FLUME 45 CRITICAL WATER SYSTEM INFRASTRUCTURE PROJECT

Notice of Preparation of a Draft Environmental Impact Report and Initial Study

Prepared By:

El Dorado Irrigation District
2890 Mosquito Road
Placerville, California 95667

September 2024

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Contact:

Michael C. Baron
Environmental Review Analyst
(530) 642-4188

September 2024

Project Tracking No. 22014.01

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ACRONYMS AND OTHER ABBREVIATIONS

AB	Assembly Bill
AQAP	air quality attainment plan
AQMP	air quality management plan
ARB	California Air Resources Board
BMP	best management practice
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CDFW	California Department of Fish and Wildlife
CVRWQCB	Central Valley Regional Water Quality Control Board
CGS	California Geological Survey
CH_4	methane
CHP	California Highway Patrol
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	CO2 equivalents
dB	decibel(s)
diesel PM	diesel particulate matter
DTSC	California Department of Toxic Substances Control
EDCAQMD	El Dorado County Air Quality Management District
EID	El Dorado Irrigation District
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
GHG	greenhouse gas
HCP	Habitat Conservation Plan
ITE	Institute of Transportation Engineers
L_{eq}	average noise level
LOS	level of service
MCAB	Mountain Counties Air Basin
MND	Mitigated Negative Declaration
MRZ	mineral resource zone
MT	metric ton(s)
NAHC	Native American Heritage Commission
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NO_2	nitrogen dioxide
NOX	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OSHA	Occupational Safety and Health Administration
PG&E	Pacific Gas and Electric Company
PGA	peak horizontal ground acceleration
PM	particulate matter
PM_{10}	PM equal to or less than 10 micrometers in diameter
$PM_{2.5}$	PM equal to or less than 2.5 micrometers in diameter
Project	Flume 45 Critical Water System Infrastructure Project
ROG	reactive organic gases

SACOG	Sacramento Area Council of Governments
SCAQMD	South Coast Air Quality Management District
SHPO	State Historic Preservation Officer
SMAQMD	Sacramento Metropolitan Air Quality Management District
SO_2	sulfur dioxide
SRA	State Responsibility Area
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TCR	tribal cultural resource
US 50	U.S. Highway 50

NOTICE OF PREPARATION FOR ENVIRONMENTAL IMPACT REPORT AND INITIAL STUDY

Project title:	Flume 45 Critical Water System Infrastructure Project
Lead Agency name and address:	El Dorado Irrigation District 2890 Mosquito Road Placerville, California 95667
Contact person and phone number:	Michael C. Baron Environmental Review Analyst ph: (530) 642-4188, mail to: mbaron@eid.org
Project location:	U.S. Geological Survey, Riverton, California quadrangle, Section 30, Township 11N, Range 14E (See Figure 2.2.1)
Project sponsor's name and address:	El Dorado Irrigation District 2890 Mosquito Road Placerville, California 95667
Land Use designation:	NR (Natural Resources) – El Dorado County General Plan The Project is located entirely within the El Dorado Hydroelectric Project-FERC Project 184 license boundary within the Eldorado National Forest in El Dorado County
Zoning:	FR-160 (Forest Resources, 160-acre minimum parcel size)
Description of Project:	The proposed Project would remove approximately 1,140 linear feet of an existing water conveyance structure (flume) constructed out of wood, which is highly susceptible to damage from wildfire and other natural hazards, and replace it with a more durable ignition resistant concrete conveyance structure (i.e., U shaped concrete canal). The Project would include mobilization, access improvements and site preparation, demolition and disposal of the existing wood structure, clearing and grubbing vegetation within the work area, excavation and slope stabilization, construction of a new canal bench using mechanically stabilized earth (MSE) walls, and construction of a U-shaped concrete canal. The Project would also incorporate nature-based solutions with the use of bioengineered natural and manmade materials to stabilize disturbed areas within the Project footprint. This water conveyance

infrastructure (Flume 45) is part of EID's El Dorado Federal Energy Regulatory Commission Project 184, which consists of a series of dams, canals, flumes, siphons, a penstock, and a powerhouse to deliver water from the South Fork of the American River for drinking water and power generation.

Surrounding Land Uses and Setting:

The Project area is east of the town of Pollock Pines in an unincorporated area of El Dorado County, south of U.S. Highway 50 and east of Ogilby Creek, on federal lands managed by the U.S. Forest Service in the Eldorado National Forest.

Other Public Agencies whose approval may be required or requested (e.g., permits, financing approval, or participation agreement.):

The proposed Project may be subject to further approval from the Federal Emergency Management Agency (FEMA), U.S. Forest Service (USFS), Federal Energy Regulatory Commission (FERC), and the California Office of Historic Preservation (SHPO)

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1. INTRODUCTION

1.1 Notice of Preparation of a Draft Environmental Impact Report and Initial Study

The El Dorado Irrigation District (EID) has prepared this Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) and Initial Study (IS) in compliance with the California Environmental Quality Act (CEQA) to address the potentially significant environmental impacts of the proposed Flume 45 Critical Water System Infrastructure Project ("Project"). The Environmental Impact Report (EIR) will address the potential environmental effects of the Project for the relevant environmental issues outlined by CEQA. The District will use the EIR when considering approval of the proposed Project.

This NOP/IS has been prepared in accordance with CEQA (Public Resources Code, Section 21000 et seq.) and the State CEQA Guidelines (Title 14, California Code of Regulations, Section 15000 et seq.). The purpose of this NOP/IS is to determine whether Project implementation would result in potentially significant or significant effects on the environment.

As Lead Agency, in accordance with the CEQA Guidelines Section 15367, EID has prepared this NOP/IS and made a determination that the Project may cause a significant effect on the environment, so an EIR will be prepared.

1.2 Public Review Process

The proposed NOP/IS is subject to a 30-day public review period (September 25, 2024 through October 25, 2024). The public is encouraged to provide written comments during the 30-day review. Comments may be submitted to EID at Flume45NOP@eid.org or by U.S. mail to: El Dorado Irrigation District 2890 Mosquito Road, Placerville, California 95667; Attention: Michael C. Baron.

2. PROJECT DESCRIPTION

2.1 Project Context and Summary

The El Dorado Irrigation District (District) owns and operates the El Dorado Hydroelectric Project, which is licensed by the Federal Energy Regulatory Commission (FERC) as Project 184. Project 184 includes various conveyance structures (e.g., flumes, canals, tunnels, siphons) to convey approximately 1/3 of the District's total drinking water supply to over 125,000 residents in El Dorado County, CA and also provides clean renewable energy through a 21-megawatt hydroelectric generation facility. Flume 45 is an approximately 1,140-foot water conveyance structure of this critical water delivery system (Photos 1–3). The flume is constructed of wood and highly susceptible to damage and destruction by natural hazards including wildfires, landslides, and falling trees and rocks. Therefore, the District is proposing to implement the Flume 45 Critical Water System Infrastructure Project (Project).

The proposed Project would remove approximately 1,140 linear feet of existing flume and replace it with a more durable ignition resistant concrete conveyance structure (i.e., U-shaped concrete canal). The Project would include mobilization, access improvements and site preparation, demolition and disposal of the existing wood structure, clearing and grubbing vegetation within the work area, excavation and slope stabilization, construction of MSE walls, and construction of a U-shaped concrete canal. The Project would also incorporate nature-based solutions with the use of bioengineered natural and manmade materials to stabilize disturbed areas within the Project footprint including the use of biodegradable weed-free certified natural-fiber erosion control materials and native seed mix to revegetate the site.

Construction of the proposed Project is scheduled to begin during the District's annual maintenance outage early fall of 2026 and is anticipated to be completed during the 2027 maintenance outage. Water services will not be interrupted during work activities, and therefore no service impacts to District customers are anticipated to occur.

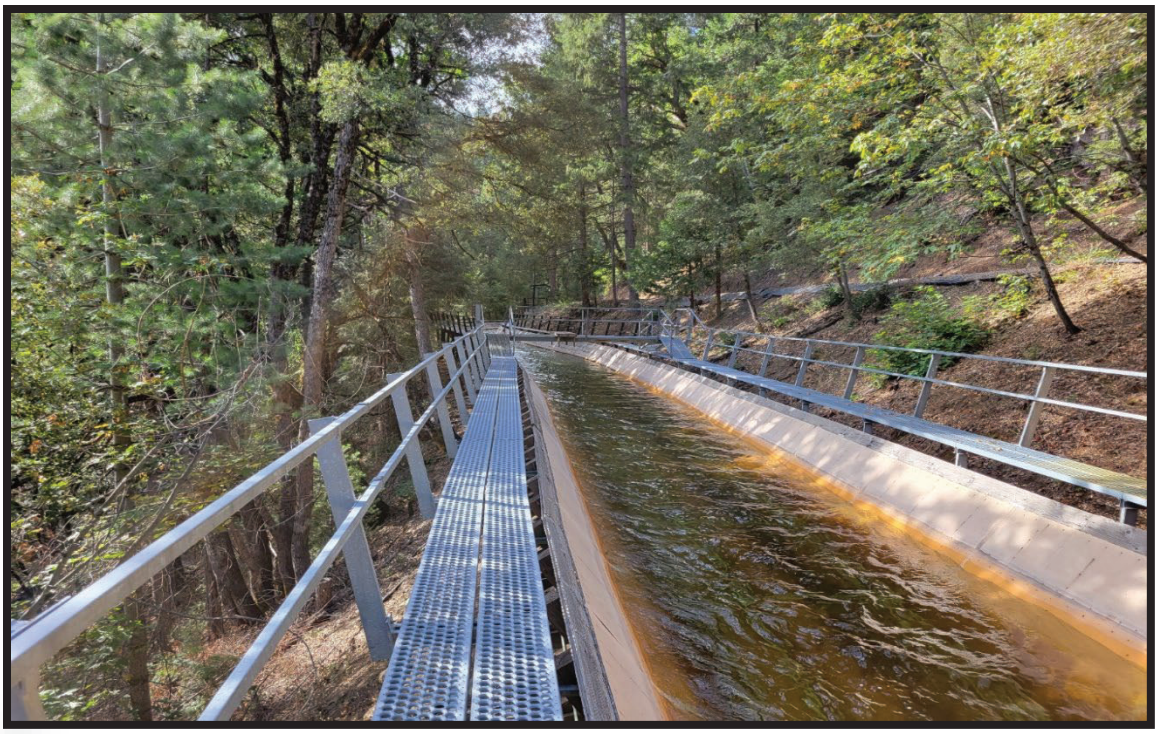


Photo 1: Flume 45 wooden flume section

Photo 2: Flume 45 wooden substructure

Photo 3: Flume 45 rock wall foundation

2.2 Project Location and Setting

The Project area is east of the town of Pollock Pines in an unincorporated area of El Dorado County. The Project area is south of US 50 and east of Ogilby Creek, on federal lands managed by the U.S. Forest Service (USFS), in the Eldorado National Forest (ENF) (Figure 2.2.1). The Project area is located on steep terrain on a northeast-facing slope approximately 0.28-mile upslope from the South Fork American River in a heavily forested area. The Project area is in Section 30, Township 11 north, Range 13 east of the U.S. Geological Survey 7.5-minute Riverton quadrangle. Elevations range from approximately 3,900 to 4,200 feet above mean sea level. The total Project footprint encompasses approximately 5-acres. The proposed Project site is shown in Figure 2.2.2.

Figure 2.2.1: Project Location

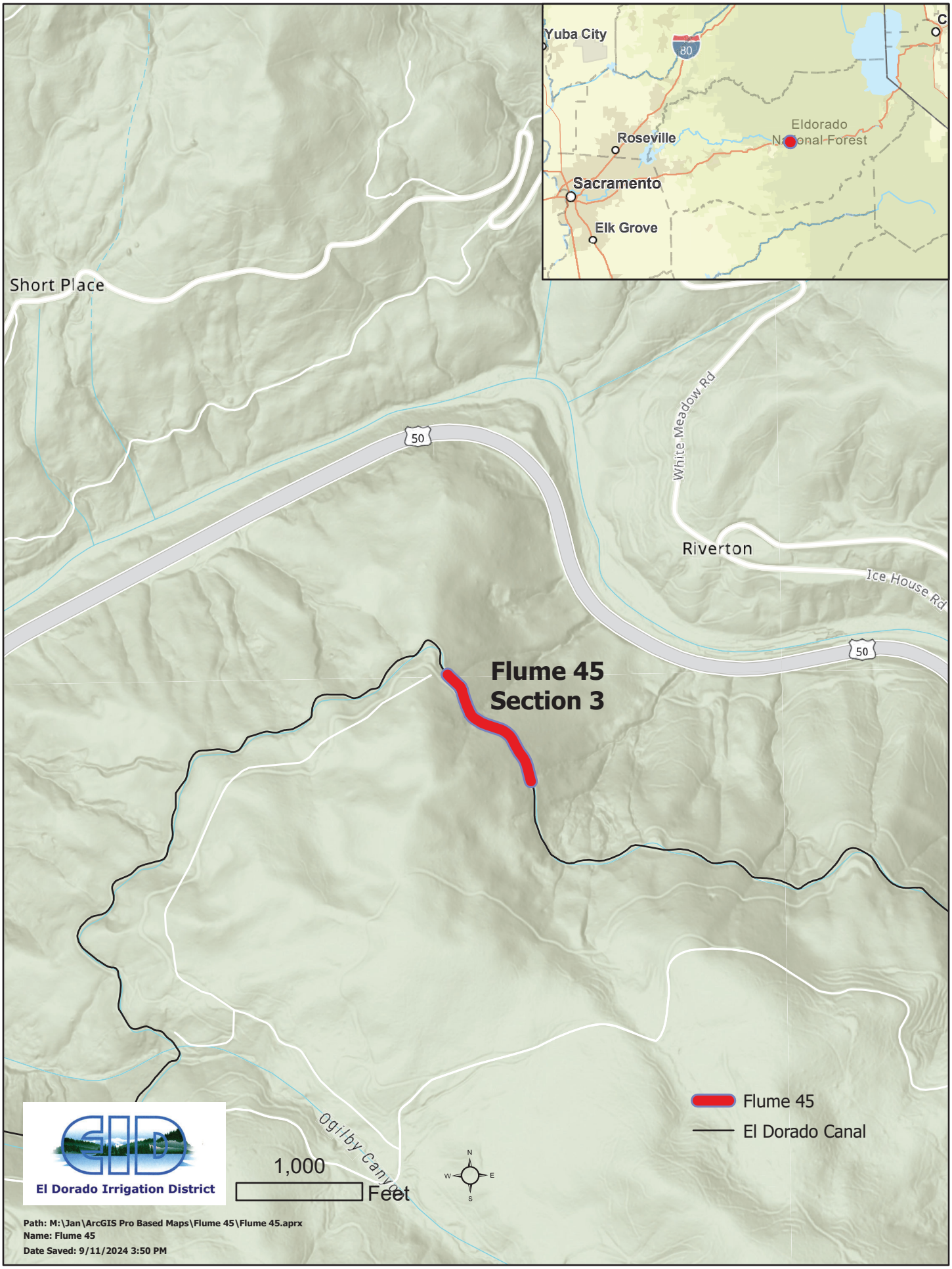
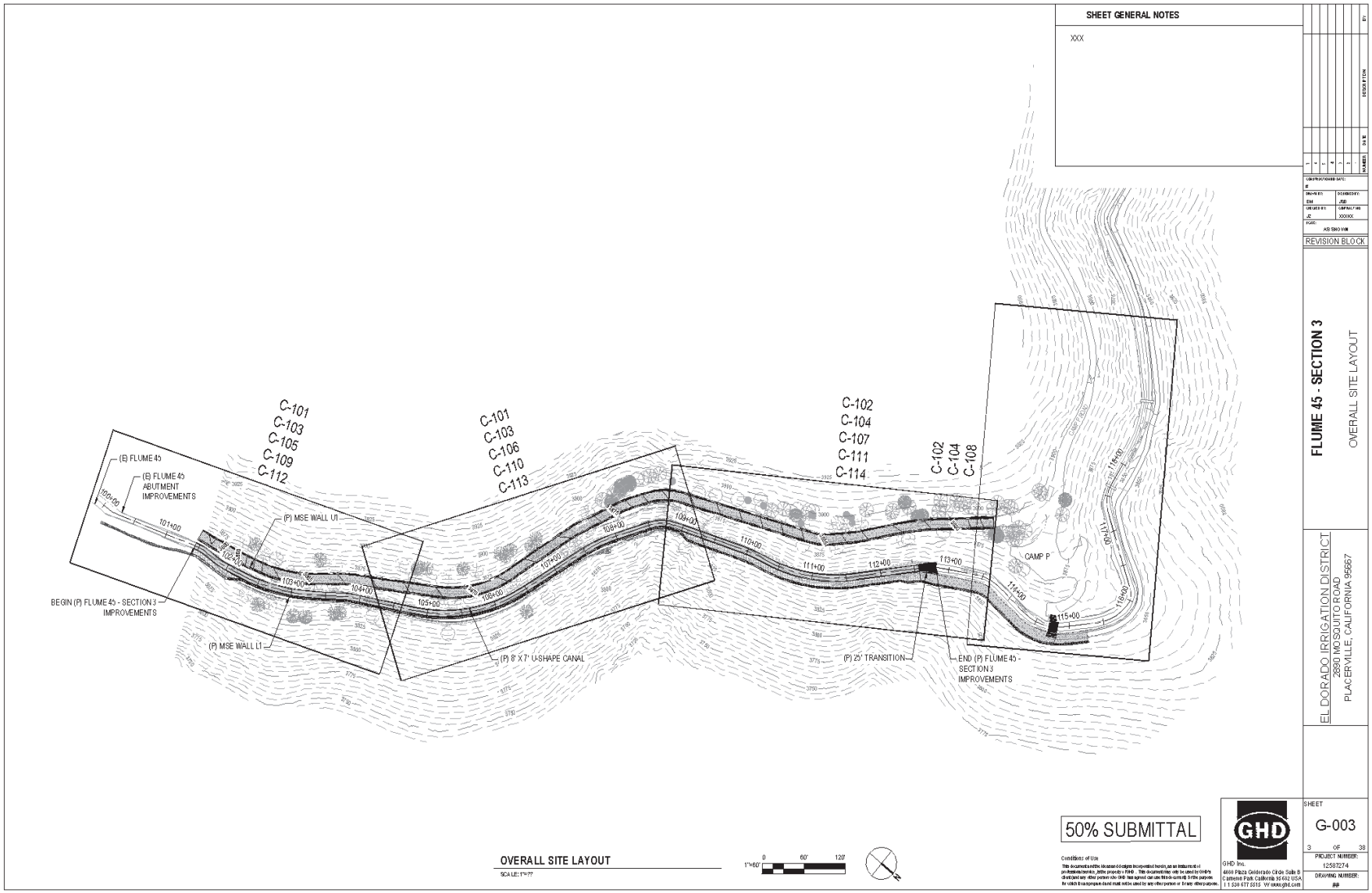


Figure 2.2.2: Project Site



2.3 Objectives

The Project is designed to meet the following objectives:

- Increase protection of Flume 45 and Project 184 overall from potential future catastrophic wildfire;
- ensure a reliable water supply for drinking water and hydroelectric generation;
- improve the safety of the El Dorado canal system;
- ensure continued operational reliability of the El Dorado canal system.

2.4 Project Components and Details

The main components of Project construction would include mobilization, access, and site preparation, construction of MSE wall, construction of new concrete canal, and slope stabilization and erosion control. Detailed descriptions are as follows:

- Mobilization, access, and site preparation - includes mobilization of construction equipment to the site, demolition of the existing wooden flume off-site in accordance with all applicable regulations and removal of rock foundation. Access improvements include road widening to a minimum width of 12-feet, surfacing with aggregate base for all-weather access, slope stabilization, and replacement of an existing bridge with a new 12-foot-wide vehicular bridge to facilitate construction access. Clearing and grubbing of vegetation within the limits of work area to remove hazard trees. Hazardous rocks in the immediate vicinity of the work area would be either removed or stabilized in place.

- Construction of mechanically stabilized earth wall - includes excavation on the downslope side canal area to native competent material to accommodate a footing or leveling pad that will support the new concrete conveyance structure, installation of appropriate drains within the new foundation, rock anchors to stabilize sections of the embankment, and construction of the MSE wall.

- Construction of new concrete canal – includes installing transitions to adjacent concrete conveyances, construction of a spillway to allow for controlled releases from the canal in the event of a future emergency, and construction of metal walkways and handrails to facilitate future maintenance and inspection. The proposed reconstruction of Flume 45 would involve the earthwork and materials quantities shown in Table 2-1. Figure 2.4.1 shows a typical cross-section of a concrete canal and access road. Photo 4 shows an example of a u-shaped canal.

- Slope stabilization and erosion control – includes temporary erosion control measures that would be used during construction to prevent erosion associated with stormwater runoff (e.g., straw bales, fencing). Hazard tree removal, slope scaling upslope from the facility, and installation of rock fall protection would be necessary to contain rock and debris fall to localized areas, while providing additional worker safety.

All work would be conducted within the existing FERC license boundary. The Project would result in no change in canal operations or capacity. No changes or variances to FERC license requirements would be required to implement the Project.

Table 2-1: Earth work and Materials Quantities

Activity/Materials	Quantities
Limit of Work Area	5.0 acres
Grading Cut	16,800 cubic yards
Grading Fill	14,000 cubic yards
MSE Wall	27,300 square feet
Reinforced U-shaped Canal	1,140 lineal feet
Reinforced Concrete Canal Transitions	25 lineal feet
All-Weather Aggregate Base Surface Area	29,000 square feet

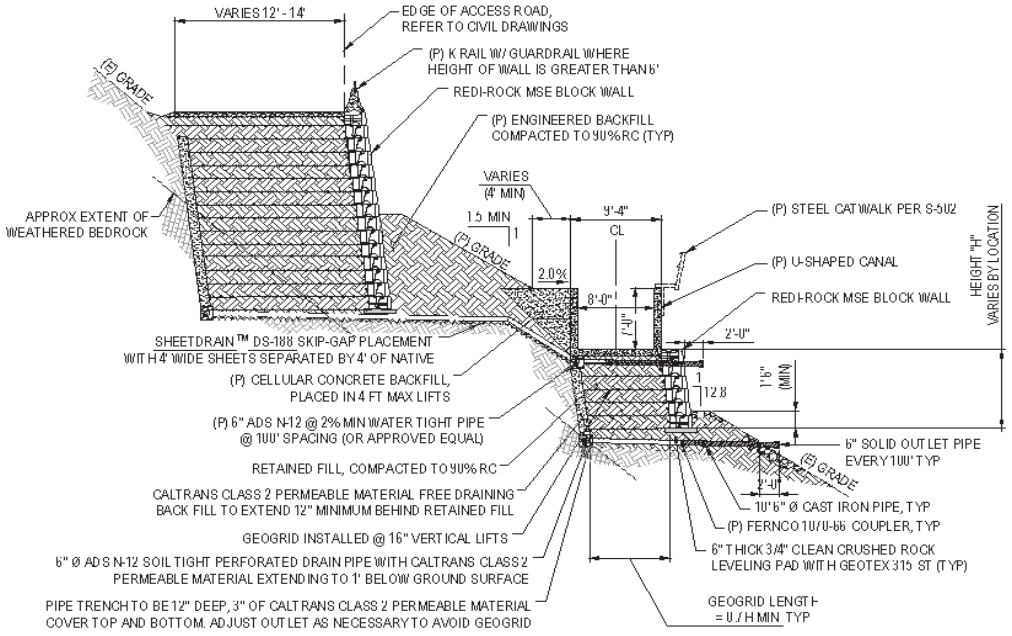


Figure 2.4.1: Typical Cross Section of Concrete Canal and Access Road

Photo 4: Example of a U-shaped Canal

2.5 Construction Equipment

The following equipment is expected to be used during Project activities:

- Helicopter
- Bulldozer
- Backhoe
- Excavator
- Dump truck
- Transfer truck
- Crane
- Concrete truck
- Concrete pumper
- Roller
- Compactor
- Personal pick-up trucks
- Air compressor

- All-terrain vehicle
- Jack hammer
- Demolition hammer
- Rotary drill
- Generator
- Chainsaw
- Miscellaneous hand and power tools

2.6 Construction Schedule

The Project is expected to begin in 2026 during the District's annual maintenance outage which typically occurs from October through December and is anticipated to be completed during two outage timeframes. Construction may be suspended as necessary for inclement weather. Construction would be completed by a 10–20 person construction crew and typically would occur 12-hours per day and 5 to 7-days per week, although construction activities could occur up to 24-hours per day if necessary.

2.7 Permitting and Agency Requirements

EID and its contractor would be required to comply with all terms and conditions of any permits, applicable plans, and agency approvals required for the Project. It is anticipated that the Project could be subject to the approvals, permits and plans identified in Table 2-2, below.

Table 2-2
Approvals/Permits/Plan Compliance

Responsible/Trustee Agency	Approvals/Permits
U.S. Forest Service	• Timber Sale Contract • Fire Prevention Plan • Land and Resource Management Plan consistency
State Water Resources Control Board, Sacramento Region	Section 402, National Pollutant Discharge Elimination System (NPDES) Permit Compliance - Notice of Intent; Storm Water Pollution Prevention Plan (SWPPP)
California Office of Historic Preservation	National Historic Preservation Act Consultation
Project 184 Plans	Compliance with the following Project 184 Plans • Transportation System Management Plan • Visual Resource Management Plan • Hazardous Substances Plan • Noxious Weed Prevention and Control Plan

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3. NITIAL STUDY CHECKLIST

Environmental Factors Potentially Affected

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

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

Determination (To be completed by the Lead Agency)

On the basis of this initial evaluation:

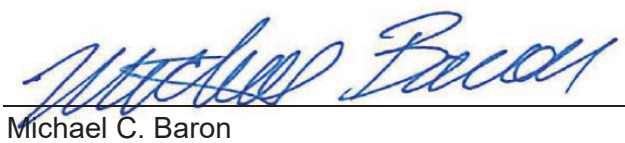
☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

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

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

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

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



September 23,2024

Michael C. Baron
Environmental Review Analyst
El Dorado Irrigation District

Date

Evaluation of Environmental Impacts

The degree of change from existing conditions caused by the Project is compared to the impact evaluation criteria to determine if the change is significant. Where it is determined that one or more significant impacts could result from implementation of the Project, further analysis would be provided in an EIR and mitigation measures would be developed to reduce or eliminate the significant impacts when feasible. Existing conditions serve as a baseline for evaluating the impacts of the Project.

The Environmental Checklist uses the following response headings to identify potential environmental effects that will be addressed in the EIR:

1. **Impact to be analyzed in EIR:** An effect that may or may not be significant that will be addressed in the EIR. The effect may be an impact for which further analysis is necessary or desirable before a determination about significance can be made; an impact that is potentially significant but may be reduced to a less-than-significant level with the adoption of mitigation measures; or an impact that may be significant and unavoidable. The EIR will analyze the environmental impacts of the proposed Project, which is envisioned to be completed in 2027.

2. **No Additional Analysis Required (Less Than Significant Impact/No Impact):** Implementation of the proposed Project would clearly result in no impact or result in a less-than-significant impact under CEQA criteria, no analysis beyond that provided in this Initial Study is necessary.

This IS, and forthcoming EIR, will analyze the potential significant environmental impacts that could result if the Project is approved by the El Dorado Irrigation District Board of Directors and subsequently implemented.

3.1 Aesthetics

ENVIRONMENTAL ISSUES	Impacts to be Analyzed in EIR	No Additional Analysis Required (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) Substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☒
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☒

3.1.1 Environmental Setting

The Flume 45 Project area is east of the town of Pollock Pines in an unincorporated area of El Dorado County on federal lands managed by the USFS in the ENF. The Project Area is characterized by steep slopes on a northeast-facing slope, approximately 0.28-mile upslope from the South Fork American River. Most of the Project area and surrounding area is heavily forested, primarily with conifers, interspersed with deciduous trees and shrubs. The Project area is located upslope of US 50 on a northeast-facing slope and is not visible to motorists. Land uses in the surrounding area include other infrastructure associated with Project 184, undeveloped forest, commercial logging, and outdoor recreation.

3.1.2 Discussion

a) & c)

No Impact. US 50 is a designated State Scenic Highway in the vicinity of the Project and the South Fork American River Canyon presents scenic vistas, encompassing the steep, narrow canyon; and heavily forest vegetation including trees and shrubs on the canyon and riparian vegetation along the river. These scenic views are available to recreationists and travelers in both directions on US 50, downslope from the Project site (Cal Trans 2017).

The Project area is heavily forested and removal of hazard trees would not substantially detract from the existing viewshed. No officially designated scenic viewpoints are along US 50 in the Project vicinity. Additionally, replacing the existing wood flume with a concrete flume would result in a similar overall appearance and would occur in the same location as the existing flume. No Scenic Vistas are located on the Project Site. No impact would occur, and these topics will not be

analyzed in the EIR.

b) **No Impact.** US 50 is identified by Caltrans as an Officially Designated State Scenic Highway, protected for maintaining and enhancing its scenic view sheds (Caltrans 2017). The Project would not substantially damage scenic resources within a state scenic highway and will be constructed in accordance with the Districts Visual Resources Management Plan (EID, 2024) and will not be analyzed further in the EIR.

d) **Less than significant Impact.** Project construction activities may occur on a 24-hour basis at various times, if necessary. Nighttime lighting for these activities would be shielded and directed downward, to reduce light spillover. The proposed construction staging area is upslope and south of the South Fork American River Canyon, and therefore would not be visible to motorists from US 50. Additionally, temporary construction lighting would not represent a nighttime light or glare hazard for motorists. No nighttime lighting would be required during the Project's operational phase. Since the Project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area, this topic will not be analyzed in the EIR.

3.2 Agriculture and Forestry Resources

ENVIRONMENTAL ISSUES	Impacts to be Analyzed in EIR	No Additional Analysis Required (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, as updated) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.		
Would the project:		
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☒
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☒
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☒

3.2.1 Environmental Setting

The USFS manages the ENF, which encompasses more than 793,652 acres in El Dorado, Alpine, and Placer counties (USDA, 2024). Most of the Project area and adjacent land are heavily forested, primarily with conifers, interspersed with deciduous trees and shrubs. The Project would occur on land within the ENF and private land (staging area) where the District has existing access for Project 184 operations and maintenance.

3.2.2 Discussion

a) & e)

No Impact. 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, or Unique Farmland (DOC 2018). No active agricultural land uses are in or adjacent to the Project area. There are no agricultural uses at or near the Project area. Additionally, the Project would not result in the conversion of Farmland to non-agricultural use or conversion of forest land to non-forest uses. Therefore, no impact would occur and this topic will not be analyzed in the EIR.

b) **No Impact.** The Project area and adjacent land are not zoned for agricultural uses. No parcels in or adjacent to the Project area are under Williamson Act contracts (EDC 2018). Therefore, the Project would not conflict with existing zoning for agricultural uses or a Williamson Act contract and this topic will not be analyzed in the EIR.

c) & d)

No Impact. The Project area is zoned Forest Resources - Minimum 160-acres (FR-160) by the El Dorado County Zoning Ordinance (Ord. Sec. 130.21.010 C (5)). The Forest Resources Zone District FR-160 is applied to lands containing valuable timber or having the potential for timber production, but that are not subject to Timber Production (TPZ) zoning requirements. The purpose of this zone is to encourage timber production and associated activities, and to limit non-compatible uses from restricting such activities. The proposed Project is located within an existing canal alignment on steep slopes in areas not typically used for commercial timber harvesting. Therefore, the Project would not conflict with existing zoning, or cause rezoning of forest land or conversion of forest land to non-forest uses and these topics will not be analyzed in the EIR.

3.3 Air Quality

ENVIRONMENTAL ISSUES	Impacts to be Analyzed in EIR	No Additional Analysis Required (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 on 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?	☐	☒

3.3.1 Environmental Setting

The Project site is located in the Mountain Counties Air Basin (MCAB), in the northern Sierra Nevada, close to or contiguous with the Nevada border, which covers an area of approximately 11,000 square miles. The terrain in El Dorado County transitions from rolling hills in the western portion of the county to steep mountainous terrain in the eastern half. The various changes in the terrain affect airflow patterns throughout the county that direct surface air flows, cause shallow vertical mixing, and create areas of high pollutant concentrations by hindering dispersion. Because of their proximity to the Sacramento Valley, the MCAB and El Dorado County are prone to receiving pollutant transported from more populated and heavy traffic areas (EDCAQMD 2002).

3.3.2 Discussion

a) **Impact to be analyzed in EIR.** The proposed Project is located within the MCAB and the western portions of El Dorado County are located in a nonattainment area for ozone and particulate matter (EDCAQMD 2002). Analysis for this environmental issue will be provided in the EIR.

b) **Impact to be analyzed in EIR.** Proposed construction activities would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment, soil disturbance, and reactive organic gases (ROG) off-gassing) and off-site sources (i.e., on-road haul trucks, vendor trucks, and worker vehicle trips). Analysis will be provided in the EIR for cumulatively considerable increases in emissions of nonattainment pollutants, and cumulative impacts.

c) **Impact to be analyzed in EIR.** Project construction may result in emissions of diesel particulate matter (DPM) from heavy construction equipment and trucks working on-site. DPM is characterized as a Toxic Air Contaminants (TACs) by the State of California. TACs emissions may also be generated from other activities (welding, sand blasting application of architectural coatings, etc.) (CARB 2016). Analysis will be provided in the EIR for the potential health effects associated with emissions of criteria air pollutants.

d) **Less than Significant Impact.** The Project is located in a remote area of the ENF far from any residential areas. Construction and operation of the Project would not result in other emissions, such as those leading to odors that would adversely affect a substantial number of people. Therefore, this impact will not be discussed in the EIR.

3.4 Biological Resources

ENVIRONMENTAL ISSUES	Impacts to be Analyzed in EIR	No Additional Analysis Required (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 Game or the 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, or regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	☐	☒
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☒

3.4.1 Environmental Setting

A combination of desktop analysis and field studies were conducted to identify existing biological resources in the Project area and evaluate the potential to support sensitive biological resources and/or their habitat (e.g., special-status plant and animal species; sensitive natural communities; and jurisdictional wetlands and drainages). The methodology and results of the desktop analysis and field studies are included in Attachment A: Biological Resources Report.

3.4.2 Discussion

a) **Impacts to be analyzed in EIR.** The biological resources report (Attachment A) prepared for the Project site determined that nine special-status plant species have the potential to occur at the Project site. However, no special-status plant species were observed during the floristic survey.

Twenty-three special-status wildlife species were evaluated for potential occurrences. The report concluded that the habitat on the Project site is unsuitable or only marginally suitable for all special-status wildlife species that were evaluated except California spotted owl (Strix occidentalis occidentalis). Therefore, potential for many of the species to occur on the Project site is unlikely. Further discussion and analysis will be provided in the EIR for the potential impacts that could occur as a result of the proposed Project on special-status plants and wildlife species.

b) **No Impact.** The biological resources report concluded that no riparian habitat or other sensitive natural community is within the Project area. Therefore, the Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS). Therefore, no impact would occur and this topic will not be analyzed in the EIR.

c) **No Impact.** The proposed Project would not 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 there are no jurisdictional or non-jurisdictional wetlands mapped or identified within the Project area. No impact would occur and therefore this topic will not be analyzed in the EIR.

d) **Less than Significant Impact.** Project construction would temporarily impede wildlife use of the Project site. These temporary impediments would be localized and would not substantially affect wildlife movements. The Project would not result in any new impediment to wildlife movement and would not impede the use of any established or known native wildlife nursery sites. In addition, the Project would not substantially alter the path of a stream or drainage channel and would not interfere substantially with the movement of any native resident or migratory fish. Therefore, no significant impact would occur and this topic will not be analyzed in the EIR.

e) **No Impact.** The Project is not located within an important biological corridor or rare plant preserve. The Project would not conflict with any local policies or ordinances protecting biological resources. Therefore, no impact would occur and this topic will not be analyzed in the EIR.

f) **No Impact.** The Project area does not overlap with an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan, or other approved local, regional, or State HCP. No impact would occur and therefore this topic will not be analyzed in the EIR.

3.5 Cultural Resources

ENVIRONMENTAL ISSUES	Impacts to be Analyzed in EIR	No Additional Analysis Required (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 Section 15064.5?	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☒	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☒	☐

3.5.1 Environmental Setting

The entire Project area is located within the Area of Potential Effect (APE) of the Project 184 Historic Properties Management Plan (HPMP) and has been completely surveyed for cultural resources. No previously recorded prehistoric, archaeological, or Native American resources have previously been identified within the Project area. Flume 45 is located on a segment of rock wall that is a contributing element to the National Register of Historic Properties Discontinuous Rock Wall District (CA-ELD-511-H). The proposed Project would require removal and/or stabilization of this rock wall. A Section 106 Finding of Effect (FOE) was prepared and submitted to the State Historic Preservation Office (SHPO) requesting consultation to address potential impacts to the segment of historic rock wall that supports a portion of Flume 45.

3.5.2 Discussion

a) & b)

Impacts to be analyzed in EIR. The discussions of existing conditions and analysis of potential impacts on archeological resources included in this Cultural Resources section will rely on information contained in a cultural resources inventory report prepared for the EIR.

c) **Impacts to be analyzed in EIR.** No indication or previous evidence from past studies of the El Dorado Canal has shown that the area has been used for human burials in the recent or distant past. While unlikely, there is some potential that earth disturbance associated with the Project could disturb or uncover previously unknown human remains. Therefore, the existing cultural resources inventory report prepared for the Project site and subsequent analysis will be provided in the EIR.

3.6 Energy

ENVIRONMENTAL ISSUES	Impacts to be Analyzed in EIR	No Additional Analysis Required (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?	☐	☒
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☒

3.6.1 Environmental Setting

Flume 45 is a portion of infrastructure that is included in Districts Project 184 FERC license. Project 184 consists of a series of dams, canals, flumes, siphons, a penstock, and a powerhouse to deliver water from the South Fork of the American River for power generation. The license allows the District to generate up to 21 megawatts of hydroelectric power for distribution (EID 2024).

3.6.2 Discussion

a) **Less than Significant Impact**. The proposed Project would not substantially affect energy consumption or conservation. The Project would require a minimal amount of temporary electrical power for temporary construction lighting, power tools, and electronic equipment. Petroleum fuel consumed by the use of heavy equipment, generators, dump trucks, and other material haul trucks would be the primary energy resource expended over the course of Project construction. Workers would also likely travel to and from the Project area in gasoline-powered vehicles. Construction is expected to begin fall of 2026 and occur in 3-4 month increments for 2 years, during the District's annual maintenance outages. Once construction activities cease, petroleum use from heavy equipment, generators, dump trucks, and other material haul trucks would cease.

Continued operation of the water conveyance system would not increase energy consumption or increase inefficient energy use beyond the current energy consumption required for normal operation of the facility. Therefore, no significant impact would occur and this topic will not be analyzed in the EIR.

b) **No Impact.** The Project would not include an increased need for additional energy resources or change the source of energy in use during regular operation of the water conveyance system. No impact would occur and this topic will not be analyzed in the EIR.

3.7 Geology and Soils

ENVIRONMENTAL ISSUES	Impacts to be Analyzed in EIR	No Additional Analysis Required (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 California Geological Survey Special Publication 42.)	☐	☒
ii) Strong seismic ground shaking?	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☒
iv) Landslides?	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), 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?	☐	☒

3.7.1 Environmental 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 (CGS 2023). The Project area is on a northeast-facing slope approximately 0.28 miles upslope from the South Fork American River. Elevations range from 3,900 to 4,200 feet above mean sea level. The majority is the proposed Project occurs on previously disturbed land located on steep slopes. The South Fork of the American River is located approximately 700 feet downslope from the Project area.

3.7.2 Discussion

a)

i) **No Impact.** As determined by the California Department of Conservation Division of Mines and Geology, there are no Alquist-Priolo fault zones within the west slope of El Dorado County (DOC 2023).

ii) **No Impact.** The potential for seismic ground shaking in the Project area would be considered remote as discussed in Section i) above. Therefore, no impact would occur, and this topic will not be analyzed in the EIR.

iii) **No Impact.** El Dorado County is considered an area with low potential for seismic activity. There are no landslide, liquefaction, or fault zones within the area (DOC 2019). Therefore, no impact would occur, and this topic will not be analyzed in the EIR.

iv) **No Impact.** Project design and construction would be in accordance with Uniform Building Code standards, which take into account local conditions. Additionally, the Project construction and design will be prepared with recommendations from a geotechnical investigation prepared by a qualified engineering geologist. Therefore, no impact would occur, and this topic will not be analyzed in the EIR.

b) **Impact to be analyzed in EIR.** The Project would require grubbing existing vegetation, removing hazard trees, grading, installing mechanical stabilization and concrete at the flume, as well as road and slope stabilization. Disturbance of existing vegetation and soil could cause an increase in stormwater runoff, particularly during the winter months, which in turn could result in erosion and sedimentation. Due to the potential for an increase in soil erosion or the loss of topsoil, further analysis will be provided in the EIR.

c) **Less than Significant Impact.** See Section i) above.

d) **No impact.** See Section iv) above.

e) **No impact.** The construction workers will be provided portable temporary restrooms and the Project would not require the installation of a wastewater treatment system. Therefore, no impact would occur, and this topic will not be analyzed in the EIR.

f) **No Impact.** The Project site is entirely within Mesozoic-age plutonic granitic bedrock. This type of rock originated from magma, which slowly crystallized below the Earth's surface; thus, these types of rocks do not contain fossils (USGS 1970). Therefore, no impact would occur, and this topic will not be analyzed in the EIR.

3.8 Greenhouse Gas Emissions

ENVIRONMENTAL ISSUES	Impacts to be Analyzed in EIR	No Additional Analysis Required (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?	☒	☐

3.8.1 Environmental Setting

Cumulative greenhouse gases (GHG) emissions are believed to contribute to an increased greenhouse effect and global climate change, which may result in sea level rise, changes in precipitation, habitat, temperature, wildfires, air pollution levels, and changes in the frequency and intensity of weather-related events. While criteria pollutants and toxic air contaminants are pollutants of regional and local concern (see Section III. Air Quality above); GHG are global pollutants. The primary land-use related GHGs are carbon dioxide (CO2), methane (CH4) and nitrous oxides (N2O). For the purposes of evaluating GHG emissions, the amount of energy that an individual pollutant will absorb over a given amount of time is expressed relative to the amount of energy trapped by an equivalent amount of CO2, or the CO2 equivalents (CO2e). The CO2e of a pollutant is known as its global warming potential. CO2 is the benchmark having a global warming potential of 1. Methane (CH4) has a global warming potential of 21 and thus would be considered equivalent to 21 times the GHG emissions contribution of an equivalent amount of CO2. Nitrous Oxide has a global warming potential of 310. Emissions are expressed in annual metric tons of CO2e units of measure (i.e., MTCO2e/yr). The three other main GHGs are Hydroflourocarbons, Perflourocarbons, and Sulfur Hexaflouride. While these compounds have significantly higher global warming potentials (ranging in the thousands), all three typically are not a concern in land-use development projects and are usually only used in specific industrial processes.

GHG Sources

The primary man-made source of CO2 is the burning of fossil fuels; the two largest sources being coal burning to produce electricity and petroleum burning in combustion engines. The primary sources of man-made CH4 are natural gas systems losses (during production, processing, storage, transmission and distribution), enteric fermentation (digestion from livestock) and landfill off-gassing. The primary source of man-made N2O is agricultural soil management (fertilizers), with fossil fuel combustion a very distant second. In El Dorado County, the primary source of GHG is fossil fuel combustion mainly in the transportation sector (estimated at 70% of countywide GHG emissions). A distant second are residential sources (approximately 20%), and commercial/industrial sources are third (approximately 7%). The remaining sources are waste/landfill (approximately 3%) and agricultural (<1%).

3.8.2 Discussion

a) **Impacts to be analyzed in EIR.** The analysis contained in the EIR will assess whether the construction and operation of the proposed Project would either directly or indirectly have a significant impact on the environment.

b) **Impacts to be analyzed in EIR.** The analysis contained in the EIR will assess the potential for the construction and operation of the proposed Project to conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

3.9 Hazards and Hazardous Materials

	ENVIRONMENTAL ISSUES	Impacts to be Analyzed in EIR	No Additional Analysis Required (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/or accident conditions involving the release of hazardous materials into the environment?	☒	☐
	c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☒
	d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☒
	e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☒
	f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☒
	g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☒	☐

3.9.1 Environmental Setting

A search of publicly available databases maintained under Section 65962.5 of the Public Resources Code (i.e., the “Cortese List”), was conducted to determine whether any known hazardous material spills have occurred either at or within 0.25 mile of the Project site. These databases include EnviroStor, maintained by the California Department of Toxic Substances Control (DTSC), and GeoTracker, maintained by the State Water Resources Control Board (SWRCB). The results of these records searches indicated that no open cases are active within the Project site. The nearest closed site is on the north side of the South Fork American River Canyon (SWRCB Site No. T060170054), approximately 1.9-miles northeast of the Project site. This site is a Sacramento Metropolitan Utility District maintenance facility, which experienced a diesel fuel leak in 1993. Contaminated soil was remediated and the case was closed in 1996.

No schools are within 0.25 mile of the Project site. The nearest airport is in Placerville, approximately 17.5 miles to the west.

According to the California Department of Forestry and Fire Protection (CALFIRE) fire hazard severity zone map, the Project site is in an area of federal responsibility; it has not been rated for fire hazard severity (CALFIRE 2007). Most of the Project site is heavily forested, primarily with conifers, interspersed with deciduous trees and shrubs. The proposed staging area is cleared of vegetation.

3.9.2 DISCUSSION

a) **Impacts to be analyzed in EIR.** During the Project construction phase hazardous materials such as fuel, oil and lubricants would likely be transported and stored at the Project area. Off-site transportation of hazardous materials is regulated by the California Highway Patrol (CHP) and the California Department of Transportation (Caltrans). All construction waste materials would be disposed of in compliance with state and federal hazardous waste requirements and at appropriate facilities. The Project would also be required to implement measures to appropriately manage hazardous substances within the boundary of Project 184, including requirements for storage, spill prevention and response and reporting procedures, and by implementing spill prevention measures included in a SWPPP prepared in accordance with the Project 184 Hazardous Substances Plan (EID, 2008). Additional analysis will be provided in the EIR due to the need for implementation of protection measures involving the transport of hazardous materials.

b) **Impacts to be analyzed in EIR.** Project construction would require use of fuel, hydraulic oil, motor oil, and small amounts of solvents, coatings, glues, and adhesives all in which are hazardous materials. Due to the potential for accident conditions involving the release of hazardous materials into the environment further analysis and guidance will be provided in the EIR.

c) **No Impact.** There are no schools within 0.25-miles of the proposed Project site. Therefore, no impact would occur, and this topic will not be analyzed in the EIR.

d) **No Impact.** The Project site is not or within 0.25-miles of a hazardous materials site. Therefore, no impact would occur, and this topic will not be analyzed in the EIR.

e) **No Impact.** The nearest airport to the Project site is the Placerville Airport approximately 17.5-miles west and the Project site is not within an area covered by an airport land use plan. Therefore, no impact would occur, and this topic will not be analyzed in the EIR.

f) **No Impact.** Access to the Project area would be from US 50 at Hazel Valley Road to Plum Creek Road to an existing gated entrance from Camp P Road. There are no residents in the Project vicinity and the Project site is not in an area that is subject to an adopted emergency response or evacuation plan. Vehicles on access roads would not impede access for emergency response vehicles or evacuation access. Therefore, no impact would occur, and this topic will not be analyzed in the EIR.

g) **Impacts to be analyzed in EIR.** The Project site is located in an area with steep topography that is heavily forested, primarily with conifers, interspersed with deciduous trees and shrubs. Unintended ignitions from Project-related construction equipment or tools could result in a wildland fire. Additional analysis will be provided in the EIR due to the high-risk potential for wildfire during construction of the proposed Project.

3.10 Hydrology and Water Quality

ENVIRONMENTAL ISSUES	Impacts to be Analyzed in EIR	No Additional Analysis Required (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 there the project may impede sustainable groundwater management of the basin?	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:		
i) Result in substantial erosion or siltation on- or off-site;	☒	☐
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; or	☒	☐
iv) Impede or redirect flood flows?	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☒

3.10.1 Environmental Setting

The elevation at the Project site is approximately 3,800 feet above mean sea level. The climate is described as generally Mediterranean, with cool, wet winters and hot, dry summers. Precipitation occurs primarily in winter, generally between November and April, with almost no precipitation during the summer, except for occasional thunderstorms. The Project area is within the 850-square-mile South Fork American River watershed. Flume 45 is located upslope on steep terrain from US 50 and the South Fork of the American River. The river flows from east to west, with numerous tributaries entering from both sides of the canyon. There are no other wetland or water features located in close proximity to the Project site.

The Project site is not located within a 100-year flood zone (FEMA 2008), and is not located in a dam inundation zone (EDC 2016).

3.10.2 DISCUSSION

a) **Impacts to be analyzed in the EIR.** The proposed Project would require the use of fuel, hydraulic oil, motor oil, and small amounts of solvents, coatings, glues, and adhesives all in which are hazardous materials with potential to degrade surface or ground water quality resulting from unintentional spills during Project construction. Therefore, further analysis and guidance with regard to potential impacts to water quality will be provided in the EIR.

b) **No Impact.** The proposed Project would not involve extraction of groundwater and would not deplete groundwater supplies. The Project area is not located in a known groundwater recharge basin, and the existing facilities would not interfere substantially with groundwater recharge. Therefore, no impact would occur and this topic will not be analyzed in the EIR.

c), i), ii), iii)

Impacts to be analyzed in the EIR. Construction of the proposed Project has the potential to cause excessive runoff, erosion, or siltation off-site during construction activities (e.g. excavation, grading, equipment use, and hazard tree removal). Temporary construction has the potential to increase flows and cause impacts to the existing drainage patterns. Due to the potential for the proposed Project to substantially impact existing drainage patterns further analysis and guidance will be provided in the EIR.

d) **No Impact.** The Project site has been designated by FEMA within Flood Zone D, which is an area of undetermined flood hazards (FEMA 2008), however the Project site is approximately 500-feet above the South Fork of the American River on steep terrain where flooding would not be considered a hazard. The Project site is not located in an area subject to seiche or tsunami. The Project site does not pose a risk to release pollutants associated with inundation. Therefore, no impact would occur, and this topic will not be analyzed in the EIR.

e) **No Impact.** The Project would not result in other effects that would conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Therefore, no impact would occur and this topic will not be analyzed in the EIR.

3.11 Land Use and Planning

ENVIRONMENTAL ISSUES	Impacts to be Analyzed in EIR	No Additional Analysis Required (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?	☐	☒

3.11.1 Environmental Setting

The Project area is located east of the town of Pollock Pines in an unincorporated area of El Dorado County. It is south of US 50 and east of Ogilby Creek, on federal lands managed by the USFS, in the ENF. The Project area sits on a northeast-facing slope approximately 0.28-mile upslope from US 50 and the South Fork American River on heavily forested land. All equipment will be staged at an existing storage site near the Project area as well as on-site.

Several rural residences are located in the general area along US 50 outside the ENF lands and several privately-owned cabins are on ENF lands approximately 1.4-miles east of the Project site. Established neighborhoods are in the community of Pollock Pines and are located approximately 8-miles west of the Project area.

3.11.2 Discussion

a) **No Impact.** The approximately 5-acre Project site is undeveloped area of the ENF. Established communities are not within or adjacent to the Project boundaries. No impact would occur and this topic will not be analyzed in the EIR.

b) **No Impact.** The Project would reconstruct an existing facility and increase protection of Flume 45 from potential future catastrophic wildfire. The Project is subject to review and approval by the USFS and would be required to comply with applicable provisions of the ENF Land and Resource Management Plan in addition to the Districts' FERC license requirements. Compliance with other applicable regulations such as the El Dorado County General Plan, EL Dorado County Air Quality Management District (EDCAQMD), California Air Resources Board (CARB), SWRCB, USFWS and the CDFW are evaluated in other sections of this Initial Study. Therefore, no impact would occur and this topic will not be analyzed in the EIR.

3.12 Mineral Resources

ENVIRONMENTAL ISSUES	Impacts to be Analyzed in EIR	No Additional Analysis Required (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?	☐	☒

3.12.2 Environmental Setting

The Project area is not known to contain mineral resources and there no active mining claims or activities that are within or adjacent to the Project area (EDC 2004 and 2017). The Project involves replacement of existing facilities associated with Project 184. The Project area is on land owned by the USFS ENF, with Project activities occurring primarily within the District's approved FERC boundary.

3.12.3 Discussion

a) & b)

No Impact. Mineral resources are not known to exist in or near the Project site, no mining operations occur within the Project site, and the Project site does not contain a locally important mineral resource recovery site. No impact would occur and this topic will not be analyzed in the EIR.

3.13 Noise

ENVIRONMENTAL ISSUES	Impacts to be Analyzed in EIR	No Additional Analysis Required (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?	☐	☒

3.13.1 Environmental Setting

The area surrounding the proposed Project consists of mostly undeveloped forest land and open space. There are no businesses, residences, or structures in close proximity to the Project area.

3.13.2 Discussion

a) **Less than significant Impact.** The El Dorado County General Plan identifies noise level limits for sensitive land uses (i.e., schools, hospitals, churches, and residential). The non-transportation noise source maximum level identified for these receptors is 75 decibels (dB), and the highest hourly average noise level (L_{eq}) is 55 dB (EDC 2004). Project construction activities may result in temporary noise level increases from operation of heavy construction equipment that would vary throughout a typical workday, depending on the equipment being used, operations being performed and proximity to a noise sensitive receptor. The nearest noise sensitive receptor to the Project area is in excess of 1-mile.

Project activities would comply with the County's maximum noise level standard of 75 dB and the County's hourly noise level standard of 55 dB. Short-term Project construction would not result in noise generation in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, therefore, this topic will not be analyzed in the EIR.

b) **Less than significant Impact.** The vibration generated by heavy equipment is not anticipated to cause excessive groundborne vibration or noise levels to cause a potentially significant impact on noise sensitive receptors. Short-term Project construction or long-term operation would not result in exposure of individuals to, or generation of, excessive groundborne noise or vibration levels, therefore, this topic will not be analyzed in the EIR.

c) **No Impact.** The Project area is not in the vicinity of a private airstrip or part of an airport land use plan and the Project would not expose people within the area to excessive noise levels. No impact would occur and this topic will not be analyzed in the EIR.

3.14 Population and Housing

ENVIRONMENTAL ISSUES	Impacts to be Analyzed in EIR	No Additional Analysis Required (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?	☐	☒

3.14.1 Environmental Setting

The Project area is located primarily within the boundaries of the District's Project 184 on land owned by USFS the ENF. No existing housing occurs within or adjacent to the Project site.

3.14.2 Discussion

a) **No Impact.** The Project would not include construction of new homes or businesses that would directly induce population growth or extension of infrastructure that would indirectly induce population growth. The Project would replace a wooden flume with concrete lined canal in order, to mitigate the potential loss of the structure as a result of catastrophic wildfire while continuing to provide a safe and reliable water supply for drinking water and hydroelectric power generation, and continue meeting water and energy demands in El Dorado County. The Project would cause no change in canal operations or capacity. Therefore, no impact would occur and this topic will not be analyzed in the EIR.

b) **No Impact.** The replacement of Flume 45 with a wildfire resistant canal would not displace people or residents because there are no houses adjacent or within the boundaries of the Project. Therefore, no impact would occur and this topic will not be analyzed in the EIR.

3.15 Public Services

ENVIRONMENTAL ISSUES	Impacts to be Analyzed in EIR	No Additional Analysis Required (Less Than Significant Impact/No Impact)
XV. Public Services. Would the project:		
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:		
Fire protection?	☐	☒
Police protection?	☐	☒
Schools?	☐	☒
Parks?	☐	☒
Other public facilities?	☐	☒

3.15.1 Environmental Setting

Fire Protection

According to the CALFIRE Fire Hazard Severity Zone Map, the Project site is in an area of federal responsibility; it has not been rated for fire hazard severity (CALFIRE 2007). The USFS is responsible for fire prevention and suppression in the ENF and privately-owned lands within the forest boundaries. The nearest fire station is the Kyburz Station at 13275 US 50 Kyburz, Ca 95720, approximately 9.5-miles east of the Project area (EDCFPD 2024).

Police Protection

The USFS is responsible for prevention of crimes and enforcement of federal laws and regulations in the ENF and on adjacent lands. The Placerville Ranger station is located in Camino, approximately 11-miles west of the Project area.

Local law enforcement is also provided to the Project area by the El Dorado County Sheriff's Department with headquarters located in Placerville and also substations located in South Lake Tahoe, El Dorado Hills, and Georgetown. The nearest substation is in Pollock Pines, approximately 8-miles west of the Project area (EDCSO, 2021).

Schools

The Project area is located in an uninhabited mountainous region of El Dorado County on land owned and managed by the USFS. There are no schools located in the vicinity of the Project site.

PARKS

The Project area is located in an uninhabited mountainous region of El Dorado County on land owned and managed by the USFS. There are no parks located in the vicinity of the Project site.

OTHER

The Project area is located in an uninhabited mountainous region of El Dorado County on land owned and managed by the USFS. Other public services (libraries, churches, community centers) are not located in close proximity to the proposed Project.

3.15.2 DISCUSSION

a) **No Impact.** The Project involves replacement of an existing wooden water conveyance structure, rather than construction of new facilities. The Project would not result in additional population in the area and thus would not require new or expanded facilities to support adequate fire or police protection, schools, parks or other public facilities. Therefore, no impact would occur and these topics will not be analyzed in the EIR.

3.16 Recreation

ENVIRONMENTAL ISSUES	Impacts to be Analyzed in EIR	No Additional Analysis Required (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 that might have an adverse physical effect on the environment?	☐	☒

3.16.1 Environmental Setting

The Project area is east of the town of Pollock Pines in an unincorporated area of El Dorado County. The Pollock Pines community region and surrounding area provide various opportunities for outdoor recreation with activities ranging from hiking, skiing, to aquatic recreation on rivers and lakes (EDC 2004). However, access to the Project area is restricted by locked gates and public access to the canal facilities is not encouraged due to hazardous conditions associated with flowing water through the various conveyances (e.g., flumes, canals, siphons, tunnels) managed by the District.

3.16.2 Discussion

a) **No Impact.** The Project would not construct new homes or businesses, increase capacity of existing facilities, or extend public roads or other public infrastructure into areas where these facilities do not currently exist. As such, the Project would not induce population growth, and consequently would not increase the use of existing neighborhood parks or recreational facilities. Therefore, no impact would occur and these topics will not be analyzed in the EIR.

b) **No Impact.** The Project does not include recreational facilities and would not result in population growth that would require the construction or expansion of recreational facilities. No impact would occur and these topics will not be analyzed in the EIR.

3.17 Transportation

ENVIRONMENTAL ISSUES	Impacts to be Analyzed in EIR	No Additional Analysis Required (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) Would the project 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?	☐	☒

3.17.1 Environmental Setting

Vehicle access to the Project site would be from US 50 at Hazel Valley Road to Plum Creek Road to an existing gated entrance on Camp P Road. (See Figure 2.2.1). Hazel Valley Road and Plum Creek Road (NF-10N40) are county and ENF roadways accessible to the public. Camp P Road is a designated access route identified in the Project 184 Transportation System Management Plan (EID 2017).

No railroads or transit facilities are in the Project area. The nearest airport to the Project site is the Placerville Airport approximately 16-miles west and the Project sire is not within an area covered by an airport land use plan.

3.17.2 Discussion

a) **Less than significant Impact**. Traffic generation associated with the proposed Project would be similar to other past flume replacement projects requiring equipment/materials hauling and worker commute trips to and from the Project area along local surface streets. These trips generally would occur on US 50, local roadways, and the Project access road. Increased construction traffic would be temporary, would occur seasonally over a two-year period between approximately August to the end of December during EID's annual maintenance outage starting in 2026. Typical traffic patterns during construction of the proposed Project could occur 12-hours per day and 5- to 7-days per week, although construction activities could occur up to 24-hours a day if required. Potential traffic increases would be limited to temporary construction-related activities. Therefore, the proposed Project would not conflict with any applicable program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities related to the performance of the circulation system. No further analysis on these topics will be provided in the EIR.

b) **Less than Significant Impact.** Local roads serving the Project site are not heavily traveled, and Project construction would be temporary and would not result in a substantial increase in traffic that could degrade any roadway or intersection. No increase in traffic would occur after Project

construction is completed. The Project is not anticipated to cause an increase in traffic that would be substantial in relation to the existing traffic load and capacity of the roadways. Therefore, no significant impact would occur and this topic will not be analyzed in the EIR.

c) **No Impact.** The Project would not result in any changes to public roadways, incompatible uses or inadequate emergency access. The Project would only require leveling the road surface and adding gravel along the existing road beyond the gated access portion of Project to allow for heavy equipment and materials transport. All work would be completed in accordance with the Project 184 Transportation System Management Plan. Therefore, no impact would occur and this topic will not be analyzed in the EIR.

d) **Less than Significant Impact.** Emergency access to the Project area could be temporarily affected by activities associated with the Project. Slow-moving trucks entering and exiting the Project site from 50 and Hazel Valley Road could delay the movement of emergency vehicles between US 50 and the Project site. However, in the event of an emergency all truck traffic associated with the Project would be halted to allow unimpeded movement of emergency vehicles. Also, all work would be completed in accordance with the Project 184 Transportation System Management Plan. Therefore, no significant impact would occur and this topic will not be analyzed in the EIR.

3.18 Tribal Cultural Resources

ENVIRONMENTAL ISSUES	Impacts to be Analyzed in EIR	No Additional Analysis Required (Less Than Significant Impact/No Impact)
XVIII. Tribal Cultural Resources. Would the project:		
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geologically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:		
i) Listed or eligible for listed in the California Register of Historical Resources, or in local register of historical resources as defined in Public Resources Code section 5020.1(k)?	☒	☐
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☒	☐

3.18.1 Environmental Setting

The presence of tribal cultural resources (TCRs) is generally identified by California Native American Tribes through the process of consultation. Under AB 52 a TCR must have tangible, geographically defined properties that could be impacted by implementation of a project. Tribal cultural resources are defined in CEQA as a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American tribe, which may include non-unique archaeological resources previously subject to limited review under CEQA.

In accordance with AB 52, on July 20, 2022, the District sent written correspondence to the Shingle Springs Miwok, Torres Martinez Desert Cahuila Indians, United Auburn Indian Community of Auburn Rancheria, Wilton Rancheria, and the Wopumnes Nisenan-Mewuk Nation of El Dorado County providing Project information and requesting a response if the groups are interested in consulting regarding the proposed Project in accordance with AB-52. Tribal correspondence resulted in a response from the United Auburn Indian Community of Auburn Rancheria requesting location information and that EID contact the tribe in the event any TCRs are discovered during Project construction. Other tribal groups on the Native American Heritage Commission (NAHC) list will be notified of the availability of this NOP/IS.

3.18.2 DISCUSSION

a) i) & ii)

Impacts to be analyzed in EIR. No indication or previous evidence from past studies of the El Dorado Canal has shown that TCRs are known to be present in the Project area in the recent or distant past. While unlikely, there is some potential that earth disturbance associated with the Project could disturb or uncover previously unknown TCRs. Due to the potential for the proposed Project to disturb unknown TCRs, further analysis on this topic will be provided in the EIR.

3.19 Utilities and Service Systems

ENVIRONMENTAL ISSUES	Impacts to be Analyzed in EIR	No Additional Analysis Required (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 that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?	☐	☒
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☒
e) Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?	☐	☒

3.19.1 Environmental Setting

The Project site is within the boundaries of the District's Project 184, which encompasses the El Dorado Canal and associated facilities that are operated for safe and reliable delivery of water to downstream users and for hydroelectric power generation to meet the water and energy demands in El Dorado County. No water or sewer service is provided within the Project site and it is within an undeveloped area primarily within the ENF. Drainage resulting from stormwater in the Project area is by natural drainages or roadside ditches.

3.19.2 Discussion

a) **No Impact.** The Project would not include new development that would require relocation or construction of new or expanded municipal wastewater treatment, storm water drainage, natural gas, or telecommunications facilities. No impact would occur and this topic will not be analyzed in the EIR.

b) **No Impact.** The Project would not include new development that would increase water supply demand. No impact would occur and this topic will not be analyzed in the EIR.

c) **No Impact.** The Project does not include elements that would generate wastewater flows and therefore would not exceed a wastewater treatment provider's capacity. No impact would occur and this topic will not be analyzed in the EIR.

d) **No Impact.** The existing wooden flume and its substructure would be demolished and disposed at an off-site disposal area with permitted capacity to except construction debris, in accordance with applicable federal, state, and local regulations. Therefore, no impact would occur and this topic will not be analyzed in the EIR.

e) **No Impact.** As discussed in item d), disposal of the wooden flume structure, or waste associated with paint, solvent, or other chemical containers that potentially contained hazardous materials associated with the proposed Project would be disposed of in accordance with applicable federal, state, and local regulations. Therefore, no impact would occur and this topic will not be analyzed in the EIR.

3.20 Wildfire

ENVIRONMENTAL ISSUES	Impacts to be Analyzed in EIR	No Additional Analysis Required (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?	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☒

3.20.1 Environmental Setting

According to the CALFIRE Fire Hazard Severity Zone map, because the Project area is under federal jurisdiction; it has not been rated for fire hazard severity (CAL FIRE 2007). The USFS is responsible for fire prevention and suppression in the ENF and those privately-owned lands within the forest boundaries. The Project area is in the Placerville Ranger District and the nearest district facility is the Kyburz Station, approximately 6-miles east of the Project area. Additional wildfire fighting assistance can be provided by the Sly Park Station at 5420 Sly Park Road in Pollock Pines, approximately 8-miles southwest of the Project area (USFS 2019).

3.20.2 Discussion

a) **Less than Significant Impact.** The Project area is not in an area that is subject to an adopted emergency response or evacuation plan. The short-term presence of construction vehicles on the access roads would not impede access for emergency response vehicles or evacuation. Therefore, no significant impact would occur and this topic will not be analyzed in the EIR.

b) **Impacts to be analyzed in EIR.** Flume 45 is located in a heavily forested area on a flat bench adjacent to a steep hillside upslope of US 50 and the South Fork of the American River. During construction, heavy equipment and on-site fueling could pose a risk for wildfire, from potential ignition sources (e.g., internal combustion engines, gasoline-powered tools, and equipment) that could produce a spark, fire, or flame. However, once the Project work is completed, the risk to people from wildland fires would remain the same as the pre-Project risk conditions. Due to the

surrounding topography and potential for wildfire causes associated with Project construction, additional analysis of this topic will be provided in the EIR.

c) **No Impact.** The Project would not require installation of fuel breaks, emergency water sources, power lines, or other utilities that could exacerbate fire risk. The Project area is accessed via existing gravel entrance off Plum Creek Road (NF-10N40). Worker vehicles and equipment would not impede access that may exacerbate fire risk or result in temporary or on-going impacts to the environment. No impact would occur and this topic will not be analyzed in the EIR.

d) **No Impact.** The Project area is located in an undeveloped area of the ENF. The proposed Project will not include any habitable structures or grading that could significantly change the slope of the Project site. Project implementation would not expose people or structures to significant risks because of runoff, post-fire slope instability, or drainage changes. No impact would occur and this topic will not be analyzed in the EIR.

3.21 Mandatory Findings of Significance

ENVIRONMENTAL ISSUES		Impacts to be Analyzed in EIR	No Additional Analysis Required (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 that will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐

Authority: Public Resources Code Sections 21083, 21083.5.

Reference: Government Code Sections 65088.4.
Public Resources Code Sections 21080(c), 21080.1, 21080.3, 21083, 21083.3, 21083.5, 21093, 21094, 21095, 21151; *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296*; Leonoff v. Monterey Board of Supervisors* (1990) 222 Cal.App.3d 1337; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

3.21.1 Discussion

a) **Impacts to be analyzed in the EIR.** This NOP/IS provides an analysis of potential environmental impacts of the Project, including the potential to degrade the quality of the environment, impact fish, wildlife, or plant species, or harm important examples of major historical periods. As demonstrated in the discussions above, the proposed Project has the potential to result in significant biological and cultural resource impacts, and substantially degrade the quality of the environment. The EIR will evaluate the potential for the proposed Project to result in significant biological and cultural resource impacts, and substantially degrade the quality of the environment or provide adequate mitigation measure to avoid, minimize, or compensate for potential impacts.

b) **Impacts to be analyzed in the EIR.** Cumulative impacts are defined in Section 15355 of the CEQA Guidelines as *two or more individual effects, which when considered together, would be considerable or which would compound or increase other environmental impacts.* The proposed

Project would involve replacement of a wooden flume structure with reinforced air placed concrete and canal bench and access improvements. The EIR will evaluate whether the potential impacts of the proposed Project in combination with other current projects in the region and construction activities near the proposed Project area could be cumulatively considerable.

c) **Impacts to be analyzed in the EIR.** As suggested in the discussions for each environmental topic above, the proposed Project has the potential to result in significant impacts. The EIR will evaluate whether any of those impacts have the potential to result in substantial adverse effects on human beings either directly or indirectly.

4. REFERENCES

4.1 AESTHETICS

California Department of Transportation (Caltrans). 2017. *Eligible and Officially Designated Scenic Highways*. Available online: https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways. Accessed: August 2024.

El Dorado Irrigation District (EID). 2024. *Project 184 Visual Resources Management Plan*. Available online: https://www.eid.org/our-services/hydroelectric/project-184/project-184-document-library. Accessed August 2024.

4.2 AGRICULTURE AND FORESTRY RESOURCES

California Department of Conservation (DOC). 2018. *California Important Farmland Finder*. Available online: https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed: August 2024.

El Dorado County Assessor's Office GIS Division (EDC). 2018. *El Dorado County Williamson Act Lands 2018. Available online*: https://edcapps.edcgov.us/maplibrary/html/ImageFiles/EDC2018_WIlmsnAct.pdf. Accessed: August 2024.

4.3 Air Quality

California Air Resources Board (CARB). 2016. *Ambient Air Quality Standards*. Available online: https://ww2.arb.ca.gov/sites/default/files/2020-07/aaqs2.pdf. Accessed August 2024.

El Dorado Air Quality Management District (El Dorado AQMD). 2002. *CEQA Guide – Chapter 3, Thresholds of Significance*. Available online: https://www.edcgov.us/Government/AirQualityManagement/documents/Chapter3_RF6.pdf. Accessed August 2024.

El Dorado County. 2004, as amended. *County of El Dorado General Plan*. Available online: https://www.edcgov.us/Government/Planning/pages/Adopted_General_Plan.aspx. Accessed August 2024.

El Dorado County. 2015. *Asbestos Review Areas*. Available online: https://www.edcgov.us/Government/AirQualityManagement/Documents/asbestos%20review%20map%201-22-15.pdf#search=El%20Dorado%20County%20Asbestos%20review%20map%2CEl%20Dorado%20. Accessed August 2024.

4.4 BIOLOGICAL RESOURCES

None

4.5 CULTURAL RESOURCES

None

4.6 Energy

El Dorado Irrigation District (EID). 2024. *Project 184*. Available online: https://www.eid.org/our-services/hydroelectric/project-184. Accessed August 2024.

4.7 GEOLOGY AND SOILS

California Department of Conservation Mines and Geology (DOC). 2023. California Geology. Available online: https://maps.conservation.ca.gov/mineralresources/. Accessed August 2024.

California Geological Survey (CGS). 2023. *Alquist-Priolo Earthquake Fault Zone Maps*. Available online: https://maps.conservation.ca.gov/cgs/EQZApp/app/. Accessed: August 2024.

_____. 2015a. *Fault Activity Map of California*. Available online: https://maps.conservation.ca.gov/cgs/fam/. Accessed August 2024.

_____. 2015b. *Geologic Map of California*. Available online: https://maps.conservation.ca.gov/cgs/gmc/. Accessed August 2024.

United States Department of Agriculture (USDA). *Web Soil Survey*. Available online: https://websoilsurvey.sc.egov.usda.gov/app/WebSoilSurvey.aspx. Accessed August 2024.

United States Department of Interior (USGS). 1970. *Chronology of Emplacement of Mesozoic Batholithic Complexes in California and Western Nevada.* Available online: https://pubs.usgs.gov/. Accessed August 2024.

4.8 GREENHOUSE GAS EMISSIONS

California Air Resources Board (CARB). 2017. *California's 2017 Climate Change Scoping Plan*. Available online: https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf. Accessed: August 2024.

Governor's Office of Planning and Research. 2022. *CEQA & Climate Change Technical Advisory*. Available online: https://www.opr.ca.gov/ceqa/ceqa-climate-change.html. Accessed August 2024.

USEPA. 2023. *Overview of Greenhouse Gases*. Available online: https://www.epa.gov/ghgemissions/overview-greenhouse-gases. Accessed August 24, 2023.

4.9 HAZARDS AND HAZARDOUS MATERIALS

California Department of Forestry and Fire Protection (CALFIRE). 2007. *El Dorado County Fire Hazard Severity Zones in SRA.* Available online: https://osfm.fire.ca.gov/media/6670/fhszs_map9.pdf. Accessed: March 2024.

California Department of Toxic Substances Control (DTSC). 2019. *EnviroStor*. Available online: https://www.envirostor.dtsc.ca.gov/public/. Accessed September 4, 2019.

California Department of Environmental Protection (CAL EPA). 2020. *Hazardous Materials Business Plan Program* Available online: https://calepa.ca.gov/cupa/lawsregs/hazardous-materials-business-plan-program/. Accessed August 2024.

El Dorado Irrigation District (EID). 2008. *Project 184 Hazardous Substances Plan*. Available online: https://www.eid.org/our-services/hydroelectric/project-184/project-184-document-library. Accessed August 2024.

State Water Resources Control Board (SWRCB). 2024. *GeoTracker.* Available online: https://geotracker.waterboards.ca.gov/. Accessed August 2024.

4.10 HYDROLOGY AND WATER QUALITY

Federal Emergency Management Agency (FEMA). 2008. *Flood Insurance Rate Maps*. Available online: https://msc.fema.gov/portal/search?AddressQuery=camino%20ca#searchresultsanchor. Accessed: August 2024.

El Dorado County (EDC). 2016. *Flood and Inundation Areas*. Available online: https://edcapps.edcgov.us/maplibrary/html/ImageFiles/gi0072757a.pdf. Accessed: August 2024.

4.11 LAND USE AND PLANNING

El Dorado County. 2018. *GOTNET – County of El Dorado, State of California.* Available online: https://see-eldorado.edcgov.us/ugotnet/. Accessed: August 2024.

4.12 MINERAL RESOURCES

El Dorado County (EDC). 2004 *El Dorado County General Plan. Figure CO-1: Important Mineral Resource Areas.* Available online: https://www.edcgov.us/government/planning/adoptedgeneralplan/figures/documents/CO-1.pdf. Accessed: August 2024.

El Dorado County (EDC). 2017. *El Dorado County General Plan—Conservation and Open Space Element.* Available online: https://www.edcgov.us/Government/planning/Pages/adopted_general_plan.aspx. Accessed: August 2024.

4.13 NOISE

El Dorado County (EDC). 2017. *El Dorado County General Plan—Noise Element*. Available online: https://www.edcgov.us/Government/planning/Pages/adopted_general_plan.aspx. Accessed: August 2024.

4.14 POPULATION AND HOUSING

None

4.15 PUBLIC SERVICES

California Department of Forestry and Fire Protection (CALFIRE). 2007. *El Dorado County Fire Hazard Severity Zones in SRA.* Available at: https://osfm.fire.ca.gov/media/6670/fhszs_map9.pdf. Accessed: August 2024.

El Dorado County Fire District (EDCFPD). 2022. *About Us*. Available at: https://www.eldoradocountyfire.com/about-us/. Accessed: August 2024.

El Dorado County Sheriff's Department (EDCSO). 2021. *El Dorado County Sheriff's Office Annual Report*. Available at: https://www.edcgov.us/Government/sheriff. Accessed: August 2024.

4.16 RECREATION

El Dorado County. 2004, as amended. *County of El Dorado General Plan*. Available online: https://www.edcgov.us/Government/Planning/pages/Adopted_General_Plan.aspx. Accessed August 2024.

4.17 TRANSPORTATION

El Dorado Irrigation District (EID). 2017. *Project 184 Transportation Systems Management Plan*. Available: https://www.eid.org/our-services/hydroelectric/project-184/project-184-document-library. Accessed August 2024.

4.18 TRIBAL CULTURAL RESOURCES

None

4.19 UTILITIES AND SERVICE SYSTEMS

None

4.20 WILDFIRE

California Department of Forestry and Fire Protection (CALFIRE). 2007. *El Dorado County Fire Hazard Severity Zones in SRA*. Available at: https://osfm.fire.ca.gov/media/6670/fhszs_map9.pdf. Accessed: August 2024.

U.S. Forest Service (USFS). 2019. *Our Fire Team*. Available: https://www.fs.usda.gov/detail/eldorado/fire/?cid=fseprd596289. Accessed August 2024.

4.21 MANDATORY FINDINGS

None

5. LIST OF REVIEWERS/PREPARERS

EL DORADO IRRIGATION DISTRICT

Brian Mueller	Director of Engineering
Jon Money	Director of Engineering
Brian Deason	Environmental Resources Supervisor
Sifang Shan	Senior Engineer
Michael C. Baron	Environmental Review Analyst
Justine Teurman	Permit Technician

ATTACHMENT A

Biological Resource Assessment

September 8, 2022

GEI Consultants

Geotechnical
Environmental
Water Resources
Ecological

Michael Baron
Environmental Review Analyst
El Dorado Irrigation District
2890 Mosquito Road
Placerville, CA 95667

Subject: Biological Resources Survey Results for the Flume 45 Section 3 Project

Dear Mr. Baron:

The El Dorado Irrigation District (District) is proposing to replace the existing flume structure at Flume 45 Section 3 along the El Dorado Canal. The Flume 45 Section 3 project is located in central El Dorado County, south of U.S. Highway 50 and east of the Pacific House (**Attachment A, Figure 1**). The proposed project is situated east of the South Fork American River at elevations ranging from approximately 3,800–3,900 feet (**Attachment A, Figure 2**). The project site includes Flume 45 Section 3 and buffer zones of approximately 50 feet downslope of the flume and 25 feet upslope of the flume (**Attachment A, Figure 3**). GEI Consultants, Inc. (GEI) biologists conducted a biological resource survey on the project site on June 21, 2022. This report describes the methods and results of these surveys and the potential for implementation of the proposed project to impact sensitive biological resources.

Pre-field Investigation and Field Survey

Before conducting the field survey, reviews of the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) (CDFW 2022a), California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Vascular Plants of California (CNPS 2022a), U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation (IPaC) website (USFWS 2022a), U.S. Forest Service (USFS) Region 5 Sensitive Plant Species (USFS 2013a) and Sensitive Animal Species Lists (USFS 2013b) were conducted. These reviews were centered on the Riverton U.S. Geological Survey (USGS) 7.5-minute quadrangle and included the eight surrounding quadrangles. Species lists generated during the reviews are provided in **Attachment B**.

Aerial imagery on Google Earth®, the USGS Riverton 7.5-minute quadrangles, USFWS National Wetlands Inventory (USFWS 2022b) and the Natural Resources Conservation Service *Soil Survey of El Dorado National Forest Area, Parts of Alpine, Amador, El Dorado, and Placer Counties, California* (NRCS 2019) were also reviewed before and after conducting the field survey.

A floristic survey of the project site was conducted by GEI botanist Lasthenia Michele Lee and biologist Devin Barry on June 21, 2022. This floristic survey included pedestrian visual surveys within the boundaries of the project site for target special-status plant species, mapping vegetation and habitat types, an evaluation of habitat suitability for special-status plants and recording plant species that were observed.

During the June 21, 2022 survey, biologist Devin Barry also conducted constraints-level mapping of aquatic resources and an evaluation of habitat suitability on or adjacent to the project site for special-status wildlife species, and documented observations of wildlife species. Photographs representative of the project sites are provided in **Attachment C**.

GEI Consultants, Inc.
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Environmental Setting

Elevation at the 1.7-acre project site is approximately 3,800 to 3,900 feet above mean sea level. The topography slopes gradually east to west, with steep north-facing slopes on both sides of the El Dorado Canal.

Habitat and Land Cover Types

The project site is composed primarily of Douglas fir (*Pseudotsuga menziesii*) forest (**Attachment A, Figure 3**). This habitat is characteristic of mixed coniferous forests that occur in El Dorado County between 2,000 and 6,000 feet (CNPS 2022b). Dominant tree species in this forest type in the project site include Douglas fir, black oak (*Quercus kelloggii*), and incense cedar (*Calocedrus decurrens*). Canyon live oak (*Quercus chrysolepis*) and Ponderosa pine (*Pinus ponderosa*) are occasional species that co-occur with big-leaf maple (*Acer macrophyllum*). Understory species are generally sparse due to the fairly contiguous tree canopy that limits light penetration. In addition, vegetation immediately adjacent to the flume appears disturbed and managed to reduce vegetation cover. Understory species and species observed in small canopy openings during the field survey include wax leaf raspberry (*Rubus glaucifolius*), western thimbleberry (*Rubus parviflora*), feathery false lily of the valley (*Maianthemum racemosum*), blue wildrye (*Elymus glaucus* ssp. *glaucus*), Bolander's blue grass (*Poa bolanderi*), tincture plant (*Collinsia tinctoria*), variableleaf collomia (*Collomia heterophylla*), violet draperia (*Draperia systyla*), and chickweed (*Stellaria media*).

The project site lacks natural wetlands but several areas where water was leaking from the flume structures supported very small patches of hydrophytic plants and mosses. Several sedges (*Carex* sp.) were growing in moist areas on and under the flume structure near the southern half of the project site. These sedges were not keyed to specific epithet but were keyed to determine they belong in two distinct groups as described in the Jepson e-flora website. One of these sedges was keyed to belong to Group 10 and the other was keyed to Group 11. The target species, Sierra arching sedge (*Carex cyrtostachya*), is in Group 1and 4 and was not observed at the project site. Another area supports several seep monkey flower (*Erythranthe guttata*), an obligate wetland species; however, this area only supports a few hydrophytic plants and was not mapped as wetlands because the only apparent source of water to this area is leakage from the flume.

One small ephemeral drainage was identified within the project site. The drainage appears to be a small swale or topographic draw leading from the flume down the hillside (**Attachment A, Figure 3)**. This drainage had some evidence of ephemeral water flow during the survey due to the presence of saturated algal growth within the confined portion of the swale. The drainage lacked pronounced bed and bank and geometry of a channel, but there was topographic contour of a small (approximately 2-3 foot wide) dip from surrounding areas. The drainage also lacked vegetation growing in it aside from the algae at the uppermost portion of the drainage.

Soil Types

Soils in the survey area are classified by the Natural Resources Conservation Service was entirely Chaix-Rock outcrop complex derived from granite parent material (NRCS 2019). Soils in the project site are not serpentinite or volcanic soils that could support special-status plants endemic to these soil types. Soils that are mapped on the project site do not include Josephine silt loam soils that are sometimes associated with known occurrences of Pleasant valley mariposa-lily (*Calochortus clavatus* ssp. *avius*), a California Rare Plant Rank (CRPR) 1B.2 species.

Sensitive Biological Resources

Sensitive biological resources addressed in this section include those that are afforded consideration or protection under the California Environmental Quality Act (CEQA), California Fish and Game Code (FGC), California Endangered Species Act (CESA), Federal Endangered Species Act (ESA), Clean Water Act (CWA), and the Porter-Cologne Water Quality Control Act (Porter-Cologne Act).

Special-status Species

Special-status species are plant and animal taxa (taxonomic categories or populations) that fall into any of the following categories:

- taxa officially listed by the Federal government or the State of California as endangered, threatened, or rare;
- candidate taxa for Federal or State listing as endangered or threatened;
- taxa proposed for Federal or State listing as endangered or threatened;
- taxa that meet the criteria for listing;
- taxa considered sensitive by USFS
- wildlife identified by CDFW as species of special concern and plants considered by CDFW to be "rare, threatened, or endangered in California;" (CRPR 1A through 2B)
- species listed as Fully Protected under the FGC; or
- taxa afforded protection under local or regional planning documents.

Plant taxa are assigned by CDFW to one of the following six California Rare Plant Ranks (CRPRs):

- 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 that are presumed extirpated in California, but are 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); or
- CRPR 4—Plants of limited distribution (a watch list).

All plants with a CRPR are considered "special plants" by CDFW. The term "special plants" is a broad term used by CDFW to refer to all plant taxa inventoried in the CNDDB, regardless of their legal or protection status. CDFW applies the term "California species of special concern" to wildlife species that are not listed under federal or state endangered species acts but that are nonetheless declining at a rate that could result in listing, or that historically occurred in low numbers and are subject to current known threats to their persistence.

Figure 4 in **Attachment A** shows all CNDDB occurrences of plant and wildlife species that meet the definition of special-status species described above and have been documented within 5 miles of the project site. Results of the CNDDB search yielded occurrences of a total of 57 special-status plants and animals within the USGS 9-quadrangle search area; only four of these species have been documented within 5 miles of the project site, and many of the occurrences are historical (**Attachment B**). (Note: Not all species tracked in the CNDDB and included in the search results in Attachment B meet the definition of a special-status species described above).

Special-status Plants

Table 1 provides information on special-status plants that were evaluated for their potential to occur on the project site based on the CNDDB query, CNPS Inventory of Rare and Endangered Vascular Plants of California, and USFS list of Sensitive Plant Species for the El Dorado National Forest. A total of 36 special-status plant species were evaluated. Eight species, including Pleasant Valley mariposa-lily (*Calochortus clavatus* var. *avius*), could potentially occur on the project site. There is limited suitable habitat for these species on the project site. Several of these eight species occur in wetland habitats, and the site lacks natural wetland habitats. As described above, there are several areas where moisture from water leaking from the flume creates small patches with hydrophytic plants, including sedge (*Carex* sp.) The June 21, 2022, survey was conducted during the blooming period of all eight of these species and no special-status plants were observed during these surveys.

Pleasant Valley mariposa-lily was determined to have the potential to occur on the project site prior to conducting the June 21, 2022, floristic survey. A reference population for this species approximately 8 miles west along the El Dorado Powerhouse Penstock was visited on June 16, 2022. Most of these 100 individual plants were blooming were readily identifiable and within view of the survey area. Only a few individual plants contained fruit at the time of the survey.

Table 1. Special-status Plants Evaluated for Potential to Occur on the Project Site

Species	Blooming Period	Status[1]		Habitat Associations	Potential to Occur on the Project Site[2]
		Federal	State		
Three-bracted onion *Allium tribracteatum*	March–May	FSS	1B.2	Volcanic slopes in chaparral and lower and upper montane forests. Elevation: 3,610-9,845 feet	No potential to occur; no volcanic slopes present on the project site.
Nissenan manzanita *Arctostaphylos nissenana*	February–March	FSS	1B.2	Open, rocky shale ridges in closed-cone coniferous forest and chaparral. Elevation: 1,475- 5,410 feet	No potential to occur; no suitable habitat is present on the project site.
Big-scale balsamroot *Balsamorhiza macrolepis*	March–June	FSS	1B.2	Chaparral, cismontane woodland, valley and foothill grassland; sometimes on serpentinite. Elevation: below 4,500 feet	No potential to occur; no suitable habitat is present on the project site.
Upswept moonwort *Botrychium ascendens*	July–August	FSS	2B.3	Lower montane coniferous forest, meadows and seeps; grassy fields, coniferous woods near springs and creeks. Elevation: 6,900- 15,000 feet.	No potential to occur; no suitable habitat present on project site and project site is outside the species' known elevation range.
Scalloped moonwort *Botrychium crenulatum*	June–September	FSS	2B.2	Bogs, fens, meadows, seeps, marshes, stream margins in lower and upper montane coniferous forest; typically in areas with hard water. Elevation: 4,900 – 11,800 feet.	No potential to occur; no suitable habitat present on project site and project site is outside the species' known elevation range.

Table 1. Special-status Plants Evaluated for Potential to Occur on the Project Site

Species	Blooming Period	Status[1]		Habitat Associations	Potential to Occur on the Project Site[2]
		Federal	State		
Common moonwort *Botrychium lunaria*	August	FSS	–	Meadows and seeps, subalpine coniferous forest, upper montane coniferous forest. Elevation: 6,500 – 11,200 feet	No potential to occur; no suitable habitat present on project site and project site is outside the species' known elevation range
Mingan moonwort *Botrychium minganense*	July–September	FSS	2B.2	Open areas in bogs, fens, meadows, seeps, marshes; stream margins in lower and upper montane coniferous forest; yellow pine forest. Elevation: 4,920- 10,100 feet	No potential to occur; no suitable habitat present on project site and project site is outside the species' known elevation range
Western goblin *Botrychium montanum*	July–September	FSS	2B.1	Creek banks in old growth forest in lower and upper montane coniferous forest. Elevation: 4,920- 10,100 feet.	No potential to occur; no suitable habitat present on project site and project site is outside the species' known elevation range
Pardox moonwort *Botrychium paradoxum*	August	FSS	2B.1	Moist meadows and shady slopes in lower and upper montane coniferous forest. Elevation: above 13,000 feet	No potential to occur; no suitable habitat present on project site and project site is outside the species' known elevation range
Stalked moonwort *Botrychium pedunculosum*	August	FSS	2B.1	Moist or dry meadows, springs, stream terraces, in lower and upper montane coniferous forest of Tuolumne County. Elevation: 3,000- 6,300 feet.	No potential to occur; no suitable habitat present on project site
Bolander's bruchia *Bruchia bolanderi*	NA	FSS	4.2	Mesic soils in upper montane coniferous forest. Elevation: 5,000 – 6,640 feet.	No potential to occur; no suitable habitat present on project site and project site is outside the species' known elevation range
Pleasant valley mariposa-lily *Calochortus clavatus* var. *avius*	May-July	FSS	1B.2	Open areas in pine-oak habitats in lower montane coniferous forest; sometimes on Josephine silt loam and volcanic soils	Could occur; marginally suitable habitat is present on the project site; no Josephine or volcanic soils on project site; dense tree canopy limits open areas; nearby documented occurrences within 5 miles of the project site. Species not observed during June 2022 floristic survey.
Flagella-like atractylocarpus *Campylopodiella stenocarpa*	NA	–	2B.2	Seeping metamorphic rock. Elevation: 330 – 1,640 feet.	No potential to occur; no suitable habitat present on project site and project site is outside the species' known elevation range

Table 1. Special-status Plants Evaluated for Potential to Occur on the Project Site

Species	Blooming Period	Status[1]		Habitat Associations	Potential to Occur on the Project Site[2]
		Federal	State		
Sierra arching sedge *Carex cyrtostachya*	May–August	–	1B.2	Mesic sites in lower montane coniferous forest, riparian forest, marshes and swamps, meadows and seeps. Elevation: 2,000- 4,460	Could occur; project site lacks natural wetland habitats; marginally suitable habitat present in north-facing upper slopes that border the flume and that are moist from flume leaks, species not observed during June 2022 survey. *Carex* sp. in Group 10 was observed near leaky flume structures and an upland *Carex* sp. in Group 11 was observed; the species observed on the project site are not this rare species, which is in Group 1 and 4.
Red Hills soaproot *Chlorogalum grandiflorum*	March–June	–	1B.2	Chaparral, cismontane woodland, lower montane coniferous forest on serpentinite and gabbroic soils. Elevation: 980- 1,640 feet.	No potential to occur; serpentine and gabbroic soils are not present on project site and project site is outside the species' known elevation range
Mountain lady's slipper *Cypripedium montanum*	March–August	FSS	4.2	Moist areas, dry slopes, cismontane woodland, broadleaf forest, lower montane coniferous forest. Elevation: 1,600- 6,900 feet.	Could occur; potential suitable habitat present in undisturbed areas of the project site, but many areas adjacent to flume are disturbed, species not observed during June 2022 survey
Tahoe draba *Draba asterophora* var. *asterophora*	July–August	FSS	1B.2	Alpine boulder rock fields and subalpine coniferous forest. Elevation: above 8,500 feet.	No potential to occur; no suitable habitat present on project site and project site is outside the species' known elevation range
Cup Lake draba *Draba asterophora* var. *macrocarpa*	July–August	FSS	1B.1	Rocky substrates in subalpine coniferous forest. Elevation: above 8,500 feet	No potential to occur; no suitable habitat present on project site and project site is outside the species' known elevation range
Jack's wild buckwheat *Eriogonum luteolum* var. *saltuarium*	July–September	FSS	1B.2	Granitic sand in Great Basin scrub and upper montane coniferous forest. Elevation: 5,575- 7,785	No potential to occur; no suitable habitat present on project site and project site is outside the species' known elevation range
Tripod buckwheat *Eriogonum tripodum*	May–July	FSS	4.2	Chaparral and cismontane woodland in serpentinite soils. Elevation: 655-5,250 feet	No potential to occur; serpentinite soils are not present on project site
Blandow's bog moss *Helodium blandowii*	NA	FSS	–	Montane bogs, fens, mires, and seeps. Elevation: 5,000-6,000 feet	No potential to occur; no suitable habitat present on project site and project site is outside the species' known elevation range

Table 1. Special-status Plants Evaluated for Potential to Occur on the Project Site

Species	Blooming Period	Status[1]		Habitat Associations	Potential to Occur on the Project Site[2]
		Federal	State		
Parry's horkelia *Horkelia parryi*	April–September	FSS	1B.2	Chaparral and cismontane woodland. Elevation: 260-2,952	No potential to occur; no suitable habitat present on project site and project site is outside the species' known elevation range
Finger rush *Juncus digitatus*	May–June	–	1B.1	Openings in cismontane woodland, lower montane coniferous forest, and vernal pools. Elevation: 2,130-2,625 feet	No potential to occur; no natural wetlands present on project site for this obligate wetland species and project site is outside the species' known elevation range
Hutchison's lewisia *Lewisia kelloggii* ssp. *hutchisonii*	May–August	FSS	3.2	Upper montane coniferous forest in openings, often on ridgetops composed of slate or rhyolite tuff Elevation: 4,915- 6,910 feet	No potential to occur; no suitable habitat present on project site and project site is outside the species' known elevation range
Kellogg's lewisia *Lewisia kelloggii* ssp. *kelloggii*	May–August	FSS	3.2	Upper montane coniferous forest in openings, often on ridgetops composed of slate or rhyolite tuff. Elevation: 5,100-7,000 feet	No potential to occur; no suitable habitat present on project site and project site is outside the species' known elevation range
Long-petaled lewisia *Lewisia longipetala*	July–August	FSS	1B.3	Alpine boulder and rock fields in subalpine coniferous forest in mesic substrates Elevation: above 8,000 feet.	No potential to occur; no suitable habitat present on project site and project site is outside the species' known elevation range
Saw-toothed lewisia *Lewisia serrata*	May–June	FSS	1B.1	North-facing, mostly shaded, moss-covered and metamorphic rock cliffs and ledges in steep gorges along relatively permanent streams in broadleafed upland forest, lower montane coniferous forest, riparian forest. Known from El Dorado and Placer counties. Elevation: 2,525-4,710 feet	Could occur; site lacks natural seeps and wetlands; marginally suitable moist, rocky north-facing upper slopes that border the flume where moisture occurs from flume structures; no gorges on or adjacent to the project site; species not observed during June 2022 survey
Broad-nerved hump-moss *Meesia uliginosa*	NA	FSS	2B.2	Mesic soils in meadows, seeps, and lower and upper coniferous forests Elevation: 5,000-6,000 feet	No potential to occur; project site is outside the species' known elevation range
Tehachapi monardella *Monardella linoides* ssp. *oblonga*	June–August	FSS	1B.3	Dry, gravelly slopes and flats in chaparral, conifer woodland, and pinyon and juniper woodlands in Tulare and Kern County. Elevation: 5,000-8,200 feet.	No potential to occur; no suitable habitat present on project site and project site is outside the species' known elevation range.

Table 1. Special-status Plants Evaluated for Potential to Occur on the Project Site

Species	Blooming Period	Status[1]		Habitat Associations	Potential to Occur on the Project Site[2]
		Federal	State		
Yellow bur navarretia *Navarretia prolifera* ssp. *lutea*	May–July	FSS	4.3	Chaparral and cismontane woodland, often in dry rocky flats near drainage channels. Elevation: 2,300- 6,560 feet	Could occur; potential suitable habitat present on project site is limited; species not observed during June 2022 floristic survey.
Northern adder's tongue *Ophioglossum pusillum*	July	FSS	2B.2	Marshes and swamps; marsh edges, low pastures, and grassy roadside ditches in acidic soils. Elevation: 40-3,200 feet	No potential to occur; no suitable habitat present on project site and project site is outside the species' known elevation range.
Veined water lichen *Peltigera gowardii*	NA	FSS	4.2	On rocks in cold-water creeks with little or no sediment or disturbance. Elevation: 2,500- 7,000 feet.	No potential to occur; no suitable habitat present on project site
Stebbins' phacelia *Phacelia stebbinsii*	May–July	FSS	1B.2	Shady, moss-covered metamorphic rock outcrops or meadows with rocky soil in lower montane coniferous forest, cismontane woodland, meadows and seeps. Elevation: 3,000-6,900 feet	Could occur; potential suitable habitat present on project site is limited; species not observed during June 2022 floristic survey.
Whitebark pine *Pinus albicaulis*	NA	FSS	–	Upper red fir forest to timberline, especially subalpine forest. Elevation: above 7,300 feet	No potential to occur; no suitable habitat present on project site and project site is outside the species' known elevation range.
Sierra blue grass *Poa sierrae*	April–July	FSS	1B.3	Shady north-facing, often moist, rocky slopes in lower montane coniferous forest; often in canyons. Elevation: 1,200- 4,900 feet	Could occur; understory habitat present on project site; species not observed during June 2022 floristic survey.
Brownish beaked rush *Rhynchospora capitella*	June–August	–	2B.2	Lower and upper montane coniferous forest, meadows, seeps, marsh, and swamps; mesic sites. Elevation: below 6,500 feet	Could occur; project site lacks natural wetland habitats; marginally suitable habitat present in north-facing upper slopes that border the flume and that are moist from flume leaks, species not observed during June 2022 survey

Table 1. Special-status Plants Evaluated for Potential to Occur on the Project Site

Species	Blooming Period	Status[1] Federal	Status[1] State	Habitat Associations	Potential to Occur on the Project Site[2]

[1] Status Definitions

Federal Status

FSS = U.S. Forest Service Region 5 Sensitive Species

– = No status

State/California Rare Plant Rank (CRPR)

1B = Considered rare or endangered in California and elsewhere

2B = Considered rare or endangered in California but more common elsewhere

3 = Species for which limited information is available

4 = Limited distribution or infrequent throughout a broader area in California

– = No status

California Rare Plant Rank (CRPR) Extensions

.1 = Seriously endangered in California (greater than 80 percent of occurrences are threatened and/or have a high degree and immediacy of threat)

.2 = Fairly endangered in California (20 to 80 percent of occurrences are threatened and/or have a moderate degree and immediacy of threat)

.3 = Not very endangered in California

[2] Potential to Occur

- No potential to occur: Potentially suitable habitat is not present
- Unlikely to occur: Potentially suitable habitat present but species unlikely to be present because of very restricted distribution
- Could occur: Suitable habitat is available; however, there are few or no other indicators that the species may be present
- Likely to occur: Habitat conditions, behavior of the species, known occurrences in the vicinity, or other factors indicate a relatively high likelihood that the species would occur
- Known to occur: The species, or evidence of its presence, was observed during reconnaissance-level surveys or was reported by others

Sources: CDFW 2022a; CNPS 2022a; USFS 2013a; data compiled by GEI Consultants, Inc. 2022

Special-status Wildlife

Table 2 provides information on special-status wildlife species that were evaluated for potential to occur on the project site based on review of the CNDDB, IPaC, and the USFS list of Sensitive Animal Species for the El Dorado National Forest. A total of 23 species were evaluated.

Based on the review of existing documentation and observations made during field surveys, habitat on the project site is unsuitable or only marginally suitable for all special-status wildlife species that were evaluated except California spotted owl (*Strix occidentalis occidentalis*). Therefore, potential for many of the species to occur on the project site is unlikely. Only species that are highly mobile and distributed in a variety of habitat types have potential to occur on the project site.

Table 2. Special-status Wildlife Evaluated for Potential to Occur on the Project Site

Species	Status[1] Federal	State	Habitat Associations	Potential to Occur on the Project Site[2]
Invertebrates				
Western bumble bee *Bombus occidentalis*	FSS	C	Wide variety of habitats, primarily flower-rich montane meadows; nests in abandoned rodent burrows and other cavities.	Unlikely to occur; no suitable meadow habitat in or adjacent to the project site; drainage areas in project site supports few flowering plants in the understory; nearest CNDDB occurrence approximately 24 miles northeast of project site.
Fishes				
Pacific lamprey *Entosphenus tridentalus*	FSS	–	Found in gravelly streams, including tributaries of the San Francisco Estuary and the Central Valley.	No potential to occur; no suitable habitat is present on or adjacent to the project site.
Delta smelt *Hypomesus transpacificus*	T	E	Endemic to the Sacramento-San Joaquin Delta, occurring primarily below Isleton on the Sacramento River	No potential to occur; project site is outside this species' range.
Hardhead *Mylopharodon conocephalus*	FSS	–	Typically found in small to large streams in a low to mid-elevation, but can inhabit lakes and reservoirs too. Can be found in warm water streams and spawns in gravel and rocky substrates.	No potential to occur; no suitable habitat is present on or adjacent to the project site.
Amphibians				
Southern long-toed salamander *Ambystoma macrodactylum sigillatum*	–	SSC	Montane meadows and lakes surrounded by coniferous forest; in non-breeding season, adults use mammal burrows and moist areas under litter, logs, and rocks	No potential to occur; no suitable habitat is present on or adjacent to the project site.
Yosemite Toad *Anaxyrus canorus*	T FSS	C –	High elevation wet meadows in central Sierra Nevada; also occurs in seasonal ponds in subalpine coniferous forest	No potential to occur; project site is outside this species' range.
Foothill yellow-legged frog *Rana boylii*	FSS	E	Rocky streams and rivers with open, sunny banks, in forests, chaparral, and woodlands	No potential to occur; no suitable habitat is present on or adjacent to the project site.
California red-legged frog *Rana draytonii*	T	SSC	Lowlands and foothill streams, pool, and marshes in or near permanent or late season sources of deep water with dense, shrubby, riparian, or emergent vegetation	No potential to occur; no suitable habitat is present on or adjacent to the project site.

Table 2. Special-status Wildlife Evaluated for Potential to Occur on the Project Site

Species	Status[1] Federal	Status[1] State	Habitat Associations	Potential to Occur on the Project Site[2]
Sierra Nevada yellow-legged frog *Rana sierrae*	E FSS	T	Montane ponds, lakes, and streams, typically with shallow, exposed, and gently sloping shorelines	No potential to occur; no suitable habitat is present on or adjacent to the project site.
Reptiles				
Western pond turtle *Emys marmorata*	FSS	SSC	Ponds, lakes, rivers, streams, etc. with abundant vegetation, rocks, and logs for basking	No potential to occur; no suitable habitat is present on or adjacent to the project site.
Birds				
Northern goshawk *Accipiter gentilis*	FSS	SSC	Coniferous and montane riparian forest; typically nests on north-facing slopes near water	Unlikely to occur; site provides poor-quality nesting habitat, but transient and other non-breeding individuals could occur in the area. Nearest CNDDB occurrence approximately 7 miles east of the project site.
Willow flycatcher *Empidonax traillii*	FSS	–	Dense willow thickets associated with wet meadows, ponds, and streams	No potential to occur; no suitable habitat is present on or adjacent to the project site.
Bald eagle *Haliaeetus leucocephalus*	FSS	E FP	Coastal shorelines and wetlands, lakes, reservoirs, and rivers. Nests in large trees, typically in mountain and foothill forests and woodlands near reservoirs, lakes, and rivers	Unlikely to occur; unlikely to nest in the immediate vicinity, but transient and other non-breeding individuals could occur in the area. Nearest CNDDB occurrence approximately 8 miles north of project site.
Great gray owl *Strix nebulosi*	FSS	E	High elevation coniferous forest, close to large meadows	No potential to occur; no suitable habitat is present on or adjacent to the project site (EID 2002a).
California spotted owl *Strix occidentalis occidentalis*	FSS	SSC	In the Sierra Nevada, primarily coniferous and montane hardwood forests at middle elevations; also occurs in red fir forest at high elevations	Likely to occur; suitable habitat present on and adjacent to the project site; species was observed during surveys completed by GEI biologists 4 miles west at Flume 47A in 2021. Project site is within 2 miles of a Protected Activity Center for California spotted owl (PAC-ELD-0054).
Mammals				
Pallid bat *Antrozous pallidus*	FSS	SSC	Variety of habitats, including woodland, forest, grassland, and desert; roosts in tree cavities, rock crevices, mines, caves, and human structures	Unlikely to occur; visible tree cavities were not observed at the project site. nearest documented CNDDB occurrence approximately 14 miles southwest of project site.

Table 2. Special-status Wildlife Evaluated for Potential to Occur on the Project Site

Species	Status[1] Federal	Status[1] State	Habitat Associations	Potential to Occur on the Project Site[2]
Sierra Nevada mountain beaver *Aplodontia rufa californica*	FSS –	SSC	Found in dense riparian-deciduous and open, brushy stages of forests, in the Sierra Nevada mostly found in maintain riparian habitats	No potential to occur; no suitable habitat is present on or adjacent to the project site.
Townsend's big-eared bat *Corynorhinus townsendii*	FSS	SSC	Variety of habitats, but prefers mesic habitats; roosts in caves, mines, tunnels, buildings, or other human-made structures	Unlikely to occur; no suitable roost sites occur on the project site; nearest CNDDB documented occurrence approximately 17 miles northwest of project site.
California wolverine *Gulo gulo*	FSS –	T FP	Various montane habitats; uses caves, logs, and burrows for cover and den sites; hunts in open areas.	No potential to occur; project site is outside this species' range.
Pacific marten *Martes caurina*	FSS	–	Mixed coniferous forest with different-aged stands and high canopy closure, including old-growth trees and snags for denning	Unlikely to occur; habitat on and adjacent to the project site is only marginally suitable. Nearest CNDDB occurrences approximately 24 miles northeast of the project site.
Fringed myotis *Myotis thysanodes*	FSS	–	Wide variety of habitats, but most often in woodland and forest; roosts in caves, mines, buildings and other crevices	Unlikely to occur; suitable roost locations are absent onsite; has been documented approximately 3.5 miles south the project site.
Fisher *Pekania pennanti*	FSS	SSC	Large areas of mature, dense conifer forest and deciduous riparian areas with high canopy closure; uses cavities, snags, logs, and rocky areas for cover and den sites	No potential to occur; project site is outside this species' range.
Sierra Nevada red fox *Vulpes vulpes necator*	C	T	Variety of montane habitats; prefers forest interspersed with meadows and other open areas and requires dense vegetation and rocky areas for cover and den sites	No potential to occur; project site is outside this species' range.

Table 2. Special-status Wildlife Evaluated for Potential to Occur on the Project Site

Species	Status[1] Federal	Status[1] State	Habitat Associations	Potential to Occur on the Project Site[2]

Notes: CNDDB = California Natural Diversity Database

[1] Status Definitions

E = Listed as Endangered under the Federal or State Endangered Species Act
T = Listed as Threatened under the Federal or State Endangered Species Act
C = Candidate for listing as Threatened or Endangered under the State Endangered Species Act
FSS = U.S. Forest Service Region 5 Sensitive Species
FP = Fully Protected under the California Fish and Game Code
SSC = California Species of Special Concern
– = No status

[2] Potential to Occur

- No potential to occur: Potentially suitable habitat is not present
- Unlikely to occur: Potentially suitable habitat present but species unlikely to be present because of very restricted distribution
- Could occur: Suitable habitat is available; however, there are few or no other indicators that the species may be present
- Likely to occur: Habitat conditions, behavior of the species, known occurrences in the vicinity, or other factors indicate a relatively high likelihood that the species would occur
- Known to occur: The species, or evidence of its presence, was observed during reconnaissance-level surveys or was documented.

Sources: USFS 2013b, CDFW 2022a; data compiled by GEI Consultants, Inc. in 2022

Sensitive Habitats

Sensitive habitats include those that are of special concern to resource agencies or are afforded specific consideration through regulations such as CEQA, ESA, CESA, Section 1602 of the FGC, Section 404 and 401 of the CWA, and the Porter-Cologne Act. Sensitive habitats may be of special concern for a variety of reasons, including their locally or regionally declining status, or because they provide important habitat to special-status species.

Critical Habitat

Critical habitat is a geographic area containing features determined to be essential to the conservation of a species listed as threatened or endangered under the ESA. The project site is not within designated or proposed critical habitat for any species.

Other Habitats Protected under Federal and State Regulations

The ephemeral drainage described previously and shown in the maps and photos in the Attachments may potentially be subject to regulation under Sections 404 and 401 of the CWA.

Sensitive Natural Communities

CDFW maintains a *List of Natural Communities* that are native to California (CDFW 2022b). CDFW identifies and ranks subsets of these natural communities as sensitive natural communities that are considered to be highly imperiled. CDFW publishes and frequently updates a list of *Sensitive Natural Communities* (CDFW 2022b). Many riparian plant communities are included as sensitive natural communities because of habitat loss and their value to a diverse community of plant and wildlife species. No sensitive natural community occur on the project site.

If you have any questions or concerns regarding this biological survey report, please contact me by phone at (916) 912-4940 or e-mail at ehtain@geiconsultants.com.

Sincerely,

Eric Htain
Project Manager/Senior Regulatory Specialist

Attachment A: Figures 1-5
Attachment B: Special-status Species Lists
Attachment C: Representative Photographs
Attachment D: Lists of Plant and Wildlife Species Observed during the Field Survey

References

CDFW (California Department of Fish and Wildlife). 2022a. California Natural Diversity Database, Wildlife and Habitat Data Analysis Branch, RareFind Version 5. Commercial version. Available at: https://www.wildlife.ca.gov/Data/CNDDB. Accessed May 2022.

CDFW (California Department of Fish and Wildlife). 2022b. *Natural Communities and Sensitive Natural Communities.* Sacramento, CA. Available: https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities#sensitive%20natural%20communities. Accessed May 2022.

CNPS (California Native Plant Society), Rare Plant Program. 2022a. *Inventory of Rare and Endangered Plants of California* (online edition, v9-01 0.0). Website https://www.rareplants.cnps.org. Accessed May 2022.

CNPS (California Native Plant Society), El Dorado Chapter. 2022b. *Ecology of El Dorado County*. Prepared by Debra Ayres. Website https://www.eldoradocnps.org/plants/ecology. Accessed July 2022.

NRCS (Natural Resources Conservation Service). 2019. *Soil Survey of El Dorado National Forest Area, Parts of Alpine, Amador, El Dorado, and Placer Counties, California*. Available: http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm. Accessed May 2022.

USDA (U.S. Department of Agriculture) 2019 (April). *Conservation Strategy for the California Spotted Owl in the Sierra Nevada.* Version 1.0. R5-TP-043. Available: https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd624135.pdf. Accessed May 2022.

USFS (U.S. Forest Service). 2013a. Region 5 Sensitive Plant Species List. Available: https://www.fs.usda.gov/main/r5/plants-animals/plants. Accessed May 2022.

———. 2013b. Region 5 Sensitive Animal List by Forest. Available: https://www.fs.usda.gov/main/r5/plants-animals/plants. Accessed May 2022.

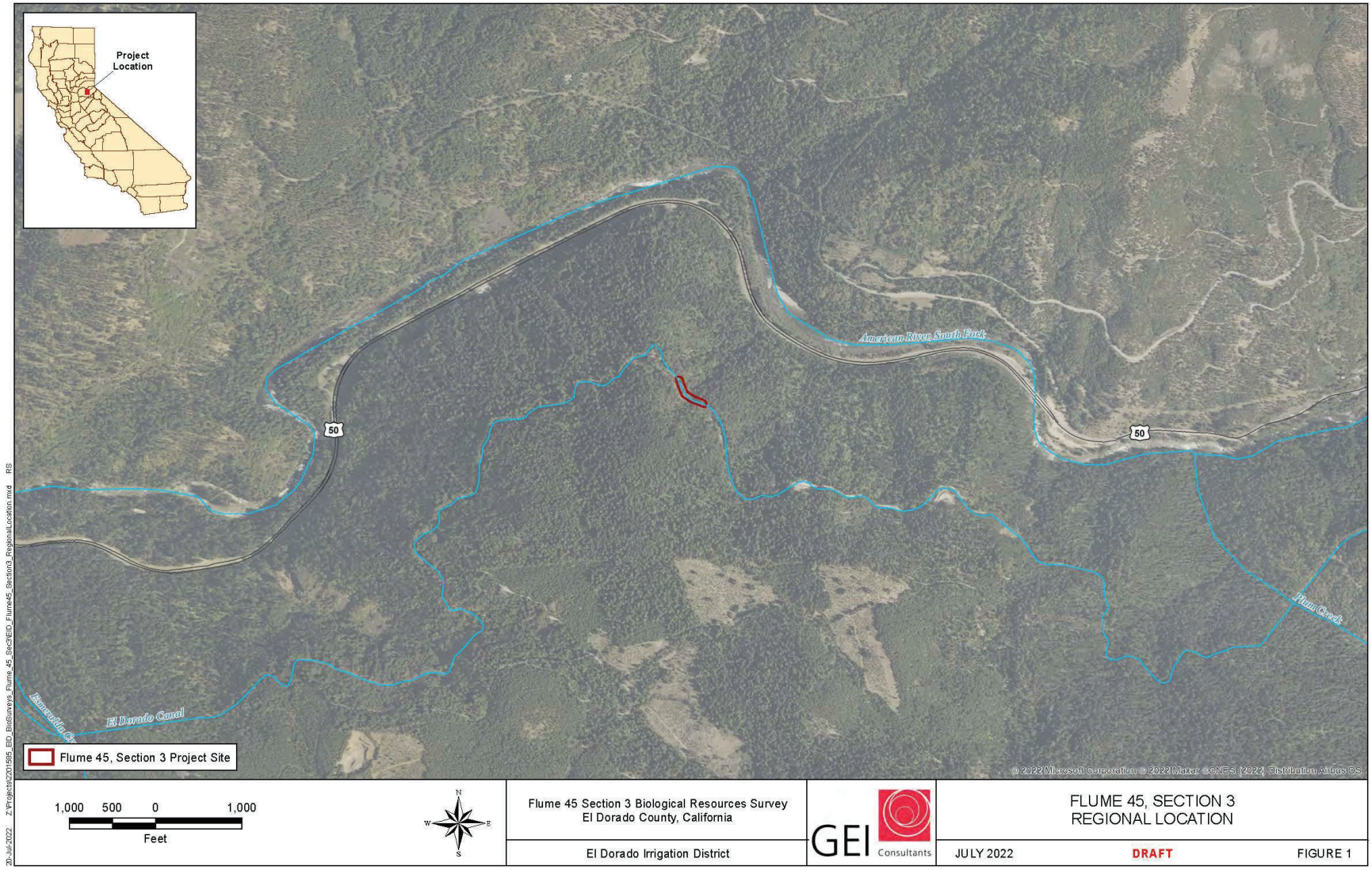
———. 1988. El Dorado National Forest Land and Resource Management Plan. Available: https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5253925.pdf

U.S. Fish and Wildlife Service. 2022a. Information for Planning and Conservation Resource List. Sacramento Fish and Wildlife Office, Sacramento, CA. Accessed May 2022.

------. 2022b. National Wetlands Inventory Mapper [web application]. Accessed May 2022. Available at https://www.fws.gov/wetlands/data/mapper.html.

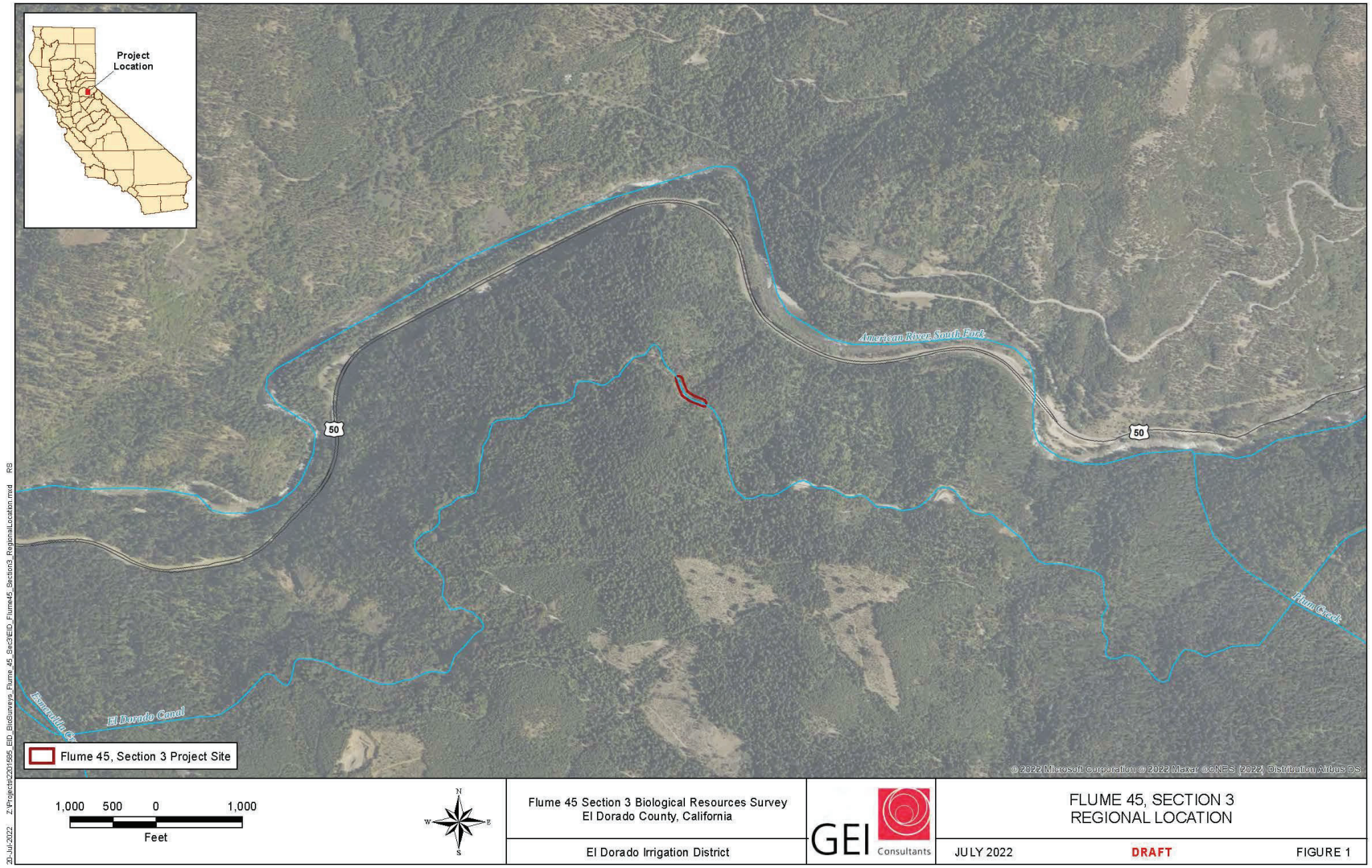
Attachment A

Figure 1. Regional Location



Source: GEI Consultants, Inc. 2022

Figure 2. Topographic Map

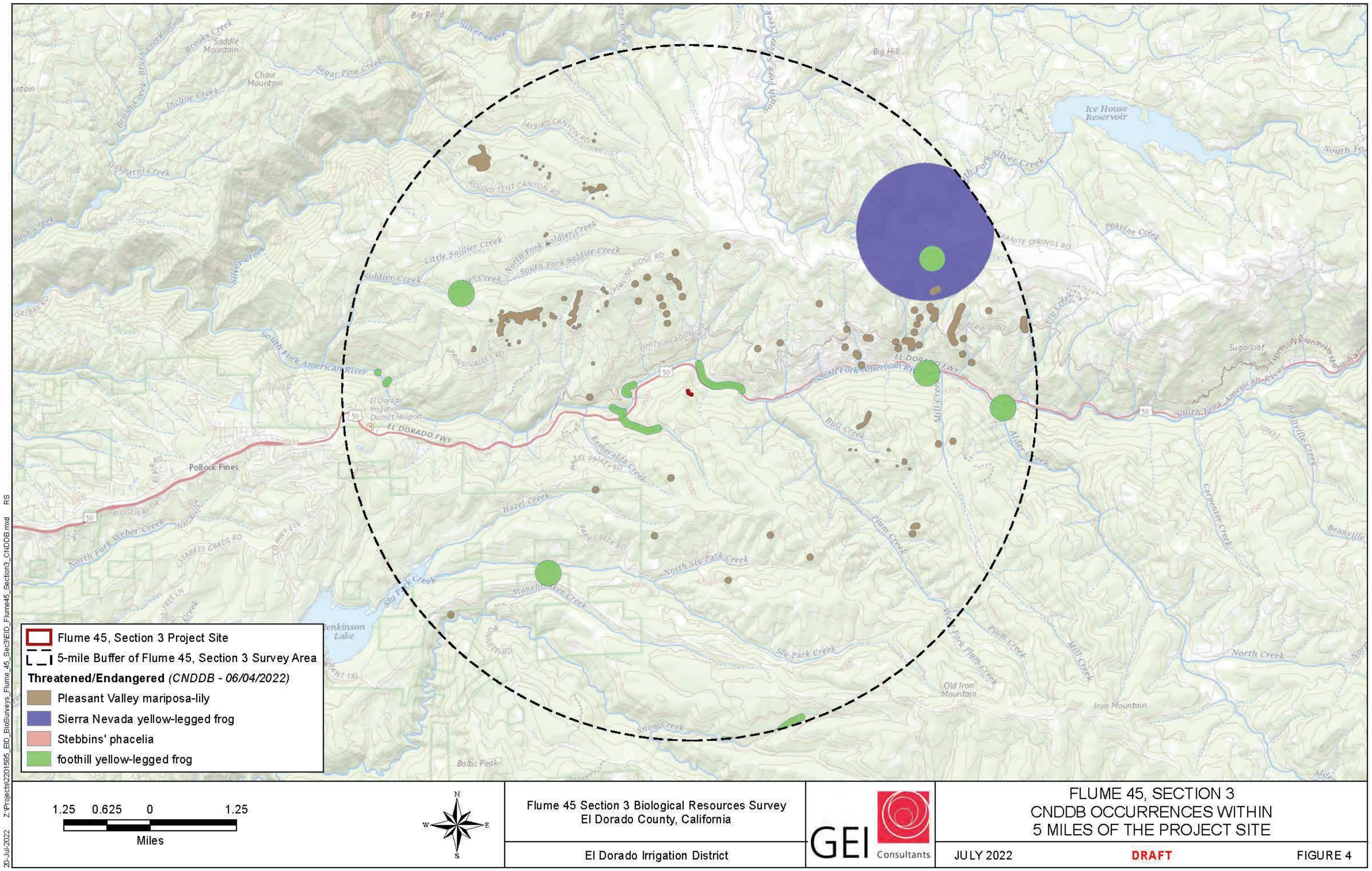


Source: GEI Consultants, Inc. 2022

Figure 3. **Habitat Types on the Project Site**

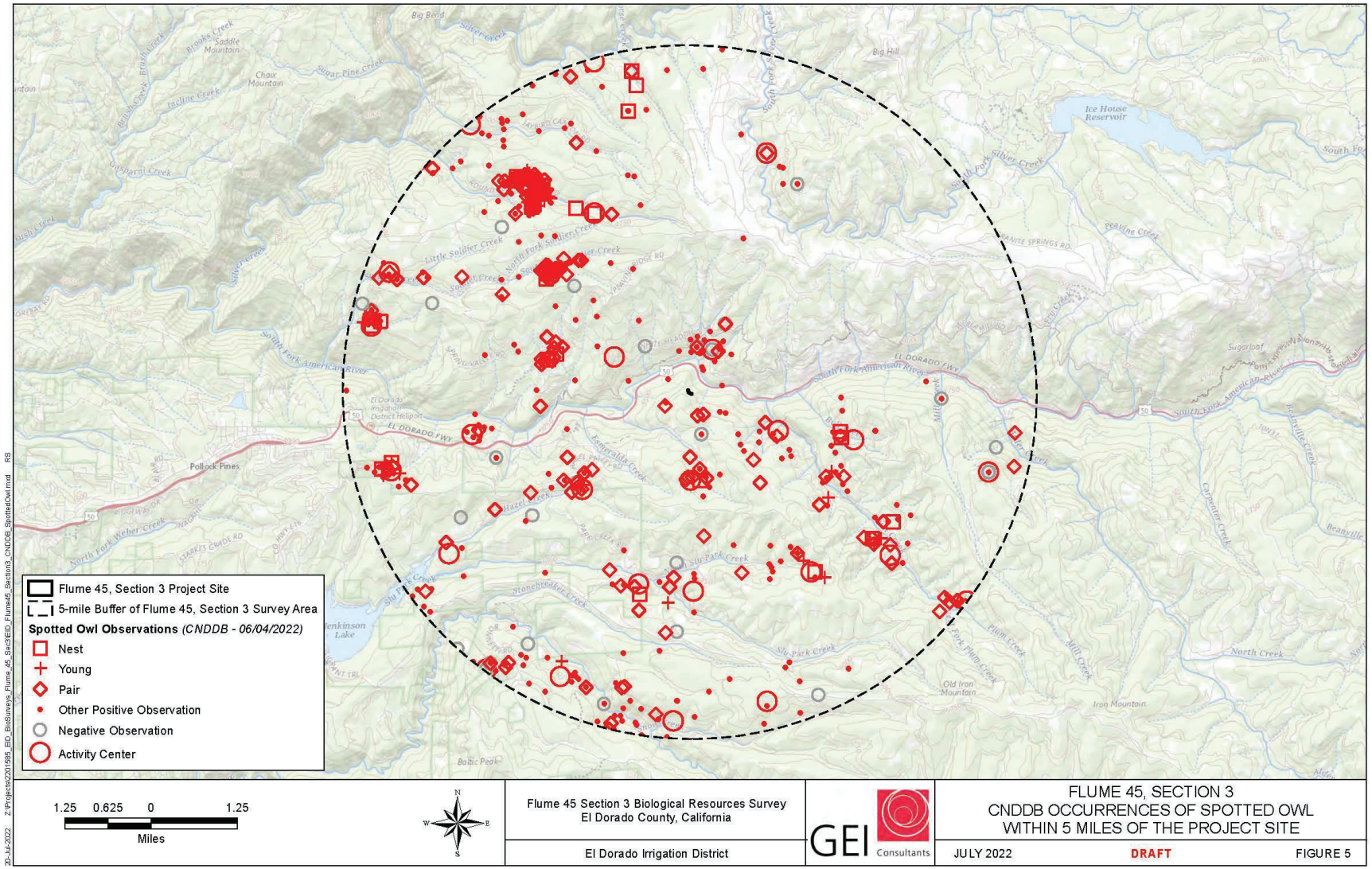
Source: GEI Consultants, Inc. 2022

Figure 4. California Natural Diversity Database Occurrences within 5 Miles of Project Site



Source: GEI Consultants, Inc. 2022

Figure 5. California Natural Diversity Database Occurrences of Spotted Owl within 5 Miles of Project Site



Source: GEI Consultants, Inc. 2022

Attachment B

Special-status Species Lists

IPaC U.S. Fish & Wildlife Service

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

El Dorado County, California

Local office

Sacramento Fish And Wildlife Office

(916) 414-6600
(916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Amphibians

NAME	STATUS

California Red-legged Frog Rana draytonii — Threatened
Wherever found
There is final critical habitat for this species. Your location overlaps the critical habitat.
https://ecos.fws.gov/ecp/species/2891

Sierra Nevada Yellow-legged Frog Rana sierrae — Endangered
Wherever found
There is final critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/9529

Fishes

NAME	STATUS
Delta Smelt Hypomesus transpacificus Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/321	Threatened

Flowering Plants

NAME	STATUS
Layne's Butterweed Senecio layneae Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4062	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

This location overlaps the critical habitat for the following species:

NAME	TYPE
California Red-legged Frog Rana draytonii https://ecos.fws.gov/ecp/species/2891#crithab	Final

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Aug 31
Black-throated Gray Warbler Dendroica nigrescens This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jul 20
Cassin's Finch Carpodacus cassinii This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9462	Breeds May 15 to Jul 15
Evening Grosbeak Coccothraustes vespertinus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 15 to Aug 10
Golden Eagle Aquila chrysaetos This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Dec 1 to Aug 31
Oak Titmouse Baeolophus inornatus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9656	Breeds Mar 15 to Jul 15
Olive-sided Flycatcher Contopus cooperi This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914	Breeds May 20 to Aug 31
Wrentit Chamaea fasciata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Pollock Pines (3812075) OR Slate Mtn. (3812076) OR Tunnel Hill (3812086) OR Devil Peak (3812085) OR Robbs Peak (3812084) OR Riverton (3812074) OR Old Iron Mountain (3812064) OR Sly Park (3812065) OR Camino (3812066))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Accipiter gentilis northern goshawk	ABNKC12060	None	None	G5	S3	SSC
Ambystoma macrodactylum sigillatum southern long-toed salamander	AAAAA01085	None	None	G5T4	S3	SSC
Aplodontia rufa californica Sierra Nevada mountain beaver	AMAFA01013	None	None	G5T3T4	S2S3	SSC
Arctostaphylos nissenana Nissenan manzanita	PDERI040V0	None	None	G1	S1	1B.2
Atractelmis wawona Wawona riffle beetle	IICOL58010	None	None	G3	S1S2	
Bombus occidentalis western bumble bee	IIHYM24250	None	None	G2G3	S1	
Botrychium ascendens upswept moonwort	PPOPH010S0	None	None	G3G4	S2	2B.3
Botrychium crenulatum scalloped moonwort	PPOPH010L0	None	None	G4	S3	2B.2
Botrychium minganense Mingan moonwort	PPOPH010R0	None	None	G4G5	S3	2B.2
Calochortus clavatus var. avius Pleasant Valley mariposa-lily	PMLIL0D095	None	None	G4T2	S2	1B.2
Campylopodiella stenocarpa flagella-like atractylocarpus	NBMUS84010	None	None	G5	S1?	2B.2
Carex cyrtostachya Sierra arching sedge	PMCYP03M00	None	None	G2	S2	1B.2
Central Valley Drainage Hardhead/Squawfish Stream Central Valley Drainage Hardhead/Squawfish Stream	CARA2443CA	None	None	GNR	SNR	
Central Valley Drainage Resident Rainbow Trout Stream Central Valley Drainage Resident Rainbow Trout Stream	CARA2421CA	None	None	GNR	SNR	
Central Valley Drainage Spring Stream Central Valley Drainage Spring Stream	CARA2413CA	None	None	GNR	SNR	
Chlorogalum grandiflorum Red Hills soaproot	PMLIL0G020	None	None	G3	S3	1B.2
Clarkia biloba ssp. brandegeeae Brandegee's clarkia	PDONA05053	None	None	G4G5T4	S4	4.2
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	None	G4	S2	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Cosumnoperla hypocrena Cosumnes stripetail	IIPLE23020	None	None	G2	S2	
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Haliaeetus leucocephalus bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
Horkelia parryi Parry's horkelia	PDROS0W0C0	None	None	G2	S2	1B.2
Lasionycteris noctivagans silver-haired bat	AMACC02010	None	None	G3G4	S3S4	
Lasiurus cinereus hoary bat	AMACC05030	None	None	G3G4	S4	
Lewisia serrata saw-toothed lewisia	PDPOR040E0	None	None	G2	S2	1B.1
Monadenia mormonum buttoni Button's Sierra sideband	IMGASC7071	None	None	G2T1	S1S2	
Myotis thysanodes fringed myotis	AMACC01090	None	None	G4	S3	
Myotis volans long-legged myotis	AMACC01110	None	None	G4G5	S3	
Myotis yumanensis Yuma myotis	AMACC01020	None	None	G5	S4	
Nebria darlingtoni South Forks ground beetle	IICOL6L100	None	None	G1	S1	
Orobittacus obscurus gold rush hanging scorpionfly	IIMEC07010	None	None	G1	S1	
Pekania pennanti Fisher	AMAJF01020	None	None	G5	S2S3	SSC
Phacelia stebbinsii Stebbins' phacelia	PDHYD0C4D0	None	None	G3	S3	1B.2
Poa sierrae Sierra blue grass	PMPOA4Z310	None	None	G3	S3	1B.3
Rana boylii foothill yellow-legged frog	AAABH01050	None	Endangered	G3	S3	SSC
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Rana sierrae Sierra Nevada yellow-legged frog	AAABH01340	Endangered	Threatened	G1	S1	WL
Rhynchospora capitellata brownish beaked-rush	PMCYP0N080	None	None	G5	S1	2B.2
Riparia riparia bank swallow	ABPAU08010	None	Threatened	G5	S2	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Sacramento-San Joaquin Foothill/Valley Ephemeral Stream	CARA2130CA	None	None	GNR	SNR	
Sacramento-San Joaquin Foothill/Valley Ephemeral Stream						
Sphagnum Bog	CTT51110CA	None	None	G3	S1.2	
Sphagnum Bog						
Stygobromus grahami	ICMAL05920	None	None	G2	S2	
Graham's Cave amphipod						
Viola tomentosa	PDVIO04280	None	None	G3	S3	4.2
felt-leaved violet						
Vulpes vulpes necator pop. 2	AMAJA03017	Endangered	Threatened	G5TNR	S1	
Sierra Nevada red fox - Sierra Nevada DPS						

Record Count: 44

CNPS Rare Plant Inventory

CALIFORNIA NATIVE PLANT SOCIETY

Search Results

38 matches found. Click on scientific name for details

Search Criteria: Quad is one of [3812075:3812076:3812086:3812085:3812084:3812074:3812064:3812065:3812066]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	FED LIST	STATE LIST	CA RARE PLANT RANK
Allium sanbornii var. *congdonii*	Congdon's onion	Alliaceae	perennial bulbiferous herb	None	None	4.3
Allium sanbornii var. *sanbornii*	Sanborn's onion	Alliaceae	perennial bulbiferous herb	None	None	4.2
Arctostaphylos nissenana	Nissenan manzanita	Ericaceae	perennial evergreen shrub	None	None	1B.2
Bolandra californica	Sierra bolandra	Saxifragaceae	perennial herb	None	None	4.3
Botrychium ascendens	upswept moonwort	Ophioglossaceae	perennial rhizomatous herb	None	None	2B.3
Botrychium crenulatum	scalloped moonwort	Ophioglossaceae	perennial rhizomatous herb	None	None	2B.2
Botrychium minganense	Mingan moonwort	Ophioglossaceae	perennial rhizomatous herb	None	None	2B.2
Calochortus clavatus var. *avius*	Pleasant Valley mariposa-lily	Liliaceae	perennial bulbiferous herb	None	None	1B.2
Campylopodiella stenocarpa	flagella-like atractylocarpus	Dicranaceae	moss	None	None	2B.2
Carex cyrtostachya	Sierra arching sedge	Cyperaceae	perennial herb	None	None	1B.2
Ceanothus fresnensis	Fresno ceanothus	Rhamnaceae	perennial evergreen shrub	None	None	4.3
Chlorogalum grandiflorum	Red Hills soaproot	Agavaceae	perennial bulbiferous herb	None	None	1B.2
Clarkia biloba ssp. *brandegeeae*	Brandegee's clarkia	Onagraceae	annual herb	None	None	4.2
Clarkia virgata	Sierra clarkia	Onagraceae	annual herb	None	None	4.3
Claytonia palustris	marsh claytonia	Montiaceae	perennial herb	None	None	4.3
Claytonia parviflora ssp. *grandiflora*	streambank spring beauty	Montiaceae	annual herb	None	None	4.2
Erigeron petrophilus var. *sierrensis*	northern Sierra daisy	Asteraceae	perennial rhizomatous herb	None	None	4.3
Eriogonum ovalifolium var. *eximium*	brown-margined buckwheat	Polygonaceae	perennial herb	None	None	4.3
Eriophorum gracile	slender cottongrass	Cyperaceae	perennial rhizomatous herb (emergent)	None	None	4.3
Githopsis pulchella ssp. *serpentinicola*	serpentine bluecup	Campanulaceae	annual herb	None	None	4.3
Horkelia parryi	Parry's horkelia	Rosaceae	perennial herb	None	None	1B.2
Jensia yosemitana	Yosemite tarplant	Asteraceae	annual herb	None	None	3.2
Juncus digitatus	finger rush	Juncaceae	annual herb	None	None	1B.1
Lewisia kelloggii ssp. *hutchisonii*	Hutchison's lewisia	Montiaceae	perennial herb	None	None	3.2
Lewisia serrata	saw-toothed lewisia	Montiaceae	perennial herb	None	None	1B.1
Lilium humboldtii ssp.	Humboldt lily	Liliaceae	perennial bulbiferous herb	None	None	4.2

Lilium humboldtii ssp. *humboldtii*	Humboldt lily	Liliaceae	perennial bulbiferous herb	None	None	4.2
Myrica hartwegii	Sierra sweet bay	Myricaceae	perennial deciduous shrub	None	None	4.3
Navarretia prolifera ssp. *lutea*	yellow bur navarretia	Polemoniaceae	annual herb	None	None	4.3
Peltigera gowardii	western waterfan lichen	Peltigeraceae	foliose lichen (aquatic)	None	None	4.2
Phacelia stebbinsii	Stebbins' phacelia	Hydrophyllaceae	annual herb	None	None	1B.2
Piperia colemanii	Coleman's rein orchid	Orchidaceae	perennial herb	None	None	4.3
Poa sierrae	Sierra blue grass	Poaceae	perennial rhizomatous herb	None	None	1B.3
Primula pauciflora	beautiful shootingstar	Primulaceae	perennial herb	None	None	4.2
Pseudostellaria sierrae	Sierra starwort	Caryophyllaceae	perennial rhizomatous herb	None	None	4.2
Rhynchospora capitellata	brownish beaked-rush	Cyperaceae	perennial herb	None	None	2B.2
Stellaria obtusa	obtuse starwort	Caryophyllaceae	perennial rhizomatous herb	None	None	4.3
Streptanthus longisiliquus	long-fruit jewelflower	Brassicaceae	perennial herb	None	None	4.3
Viola tomentosa	felt-leaved violet	Violaceae	perennial herb	None	None	4.2

Showing 1 to 38 of 38 entries

Suggested Citation:
California Native Plant Society, Rare Plant Program. 2022. Rare Plant Inventory (online edition, v9-01 1.5). Website https://www.rareplants.cnps.org [accessed 16 May 2022].

USDA Forest Service, Pacific Southwest Region
El Dorado Forest Sensitive Plant Species List

2013 FS R5 RF Sensitive Plant Species List	Eldorado NF
Scientific Name (Common Name)	
Allium tribracteatum (three-bracted onion)	X
Arctostaphylos nissenana (Nissenan manzanita)	X
Balsamorhiza macrolepis (big-scale balsamroot)	X
Botrychium ascendens (upswept moonwort)	X
Botrychium crenulatum (scalloped moonwort)	X
Botrychium lunaria (common moonwort)	X
Botrychium minganense (mingan moonwort)	X
Botrychium montanum (western goblin)	X
Botrychium paradoxum (paradox moonwort)	X
Botrychium pedunculosum (stalked moonwort)	X
Bruchia bolanderi (Bolander's bruchia)	X
Calochortus clavatus var. *avius* (Pleasant Valley mariposa-lily)	X
Cypripedium montanum (mountain lady's-slipper)	X
Draba asterophora var. *asterophora* (Tahoe draba)	X
Draba asterophora var. *macrocarpa* (Cup Lake draba)	X
Eriogonum luteolum var. *saltuarium* (Jack's wild buckwheat)	X
Eriogonum tripodum (tripod buckwheat)	X
Helodium blandowii (Blandow's bog moss)	X
Horkelia parryi (Parry's horkelia)	X
Lewisia kelloggii ssp. *hutchisonii* (Hutchison's lewisia)	X
Lewisia kelloggii ssp. *kelloggii* (Kellogg's lewisia)	X
Lewisia longipetala (long-petaled lewisia)	X
Lewisia serrata (saw-toothed lewisia)	X
Meesia uliginosa (broad-nerved hump-moss)	X
Monardella linoides ssp. *oblonga* (Tehachapi monardella)	X
Navarretia prolifera ssp. *lutea* (yellow bur navarretia)	X
Ophioglossum pusillum (northern adder's tongue)	X
Peltigera gowardii (veined water lichen)	X
Phacelia stebbinsii (Stebbins' phacelia)	X
Pinus albicaulis (whitebark pine)	X
Poa sierrae (Sierra blue grass)	X

Source: U.S. Forest Service. September 9, 2013a.

USDA Forest Service, Pacific Southwest Region El Dorado Forest Sensitive Wildlife Species List	
INVERTEBRATES, TERRESTRIAL (1)	
Bombus occidentalis	Western bumble bee
BIRDS (5)	
Accipiter gentilis	Northern goshawk
Empidonax traillii	Willow flycatcher
Haliaeetus leucocephalus	Bald eagle
Strix nebulosa	Great gray owl
Strix occidentalis occidentalis	California spotted owl
AMPHIBIANS (4)	
Anaxyrus canorus	Yosemite toad
Rana boylii	Foothill yellow-legged frog
Rana sierrae	Sierra Nevada yellow-legged frog
Emys marmorata	Western pond turtle
MAMMALS (6)	
Antrozous pallidus	Pallid bat
Corynorhinus townsendii	Townsend's big-eared bat
Gulo gulo luscus	North American wolverine
Martes caurina	Pacific marten
Pekania pennanti	Fisher
Myotis thysanodes	Fringed myotis
FISHES (2)	
Entosphenus tridentatus	Pacific lamprey
Mylopharodon conocephalus	Hardhead

Source: U.S. Forest Service. September 9, 2013b.

Attachment C

Representative Photographs

View of Flume 45 section 3 project site facing west.

View of Flume (west side) and abutment in the project site facing southeast.

View of ephemeral drainage in the project site, looking northeast, downslope of the Flume.

View of rocky substrate along steep north-facing slopes in the project site below Flume 45 Section 3.

View of below Flume 45 section 3 project site facing east.

View of limited understory vegetation below flume along north slope facing west.

Attachment D

Lists of Plant and Wildlife Species Observed during the Field Survey

Plant Species Observed at the Flume 45 Section 3 Project Site (June 21, 2022)		
Scientific Name[1]	**Common Name**	**Native?**
APIACEAE		
Lomatium californicum	California lomatium	yes
Osmorhiza berteroi	Sweet cicely	yes
Torilis arvensis	Field hedge parsley	no
ASTERACEAE		
Adenocaulon bicolor	Trail plant	yes
Agoseris grandiflora var. *grandiflora*	Giant mountain dandelion	yes
Artemisia douglasiana	Mugwort	yes
Eriophyllum lanatum	Common woolly sunflower	yes
Madia gracilis	Grassy tarweed	yes
Sonchus oleraceus	Sow thistle	no
BETULACEAE		
Corylus cornuta ssp. *californica*	Beaked hazelnut	yes
BORAGINACEAE		
Draperia systyla	Violet draperia	yes
Hydrophyllum occidentale	California waterleaf	yes
Nemophila heterophylla	Variable leaved nemophila	yes
BRASSICACEAE		
Erysimum capitatum	Western wallflower	yes
CARYOPHYLLACEAE		
Cerastium glomeratum	Large mouse ears	no
Stellaria media	Chickweed	no
CUPRESSACEAE		
Calocedrus decurrens	Incense cedar	yes
CYPERACEAE		
Carex sp. (Group 10)[2]	Sedge	yes
Carex sp. (Group 11)[3]	Sedge	yes
DRYOPTERIDACEAE		
Polystichum munitum	Western sword fern	yes
FAGACEAE		
Quercus chrysolepis	Canyon live oak	yes
Quercus kelloggii	California black oak	yes
HYDROPHYLLACEAE		
Nemophila heterophylla	Variable leaved nemophila	yes
Phacelia heterophylla var. *virgata*	Varied leaf phacelia	yes
MONTIACEAE		
Claytonia parviflora	Narrow leaved miner's lettuce	yes
ONAGRACEAE		
Clarkia rhomboidea	Diamond clarkia	yes
PINACEAE		
Pinus ponderosa	Ponderosa pine	yes
Pseudotsuga menziesii	Douglas fir	yes
PHRYMACEAE		

Plant Species Observed at the Flume 45 Section 3 Project Site (June 21, 2022)		
Scientific Name[1]	**Common Name**	**Native?**
Erythranthe guttata	Seep monkey flower	yes
PLANTAGINACEAE		
Collinsia parviflora	Few flowered blue eyed mary	yes
Collinsia tinctoria	Tincture plant	yes
POACEAE		
Elymus glaucus ssp. *glaucus*	Blue wildrye	yes
Poa bolanderi	Bolander's blue grass	yes
POLEMONIACEAE		
Gilia capitata ssp. *mediomontana*	Blue field gilia	yes
Collomia grandiflora	Large flowered collomia	yes
Collomia heterophylla	Variableleaf collomia	yes
ROSACEAE		
Drymocallis glandulosa	Sticky cinquefoil	yes
Rubus glaucifolius	Wax leaf raspberry	yes
Rubus parviflorus	Western thimbleberry	yes
RUBIACEAE		
Galium aparine	Common bedstraw	yes
RUSCACEAE		
Maianthemum racemosum	Feathery false lily of the valley	yes
SAPINDACEAE		
Acer macrophyllum	Bigleaf maple	yes
SAXIFRAGACEAE		
Heuchera micrantha	Alum root	yes
SCROPHULARIACEAE		
Verbascum thapsus	Woolly mullein	no
WOODSIACEAE		
Cystopteris fragilis	Bladder fern	yes

Notes:

[1]Scientific name is based on: Jepson Flora Project. 2022. *Jepson eFlora*, The Jepson Herbarium, University of California, Berkeley. Available at https://ucjeps.berkeley.edu/eflora/. Accessed July 2022.

[2]Several sedge (*Carex* sp.) were observed growing in moist areas on and under the flume structure near the southern half of the project site. This sedge belongs to Group 10, so it is not the special-status target species, Sierra arching sedge (*Carex cyrtostachya*), which is in Group 1 and 4.

[3]This sedge (*Carex* sp.) was observed growing on a dry upland slope in the project site. This sedge belongs to Group 11, so it is not the special-status target species, Sierra arching sedge (*Carex cyrtostachya*), which is in Group 1 and 4.

Scientific Name	Common Name
Invertebrates	
Adelpha californica	California sister
Birds	
Colaptes auratus	Norther flicker
Corvus brachyrhynchos	American crow
Cyanocitta stelleri	Steller's jay
Dryocopus pileatus	Pileated woodpecker
Junco hyemalis	Dark-eyed junco
Pipilo maculatus	Spotted towhee
Poecile rufescens	Chestnut-backed chickadee
Psaltriparus minimus	Bushtit
Zenaida macroura	Mourning dove

Memorandum

To: Michael Baron, El Dorado Irrigation District

From: Eric Htain

cc:

Date: November 23, 2022

Re: Wetland Assessment for Flume 45 Section 3

Introduction

GEI, Inc. (GEI) has been supporting the El Dorado Irrigation District (District) with biological resources surveys along the El Dorado Canal in the location of Flume 45, and in particular Section 3. GEI conducted a floristic survey and wildlife habitat assessment at the Flume 45 Section 3 project site on June 21, 2022. During the June 21 survey, GEI biologists observed and noted an area downslope of the flume that appeared to be a potential drainage that conveys water. Based on this observation, the District has requested GEI to conduct a wetland assessment of the potential drainage to determine if the feature has the potential to be subject to jurisdiction by resources agencies.

Methodology

GEI biologists Devin Barry and Grace Rhoades conducted a wetland assessment in the project site on October 19, 2022. The wetland assessment consisted of walking the project site, taking photographs of any potential drainage feature, and conducting a vegetative and hydrologic assessment of the features. For the vegetative assessment, observation and characterization of vegetation within potential drainage features was conducted. Vegetative species were identified to specific epithet and compared to the 2020 National Wetland Plant List (USACE 2022) to determine if the plants were hydrophytic, which would meet the U.S. Army Corps of Engineers (USACE) definition for wetland plants. For the hydrologic assessment, potential drainage features were examined for evidence of inundation, soil saturation, soil moisture, erosion and drainage patterns in the soil, and a defined drainage channel.

Results

One potential drainage feature was observed in the project site during the October 19 site visit. This feature exhibited topographic contouring in the land form that suggested conveyance of water in a channelized form, such as a swale. The feature did not have vegetation in it at the time of the survey, nor did it exhibit evidence of hydrology. There was no evidence of inundation, saturated soils, or flow patterns. It should be noted that the El Dorado Canal was also dry at the time of the survey. Inspection of the landscape above the canal (along the access road and abutment and upslope of the access road) showed no evidence of a drainage, seep, or other feature that would convey water.

At the time of the initial survey in June 2022, the El Dorado Canal was conveying flowing water through the flume. The GEI biologists noted the potential drainage feature based on localized soil moisture and algal growth just below the flume.

Conclusion

Based on the wetland assessment, GEI considers the one potential drainage feature identified in the Flume 45 Section 3 project site to not be a jurisdictional waterbody subject to regulation by the regulatory agencies. Although there was some evidence of potential hydrology and vegetation within the topographic swale (soil moisture and algae) during the initial site visit in June 2022, these indicators were not present and observed during the October site visit. No evidence of a swale, drainage, or seep was observed above the flume, along the abutment and access road and above those. Therefore, there is no contributing water or flow from above the flume that would be providing the conditions of soil moisture and algae growth to the downstream potential drainage feature. It is GEI's assessment that the soil moisture and algal growth was a function of spillage or leaks of water from the El Dorado Canal and that the topographic swale contour is most likely a function of the local topography – it is located in the draw or intersection of two hills. Given the location of the draw and yearly conveyance of water in the El Dorado Canal, the leaks from the flume have, over time, created the swale feature.

Based on current waters of the United States policy and guidance (Pre-2015 guidance/ Rapanos decision), erosional features and swales characterized by low volume, infrequent, or short duration flows are not considered to be jurisdictional waters (USACE 2008).

The State Water Resources Control Board defines an area as wetland as follows:

> *An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.* (SWRCB 2019)

The topographic feature does not have continuous or recurrent saturation based on the lack of saturation observed during the October survey. The topographic feature also does not have frequent enough saturation to cause anaerobic conditions as the soil was completely dry during the October survey and no hydrophytic vegetation was observed growing in the feature. Therefore, the feature would not be a wetland or regulated habitat by the State Water Resources Control Board.

References Cited:

State Water Resources Control Board (SWRCB). April 2019. State Wetland Definition and Procedures for Discharges of Dredged or Fill Materials to Waters of the State. Sacramento, CA.

U.S. Army Corps of Engineers (USACE). December 2008. Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v United States and Carabell v United States*. Washington, D.C.

U.S. Army Corps of Engineers (USACE). 2020. National Wetland Plant List, version 3.5. U.S. Army Corps of Engineers Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory, Hanover, NH. *Available:* http://wetland-plants.usace.army.mil/.

Attachments:

Representative Photographs

REPRESENTATIVE PHOTOGRAPHS

Photograph 1: View looking west of access road (left) and flume(right) above the area of the potential feature. As seen in the photo, there is no natural drainage above the flume that would lead to the potential feature below the flume being a drainage.

Photograph 2: View facing northeast looking at the potential feature. This view is of the swale-looking topographic feature located downslope (north) of the flume.

Photograph 3: View facing northeast of the potential feature from the elevated deck of the flume. Note the terrain in the foreground of the photo, downslope of the flume. There is no continued defined channel going downslope.