Myiarchus cinerascens—ash-throated flycatcher
Sayornis nigricans—black phoebe
Sayornis saya—Say's phoebe
Tyrannus verticalis—western kingbird
Tyrannus vociferans—Cassin's kingbird

GOATSUCKERS

CAPRIMULGIDAE—GOATSUCKERS

Chordeiles acutipennis—lesser nighthawk

HAWKS

ACCIPITRIDAE—HAWKS, KITES, EAGLES, AND ALLIES

Accipiter cooperii—Cooper's hawk
Accipiter striatus—sharp-shinned hawk
Aquila chrysaetos—golden eagle
Buteo jamaicensis—red-tailed hawk
Circus hudsonius—northern harrier

HUMMINGBIRDS

TROCHILIDAE—HUMMINGBIRDS

Calypte anna—Anna's hummingbird
Calypte costae—Costa's hummingbird

JAYS, MAGPIES AND CROWS

CORVIDAE—CROWS AND JAYS

Aphelocoma californica—California scrub-jay
Corvus brachyrhynchos—American crow
Corvus corax—common raven

LARKS

ALAUDIDAE—LARKS

Eremophila alpestris actia—California horned lark

MOCKINGBIRDS AND THRASHERS

MIMIDAE—MOCKINGBIRDS AND THRASHERS

Mimus polyglottos—northern mockingbird

Oreoscoptes montanus—sage thrasher

Toxostoma redivivum—California thrasher

NEW WORLD QUAIL

ODONTOPHORIDAE—NEW WORLD QUAIL

Callipepla californica—California quail

NEW WORLD VULTURES

CATHARTIDAE—NEW WORLD VULTURES

Cathartes aura—turkey vulture

OLD WORLD SPARROWS

PASSERIDAE—OLD WORLD SPARROWS

Passer domesticus—house sparrow*

OLD WORLD WARBLERS AND GNATCATCHERS

SYLVIIDAE—SYLVIID WARBLERS

Polioptila caerulea—blue-gray gnatcatcher

Polioptila melanura—black-tailed gnatcatcher

OWLS

STRIGIDAE—TYPICAL OWLS

Athene cunicularia—burrowing owl

Bubo virginianus—great horned owl

PIGEONS AND DOVES

COLUMBIDAE—PIGEONS AND DOVES

Zenaida macroura—mourning dove

Columba livia—rock pigeon (rock dove)*

Streptopelia decaocto—Eurasian collared-dove*

Zenaida asiatica—white-winged dove

ROADRUNNERS AND CUCKOOS

CUCULIDAE—CUCKOOS, ROADRUNNERS, AND ANIS

Geococcyx californianus—greater roadrunner

SHOREBIRDS

CHARADRIIDAE—LAPWINGS AND PLOVERS

Charadrius vociferus—killdeer

SHRIKES

LANIIDAE—SHRIKES

Lanius ludovicianus—loggerhead shrike

SILKY FLYCATCHERS

PTILOGONATIDAE—SILKY-FLYCATCHERS

Phainopepla nitens—phainopepla

STARLINGS AND ALLIES

STURNIDAE—STARLINGS

Sturnus vulgaris—European starling*

SWALLOWS

HIRUNDINIDAE—SWALLOWS

Hirundo rustica—barn swallow

Stelgidopteryx serripennis—northern rough-winged swallow

Tachycineta bicolor—tree swallow

SWIFTS

APODIDAE—SWIFTS

Aeronautes saxatalis—white-throated swift

Chaetura vauxi—Vaux's swift

VERDIN

REMIZIDAE—PENDULINE TITS AND VERDINS

Auriparus flaviceps—verdin

VIREOS

VIREONIDAE—VIREOS

Vireo gilvus—warbling vireo

WATERFOWL

ANATIDAE—DUCKS, GEESE, AND SWANS

Anas platyrhynchos—mallard

WOOD WARBLERS AND ALLIES

PARULIDAE—WOOD-WARBLERS

Cardellina pusilla—Wilson's warbler

Geothlypis trichas—common yellowthroat

Oreothlypis celata—orange-crowned warbler

Oreothlypis ruficapilla—Nashville warbler

Setophaga coronata—yellow-rumped warbler

Setophaga nigrescens—black-throated gray warbler

Setophaga townsendi—Townsend's warbler

WOODPECKERS

PICIDAE—WOODPECKERS AND ALLIES

Colaptes auratus—northern flicker

Dryobates nuttallii—Nuttall's woodpecker

Dryobates scalaris—ladder-backed woodpecker

WRENS

TROGLODYTIDAE—WRENS

Campylorhynchus brunneicapillus—cactus wren

Salpinctes obsoletus—rock wren

Thryomanes bewickii—Bewick’s wren

Troglodytes aedon—house wren

WRENTITS

TIMALIIDAE—BABBLERS

Chamaea fasciata—wrentit

NEW WORLD SPARROWS

PASSERELLIDAE—NEW WORLD SPARROWS

Amphispiza bilineata—black-throated sparrow
Chondestes grammacus—lark sparrow
Melospiza lincolnii—Lincoln's sparrow
Melospiza melodia—song sparrow
Melozone crissalis—California towhee
Passerculus sandwichensis—savannah sparrow
Pipilo maculatus—spotted towhee
Pooecetes gramineus—vesper sparrow
Spizella breweri—Brewer's sparrow
Zonotrichia leucophrys—white-crowned sparrow

INVERTEBRATES

BUTTERFLIES

LYCAENIDAE—BLUES, HAIRSTREAKS, AND COPPERS

Atlides halesus—great purple hairstreak
Brephidium exile—western pygmy-blue
Glaucopsyche lygdamus australis—southern blue
Hemiargus ceraunus gyas—Edward's blue
Hemiargus isola—Reakirt's blue
Icaricia acmon acmon—Acmon blue
Leptotes marina—marine blue
Ministrymon leda—Leda ministreak
Strymon melinus—gray hairstreak
—Blue sp.

NYMPHALIDAE—BRUSH-FOOTED BUTTERFLIES

Chlosyne californica—California patch
Danaus gilippus—queen
Euphydryas chalcedona chalcedona—Chalcedon variable checkerspot
Euphydryas editha quino—quino checkerspot butterfly
Nymphalis californica—California tortoiseshell
Vanessa annabella—west coast lady
Vanessa atalanta—red admiral
Vanessa cardui—painted lady
Vanessa sp.—lady

RIODINIDAE—METALMARKS

Apodemia mormo virgulti—Behr's metalmark

HESPERIIDAE—SKIPPERS

Erynnis funeralis—funereal duskywing
Hesperia juba—Juba skipper
Pyrgus albescens—white checkered-skipper
—Duskywing sp.

PIERIDAE—WHITES AND SULFURS

Anthocharis cethura—desert orangetip
Anthocharis sara sara—Pacific sara orangetip
Colias eurydice—California dogface
Colias eurytheme—orange sulphur
Colias harfordii—Harford's sulphur
Euchloe hyantis lotta—desert pearly marble
Eurema nicippe—sleepy orange
Nathalis iole—dainty sulphur
Phoebis sennae—cloudless sulphur
Pieris rapae—cabbage white
Pontia beckerii—Becker's white
Pontia protodice—checkered white
Pontia sisymbrii—spring white
—Sulphur sp.
—White sp.

MOTHS

SPHINGIDAE—HAWK MOTHS

Hyles lineata—White-lined sphinx

ANTS

FORMICIDAE—ANTS

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MAMMALS

CANIDS

CANIDAE—WOLVES AND FOXES

Canis latrans—coyote

CATS

FELIDAE—CATS

Lynx rufus—bobcat

DOMESTIC

EQUIDAE—HORSES AND BURROS

Equus caballus—domestic horse*

BOVIDAE—BISON, GOATS AND SHEEP

Boa taurus—domestic cattle*

HARES AND RABBITS

LEPORIDAE—HARES AND RABBITS

Lepus californicus bennettii—San Diego black-tailed jackrabbit

Lepus californicus—black-tailed jackrabbit

Sylvilagus audubonii—desert cottontail

Sylvilagus bachmani—brush rabbit

KANGAROO RATS

HETEROMYIDAE—POCKET MICE AND KANGAROO RATS

Dipodomys sp.—kangaroo rat

MUSTELIDS

MUSTELIDAE—WEASELS, SKUNKS, AND OTTERS

Taxidea taxus—American badger

POCKET GOPHERS

GEOMYIDAE—POCKET GOPHERS

Thomomys bottae—Botta's pocket gopher

SQUIRRELS

SCIURIDAE—SQUIRRELS

Ammospermophilus leucurus—white-tailed antelope squirrel

Spermophilus (Otospermophilus) beecheyi—California ground squirrel

UNGULATES

CERVIDAE—DEERS

Odocoileus hemionus—mule deer

RATS, MICE, AND VOLES

CRICETIDAE—RATS, MICE, AND VOLES

Neotoma lepida intermedia—San Diego desert woodrat

REPTILES

LIZARDS

PHRYNOSOMATIDAE—IGUANID LIZARDS

Callisaurus draconoides—zebra-tailed lizard

Sceloporus magister—desert spiny lizard

Sceloporus occidentalis—western fence lizard

Uta stansburiana—common side-blotched lizard

TEIIDAE—WHIPTAIL LIZARDS

Aspidoscelis tigris stejnegeri—San Diegan tiger whiptail

SNAKES

COLUBRIDAE—COLUBRID SNAKES

Pituophis catenifer—gophersnake

—coachwhip sp.

* signifies introduced (non-native) species

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Attachment C

Special-Status Plants Potential to Occur

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Astragalus austiniae	Austin's astragalus	None/None/1B.3	Alpine boulder and rock field, Subalpine coniferous forest; Rocky/perennial herb/(May)July–Sep/8,005–9,740	**Not expected to occur**. The project area is below the elevational range of this species.
Botrychium ascendens	upswept moonwort	USFS/None/2B.3	Lower montane coniferous forest, Meadows and seeps; mesic/perennial rhizomatous herb/(June)July–Aug/3,655–9,990	**Not expected to occur**. No suitable mesic habitat preferred by this species is present on site. The nearest CNDDB occurrence recorded this species growing with associate species scalloped moonwort (*Botrychium crenulatum),* Mingan moonwort (*B. minganese),* and western goblin *(B. montanum)* within the transition zone from a large meadow complex dominated by big-leaf sedge (*Carex amplifolia)* to a drier patch of incense cedar (*Calocedrus decurrens)* approximately 5 miles north of the project area (CDFW 2020).
Botrychium crenulatum	scalloped moonwort	USFS/None/2B.2	Bogs and fens, Lower montane coniferous forest, Meadows and seeps, Marshes and swamps (freshwater), Upper montane coniferous forest/perennial rhizomatous herb/June–Sep/4,160–10,760	**Not expected to occur**. No suitable bog, fen, marsh, or swamp habitat preferred by this species is present on site. The nearest CNDDB occurrence recorded this species growing near Beanville Creek approximately 2 miles southeast of the project area (CDFW 2020).
Botrychium minganense	Mingan moonwort	USFS/None/2B.2	Bogs and fens, Lower montane coniferous forest, Meadows and seeps (edges), Upper montane coniferous forest; Mesic/perennial rhizomatous herb/July–Sep/4,770–7,150	**Not expected to occur**. No suitable bog or fen habitat preferred by this species occurs on site. The nearest CNDDB occurrence recorded this species growing near Beanville Creek approximately 2 miles southeast of the project area (CDFW 2020).
Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur

Botrychium montanum	western goblin	USFS/None/2B.1	Lower montane coniferous forest, Meadows and seeps, Upper montane coniferous forest; mesic/perennial rhizomatous herb/July–Sep/4,805–7,150	**Not expected to occur**. Although suitable forest habitat occurs onsite, there is no suitable meadow or other mesic habitat preferred by this species. The nearest CNDDB occurrence recorded this species growing with associate species *Pectiantia* sp., *Clintonia uniflora,* and *Viola* sp. under mountain alder (*Alnus incana* ssp. *tenuifolia)* along Beanville Creek, approximately 3 miles southeast of the project area (CDFW 2020).
Botrychium paradoxum	paradox moonwort	None/None/2B.1	Alpine boulder and rock field (limestone and marble), Upper montane coniferous forest (moist)/perennial rhizomatous herb/Aug/5,705–13,775	**Not expected to occur**. The project area is below the elevational range of this species.
Bruchia bolanderi	Bolander's bruchia	USFS/None/4.2	Lower montane coniferous forest, Meadows and seeps, Upper montane coniferous forest; damp soil/moss/N.A./5,575–9,185	**Not expected to occur.** The project area is below the elevational range of this species.
Calochortus clavatus var. avius	Pleasant Valley mariposa lily	USFS/None/1B.2	Lower montane coniferous forest (Josephine silt loam and volcanic)/perennial bulbiferous herb/May–July/1,000–5,905	**Low potential to occur**. Although suitable forest habitat occurs on site, the project area is located at the easternmost periphery of the distribution of the species (CDFW 2020). The nearest CNDDB occurrence recorded the species growing within a ponderosa pine (*Pinus ponderosa*) plantation on the south slopes of Peavine Ridge, approximately 1.5 miles northwest of the project area (CDFW 2020).
Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur

Carex cyrtostachya	Sierra arching sedge	None/None/1B.2	Lower montane coniferous forest (mesic), Meadows and seeps, Marshes and swamps, Riparian forest (margins)/perennial herb/May–Aug/2,000–4,460	**Not expected to occur**. Although suitable forest, wetland, and riparian habitat occurs on site, this species is only known from two occurrences in the region (CDFW 2020). The nearest CNDDB occurrence recorded the species growing along a creek in a mixed conifer forest approximately 13 miles northwest of the project area (CDFW 2020).
Carex davyi	Davy's sedge	None/None/1B.3	Subalpine coniferous forest, Upper montane coniferous forest/perennial herb/May–Aug/4,920–10,495	**Not expected to occur.** Although suitable forest habitat occurs on site, the project area is located below the elevational range of this species. The only CNDDB occurrence in the region recorded the species generally within the town of Kyburz in 1897, however the elevation provided on the collection label is 6,300 feet above mean sea level and is believed to be from ridge to the north (CDFW 2020).
Carex limosa	mud sedge	None/None/2B.2	Bogs and fens, Lower montane coniferous forest, Meadows and seeps, Marshes and swamps, Upper montane coniferous forest/perennial rhizomatous herb/June–Aug/3,935–8,855	**Not expected to occur**. Although suitable forest habitat occurs on site, there is no marsh or swamp habitat present. The closest occurrence recorded the species growing within a meadow at the edge of a coniferous forest approximately 5 miles north of the project area (CDFW 2020).
Chaenactis douglasii var. *alpina*	alpine dusty maidens	None/None/2B.3	Alpine boulder and rock field (granitic)/perennial herb/July–Sep/9,395–11,150	**Not expected to occur**. The project area is below the elevational range of this species.
Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur

Chlorogalum grandiflorum	Red Hills soaproot	BLM/None/1B.2	Chaparral, Cismontane woodland, Lower montane coniferous forest; serpentinite, gabbroic and other soils/perennial bulbiferous herb/May–June/800–5,540	**Not expected to occur**. Although suitable chaparral, woodland, and forest habitat occurs on site, this species is only known from two occurrences in the region (CDFW 2020) and there are no suitable gabbroic or serpentine soil substrates preferred by this species. The nearest CNDDB occurrence recorded this species growing along the eastern shore of Union Valley Reservoir, approximately 8 miles north of the project area (CDFW 2020). Serpentine soils are absent.
Claytonia megarhiza	fell-fields claytonia	None/None/2B.3	Alpine boulder and rock field, Subalpine coniferous forest (rocky or gravelly); In crevices between rocks/perennial herb/July–Sep/8,530–11,585	**Not expected to occur**. The project area is below the elevational range of this species.
Epilobium oreganum	Oregon fireweed	None/None/1B.2	Bogs and fens, Lower montane coniferous forest, Meadows and seeps, Upper montane coniferous forest; mesic/perennial herb/June–Sep/1,640–7,345	**Moderate potential to occur.** Suitable forest and wetland habitat occur on site, and this species is known from the region (CDFW 2020). The nearest occurrence recorded the species approximately 7 miles northeast of the project area (CNPS 2020).
Erigeron miser	starved daisy	USFS/None/1B.3	Upper montane coniferous forest (rocky)/perennial herb/June–Oct/6,035–8,595	**Not expected to occur.** The project area is below the elevational range of this species.
Lewisia kelloggii ssp. *kelloggii*	Kellogg's lewisia	USFS/None/3.2	Upper montane coniferous forest; Openings, ridgetops, often slate, sometimes rhyolite tuff/perennial herb/(Apr)May–Aug/4,805–7,755	**Not expected to occur**. Although this species is not known from the vicinity (CDFW 2020), it occurs in the region (CNPS 2020). However, no suitable ridgetops, openings, or rhyolitic tuff preferred by this species are present. The nearest occurrence recorded this species approximately 6 miles southwest of the project area (CNPS 2020).
Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur

Lewisia longipetala	long-petaled lewisia	USFS/None/1B.3	Alpine boulder and rock field, Subalpine coniferous forest (mesic, rocky); Granitic/perennial herb/July–Aug(Sep)/8,200–9,595	**Not expected to occur.** The project area is below the elevational range of this species.
Lewisia serrata	saw-toothed lewisia	USFS/None/1B.1	Broadleafed upland forest, Lower montane coniferous forest, Riparian forest; mesic, rocky slopes/perennial herb/May–June/2,525–4,705	**Not expected to occur**. This species is not known from the vicinity, but it occurs in the region (CDFW 2020), and suitable forest and riparian habitat occurs onsite. However, there are no rocky slopes preferred by this species onsite. The only CNDDB occurrence within the region recorded the species growing with associate species Scouler's willow (*Salix scouleriana), Boykinia major,* mountain alder, mountain pink current (*Ribes nevadense), Athyrium filix-femina* var. *cyclosorum,* yellow and white monkeyflower *(Eryanthre bicolor), Cornus stolonifera,* Douglas fir (*Pseudotsuga menziesii),* and *Acer* sp., on a moist seep above a creek within mixed conifer forest approximately 2 miles west of the project area (CDFW 2020).
Navarretia prolifera ssp. *lutea*	yellow bur navarretia	USFS/None/4.3	Chaparral, Cismontane woodland/annual herb/May–July/2,795–4,595	**High potential to occur**. Suitable woodland and chaparral habitat occur on site, and this species is known from the vicinity (CNPS 2020). The nearest occurrence recorded this species growing in Kyburz in 1925 (CNPS 2020).
Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur

Ophioglossum pusillum	northern adder's-tongue	USFS/None/2B.2	Meadows and seeps, Marshes and swamps (margins)/perennial rhizomatous herb/July/3,280–6,560	**Not expected to occur**. Although this species is not known from the vicinity, it occurs in the region (CDFW 2020). There is no suitable marsh or swamp habitat preferred by this species on site. The only CNDDB occurrence recorded the species growing on a seepy vertical granitic cliff face approximately 14 miles north of the project area (CDFW 2020).
Phacelia stebbinsii	Stebbins' phacelia	USFS/None/1B.2	Cismontane woodland, Lower montane coniferous forest, Meadows and seeps; Among rocks and rubble on metamorphic rock benches./annual herb/May-July/2,000–6,595	**Not expected to occur**. Although this species is not known from the vicinity (CDFW 2020), it occurs in the region (CDFW 2020). Suitable rock and rubble piles are not present. The nearest CNDDB occurrence recorded the species growing in recently burned, metamorphic rocky outcrop approximately 8 miles northwest of the project area (CDFW 2020).
Poa sierrae	Sierra blue grass	BLM, USFS/None/1B.3	Lower montane coniferous forest; Openings/perennial rhizomatous herb/Apr–July/1,195–4,920	**Moderate potential to occur**. Although this species is not known from the vicinity, it occurs in the region (CDFW 2020) and suitable forest habitat occurs on site. The nearest CNDDB occurrence recorded the species growing in a recently burned, granite outcrop in pine/oak forest approximately 15 miles north of the project area (CDFW 2020).
Potamogeton epihydrus	Nuttall's ribbon-leaved pondweed	None/None/2B.2	Marshes and swamps (assorted shallow freshwater)/perennial rhizomatous herb (aquatic)/(June)July–Sep/1,210–7,125	**Not expected to occur**. Although this species is not known from the vicinity, it occurs in the region (CDFW 2020). suitable marsh and swamp habitat is not present. The only CNDDB occurrence recorded the species growing in "quiet water" approximately 8 miles northeast of the project area in 1971 (CDFW 2020).

Status Legend:
FE: Federally listed as endangered
FT: Federally listed as threatened
FC: Federal Candidate for listing
USFS: U.S. Forest Service Sensitive
DL: Delisted
SE: State listed as endangered
ST: State listed as threatened
SC: State Candidate for listing
SR: State Rare
CRPR 1A: Plants presumed extirpated in California and either rare or extinct elsewhere
CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere
CRPR 2A: Plants presumed extirpated in California but common elsewhere
CRPR 2B: Plants rare, threatened, or endangered in California but more common elsewhere
CRPR 3: Review List: Plants about which more information is needed
CRPR 4: Watch List: Plants of limited distribution
.1 Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
.3 Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

Sources

BLM Special Status Plants under the jurisdiction of the California State Office as of May 28, 2015. https://www.blm.gov/sites/blm.gov/files/programs-natural-resources-native-plants-california-special-status-plants-concise-list_1.pdf

CDFW (California Department of Fish and Wildlife). 2020. California Natural Diversity Database (CNDDB). RareFind, Version 5. (Commercial Subscription). Sacramento, California: CDFW, Biogeographic Data Branch. Accessed July 2020. http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp.

California Native Plant Society (CNPS). 2020. Inventory of Rare and Endangered Plants (online edition, v8-03 0.39). California Native Plant Society. Sacramento, CA. Accessed June, 2020.

USFS Regional Forester's Sensitive Plant Species List. U.S. Forest Service. https://www.fs.usda.gov/main/r5/plants-animals/plants.

Attachment D

Special-Status Wildlife Potential to Occur

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
Invertebrates				
Bombus occidentalis	western bumble bee	USFS/PSE	Meadows and grasslands with abundant floral resources. Historically known throughout the mountains and northern coast of California. Currently found in high-elevation sites and a few records on the Northern California coast. Requires suitable nesting sites for colonies, nectar, and pollen resources available through spring, summer, and fall, and suitable overwintering sites. Typically nests in underground cavities in open west/southwest-facing slopes bordered by trees. Occasionally found in above-ground locations such as logs. Common host plant genera include Cirsium, Erigonum, Solidago, Aster, and Ceanothus (Xerces 2018).	**Not expected to occur.** The project site lacks open areas with abundant floral resources. Suitable nesting habitat occurs within the shrubland in the northern portion of the project site. The nearest documented occurrence is based on a historical collection near Strawberry in 1929, approximately 8 miles east of the project site (CDFW 2020).
Amphibians				
Ambystoma macrodactylum sigillatum	southern long-toed salamander	None/SSC	Occurs in the Sierra Nevada from the vicinity of the Stanislaus River north through the mountains of California. Found primarily in yellow pine, mixed conifer, and red fir forests associated with mountain meadows from near sea level to approximately 9,180 feet. Adults are mostly subterranean except during breeding migrations. Mostly nocturnal on the surface. Breeds primarily in temporary ponds formed by winter and spring rains and snowmelt. Higher-elevation populations may require permanent ponds due to slow larvae development (CDFW 2019b).	**Not expected to occur.** No suitable permanent ponded habitat suitable for high elevation populations of this species are present onsite. The seeps do not contain sufficient standing water and the riverine habitat is not suitable for breeding. The nearest documented occurrence is in a pond approximately 6 miles northeast of the project site (CDFW 2020).
Rana boylii	foothill yellow-legged frog	USFS/SSC, PST	Found in or near rocky streams in a variety of habitats, including valley–foothill hardwood, valley–foothill hardwood–conifer, valley–foothill riparian, Ponderosa pine, mixed conifer, coastal scrub, and mixed chaparral from near sea level to approximately 4,500 feet in the Sierra Nevada. Egg clusters are attached to cobble and boulders in moving water near stream margins. Species is rarely encountered far from permanent water (CDFW 2019b).	**Not expected to occur.** Suitable aquatic habitat is not present in the South Fork American River or in tributary streams within or adjacent to the project site. The nearest documented occurrence is a 1935 collection within the South Fork American River <1 mile west of the project site, although the species was not detected at this location during surveys conducted in 2002 (CDFW 2020). Based on extensive surveys conducted by

				ECORP in 2002 and 2004 (ECORP 2002; ECORP 2005), suitable habitat for this species is not present upstream of the Riverton Bridge; however, numerous occupied locations were present downstream of the Riverton Bridge at Ice House Road.
Rana sierrae	Sierra Nevada yellow-legged frog	FE, USFS/ST, WL	Occurs above 4,500 feet elevation in the Sierra Nevada from Plumas County south to the ridge dividing the middle and south forks of Kings River in Fresno County. Associated with streams, lakes, and ponds in montane riparian, lodgepole pine, sub-alpine conifer, and wet meadow habitat types. Always encountered within a few feet of water (CDFW 2019b).	**Not expected to occur.** The project site is below the elevational range for this species in the Sierra Nevada region. However, the species is known from the vicinity, and suitable aquatic habitat within riverine, riparian wetland, and freshwater emergent wetland occurs onsite. The nearest documented occurrence is approximately 4 miles southeast of the project site (CDFW 2020).
Birds				
Accipiter gentilis (nesting)	northern goshawk	USFS/SSC	Prefers nesting in middle- and higher-elevation immature, dense conifer forests. Habitat requirements include meadows and riparian habitat. Usually nests near water on north slopes in the densest parts of vegetation stands, staying close to openings (CDFW 2019b). Nest stands consistently have larger trees, greater canopy cover, and relatively more open understories than stands lacking nests (Shuford and Gardali 2008). Generally does not nest near areas of human habitation or paved roads (USFWS 2001).	**Moderate potential to occur.** Forested areas in and adjacent to the project area provide potential nesting habitat, although suitability is reduced with increased proximity to the roadway, which supports occasional vehicle activity. The nearest documented occurrence is for an active nest documented on the south side of the American River in 1999, <1 mile southeast of the project area (CDFW 2020).
Aquila chrysaetos (nesting & wintering)	golden eagle	BCC/FP, WL	Nests and winters in hilly, open/semi-open areas, including shrublands, grasslands, pastures, riparian areas, mountainous canyon land, open desert rimrock terrain; nests in large trees and on cliffs in open areas and forages in open habitats	**Low potential to occur.** Potentially suitable nesting trees occur within shrubland, riparian, and forest habitats onsite. However, the only documented occurrence in the region (9 USGS 7.5-minute quadrangle search) is a nest in a granite cliff in the south fork of the

				American River canyon, approximately 8 miles east of the project area (CDFW 2020).
Empidonax traillii (nesting)	willow flycatcher	BCC/SE	Found in wet meadow and montane riparian habitats of the Sierra Nevada and Cascade Range from approximately 2,000 to 8,000 feet above mean sea level. Prefers open river valleys and large meadows with dense willow thickets close to the ground, which are required for nesting and roosting (CDFW 2019b).	**Not expected to occur.** Suitable riparian habitat with dense willow thickets in river valleys does not occur onsite. The nearest documented occurrence is approximately 8 miles southeast of the project site (CDFW 2020).
Haliaeetus leucocephalus (nesting & wintering)	bald eagle	USFS, FDL, BCC/FP, SE	Occurs along coasts, rivers, and large, deep lakes and reservoirs in California. More widespread as a winter migrant. Requires large bodies of water or free-flowing rivers with abundant fish and perching sites. Nests in large old growth and dominant live trees with open branchwork. Favors Ponderosa pine (CDFW 2019b).	**Low potential to occur.** Potentially suitable nesting trees along the American River occur onsite. However, occurrences of the species in the vicinity are scarce (CDFW 2020). There are multiple citizen science records, including a hotspot record (more than 10 observations) for a pair of bald eagles at Jenkinson Reservoir, approximately 0.9 miles south of the project site (eBird 2019).
Strix occidentalis occidentalis	California spotted owl	USFS, SSC	Breeds and roosts in forests and woodlands with large old trees and snags with dense canopy closure. Nests are typically found in areas of high canopy cover, with a multi-layered canopy, old decadent trees, a high number of large trees, and course downed woody debris (Shuford and Gardali ed. 2008).	**High potential to occur.** There are three documented activity centers within or directly adjacent to the project site (CDFW 2020).
Mammals				
Antrozous pallidus	pallid bat	USFS/SSC	Occurs in open, dry habitats with rocky areas for roosting. Day roosts in caves, crevices, mines, and sometimes in buildings and hollow trees that protect them from high temperatures. Night roosts may be more open, such as porches and open buildings. Sensitive to roosting site disturbance. Occurs throughout California except in the high Sierra Nevada from Shasta to Kern Counties, and the northwest corner of California from Del Norte and western Siskiyou Counties to northern Mendocino County (CDFW 2019b).	**Moderate potential to occur.** Suitable foraging and roosting habitat occurs onsite, and this species is known from the region. The nearest documented occurrence is approximately 6 miles southeast of the project area (CDFW 2020).

Aplodontia rufa californica	Sierra Nevada mountain beaver	None/SSC	Uncommon in the Sierra Nevada. Occurs in dense riparian-deciduous and open brushy stages of most forest types. Typical habitat in the Sierra Nevada is montane riparian. Frequents open and intermediate-canopy coverage with a dense understory near water. Deep, friable soils and a cool, moist microclimate are required for burrowing. Feeds on vegetative parts of plants, mostly thimbleberry, salmonberry, blackberry, dogwood, salal, ferns, lupines, willows, and grasses. Vegetation is stored near a burrow entrance or in underground chambers. Burrows are located in deep soils in dense thickets, preferably near a stream or spring (CDFW 2019b).	**Low potential to occur.** Suitable riparian habitat does not occur on site. Although there is some riparian habitat adjacent to the South Fork American River, the canopy is open with few willow and shrubs in the understory. The nearest documented occurrence is located near Ice House Reservoir approximately 2.5 miles north of the project site (CDFW 2020).
Gulo gulo	California wolverine	USFS, PFT/FP, ST	Scarce resident of the north Coast Range and Sierra Nevada. In the northern Sierra Nevada, habitat consists of mixed conifer, red fir, and lodgepole forest that is undisturbed and remote or with minimal motorized access (CDFW 2019b; Luensmann 2008). Excavates burrows under shelving rock or in logs, caves, or snags in remote places, at high elevations, away from human populations. Naturally occurs at low densities and rarely encountered (Verner and Boss 1980).	**Not expected to occur.** The project site is located at the eastern periphery of the species' known geographic range and lacks habitat due to its proximity to regular human activity, and occasional disturbance on site. The nearest documented occurrence is located approximately 9 miles east of the project site (CDFW 2020).
Martes caurina sierrae	Sierra marten	USFS/None	Mixed evergreen forests with medium to high canopy cover	**Low potential to occur.** Suitable forest habitat occurs onsite, and this species is known from the region. The nearest documented occurrence is located approximately 12 miles northeast of the project area (CDFW 2020).
Myotis thysanodes	fringed myotis	USFS/None	Widespread in California, excluding the Central Valley and deserts. Found in a variety of habitats from approximately 0 to 9,350 feet above mean sea level. Optimal habitat includes pinyon-juniper, valley foothill hardwood and hardwood-conifer from 4,000 to 7,000 feet above mean sea level. Roosts in caves, mines, buildings, snags, and crevices. Easily disturbed at roosting sites (CDFW 2019b).	**Moderate potential to occur.** Suitable foraging and roosting habitat occur onsite. The nearest documented occurrence is approximately 9 miles northwest of the project site (CDFW 2019a).
Vulpes vulpes necator	Sierra Nevada red fox	FC, USFS/ST	Found in the Cascades in Siskiyou County, and from Lassen County south to Tulare County. Found in a variety of habitats, including alpine dwarf-shrub, wet meadow, subalpine conifer, aspen, montane chaparral, montane	**Not expected to occur.** The project site lacks habitat due to its proximity to regular human activity, and occasional disturbance on site. In addition, there are

			riparian, and mixed conifer forest (e.g. red fir, Ponderosa pine, lodgepole pine). Most sightings in the Sierra Nevada are above 7,000 feet, with a range of 3,900 to 11,900 feet above mean sea level. Den sites include rock outcrops; hollow logs and stumps; and burrows in deep, loose soil. Prefers forests interspersed with meadows or alpine fell-fields. Edge habitats are used extensively. Moves downslope in winter to Ponderosa pine and mixed conifer, and upslope in summer to lodgepole pine, subalpine conifer, alpine dwarf-shrub, and red fir habitats (CDFW 2019b).	only two populations known to exist: one near Lassen Peak and the other near Sonora Pass (CDFW 2020). The nearest documented occurrence, from 1973, is approximately 4 miles northwest of the project site (CDFW 2020).

Status Abbreviations
FE: Federally Endangered
FT: Federally Threatened
FC: Federal Candidate
FDL: Federally Delisted
BCC: U.S. Fish and Wildlife Service Bird of Conservation Concern
USFS: U.S. Forest Service Sensitive Species
SSC: California Species of Special Concern
FP: California Fully Protected Species
WL: California Watch List Species
SE: State Endangered
ST: State Threatened
PSE: Proposed State Endangered
PST: Proposed State Threatened

Sources

CDFG (California Department of Fish and Game). 2010. *Report to the Fish and Game Commission: A Status Review of the Fisher (Martes pennanti) in California*. Prepared by the California Department of Fish and Game, Sacramento, CA. February 2010.
CDFW (California Department of Fish and Wildlife). 2019a. California Natural Diversity Database (CNDDB). RareFind, Version 5. (Commercial Subscription). Sacramento, California: CDFW, Biogeographic Data Branch. Accessed July 2020. http://www.dfg.ca.gov/biogeodata/ cnddb/mapsanddata.asp.
CDFW. 2019b. *California Wildlife Habitat Relationships: Life History Accounts and Range Maps*. Accessed July 2020. https://www.wildlife.ca.gov/Data/CWHR/Life-History-and-Range.
Dudek. 2019. "Survey Results for the Pacific Tunnel Portal Rehabilitation Project." Memorandum from Dudek to El Dorado Irrigation District. September 17, 2019.
eBird. 2019. eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, NY. Accessed July 2020. http://www.ebird.org.
Inaturalist. 2020. Inatualist: An online database of community observations [web application]. Accessed July 2020. https://www.inaturalist.org/observations?place_id=14&taxon_id=41676
Jameson, E.W. Jr., and H.J. Peeters. 2004. *Mammals of California*. Revised Edition. University of California Press, Berkeley, CA.
Moyle, P.B. 2002. *Inland fishes of California*. University of California Press, Berkeley, CA.
Shuford, W.D., Gardali T. 2008. "California Bird Species of Special Concern: A Ranked Assessment of Species, Subspecies, and Distinct Populations of Birds of Immediate Conservation Concern in California." *Studies of Western Birds 1*. Sacramento, CA: Western Field Ornithologists and California Department of Fish and Game. 450p.

Thomson, R.C., A.N. Wright, and H.B. Shaffer. 2016. *California Amphibian and Reptile Species of Special Concern*. Co-published by University of California and California Department of Fish and Wildlife. University of California Press, Oakland, CA.

USFWS (U.S. Fish and Wildlife Service). 2001. *Gulf of Maine Watershed Habitat Analysis: Northern Goshawk Habitat Model*. U.S. Fish and Wildlife Service Gulf of Maine Program, Falmouth, ME. June 2001.

USFWS. 2002. *Recovery Plan for the California Red-Legged Frog (Rana aurora draytonii)*. Region 1, U.S. Fish and Wildlife Service, Portland, OR. May 28, 2002.

Verner, J., and A. Boss. 1980. *California Wildlife and their Habitats: Western Sierra Nevada*. General Technical Report PSW-37. Pacific Southwest Forest and Range Exp. Station, Forest Service, USDA, Berkeley, CA.

Appendix D

Cultural Resources Inventory and Evaluation Report

(Confidential - information provided upon request from EID)

Appendix E

AB 52 Consultation

AB 52 Tribal Consultation

Letters notifying tribal representatives of the Project and opportunity to consult were sent out on 3/1/2021 via certified mail to the following:

Tribal Affiliation	Position	Name	Address
Shingle Springs Band of Miwok Indians	Chairwoman	Regina Cuellar	Shingle Springs, CA
Shingle Springs Band of Miwok Indians	Cultural Resources Director	Daniel Fonseca	Shingle Springs, CA
Torres Martinez Desert Cahuilla Indians	Cultural Resource Coordinator	Michael Mirelez	Thermal, CA
United Auburn Indian Community (UAIC) of the Auburn Rancheria	Chairman	Gene Whitehouse	Auburn, CA
United Auburn Indian Community of the Auburn Rancheria	Tribal Historic Preservation Officer	Jason Camp	Auburn, CA
United Auburn Indian Community of the Auburn Rancheria	Cultural Resources Manager	Marcos Guerrero	Auburn, CA
Wilton Rancheria	Chairman	Raymond C. Hitchcock	Wilton, CA
Wilton Rancheria	Director	Ralph Hatch	Wilton, CA
Wopumnes Nisenan-Mewuk Nation of El Dorado County	Chairwoman	Erin Young	Shingle Springs, CA

The District received a consultation request from UAIC on 3/11/2021. A summary of consultation and conclusion of the consultation is provided in Section 3.18 of the Initial Study.

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SOUTHERN CALIFORNIA
Encinitas (Main)
La Quinta
Pasadena
Riverside
San Juan Capistrano

CENTRAL COAST
Santa Barbara
Santa Cruz

NORTHERN CALIFORNIA
Auburn
Oakland
Sacramento

HAWAI'I
Kailua, O'ahu

OREGON
Portland

HABITAT RESTORATION SCIENCES
A Dudek Subsidiary