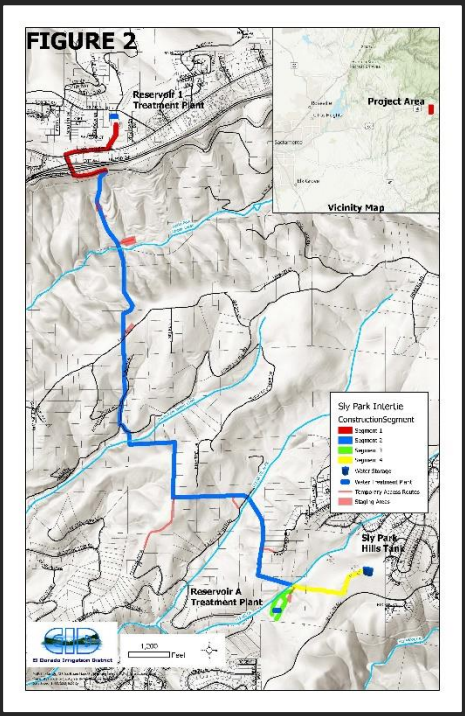

El Dorado Irrigation District

Sly Park Intertie Improvements Project

Draft Environmental Impact Report

January 2024

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Abbreviations

AB	Assembly Bill
ACE	Areas of Connectivity
ACHP	Advisory Council on Historic Preservation
ACTM	Asbestos Airborne Toxic Control Measure
ADA	Americans with Disabilities Act
amsl	above mean sea level
AP Act	Alquist-Priolo Fault Zoning Act
APE	Area of Potential Effect
APN	Assessor's Parcel Number
AQMD	Air Quality Management District
ARC	American River Conservancy
ASCE	American Society for Civil Engineers
Basin Plan	Central Valley RWQCB Basin Plan
BCC	Birds of Conservation Concern
Bd	Batrachochytrium dendrobatidis
BGEPA	Bald Eagle and Gold Eagle Protection Act
BLM	U.S. Bureau of Land Management
BMP	best management practice
BP	District Board Policy
B.P.	Before Present
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CAL EMA	California Emergency Management Agency
CAL FIRE	California Department of Fire and Forestry Protection
CalEEMod	California Emissions Estimate Model
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act

CFR	Code of Federal Regulations
CGS	California Geological Survey
CH_4	methane
CHSC	California Health and Safety Code
CIP	Capital Improvement Plan
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
County	El Dorado County
CRHR	California Register of Historic Resources
CRPR	California Rare Plant Rank
CWA	Clean Water Act
CWPP	Community Wildfire Protection Plan
dB	decibel
dBA	A-weighted decibel
DBH	diameter at breast height
DCH	Designated Critical Habitat
DDW	Division of Drinking Water
District	El Dorado Irrigation District
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
DWR	California Department of Water Resources
EID	El Dorado Irrigation District
EIR	Environmental Impact Report
EISA	Energy Independence and Security Act
EO	Executive Order
EOP	Emergency Operations Plan
EPCA	Energy Policy and Conservation Act
ESA	Federal Endangered Species Act
farmland	Prime Farmland, Unique Farmland, or Farmland of Statewide Importance
FEMA	Federal Emergency Management Agency
FGC	California Fish and Game Code

FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FTA	Federal Transit Administration
GHG	greenhouse gas
GIS	geographic information systems
GLO	General Land Office
GWh	gigawatt hour
GWP	Global warming potential
HELIX	HELIX Environmental Planning
HFC	hydrofluorocarbon
HUC	Hydrologic Unit Code
HWY 50	United States Highway 50
Hz	Hertz
IBC	International Building Code
K	Kelvin
L	sound level
Ldn	day/night noise level
Leq	equivalent noise level
LHMP	Local Hazard Mitigation Plan
Lmin	minimum A–weighted
LOP	Limited Operating Period
LOS	Level of Service
LSAA	Lake and Streambed Alteration Agreement
MBTA	Migratory Bird Treaty Act
MCAB	Mountain Counties Air Basin
MIN	Minimum
MIS	Management Indicator Species
MLD	Most Likely Descendant
MM	Mitigation Measure
MMRP	Mitigation Monitoring and Reporting Program
MRZ	Mineral Resource Zone
MT CO_{2e}/year	metric tons of carbon dioxide per year
MTP/SCS	Metropolitan Transportation Plan/Sustainable Communities Strategy
N_2O	nitrous oxide

NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NEHRP	National Earthquake Hazards Reduction Program
NEPA	National Environmental Policy Act
NF_3	nitrogen trifluoride
NFIP	National Flood Insurance Program
NHTSA	National Highway Traffic Safety Administration
NMFS	National Marine Fisheries Service
NO	nitric oxide
NO_2	nitrogen dioxide
NOA	Notice of Availability
NOC	Notice of Completion
NOI	Notice of Intent
NOP	Notice of Preparation
NO_x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWP	Nationwide Permit
O_3	ozone
O&M	operations and maintenance
OD	Original Depth
OHWM	Ordinary High Water Mark
OPR	Governor's Office of Planning and Research
ORMP	Oak Resources Management Plan
OSHA	Occupational Safety and Health Administration
PAC	Protected Activity Center
Pb	lead
PCE	Primary Constituent Element
PFC	perfluorocarbons
PG&E	Pacific Gas and Electric Company
PM_{10}	particulate matter less than 10 microns
$PM_{2.5}$	particulate matter less than 2.5 microns
Porter-Cologne Act	Porter-Cologne Water Quality Control Act

ppm	parts per million
PRC	Public Resources Code
Project	Sly Park Intertie Improvements Project
QSD	Qualified Stormwater Pollution Prevention Plan Developer
RCRA	Resources Conservation and Recovery Act
Reclamation	U.S. Bureau of Reclamation
Reservoir 1	Reservoir 1 Water Treatment Plant
Reservoir A	Reservoir A Water Treatment Plant
RFS	renewable fuel standard
ROG	reactive organic gases
ROW	right-of-way
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SACOG	Sacramento Area Council of Governments
SAFE	Safer Affordable Fuel Efficient
SB	Senate Bill
SF6	sulfur hexafluoride
SGMA	Sustainable Groundwater Management Act
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMARA	Surface Mining and Reclamation Act
SMCRA	Surface Mining Control and Reclamation Act
SO_2	sulfur dioxide
SPCP	Spill Prevention and Contingency Plan
SPI	Sly Park Intertie
SRA	State Responsibility Area
SSC	Species of Special Concern
Stantec	Stantec Consulting Services Inc.
State	State of California
SVP	Society of Vertebrate Paleontology
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TCR	Tribal Cultural Resource
THP	Timber Harvesting Plan
TPZ	Timberland Production Zone

U.S.	United States
UBC	Uniform Building Code
USACE	United States Army Corps of Engineers
USC	United States Code
USEPA	United States Environmental Protection Agency
USFS	United States Department of Agriculture, Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	United States Geological Survey
UWMP Act	Urban Water Management Planning Act
UWMP	Urban Water Management Plan
VMT	vehicle miles traveled
WCB	Wildlife Conservation Board
WOTS	waters of the State
WOTUS	waters of the United States
WQC	Water Quality Certification
WQO	water quality objective
WTP	Water Treatment Plant
WUI	wildland-urban interface

Executive Summary

Introduction to the Sly Park Intertie Improvements Project

Pursuant to the California Environmental Quality Act (CEQA) and the CEQA Guidelines (California Public Resources Code [PRC] 21000 et seq., 14 California Code of Regulations [CCR] 15000 et seq.) the El Dorado Irrigation District (District) is considering the potential environmental consequences of the Sly Park Intertie Improvements Project (Project), which would replace the existing pipeline connection between the District's two largest drinking water treatment plant facilities.

Sly Park Intertie Improvements Project

The Project discussed below is described in further detail in Chapter 2.0, and potential environmental impacts are evaluated in Chapter 3.0 of this Environmental Impact Report (EIR). The Project would enable the District to efficiently convey drinking water sourced from its existing water supplies at Jenkinson Lake and the South Fork American River watershed to areas throughout the District's service area (see Figure 1.1-1). The Sly Park Intertie (SPI) is an existing 22- to 24-inch diameter steel pipeline, approximately 4.5 miles in length, which extends between the District's Reservoir 1 Water Treatment Plant and Reservoir A Water Treatment Plant and continues to the Sly Park Hills Tank. The existing SPI is inoperable. The proposed Project would replace the SPI with a new pipeline and also include installation of a new pump station and associated appurtenances. The new pipeline would be primarily located within the existing SPI alignment, with some limited deviations.

The Project is located approximately 1.5 miles southwest of the Pollock Pines community and 10 miles east of the city of Placerville, California. Nearby features include United States Highway 50 (HWY 50), Jenkinson Lake, and the Eldorado National Forest to the east. Construction is planned over a period of approximately 18 months, to begin in 2024 and to be completed in 2025.

Project Alternatives

An EIR must describe a range of reasonable alternatives to a project or alternative project locations that could feasibly attain most of the basic project objectives and would avoid or substantially lessen any of the significant environmental impacts of the project. The alternative analysis must include the "No Project Alternative" as a point of comparison. The No Project Alternative includes existing conditions and reasonably foreseeable future conditions that would exist if the proposed project were not approved (CEQA Guidelines Section 15126.6). The following alternatives are discussed further in Chapter 4.0, Alternatives, of this document.

NO PROJECT ALTERNATIVE

The No Project Alternative assumes that the SPI Improvements Project would not be implemented, and the District's drinking water system would remain operating under existing conditions. It also assumes that the existing SPI pipeline would remain inoperable and thus there would be no connection between the District's

two largest drinking water treatment plant facilities, which precludes extended shut down periods for maintenance purposes and limits the ability to provide water under emergency outage conditions or during drought. Although none of the Project's environmental impacts identified in Chapter 3.0 would occur under the No Project Alternative, conveyance of drinking water between Jenkinson Lake and the South Fork American River watershed to areas throughout the District's service area would continue to be limited, inflexible during emergencies including drought, and incapable of offline maintenance. Furthermore, implementation of the No Project Alternative would not meet any of the Project objectives.

ALTERNATIVE 1 – REPLACEMENT WITHIN EXISTING SPI ALIGNMENT

This alternative would utilize the existing SPI pipeline alignment and would not deviate from the existing alignment. This includes routing the pipeline under a portion of HWY 50 that would require excavation and boring into the hiilside, whereas the preferred proposed Project routes the pipeline under HWY 50 within an existing underpass from Pony Express Trail to Ridgeway Drive. This alternative would require no new areas of disturbance, since it would follow the alignment and right-of-way of an existing District pipeline, and thus potentially reduce impacts related to new excavation, such as unearthing previously unknown utilities or inadvertent discoveries of cultural resources or impacts to biological resources. Similar to the preferred proposed Project, this alternative would include installation of a new pump station and associated appurtenances; therefore, impacts to these areas would likely remain the same as the preferred proposed Project.

Responsible and Trustee Agencies

In accordance with CEQA, a responsible agency is a public agency, other than the Lead Agency, that has responsibility to carry out or approve a project (PRC Section 21069). A trustee agency is a State of California (State) agency that has jurisdiction by law over natural resources that are held in trust for the people of the State (PRC Section 21070).

The following public or State agencies may serve as responsible and/or trustee agencies for the Project:

- California Air Resources Board
- El Dorado Air Quality Management District
- Central Valley Regional Water Quality Control Board
- California Department of Fish and Wildlife
- California State Water Resources Control Board – Division of Drinking Water
- Office of Historic Preservation

Areas of Controversy/Issues to Be Resolved

During the Notice of Preparation (NOP) public review period, concerns were raised regarding the potential adverse impacts to the following resources: biological resources, water quality, tribal cultural resources,

and wildfires. These concerns have been addressed in Chapter 3.0, Environmental Analysis. Generally, and as raised by comments, these topics would not result in an environmental impact as a result of the Project and are not topics that are required for consideration under the CEQA Guidelines. Where these topics overlap with discussions of potential environmental impacts, these topics were also discussed within a specific environmental resource area as applicable. The NOP and comments received on the NOP are included in Appendix A of this Draft EIR and a summary of issues raised in these comments is included in Section 1.1.2.1, Notice of Preparation and Public Scoping.

Summary of Impacts and Mitigation Measures

Table ES-1 summarizes the potential environmental effects of the Project, the recommended mitigation measures, if applicable, and the level of significance after mitigation. Pursuant to CEQA Guidelines Section 15093, if the Project is approved as proposed, any impact noted in the summary as "significant" after mitigation would require the adoption of overriding considerations. As shown in Table ES-1, implementation of the Project with mitigation measures would not result in any significant and unavoidable impacts. Therefore, a statement of overriding considerations would not be required.

Additionally, CEQA requires public agencies to establish a monitoring and reporting program for the purpose of ensuring compliance with those mitigation measures adopted as conditions of approval in order to mitigate or avoid significant environmental impacts identified in an EIR. A Mitigation Monitoring and Reporting Program, incorporating the mitigation measures set forth in this document, would be adopted at the time of certification of the Final EIR and is included in Appendix E of this Draft EIR.

Table ES-1. Executive Summary of Impacts and Mitigation Measures

Environmental Impact	Finding for Project	Mitigation Measure
3.1 Aesthetics and Visual Resources		
AES-1: Potential to have a substantial adverse effect on a scenic vista.	LTS	• None Required
AES-2: Potential to substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway.	LTS	• None Required
AES-3: In nonurbanized areas, potential to substantially degrade the existing visual character or quality of public views of the site and its surroundings; in urbanized areas, potential to conflict with applicable zoning and other regulations governing scenic quality.	LTS	• None Required
AES-4: Potential to create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	LTS/M	• **MM AES-1:** Use of Best Management Practices to Minimize Lighting Impacts from Construction
3.2 Agriculture and Forestry Resources		
AG-1: Potential to covert 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.	NI	• None Required

Environmental Impact	Finding for Project	Mitigation Measure
AG-2: Potential to conflict with existing zoning for agricultural use or Williamson Act contract.	NI	• None Required
AG-3: Potential to 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)).	LTS	• None Required
AG-4: Potential to result in the loss of forest land or conversion of forest land to non-forest use.	LTS	• None Required
AG-5: Potential to 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.	NI	• None Required
3.3 Air Quality		
AIR-1: Potential to conflict with or obstruct implementation of the applicable air quality plan.	LTS/M	• **MM AIR-1:** Dust and Emissions Control Plan
AIR-2: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.	LTS/M	• **MM AIR-1:** Dust and Emissions Control Plan
AIR-3: Potential to expose sensitive receptors to substantial pollutant concentrations.	LTS/M	• **MM AIR-1:** Dust and Emissions Control Plan
AIR-4: Potential to result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	LTS	• None Required
3.4 Biological Resources		
BIO-1: Potential to 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 CDFW or USFWS.	LTS/M	• **MM BIO 1:** Pre-Construction Botanical Surveys • **MM BIO-2:** Biological Resources Awareness Training • **MM BIO-3:** Reduce the Spread and Introduction of Invasive Noxious Weeds • **MM BIO-4:** Avoid and Minimize Impacts to California Red-Legged Frog and Suitable Habitat • **MM BIO-5:** Avoid or Minimize Impacts to Foothill Yellow-Legged Frog and Northwestern Pond Turtle • **MM BIO-6:** Native Aquatic Species Rescue and Relocation • **MM BIO-7:** Avoid or Minimize Impacts to Special-Status Bird Species, Nesting Raptors, and Other Migratory Birds Protected Under the MBTA and FGC

Environmental Impact	Finding for Project	Mitigation Measure
		• **MM GEO-1:** Prepare and Implement a Stormwater Pollution Prevention Plan (SWPPP)
BIO-2: Potential to have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or USFWS.	LTS/M	• **MM BIO-4:** Avoid and Minimize Impacts to California Red-Legged Frog and Suitable Habitat • **MM BIO-8**: Avoid and Minimize Impacts to Riparian Habitat • **MM GEO-1:** Prepare and Implement a SWPPP
BIO-3: Potential to 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.	LTS/M	• **MM BIO-9:** Avoid and Minimize Impacts on Waters of the United States and Waters of the State • **MM GEO-1:** Prepare and Implement a SWPPP
BIO-4: Potential to 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.	LTS/M	• **MM BIO-6:** Native Aquatic Species Rescue and Relocation • **MM GEO-1:** Prepare and Implement a SWPPP
BIO-5: Potential to conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	LTS/M	• **MM BIO-10:** Avoid and Minimize Impacts to Oak Trees and Oak Woodlands
BIO-6: Potential to conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.	LTS	• None Required
3.5 Cultural Resources		•
CUL-1: Potential to cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.	LTS/M	• **MM CUL-1**: Proper Handling of Inadvertent Discovery of Cultural Resources • **MM CUL-2:** Cultural Resource Awareness Training
CUL-2: Potential to cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.	LTS/M	• **MM CUL-1**: Proper Handling of Inadvertent Discovery of Cultural Resources • **MM CUL-2:** Cultural Resource Awareness Training
CUL-3: Potential to disturb human remains, including those interred outside of formal cemeteries.	LTS/M	• **MM CUL-3:** Proper Handling of Inadvertent Discovery of Human Remains
3.6 Energy Resources		•
ENRG-1: Potential to result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation.	LTS	• None Required

Environmental Impact	Finding for Project	Mitigation Measure
ENRG-2: Potential to conflict with or obstruct a State or local plan for renewable energy or energy efficiency.	LTS	• None Required
3.7 Geology and Soils		•
GEO-1: Potential to directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: (1) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault; (2) Seismic-related ground failure, including liquefaction; or (3) Landslides.	LTS	• None Required
GEO-2: Potential to result in substantial soil erosion or the loss of topsoil.	LTS/M	• **MM GEO-1:** Prepare and Implement a SWPPP
GEO-3: Potential to 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.	LTS	• None Required
GEO-4: Potential to be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.	LTS	• None Required
GEO-5: Potential to have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.	NI	• None Required
GEO-6: Potential to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	LTS/M	• **MM GEO-2:** Paleontological Resources Awareness Training • **MM GEO-3:** Proper Handling of the Unanticipated Discovery of Paleontological Resources or Unique Geologic Features
3.8 Greenhouse Gases		
GHG-1: Potential to generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.	LTS	• None Required
GHG-2: Potential to conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.	LTS	• None Required
3.9 Hazards and Hazardous Resources		
HAZ-1: Potential to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	LTS/M	• **MM HAZ-1:** Prepare and Implement a Hazardous Materials Release Prevention Plan • **MM GEO-1:** Prepare and Implement a SWPPP

Environmental Impact	Finding for Project	Mitigation Measure
HAZ-2: Potential to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	LTS/M	• **MM HAZ-1:** Prepare and Implement a Hazardous Materials Release Prevention Plan • **MM GEO-1:** Prepare and Implement a SWPPP
HAZ-3: Potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	NI	• None Required
HAZ-4: Potential to 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, create a significant hazard to the public or the environment.	NI	• None Required
HAZ-5: Potential to be 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, resulting in a safety hazard or excessive noise for people residing or working in the Project area.	NI	• None Required
HAZ-6: Potential to be within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the Project area.	NI	• None Required
HAZ-7: Potential to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	LTS/M	• **MM TRA-1:** Prepare and Implement a Traffic Control Plan
HAZ-8: Potential to expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.	LTS/M	• **MM WILD-1:** Prepare and Implement a Fire Safety Plan
3.10 Hydrology and Water Quality		
HYD-1: Potential to violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.	LTS/M	• **MM HAZ-1:** Prepare and Implement a Hazardous Materials Release Prevention Plan • **MM GEO-1:** Prepare and Implement a SWPPP • **MM BIO-8**: Avoid and Minimize Impacts to Riparian Habitat • **MM BIO-9:** Avoid and Minimize Impacts on Waters of the United States and Waters of the State
HYD-2: Potential to substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin.	LTS	• None Required
HYD-3: Potential to 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: • Result in substantial erosion or siltation on- or off-site;	LTS/M	• **MM GEO-1:** Prepare and Implement a SWPPP • **MM BIO-8**: Avoid and Minimize Impacts to Riparian Habitat

Environmental Impact	Finding for Project	Mitigation Measure
• Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; • Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or • Impede or redirect flood flows.		• **MM BIO-9:** Avoid and Minimize Impacts on Waters of the United States and Waters of the State
HYD-4: Potential to be located in flood hazard, tsunami, or seiche zones to risk release of pollutants due to Project inundation.	NI	• None Required
HYD-5: Potential to conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	LTS/M	• **MM GEO-1:** Prepare and Implement a SWPPP • **MM BIO-8**: Avoid and Minimize Impacts to Riparian Habitat • **MM BIO-9:** Avoid and Minimize Impacts on Waters of the United States and Waters of the State
3.11 Land Use and Planning		
LAND-1: Potential to physically divide an established community.	NI	• None Required
LAND-2: Potential to 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.	NI	• None Required
3.12 Mineral Resources		
MIN-1: Potential to 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.	NI	• None Required
MIN-2: Potential to 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.	NI	• None Required
3.13 Noise and Vibration		
NOS-1: Potential to generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards or other agencies.	LTS	• None Required
NOS-2: Potential to generate excessive groundborne vibration or groundborne noise levels.	LTS	• None Required
NOS-3: 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 2 miles of a public airport or public use airport, expose people residing or working in the Project area to excessive noise levels.	NI	• None Required
3.14 Population and Housing		
POP-1: Potential to induce substantial unplanned population growth in an area, either directly (for example,	LTS	• None Required

Environmental Impact	Finding for Project	Mitigation Measure
by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).		
POP-2: Potential to displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.	NI	• None Required
3.15 Public Services		
PUB-1: Potential to result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services: • Fire protection; • Police protection; • Schools; • Parks; or • Other public facilities.	LTS/M	• **MM TRA-1:** Prepare and Implement a Traffic Control Plan
3.16 Recreation		
REC-1: Potential to 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.	NI	• None Required
REC-2: Potential to include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.	NI	• None Required
3.17 Transportation		
TRA-1: Potential to conflict with a plan, ordinance, or policy addressing the circulation systems, including transit, roadways, bicycle, and pedestrian facilities.	LTS	• None Required
TRA-2: Potential to conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	LTS	• None Required
TRA-3: Potential to substantially increase hazards due to a geometric design feature (e.g. sharp curves or dangerous intersection(s) or incompatible uses [e.g. farm equipment]).	LTS/M	• **MM TRA-1:** Prepare and Implement a Traffic Control Plan
TRA-4: Potential to result in inadequate emergency access.	LTS/M	• **MM TRA-1:** Prepare and Implement a Traffic Control Plan
3.18 Tribal Cultural Resources		
TRIB-1: Potential to cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of size, or object with cultural value to a California Native American tribe, and that is (1) listed or eligible for listing in the CRHR, or in a local register of historical resources as	LTS/M	• **MM TRIB-1**: Implement Best Management Practices to Reduce or Avoid Impacts to Tribal Cultural Resources • **MM TRIB-2:** Tribal Cultural Resource Awareness Training

Environmental Impact	Finding for Project	Mitigation Measure
defined in PRC Section 5020.1(k); or (2) 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 PRC Section 5024.1.		• **MM TRIB-3**: Proper Handling of Inadvertent Discovery of Tribal Cultural Resources
3.19 Utilities and Service Systems		
UTLS-1: Potential to require or result in the relocation or construction of new or expanded water, wastewater, or stormwater drainage, electrical power, natural gas, or telecommunications facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	LTS	• None Required
UTLS-2: Potential to have sufficient water supply to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.	NI	• None Required
UTLS-3: Potential to result in a determination by the wastewater treatment provider which serves or may serve the Project's projected demand in addition to the provider's existing commitments.	NI	• None Required
UTLS-4: Potential to generate 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.	LTS	• None Required
UTLS-5: Potential to comply with federal, State, and local management and reduction statutes and regulations related to solid waste.	LTS	• None Required
3.20 Wildfires		
WILD-1: Potential to impair an adopted emergency response plan or emergency evacuation plan.	LTS/M	• **MM WILD-1:** Prepare and Implement a Fire Safety Plan
WILD-2: Potential to exacerbate wildfire risks, and thereby expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.	LTS/M	• **MM WILD-1:** Prepare and Implement a Fire Safety Plan
WILD-3: Potential to 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.	LTS/M	• **MM WILD-1:** Prepare and Implement a Fire Safety Plan
WILD 4: Potential to expose people or structures to significant risks, including downslope downstream flooding or landslides, as a result of, runoff, post-fire slope stability, or drainage change.	LTS/M	• **MM WILD-1:** Prepare and Implement a Fire Safety Plan

Key:
LTS = Less Than Significant
LTS/M = Less Than Significant with Mitigation
N= No Impact

1.0 Introduction

The El Dorado Irrigation District (District) is proposing to implement the Sly Park Intertie Improvements Project (Project) to replace the connection between the District's two largest drinking water treatment plant facilities that, together, provide two-thirds of the District's water supply. The Project would enable the District to efficiently convey drinking water sourced from its existing water supplies at Jenkinson Lake and the South Fork American River watershed to areas throughout the District's service area (Figure 1.1-1). The Sly Park Intertie (SPI) is an existing 22- to 24-inch diameter steel pipeline, approximately 4.5 miles in length, which extends between the District's Reservoir 1 Water Treatment Plant (Reservoir 1) and Reservoir A Water Treatment Plant (Reservoir A) and continues to the Sly Park Hills Tank.

1.1 Environmental Review Process

The California Environmental Quality Act (CEQA) (codified in Title 14 California Code of Regulations [CCR] Chapter 3 Section 15000 et seq. [CEQA Guidelines] and California Public Resources Code [PRC] 21000 et seq.) requires public agencies to identify, disclose, and consider the potential environmental impacts of proposed discretionary actions that the agencies are considering for approval. When a project may have significant environmental impacts, the Lead Agency must prepare an Environmental Impact Report (EIR) and certify its adequacy before it considers whether to approve the project. A project that may have a significant impact on the environment cannot be approved unless the Lead Agency adopts mitigation measures that would reduce that impact to a less-than-significant level, if feasible. If the impact would remain significant after mitigation (i.e., significant and unavoidable), the Lead Agency is still required to mitigate the impact to the extent feasible. An EIR is an informational document used for this purpose in State of California (State), regional, and local planning and decision-making processes to disclose potential environmental effects.

The District, as the CEQA Lead Agency, has prepared this Draft EIR for public review and comment pursuant to the requirements of 14 CCR Sections 15080 to 15097. The Draft EIR will be available for review and comment by public agencies and the public for a period of 45 days (14 CCR Section 15105). Pursuant to 14 CCR Section 15088, the District will evaluate comments on environmental issues received from persons who reviewed the Draft EIR and will provide written responses to those comments that raised significant environmental issues. The District will prepare the Final EIR, which will include: any necessary revisions to the Draft EIR; the comments received on the Draft EIR; a list of persons, organizations, and public agencies who commented; and written responses to those comments that raised significant environmental points pursuant to Title 14 CCR Sections 15088−15089 and 15132. As required under Section 15090 of the CEQA Guidelines, prior to approval, the District will certify that: the Final EIR complies with CEQA; that the District has reviewed and considered the information contained in the Final EIR before making its decision; and that the Final EIR reflects the District's independent judgment and analysis.

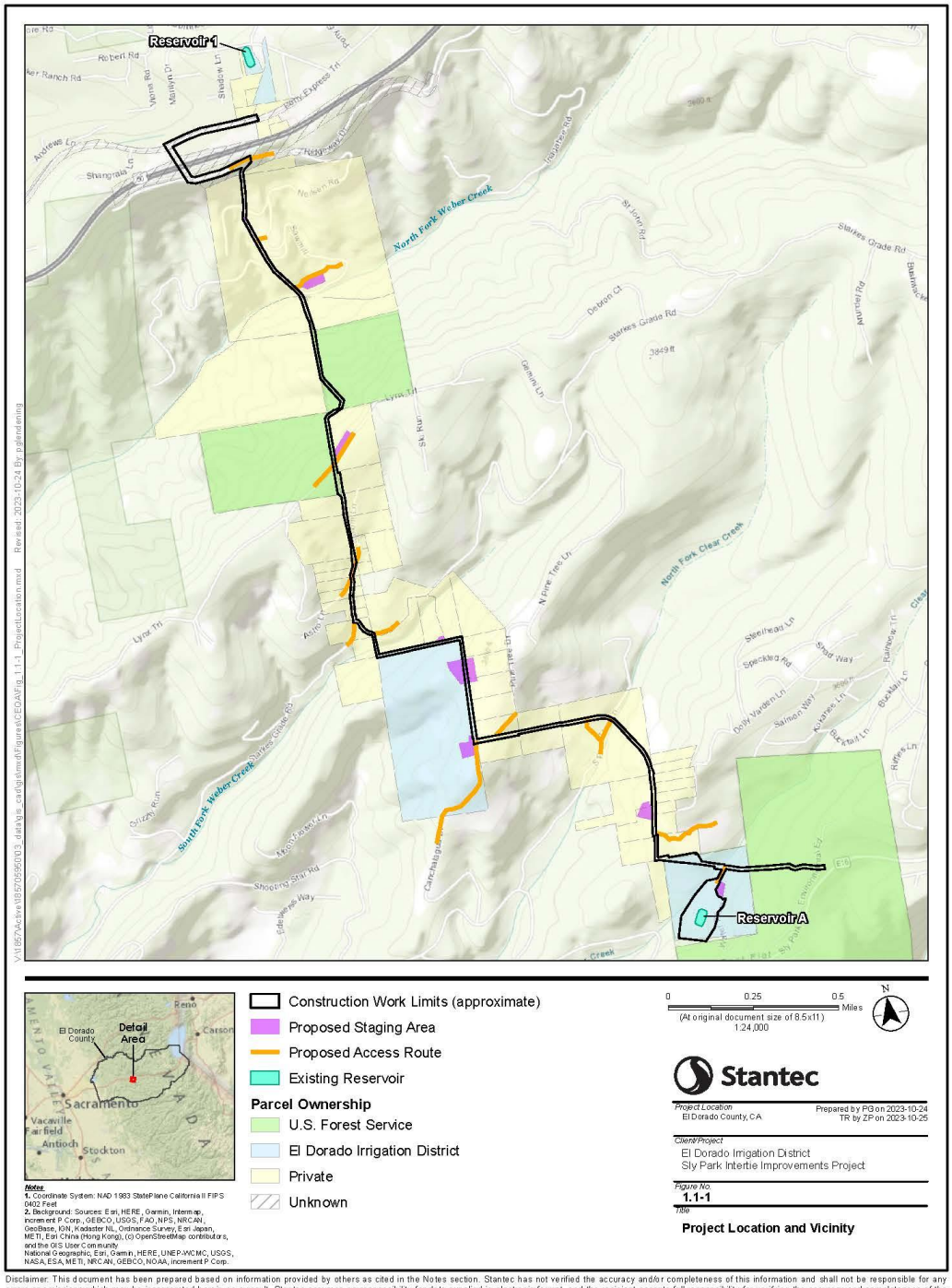


Figure 1.1-1. Project Location and Vicinity

1.1.1 LEAD AGENCY DETERMINATION

The District is designated as the Lead Agency for preparing this EIR. CEQA Guidelines Section 15367 defines the Lead Agency as, "... the public agency, which has the principal responsibility for carrying out or approving a project." Other public agencies may use this document in their decision making or permit processes related to the Project. These agencies are considered Responsible Agencies under CEQA.

This Draft EIR was prepared for the District by Stantec Consulting Services Inc. (Stantec), an independent environmental consultant. Prior to public review, this Draft EIR was extensively reviewed and evaluated by District staff and, as such, this Draft EIR reflects the independent judgment and analysis of District staff. A list of report preparation personnel is provided in Section 6.0.

1.1.2 DRAFT EIR SCOPING PROCESS

1.1.2.1 Notice of Preparation and Public Scoping

In accordance with the CEQA Guidelines, the District distributed a Notice of Preparation (NOP) of a Draft EIR on February 3, 2023, and gave the public an opportunity to provide comments on the scope of the analysis that should be included in this Draft EIR. A public scoping meeting was held on February 15, 2023, and the public scoping comment period closed on March 6, 2023. The scope of this Draft EIR includes the potential environmental impacts identified in the NOP and considers comments received and concerns raised during the scoping process.

Table 1.1-1 summarizes the five comment letters the District received in response to the NOP; letters are listed in the order received and copies of the NOP and letters are provided in Appendix A of this Draft EIR.

Table 1.1-1. Notice of Preparation and Public Scoping Comment Letter Summary

Date	Commenter	Affiliation	Summary	Relevant EIR Section Related to Concern(s)
2/8/2023	Pricilla Torres-Fuentes	Native American Heritage Commission	Provided guidance on the tribal consultation process and recommendations.	• Tribal Cultural Resources
2/15/2023	Richard Petrovsky	Resident	Requested a connected fire hydrant at the intersection of Starks Grade and Manx Road. Also requested an additional fire hydrant where the pipeline crossed Lynx Trail, citing wildfire concerns.	• Wildfires • Project Description

Date	Commenter	Affiliation	Summary	Relevant EIR Section Related to Concern(s)
2/15/2023	Massimo Prati	Resident	Expressed concerns that access roads would be used as tracks for off-road vehicles and requested fencing and gates. Requested consideration of a narrower, 30-foot easement. Expressed concerns regarding impacts to heritage trees. Expressed concerns regarding disposal of removed brush and potential increases in ground fuel. Requested future public meetings to be available through Zoom or other virtual meeting technology.	• Project Description • Biological Resources • Alternatives
2/27/2023	Kathy Norton	United States Army Corps of Engineers	Requested completion of an aquatic resources delineation. Requested consideration of alternatives that avoid impacts to wetlands or other waters of the United States.	• Permits Required • Biological Resources
3/3/2023	Pete Minkel	Central Valley Regional Water Quality Control Board	Listed potentially needed water quality permits for the Project.	• Permits Required • Project Description
4/6/2023	Nicole Perrin	Resident	Expressed concerns regarding vegetation clearing, scope of Project, terminology used, and biological studies completed. Requested the pipeline be replaced in existing, cleared easements. Expressed concerns with tree removal.	• Project Description • Biological Resources • Alternatives

1.1.2.2 Draft EIR

The analysis included in Chapter 3.0 focuses on the specific environmental resource areas that require further evaluation to determine if there would be a significant impact as a result of Project implementation. Thresholds of significance were established by the District based on a comparison with the CEQA Guidelines Appendix G checklist, federal, State, and local regulations, resource-specific policy guidance and available scientific information, and comments received in response to the NOP. Resource areas analyzed in this Draft EIR include the following:

- Aesthetics and Visual Resources (AES)
- Agricultural and Forest Resources (AG)
- Air Quality (AIR)
- Biological Resources (BIO)
- Cultural Resources (CUL)

- Energy Resources (ENRG)
- Geology and Soils (GEO)
- Greenhouse Gas Emissions (GHG)
- Hazards and Hazardous Materials (HAZ)
- Hydrology and Water Quality (HYD)
- Land Use and Planning (LAND)
- Mineral Resources (MIN)
- Noise and Vibration (NOS)
- Population and Housing (POP)
- Public Services (PUB)
- Recreation (REC)
- Transportation (TRA)
- Tribal Cultural Resources (TRIB)
- Utilities and Service Systems (ULTS)
- Wildfires (WILD)

1.1.3 REVIEW OF THE DRAFT EIR

Upon publication of this Draft EIR, the District will file a Notice of Completion (NOC) in accordance with 14 CCR Section 15085 along with a Notice of Availability (NOA), in accordance with 14 CCR Section 15087, to begin the public review period. Concurrent with the NOC, this Draft EIR will be distributed to responsible and trustee agencies, other affected agencies, and interested parties, including those requesting a copy of the Draft EIR in accordance with PRC Section 21092(b)(3). The NOA will be posted and published in accordance with noticing requirements of CEQA Guidelines Section 15087 and available at:

- El Dorado County Recorder-Clerk Placerville Office, 360 Fair Lane, Placerville, California
- Placerville Main Public Library, 345 Fair Lane, Placerville, California
- Pollock Pines Public Library, 6210 Pony Express Trail, Pollock Pines, California
- Placerville Mountain Democrat Newspaper

During the public review period, the Draft EIR will be available for review at the following locations:

- The District website at www.EID.org/SlyParkIntertie and www.EID.org/CEQA
- District Customer Service Building, 2890 Mosquito Road, Placerville, California
- Placerville Main Public Library, 345 Fair Lane, Placerville
- Pollock Pines Public Library, 6210 Pony Express Trail, Pollock Pines
- Pollock Pines-Camino Community Center, 2675 Sanders Drive, Pollock Pines

Agencies, organizations, and interested parties have the opportunity to comment on this Draft EIR during the 45-day public review period. Please include the commenter's full name and address. Written comments concerning the Draft EIR for the Project should be directed to the District at the following address by the close of the comment period:

El Dorado Irrigation District
Attn: Doug Venable
Environmental Review Analyst
2890 Mosquito Road
Placerville, CA 95667
Email: SlyParkIntertieEIR@EID.org

In accordance with the Americans with Disabilities Act (ADA) and California law, it is the policy of the District to offer its public programs, services, and meetings in a manner that is readily accessible to everyone, including individuals with disabilities. If you are a person with a disability and require information or materials in an appropriate alternative format; or if you require any other accommodation, please contact the District's ADA coordinator at 530-642-4045 or e-mail at adacoordinator@eid.org.

1.1.3.1 Effectively Commenting on the Draft EIR

Readers are invited to review and comment on the adequacy and completeness of this Draft EIR, particularly in describing the potential impacts, the level of severity of potential impacts, the mitigation measures being proposed to reduce or avoid significant impacts, and the alternatives being considered. In this regard, CEQA defines "significant effect on the environment" as a substantial or potentially substantial adverse change in any of the physical conditions within the area affected by the Project's actions, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance (CEQA Guidelines Section 15382). "Mitigation" includes actions that would avoid the impact altogether; minimize the impact; rectify by repairing, rehabilitating, or restoring the impacted environment; reduce the

impact over time; or compensate for the impact by replacing or providing substitute resources or environments (CEQA Guidelines Section 15370).

The most effective comments are those that focus on the adequacy and completeness of the environmental analysis and that are supported by factual evidence. Comments that focus on the District's decision to approve or deny an action are not comments on the adequacy of this Draft EIR.

1.1.4 FINAL EIR

Upon completion of the public review period, the District will review the comments received and will prepare written responses to environmental issues raised pursuant to CEQA Guidelines Section 15088 and, if necessary, will make any related revisions to the Draft EIR. Comments received and the responses to comments will be included as part of the record for consideration by the District in its decision-making process. Responses will be incorporated into the Final EIR and provided to any commenting public agencies at least 10 days prior to certification of the EIR (CEQA Guidelines Section 15088[b]). The general process for the preparation and certification of an EIR is described under Section 15096 of the CEQA Guidelines.

Following certification of the Final EIR, the District may then consider approval of the action as described in Section 15092 of the CEQA Guidelines, which states that a public agency shall not decide to approve or carry out a project for which an EIR was prepared unless either: (1) the project as approved would not have a significant effect on the environment, or (2) the agency has eliminated or substantially lessened all significant effects where feasible and made a determination that any remaining significant effects found to be unavoidable are acceptable due to overriding considerations.

If the action is approved by the District, Section 15091 of the CEQA Guidelines requires the District to adopt findings describing how each of the significant impacts identified in the EIR is being mitigated. The findings will describe the reasons why significant unavoidable impacts, if any, cannot be mitigated. The findings will also describe the District's findings with respect to the alternatives that were analyzed in the EIR.

If the District decides to approve the action or any alternative analyzed in the Final EIR, despite a finding that it would have significant and unavoidable impacts, the District will also adopt a Statement of Overriding Considerations describing the benefits of the action that, in the District's judgment, outweigh its significant environmental impacts, pursuant to Section 15093 of the CEQA Guidelines. Finally, the District will adopt a Mitigation Monitoring and Reporting Plan, as required under Sections 15096 (g) and 15097 of the CEQA Guidelines, which describes how it will ensure that the mitigation measures being required will be carried out.

1.2 Permits Required

Compliance with the following may be required prior to the start of construction activities associated with implementation of the Project:

- Clean Water Act (CWA), Section 404, Nationwide Permit 58
- CWA Section 401, Water Quality Certification

- Federal Endangered Species Act (ESA) and California Endangered Species Act (CESA)
- California Department of Fish and Wildlife (CDFW) Lake and Streambed Alteration Agreement, California Fish and Game Code (FGC) Section 1602
- CWA Section 402, National Pollutant Discharge Elimination System (NPDES) General Construction Permit
- United States Department of Agriculture, Forest Service (USFS) Special Use Permit (existing)
- California Department of Transportation (Caltrans) Encroachment Permit
- El Dorado County Encroachment Permit

2.0 Project Description

2.1 Project Overview

The District is proposing to reestablish the connection between its two largest drinking water treatment plant facilities which, together, provide two-thirds of the District's drinking water supply. The Project would replace approximately 4.5 miles of 22- to 24-inch-diameter pipeline (the existing SPI) with an upgraded 12- to 36-inch cement, mortar-lined pipeline that would be installed with standard interior and exterior protective coatings and a cathodic protection system. Replacing the SPI would involve open-cut trenching to access and remove the existing pipeline and install the new pipeline within the existing alignment, to the extent feasible. The construction corridor width would be approximately 50 feet (25 feet on either side of the current alignment), except at drainage and creek crossings, where the construction corridor would be narrowed to approximately 30 feet (15 feet on either side of the current alignment). A new pump station, electrical service, and backup power supply generator would be constructed at Reservoir A to facilitate conveyance of drinking water from Reservoir A to Reservoir 1.

The Project includes eight proposed staging areas (totaling approximately 8.5 acres) for equipment and supplies, and approximately 13 access points along existing roads for vehicles to access remote sections of the pipeline. The proposed staging areas and access points may be modified as the Project design develops and in coordination with adjacent property owners. Additional staging and access areas may be identified as the Project design is finalized. The total footprint for the Project would occupy approximately 33 acres.

2.2 Project History

The SPI was originally constructed in 1978 to help alleviate severe water shortages resulting from the 1976-1977 regional drought. This original pipeline conveyed raw water by gravity from Reservoir 1 to Reservoir A and Jenkinson Lake. In 1992, the Cleveland Fire destroyed portions of the canal system that supplies water to Reservoir 1. As a result, water could not be delivered to Reservoir 1 during the lengthy repair and reconstruction of the canal system. In response to this emergency, a raw water pump station was constructed at Reservoir A to enable the SPI to convey raw water from Jenkinson Lake to Reservoir 1. The original SPI was installed without a protective interior coating or a cathodic protection system. Multiple pipeline assessments have determined that advanced corrosion has compromised the integrity and functionality of the SPI pipeline. As a result, the District ceased using the SPI in 2013 due to ongoing leaks and increased maintenance costs. The Project will reestablish connectively between Reservoir A and Reservoir 1 by replacing and improving the SPI pipeline. As such, this Project is being proposed to provide operational flexibility to the District's system, help alleviate the impacts of water outages and drought conditions, and allow for treatment plant maintenance.

2.3 Project Location

The Project is located approximately 1.5 miles southwest of the Pollock Pines community and 10 miles east of the city of Placerville, California, within the *Pollock Pines* and *Sly Park, California* U.S. Geological Survey

(USGS) 7.5-minute topographic quadrangles. The northern segment of the Project area starts adjacent to Reservoir 1 on Pony Express Trail and is located on the north side of U.S. Highway 50 (HWY 50). The Project area continues approximately 4.5 miles south-southeast before terminating at the Sly Park Hills Tank, located off Mackinaw Street, approximately 0.5 miles from Reservoir A. The Project area elevations range between approximately 3,000 and 3,730 feet (914 and 1,140 meters) above mean sea level (amsl). The Project traverses lands owned by the District, and lands administered by the Eldorado National Forest, and various private property.

2.4 Project Purpose and Objectives

The purpose of the Project is to reestablish the connection between the District's Reservoir 1 and Reservoir A drinking water treatment plant facilities. The Project would enable the District to efficiently convey drinking water sourced from its existing water supplies at Jenkinson Lake and the South Fork American River watershed to areas throughout the District's service area.

The Project objectives include the following:

- Improve drinking water supply reliability by replacing the existing SPI with a bi-directional pipeline capable of conveying treated drinking water between Reservoir 1, Reservoir A, and the Sly Park Hills Tank.
- Facilitate uninterrupted drinking water supply during extended shutdowns of either the Reservoir 1 or Reservoir A treatment plants, enabling the inspection and future repairs or rehabilitation of Reservoir 1, Reservoir A, and the raw water supply tunnel/pipeline from Jenkinson Lake.
- Reduce energy use by maximizing system gravity flows and utilizing new, high-efficiency pumps when pumping is required.
- Improve system water quality and reduce the scale and cost of water quality treatments.

2.5 Proposed Project

The proposed alignment of the replacement pipeline is divided into four segments based on equipment access and construction methods (Figure 2.2-1[a-d]). The final alignment may be modified as the Project design develops and in coordination with adjacent property owners. The final alignment would be within the area surveyed for environmental resources for the Project. The four segments are listed below, followed by a more detailed description of each.

- **Segment 1:** Approximately 0.5 miles, primarily along paved roadways, from Reservoir 1 along Pony Express Trail, under HWY 50, and along Ridgeway Drive.
- **Segment 2:** Approximately 3 miles cross-country, traversing four drainages from Ridgeway Drive to Reservoir A.
- **Segment 3:** Approximately 0.5 miles within the Reservoir A facility, including the construction of an approximately 1,600-square-foot, two-story pump station.

- **Segment 4:** Approximately 0.5 miles cross-country, from Reservoir A to the Sly Park Hills Tank.

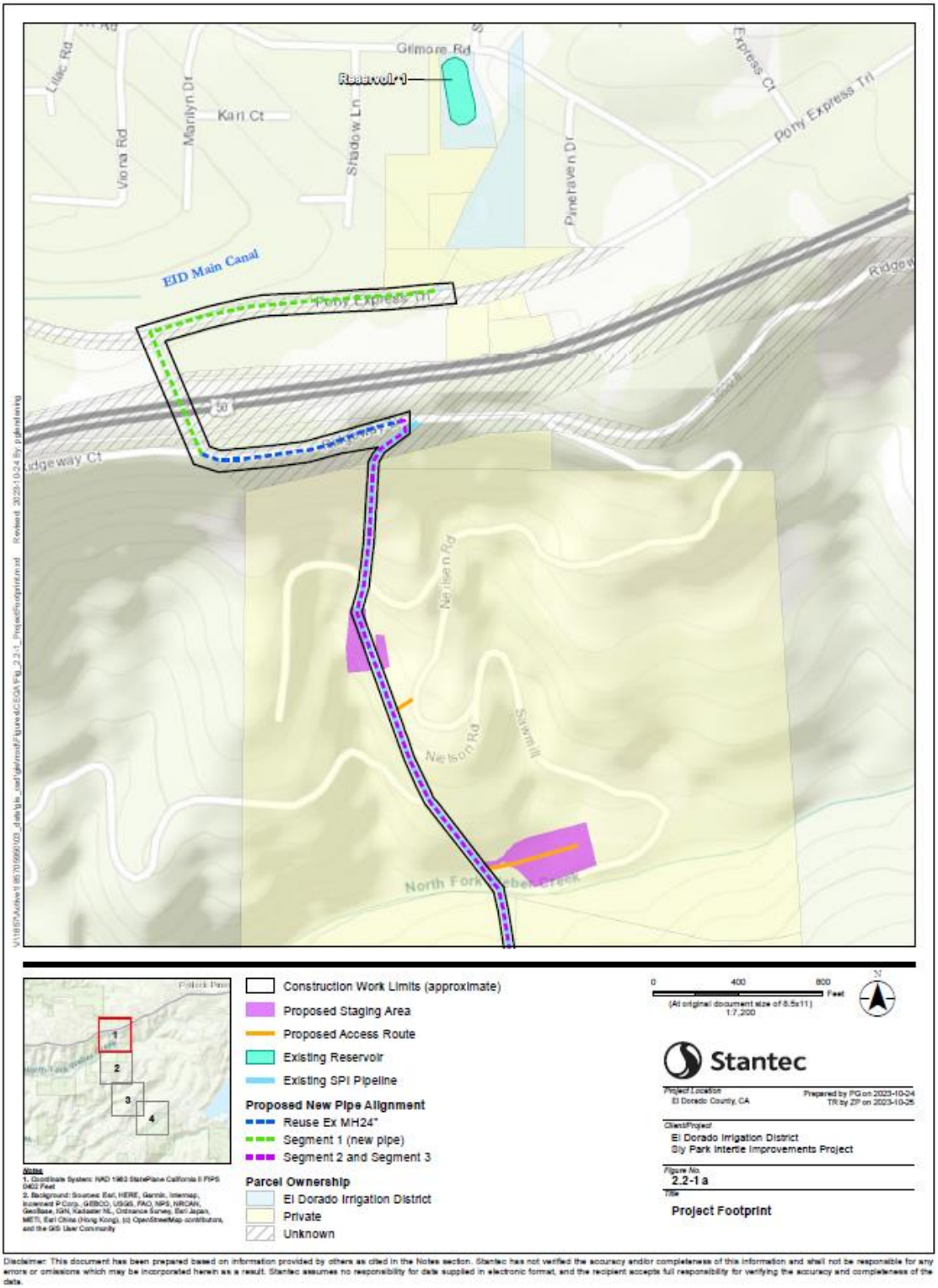


Figure 2.2-1(a). Project Footprint

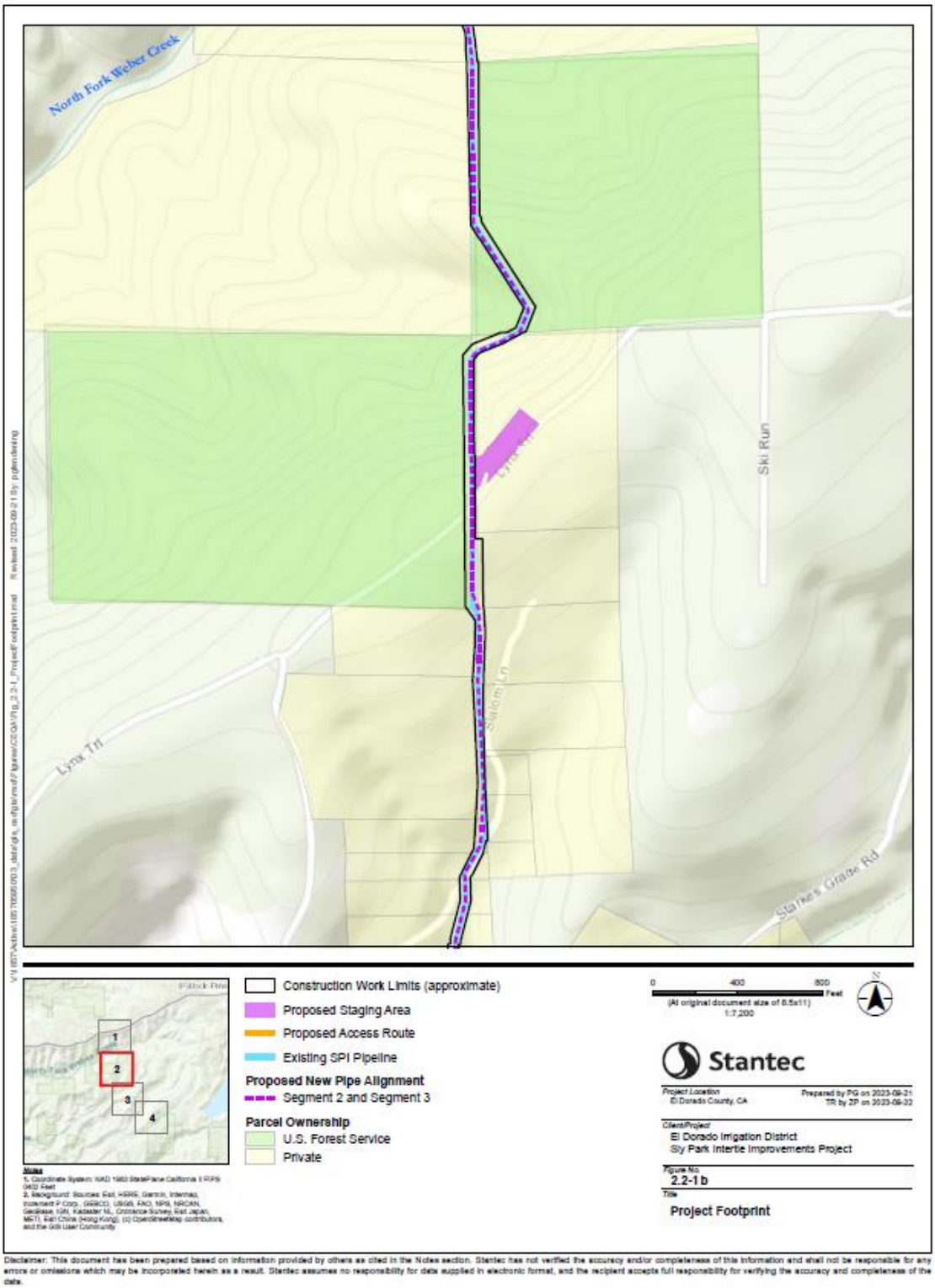


Figure 2.2-1(b). Project Footprint

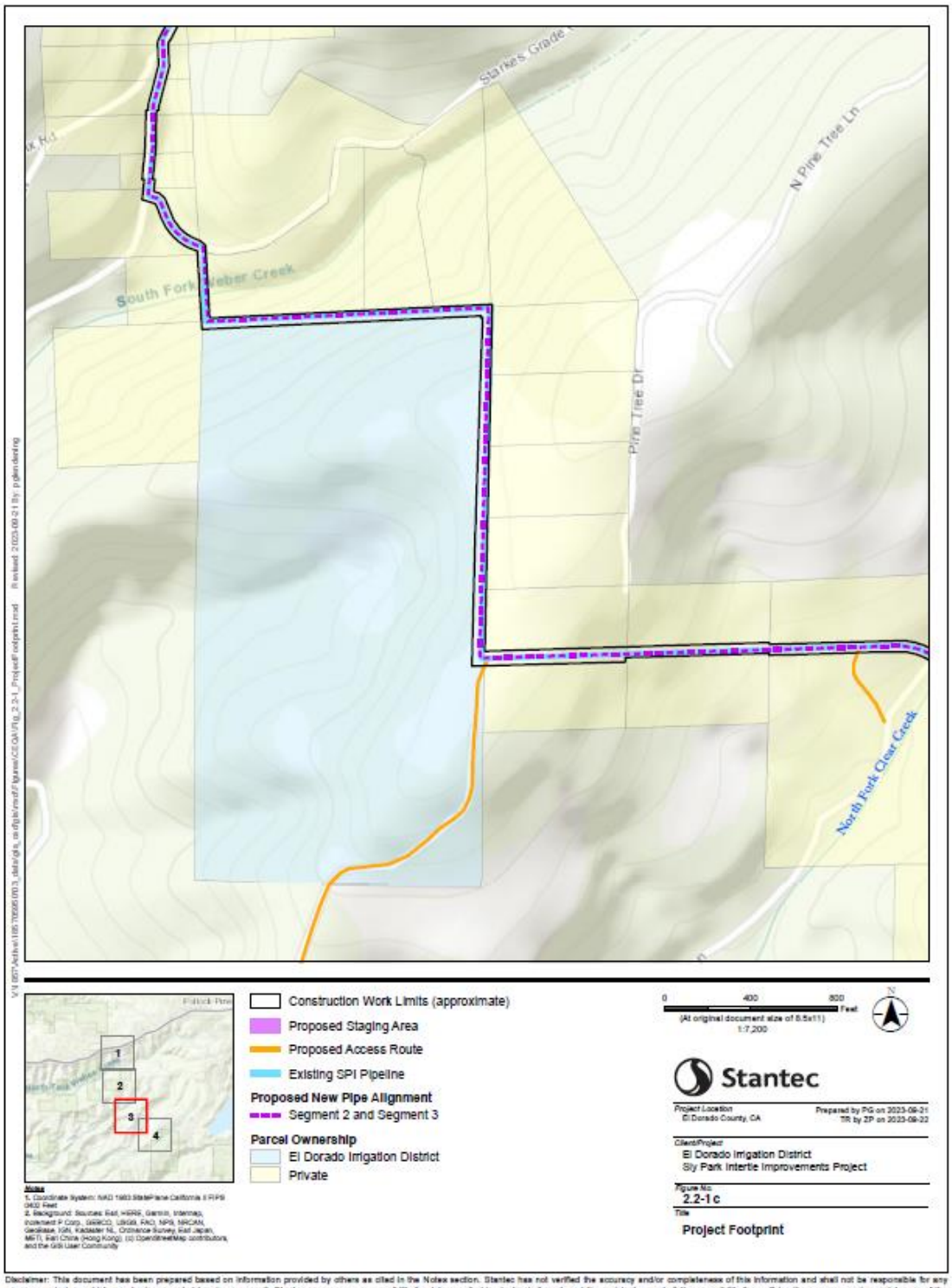
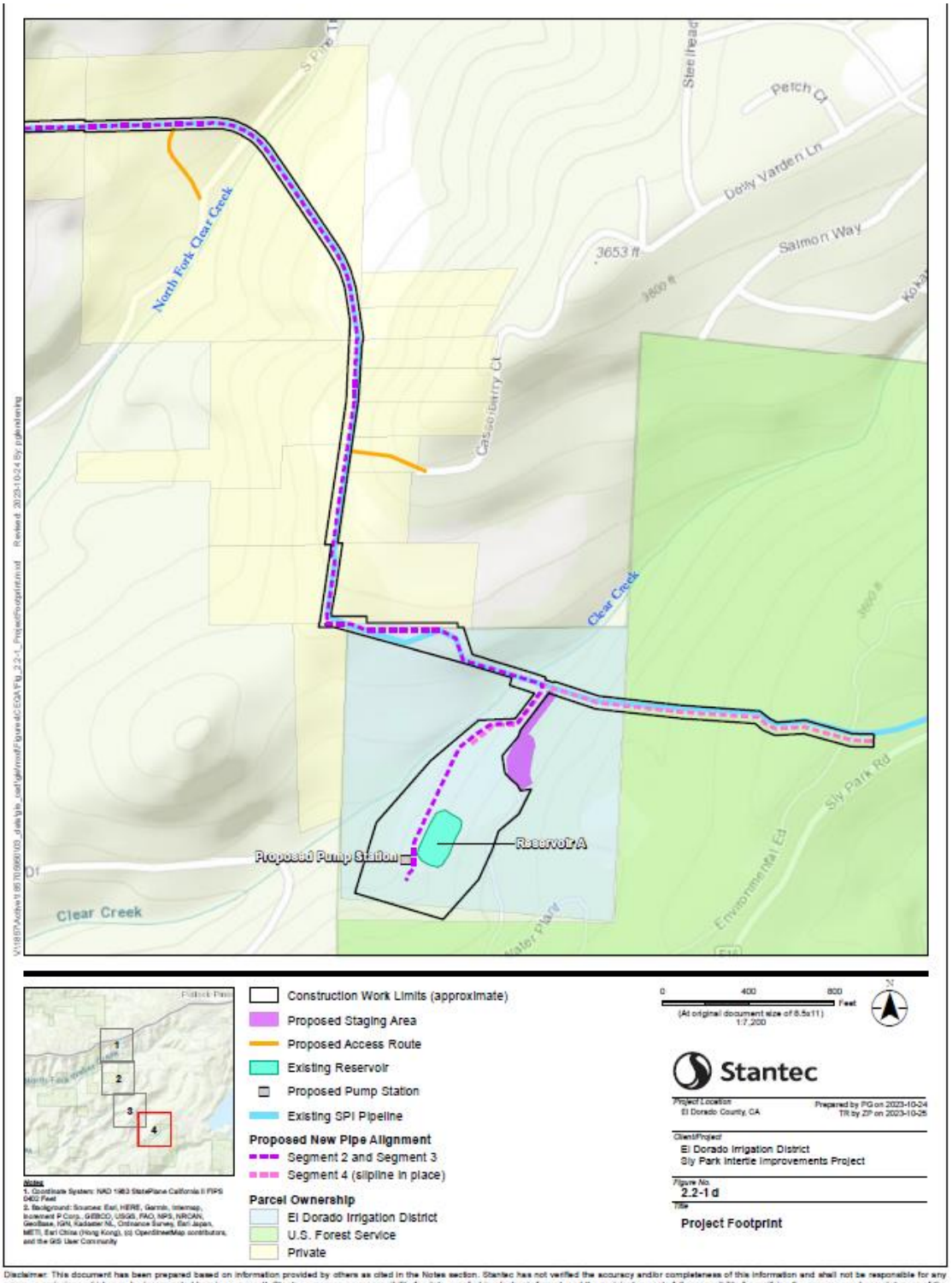


Figure 2.2-1(c). Project Footprint



Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

Figure 2.2-1(d). Project Footprint

2.5.1 SEGMENT 1

This segment starts on Pony Express Trail adjacent to the Reservoir 1 facility at approximately 3,730 feet amsl. Connecting to the finished water supply of Reservoir 1, the pipeline extends approximately 1,200 feet along Pony Express Trail and 1,500 feet along Ridgeway Drive, approximately 600 feet of which would be in the underpass below HWY 50. Work within this segment would require traffic control authorization from the El Dorado County (County) Department of Transportation and Caltrans. Typical open-cut construction includes 7-foot-deep trenching with minimum 3.5-foot cover material and roadway pavement restoration. No trees are anticipated to be removed within this segment.

2.5.2 SEGMENT 2

This segment starts at Ridgeway Drive at approximately 3,584 feet amsl and extends approximately 3 miles cross-country, traversing various private property, lands owned by the District, and lands administered by USFS.

Construction sequencing in this segment would progress with initial vegetation removal, followed by potholing to verify the location of the existing pipeline. The existing pipeline would be excavated and transported to a staging area for off-site removal. The excavated soil would be screened and utilized for pipeline bedding and trench backfill, with additional backfill material imported as needed (See Section 2.6.1.2 for additional backfill locations). New, 24-inch pipeline would be transported from staging areas and placed in the open trench. The new pipeline trench would be backfilled and compacted. Minor adjustments to the existing pipeline alignment may be required as the project design develops or to avoid localized, unstable soil conditions.

Vegetation removal would include shrubs and trees within the construction alignment and staging areas. It is estimated that approximately 575 trees would be removed in this segment. The majority of the trees within the alignment range from 6 to 24 inches in diameter at breast height (DBH). Additional tree removal may be required to accommodate equipment access and/or to ensure safety of construction personnel and equipment.

- **Stream Crossings:** This segment contains four drainage crossings, including North Fork Weber Creek, South Fork Weber Creek, North Fork Clear Creek, and Clear Creek. The construction corridor width would be reduced from 50 feet to approximately 30 feet at these crossings, and construction activities would be timed during periods of no or low flows. Creek flows, if present, would be bypassed during construction, as described in Section 2.6. In areas where there are culverts, the contractor would remove and construct the pipeline without impacting the existing culvert, unless it is determined that site conditions make this approach infeasible and the culvert itself must be removed and replaced in kind. Construction would be conducted during no or low flow conditions. If flows are present, the contractor would line the culvert or install a stream bypass system.
- **Cross-Country Installation:** Typical open-cut construction in this segment would include 7-foot-deep trenching with minimum 3.5-foot cover material, the implementation of appropriate best

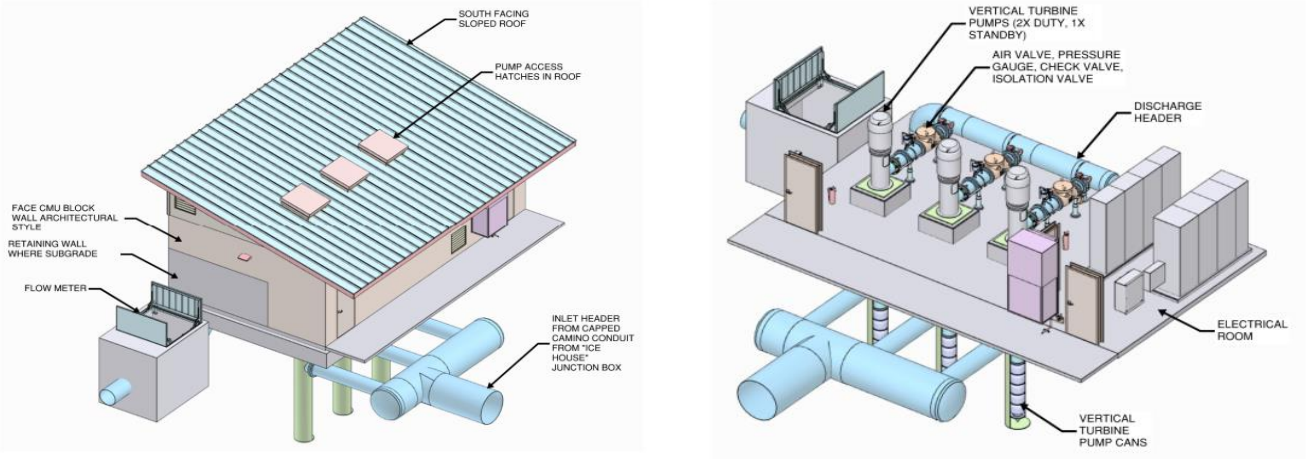
management practices (BMP) and erosion control measures, and/or hydroseeding applications to restore disturbed areas.

- **Roadway Installation:** This segment includes a paved rural road section approximately 1,300 feet in length. This section would be replaced similar to methods described in Segment 1, with typical open-cut construction, including 7-foot-deep trenching with minimum 3.5-foot cover material and roadway pavement restoration.

2.5.3 SEGMENT 3

This segment is located within the Reservoir A facility at an elevation of approximately 3,290 feet amsl. The new pipeline would connect to the treatment plant's finished water supply (looped within the facility), connect to the new pump station, and continue to the Sly Park Hills Tank supply line. The pipeline alignment within the Reservoir A facility would be designed to avoid existing pipelines and other treatment plant facilities. Typical open-cut construction includes 7-foot-deep trenching, with minimum 3.5-foot cover material and roadway pavement or gravel restoration. No trees are anticipated to be removed within this segment.

A new, two-story, approximately 1,600-square-foot pump station would be constructed on the west side of Reservoir A. The pump station would house three vertical turbine pumps to convey drinking water from Reservoir A to Reservoir 1 and the Sly Park Hills Tank. The building would be equipped with sound-dampening features and contain a heating, ventilation, and air conditioning system. The pumps would be mounted on a concrete slab with fiberglass-reinforced plastic sound enclosures mounted over each individual motor for additional sound attenuation. A backup power generator would be installed to provide system operation during power outages. A new electrical service drop would be installed from an existing utility pole, routed underground, and connected to the new pump station transformer adjacent to the backup power generator. The new pump station construction supplies and equipment would be staged within the Reservoir A facility. See Figure 2.5-1 for the layout of the interior and exterior of the proposed pump station.



Source: Water Works Engineers 2022

Figure 2.5-1. Sly Park Intertie Pump Station Interior and Exterior

2.5.4 SEGMENT 4

This segment starts at the Reservoir A facility at approximately 3,290 feet amsl and extends cross-country approximately 0.5 miles to the Sly Park Hills Tank, located at approximately 3,680 feet amsl. The District proposes to use a sliplining construction method in this segment and install a 12-inch pipeline inserted (slipped) inside the existing 22-inch pipeline. Sliplining is anticipated to reduce overall ground disturbance and Project costs. Final design would define what extent of the existing 22-inch SPI could be practically sliplined and would determine which areas and bends in the existing pipeline would need to be excavated and removed to accommodate the new pipeline. Vegetation removal would be required in the areas used as entry pits for sliplining. It is estimated that approximately 40 trees would be removed in this segment. The majority of the trees within the alignment range from 6 inches to 18 inches DBH. Typical open-cut construction excavation would be used at sliplining entry pits and bends in the pipeline that cannot accommodate sliplining and would include 7-foot-deep trenching with minimum 3.5-foot cover material, the implementation of BMPs and erosion control measures, and/or hydroseeding applications to restore disturbed areas.

2.5.4.1 Pipeline Appurtenances

Appurtenances associated with the Project include the following:

- **Air Relief Valves/Blow Off Valves**: Four-inch air relief valves would be installed at all significant high points along the replaced pipeline alignment (air relief valves release air trapped in the pipeline during filling and allow air into the line when emptying the pipeline). Blow off valves would be installed at low points in the pipeline alignment and upstream of isolation valves to facilitate line draining and allow the removal of sediment that may accumulate in the pipeline.
- **Isolation Valves:** Multiple valves would be installed along the pipeline to isolate and regulate flows.
- **Reinforced Concrete Inline Thrust Walls**: Thrust walls would be installed on an as needed basis along the pipeline alignment depending on site-specific geological conditions. Typical inline thrust walls or trench cutoff walls are 3 feet thick and may extend 2 to 3 feet behind the trench excavation limits and are keyed into the native material.
- **Fire Hydrants:** Fire hydrants may be installed along the pipeline alignment contingent on hydraulic studies.

2.6 Project Construction

2.6.1 CONSTRUCTION ACTIVITIES

Key construction activities would include site preparation and vegetation clearing, excavation and removal of the existing pipeline, placement of bedding materials as required, placement of the new sections of piping (typically 20- to 40-foot sections), backfilling and compaction of the trench, and restoration of the disturbed area. Additionally, a new pump station, electrical service, and backup power supply generator would be

constructed at Reservoir A. Typical activities and construction requirements associated with each construction activity are described below.

2.6.1.1 Site Preparation, Pavement Removal, and Vegetation Clearing

Construction activities would be mobilized as needed for each individual segment. Mobilization would include arrival of crews and equipment on-site. Absent this project, the existing right-of-way for the SPI alignment will be maintained by vegetation removal, via the Right-of-Way Reinforcement Program, the impacts of which have been analyzed and disclosed through a CEQA ISMND (EID 2023). However, given the SPI Intertie Improvement Project may occur ahead of the planned rights-of-way maintenance, the site preparation and vegetation removal is described and analyzed herein. Specifically, site preparation would involve pavement removal and/or vegetation removal through clearing and grubbing, depending on the location of the pipeline. All brush and vegetation would either be chipped and dispersed of on-site, transported off-site, and/or disposed of in accordance with local regulations. The Project has been designed to minimize tree removal by following the existing pipeline alignment as much as feasible. However, a total of approximately 615 trees are anticipated to be removed during Project construction, and range in size from 6 inches to 24 inches DBH. This tree removal would be required to access and replace the existing pipeline. The tree removal would also take into consideration defensible space to lower the risk of wildfire to adjacent facilities and property. Additionally, after Project construction the District would continue vegetation management along the SPI alignment through the Right-of-Way Reinforcement Program to maintain access for inspection, maintenance, and repairs of the pipeline.

Access road and staging area preparation would involve vegetation clearing, grading as needed, gravel or substrate stabilization, and staging area temporary fencing installation. Staging areas would be cleared, mass graded (i.e., scarified and then roughly flattened or smoothed out), and reinforced with gravel or rock to provide a firm surface for Project use during construction.

2.6.1.2 Excavation, Trenching, and Pipeline Construction

The existing pipeline would be removed, and the new pipeline would be installed. Work would occur linearly, with grading and trenching, pipeline removal, replacement, grading, and pavement replacement occurring along the alignment in segments until complete. Pipeline construction would occur at an approximate rate of 120 to 160 feet per day. Pipeline placement would vary depending on the location along the alignment, and would include the following construction components:

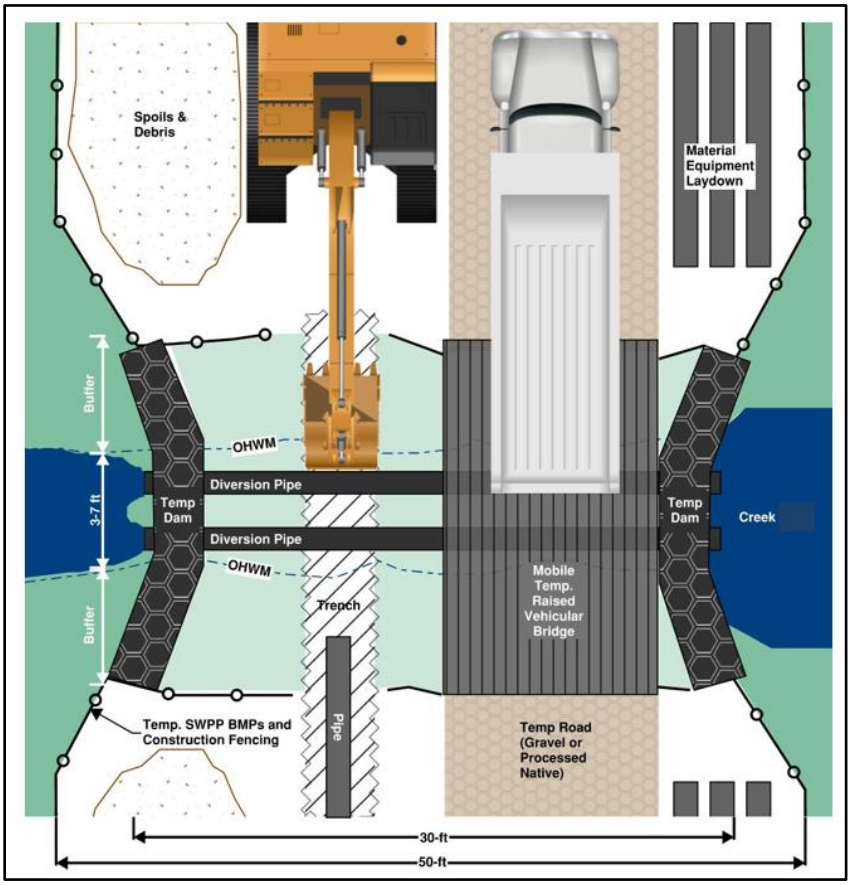
- **In-Roadway**: In-roadway pipeline replacement would include a construction corridor width of approximately 50 feet (25 feet on either side of the current alignment), with a 7-foot-deep trenching with minimum 3.5-foot cover material and roadway pavement restoration. The existing pipeline would be excavated, removed, and then replaced with a new 24-inch cement, mortar-lined pipeline. Prior to pipe installation, the bottom of the trench would be prepared to be firm, smooth, free of standing water, and free of any soft or hard spots, large rocks, and any foreign material. Pipe bedding and backfill materials would be screened and processed on-site. Native soils that meet minimum requirements may be reused on-site to reduce soil import/export, however engineered backfill material may be imported as needed if native soils are not reusable. In-roadway portions of

Project construction would require traffic control authorization from the County Department of Transportation and/or Caltrans.

- **Cross-Country**: The cross-country portions of Project construction would include a construction corridor width of approximately 50 feet (25 feet on either side of the current alignment) when feasible, with a 7-foot-deep trenching and minimum 3.5-foot cover material with similar trench backfill methods as in the roadway segments. The width of the construction corridor may vary depending on site conditions and coordination with adjacent landowners and would be within the area surveyed for environmental resources for the Project.

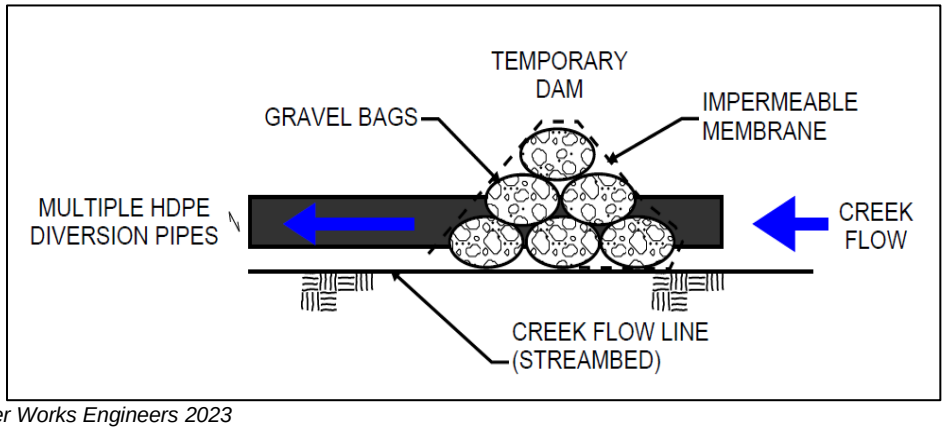
- **Creek Crossings**: The creek crossing portions of the pipeline alignment would include a narrower construction corridor of approximately 30 feet (15 feet on either side of the current alignment) and would be timed during periods of no or low flows likely in early fall to reduce potential water quality and aquatic wildlife species impacts. A temporary diversion dam would be installed if creek flows are present to bypass flows during construction and dewater the work area. The bypass would consist of one to three bypass pipes (depending on flow rate) to capture creek flows from the temporary diversion dam and convey flows through or around the work area. Additionally, a temporary raised vehicular bridge would be installed over the creek for construction vehicle access. The trench would be open cut using an excavator, the old pipeline would be removed, bedding material would be placed, and the new pipeline would be installed. The pipeline would be encased in concrete at a minimum of 24 inches below the existing streambed. The streambed and bank would be restored to pre-Project contours as described and identified in the required permits, and the temporary dam and diversion pipe(s) would be removed.

The anticipated layouts for the diversion dam and piping are depicted in Figure 2.6-1. Temporary diversion structures would be constructed using gravel bags or a similar structure covered with an impermeable membrane (Figure 2.6-2). The bypass would be constructed with multiple-bypass high density polyethylene pipes that would be moved from one side of the creek to the other to allow for excavation under the bypass area (Figure 2.6-3).



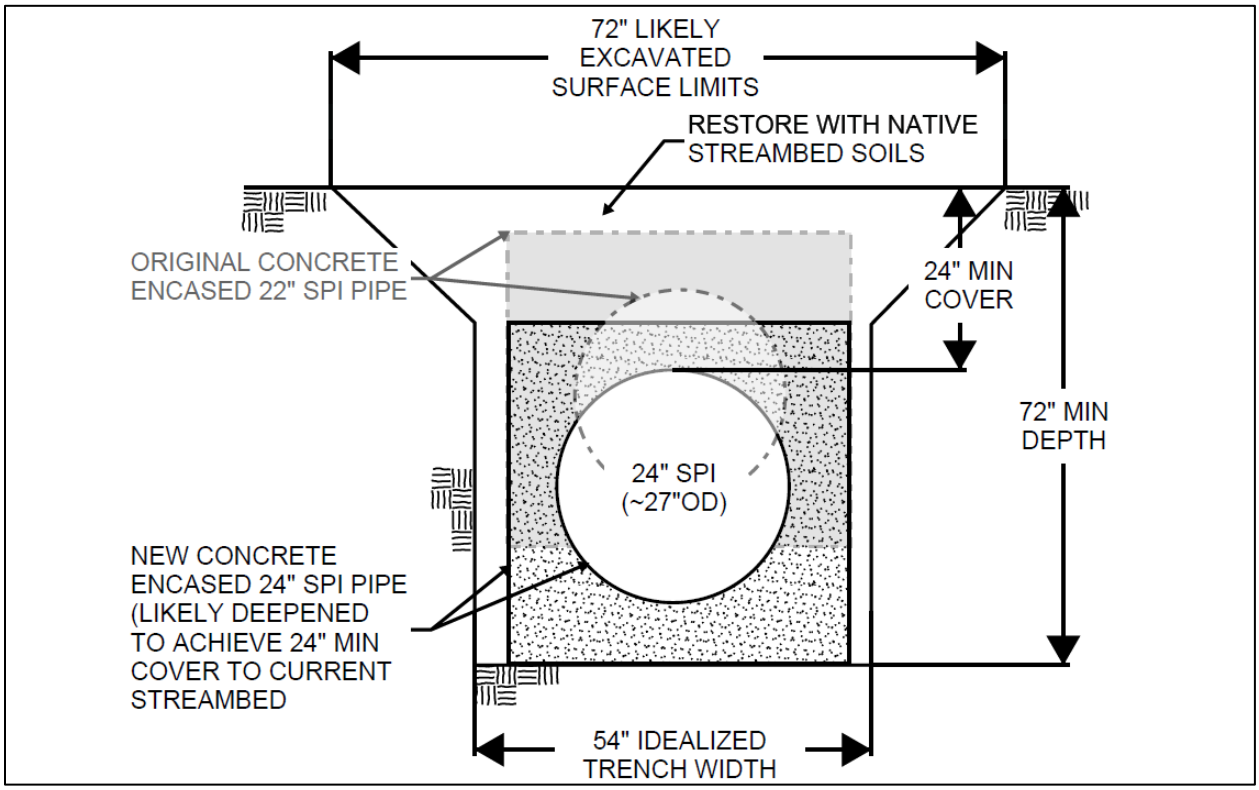
Source: Water Works Engineers 2023
Key:
BMP = Best Management Practice
ft = feet
OHWM = Ordinary High Water Mark
SWPP = Stormwater Pollution Prevention Plan

Figure 2.6-1. Open-Cut Creek Crossing



Source: Water Works Engineers 2023

Figure 2.6-2. Temporary Dam and Diversion Pipe Schematic



Source: Water Works Engineers 2023
Key:
MIN: Minimum
OD: Original Depth
SPI: Sly Park Intertie

Figure 2.6-3. Cross Section of Proposed Creek Trench and Pipe Installation[1]

2.6.1.3 Backfill Material

Excavated soil would be screened and utilized on-site for pipeline bedding and trench backfill, however, additional backfill material may be needed. The following locations would be utilized for sources of backfill materials, as needed to supplement on-site sources:

- Teichert Aggregates, 8760 Kiefer Blvd, Sacramento, CA 95826
- Teichert Aggregates Cool Cave Quarry, 2601 CA-49, Cool, CA 95614

2.6.1.4 Pump Station Construction

A new, two-story, approximately 1,600-square-foot pump station, electrical service, and backup power supply generator would be constructed at Reservoir A to facilitate conveyance of drinking water from Reservoir A to Reservoir 1 and the Sly Park Hills Tank. The exterior of the pump station would be built in

[1] MIN: Minimum, SPI: Sly Park Intertie, OD: Original Depth

accordance with standard construction methods for roofed buildings and would be designed to blend with the surrounding treatment facility structures. Construction of the pump station would begin with grading and site preparation, followed by excavation. Once the area is excavated, the crew would install a structural concrete foundation to accommodate the pump station, generator, and electrical service transformer. Crews would then construct the pump house and install the pumps and motors. Power to the pump station would be provided through a new underground electrical service to minimize the possibility of damage during fires. Excavated soils would be reused on-site (for site leveling or stockpiling for future use) to the extent feasible and otherwise disposed of off-site.

2.6.1.5 Start-Up, Testing, and Site Restoration

After the pipeline, pump station, and associated appurtenances are constructed, a testing and start-up period would be required to confirm that the facilities are in proper working order, necessitating water usage. Once the pipeline, pump stations, and other associated appurtenances are installed, the disturbed areas would be restored to pre-construction conditions in accordance with the Project design and permits. The in-road segments would be repaved, and any overland segments would be graded to match the existing topography and re-seeded with the appropriate native herbaceous seed mixes for local upland and riparian habitats. Shrubs and trees would not be planted in the permanent utility easement and the District would continue vegetation management along the SPI alignment to maintain access for inspection, maintenance, and repairs of the pipeline and to provide a beneficial vegetative fuel break along the utility corridor. Water utilized for pipeline flushing, disinfection, and testing would be disposed of in accordance with water pollution control specifications by: 1) the SWPPP land applied discharge; b) fugitive dust mitigation; c) low threat discharges into creeks in accordance with permit requirements; or d) reutilized by the District at WTP headworks if the water meets District water quality requirements.

2.6.1.6 Temporary and Permanent Easements

The District has 13 existing utility corridor and access road easements for the SPI that vary in width from 10 to 30 feet wide. These easements grant the District “right-of-way and easement to build, construct, reconstruct, and to operate and maintain water pipelines together with any and all appurtenances thereto on, over, across, and under all that certain real property.”

The District seeks to modify several existing easements along the SPI utility corridor to adjust the location of the existing easement, increase the width and/or to incorporate a temporary construction easement area. The District seeks to acquire several new easements along the SPI utility corridor to accommodate alignment adjustments, staging areas, and access roads. New proposed permanent utility corridor easements would range from 20 to 30 feet wide and temporary construction corridor easements would be up to 60 feet wide. Additionally, temporary easements for staging areas would be up to several acres in size (See Section 2.6.3, below for additional information on staging areas).

2.6.2 CONSTRUCTION EQUIPMENT

The Project would require the use of construction equipment typically associated with pipeline replacement and pump station construction. Construction equipment used for the Project would depend on the selected contractor’s planned operations, but may include the following:

- Excavators
- Scrapers
- Bulldozers
- Graders
- Rollers
- Concrete trucks
- Asphalt trucks
- Pickup trucks
- Air compressors
- Welding equipment
- Pumps and piping
- Generators
- Back-up lighting systems
- Communications and safety equipment
- Compactors
- Conveyors
- Water Trucks
- Concrete pumper
- Vehicle maintenance truck
- Erosion control installation equipment
- Front-end loaders
- Highway trucks
- Cranes

Miscellaneous equipment customary to the mechanical and electrical crafts and vehicles used to deliver equipment and materials.

2.6.3 ACCESS ROADS AND STAGING AREAS

The Project site would be accessible via established roads, including, but not limited to, HWY 50, Mackinaw Street, Pony Express Trail, Ridgeway Drive, Lynx Trail, Slalom Lane, Pine Tree Drive, Casselbarry Court, and Sly Park Road, which are paved, all-weather roads suitable for the anticipated loads. Potential site access and staging areas are shown on Figure 2.2-1(a-d). Project activities would require the limited use of private property driveways connected to these roads. Roads and driveways would be repaired to pre-construction conditions. Staging areas would be selected and developed by the contractor within limits approved by the District and by separate agreements with landowners. Temporary easements for staging areas would be up to several acres in size. All staging areas would be located within the areas surveyed for environmental resources for the Project.

2.6.4 CONSTRUCTION-RELATED TRAFFIC

Construction activities would require material haul trips, excavated material trips, and employee trips over the duration of the Project. During Project construction, approximately 15 construction workers per day would be on the Project site. Temporary construction-related road closures may entail single lane or detours where necessary. Traffic control would be necessary during roadway construction activities and would typically require two workers to implement traffic control measures. Equipment required for traffic control may include changeable message signs, delineators, and arrow boards. The traffic plan for the Project would be coordinated with the County, Caltrans, the California Highway Patrol, and local Fire Districts as required. Maximum daily truck trips during peak construction is estimated to be 30 trips per day. The traffic plan is discussed in detail in Section 3.0.

2.6.5 CONSTRUCTION SCHEDULE

In general, construction would occur between 7:00 a.m. and 7:00 p.m., Monday through Friday, and between 8:00 a.m. and 5 p.m. on weekends and holidays, consistent with the El Dorado County General Plan Policy 6.5.1.11 (El Dorado County 2004, as amended). However, these hours could be extended in certain circumstances (e.g., when creek crossing activities need to be completed to maintain stability of the temporary stream diversions, for tie-ins to existing facilities, and for in road work). Construction is planned to begin in 2024 and to be completed in 2025, over a period of approximately 18 months.

2.7 Project Operations and Maintenance

Ongoing operations and maintenance (O&M) of the replaced pipeline and new pump station would be required throughout the life of the facilities. Typical operations would not involve ground disturbance. Maintenance would include system flushing through the water treatment plants and pipeline blow off valves, system inspection, facility repairs, and vegetation management along rights-of-way (ROW). The frequency of O&M activities would depend largely on the water quality and maintaining desirable pumping efficiencies. Operational access to the SPI pipeline would occur within the public ROW, along the permanent pipeline easement, and from existing access points. Vegetation management along the pipeline ROW would consist of the removal of woody vegetation that may conflict with pipeline integrity and access and be conducted in accordance with EID's existing Right-of-Way Reinforcement Program.

3.0 Environmental Analysis

In accordance with CEQA Guidelines Section 15126.2, this Draft EIR identifies and focuses on the potentially significant direct and indirect environmental effects of the Project compared to baseline conditions, considering both its potential short-term and long-term effects. Short-term effects are generally those associated with construction of the Project, while long-term effects are generally those associated with operation of Project components.

3.1 Organization of Discussion

This section describes the basis for analysis, regulatory framework, and environmental setting to support the evaluation of the potential impacts that may result from implementation of the Project for each of the 20 resource areas analyzed in this Draft EIR. This section also identifies mitigation for significant impacts, as applicable.

3.2 Organization of Issue Areas

Each environmental issue analyzed in Chapter 3.0 contains the following components:

Basis for Analysis presents the thresholds of significance used in this Draft EIR that were developed using criteria from the CEQA Guidelines and Appendix G Checklist; State, federal, and local regulatory schemes; local/regional plans and ordinances; accepted practice; consultation with recognized experts; and other professional opinions.

Regulatory Framework presents the laws, regulations, plans, and policies that are relevant to each issue area. Regulations originating from the federal, State, and/or local levels are each discussed as appropriate.

Environmental Setting presents the existing environmental conditions within the Project boundaries and within the surrounding Project area, as appropriate, to establish baseline conditions, in accordance with CEQA Guidelines Section 15125. The extent of the environmental setting area evaluated (the study area) appropriately differs among resources, depending on the locations where potential impacts would be expected. For example, air quality impacts are assessed for the air basin (macro-scale), as well as the site vicinity (micro-scale), whereas aesthetic impacts are assessed for the Project vicinity only.

Environmental Impacts includes the Methodology for Analysis, if applicable, and the Project Impact Analysis. The Methodology for Analysis section includes any resource-specific procedures for assessing impacts, if applicable to the resource. The Project Impact Analysis includes an analysis of the Project's potential to cause a significant environmental impact (referred to generally as Project Impacts). Potential impacts are assessed by evaluating the Project's potential to result in a substantial adverse change from the baseline conditions established in the Environmental Setting determined by a comparison with the thresholds of significance set forth in the Basis for Analysis. Where a potentially significant impact is identified, mitigation, where feasible, is identified and described relative to how it reduces potential impacts.

The potential impacts are organized numerically in each subsection with a discussion of the Project Impacts (e.g., Impact AIR-1, Impact AIR-2, Impact AIR-3, etc.). Evaluation of the impact is organized by a discussion of impacts potentially resulting from the proposed Project. A bold-font environmental impact statement precedes the evaluation of each potential impact, and a finding of significance follows the evaluation and lists mitigation required.

Mitigation Required includes specific details of the mitigation identified in the Environmental Impacts with responsible parties, timing, and performance standards identified.

3.3 Format Used for Impact Analysis and Mitigation Measures

The format adopted in this Draft EIR to present the evaluation of potential environmental impacts is described and illustrated below. Abbreviations used in the impact analysis and mitigation measure numbering are listed in the Introduction chapter of this EIR in Section 1.1.2.2 (Draft EIR).

3.3.1 SUMMARY HEADING OF IMPACT (EXAMPLE)

Impact AIR-1:	**An impact summary heading appears immediately preceding the impact description (Summary Heading of Impact in this example). The impact abbreviation identifies the section of the report (AIR for Air Quality in this example) and the sequential order of the impact (1 in this example) within that section. To the right of the impact number is the impact statement, which identifies the potential impact.**

3.3.2 IMPACT [AIR-1] ANALYSIS

A narrative analysis follows the impact statement assessing the change from baseline conditions due to the proposed Project compared to the established threshold of significance. An analysis is provided for both construction-related potential impacts of the Project and operation-related potential impacts of the Project. This analysis identifies any potential mitigation required and explains how the mitigation would mitigate the potential impact. In some cases, following the impact discussion, reference is made to State and federal regulations and agency policies that would fully or partially mitigate the potential impact. In addition, policies and programs from applicable local land use plans that partially or fully mitigate the impact may be cited. The level of significance is determined following consideration of all factors.

Level of Significance: Less than Significant with Mitigation (The evaluated Level of Significance as determined by the analysis is included here, such as “Less than Significant with Mitigation” in this example.)

This section explains the determination of the severity of potential Project impacts. This is fundamental to achieving the objectives of CEQA. CEQA Guidelines Section 15091 and PRC Section 21002 require that decision makers apply mitigation measures where feasible to avoid or substantially lessen the significant impacts identified in the Draft and Final EIRs that are under the jurisdiction of the decision-making agency. If the EIR identifies any significant unmitigated impacts, CEQA Guidelines Section 15093 requires decision makers to adopt a statement of overriding considerations that explains why the benefits of the project outweigh the adverse environmental consequences identified in the EIR.

The level of significance for each impact examined in this Draft EIR is determined by considering the predicted magnitude of the potential impact against the applicable threshold. This section also identifies the resulting level of significance of the impact, including the implementation of feasible mitigation measures (if required).

Mitigation Required: [MM AIR-1] (This finding lists all mitigation measures required to make the significance finding listed above for a specific impact.)

Mitigation measures are not required for environmental impacts that are found to be less than significant. Where feasible mitigation for a potentially significant environmental impact is available, it is described following the impact.

3.3.3 MITIGATION MEASURES

Project-specific mitigation measures are described in detail at the end of each section using the format presented below:

Mitigation Measure AIR-1 [Title]: [Description] Project-specific mitigation is identified that would reduce the potentially significant impact to the lowest degree feasible.

Mitigation measures will include any feasible measures that could avoid, minimize, rectify, reduce, or compensate for significant adverse impacts. Mitigation measures must be fully enforceable through incorporation into the Project, or through permit conditions, agreements, or other measures (PRC Section 21081.6[b]).

3.4 Mitigation Measure AIR-1 Implementation

Responsible Party: Identifies who is responsible for implementing the mitigation measure (e.g., the District and contractor). This mitigation measure shall be referenced in the contract documents for the Project.

Timing: Describes when the mitigation measure will be implemented (e.g., construction of the Project).

Monitoring and Reporting Program: Describes how the District will verify that the elements of the mitigation measure are implemented and are fully enforceable through legally binding instruments.

Standards for Success: Describes how the District will determine the effectiveness of the mitigation measure.

3.5 Aesthetics and Visual Resources

3.5.1 BASIS FOR ANALYSIS

The CEQA Guidelines' Appendix G Environmental Checklist was assessed during the NOP scoping process to identify the Project components that have the potential to cause a significant impact to aesthetics and visual resources. The following thresholds of significance were used to determine if further evaluation was warranted to ascertain whether the Project may:

- Have a substantial adverse effect on a scenic vista.
- Substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway.
- In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings; in urbanized areas, conflict with applicable zoning and other regulations governing scenic quality.
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

3.5.2 REGULATORY FRAMEWORK

3.5.2.1 Federal

There are no roadways in the vicinity of the Project site that are designated in federal plans as a scenic highway or route worthy of protection for maintaining and enhancing federally protected scenic viewsheds.

3.5.2.2 State

California Scenic Highway Program

California's Scenic Highway Program was created by the State Legislature in 1963 and is managed by the Landscape Architecture Division of Caltrans. Its purpose is to protect and enhance the natural scenic beauty of California’s highways and adjacent corridors through special conservation treatment. A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view.

According to the Caltrans list of officially designated and eligible State Scenic Highways, HWY 50 within the Project area is an “Officially Designated” State Scenic Highway (Caltrans 2019a, 2019b). There are no other designated or eligible State Scenic Highways within the Project area.

3.5.2.3 Local

El Dorado County General Plan

The District supplies water to customers throughout much of the County. Pursuant to Government Code sections 53091 (D) and (E), many of the District’s activities are not subject to local zoning or land use requirements, as stated below:

> *Building and zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, or for the production or generation of electrical energy, facilities that are subject to Section 12808.5 of the Public Utilities Code.*

As a special district with equal authority, the District is exempt from following goals and policies within the County's General Plan and Zoning Ordinance. However, the District aims to comply with those goals and policies and use them as a metric for formulating an impact analysis (El Dorado County 2004, as amended).

> ***Goal 2.6:*** *Corridor Viewsheds. Protection and improvement of scenic values along designated scenic road corridors.*
>
> ***Objective 2.6.1****: Scenic Corridor Identification. Identification of scenic and historical roads and corridors.*
>
> ***Policy 2.6.1.3:*** *Discretionary projects reviewed prior to the adoption of the Scenic Corridor Ordinance, that would be visible from any of the important public scenic viewpoints identified in Table 5.3-1 and Exhibit 5.3-1 of the El Dorado County General Plan Draft Environmental Impact Report, shall be subject to design review, and Policies 2.6.1.4, 2.6.1.5, and 2.6.1.6 shall be applicable to such projects until scenic corridors have been established.*
>
> ***Policy 2.6.1.5:*** *All development on ridgelines shall be reviewed by the County for potential impacts on visual resources. Visual impacts will be assessed and may require methods such as setbacks, screening, low-glare or directed lighting, automatic light shutoffs, and external color schemes that blend with the surroundings in order to avoid visual breaks to the skyline.*
>
> ***Policy 5.4.1.2:*** *Discretionary development shall protect natural drainage patterns, minimize erosion, and ensure existing facilities are not adversely impacted while retaining the aesthetic qualities of the drainage way.*
>
> ***Objective 7.3.3:*** *Wetlands: Protection of natural and man-made wetlands, vernal pools, wet meadows, and riparian areas from impacts related to development for their importance to wildlife habitat, water purification, scenic values, and unique and sensitive plant life.*
>
> ***Objective 7.4.4:*** *Forest and Oak Woodland Resources: Protect and conserve forest and woodland resources for their wildlife habitat, recreation, water production, domestic livestock grazing, production of a sustainable flow of wood products, and aesthetic values.*

3.5.3 ENVIRONMENTAL SETTING

The Project's existing visual environment was evaluated through a review of site photography, aerial imagery, and data related to land uses in the Project area. The following describes the results of that evaluation relative to the Project area's visual character and identifies groups potentially affected in the Project vicinity (i.e., residences north and south of HWY 50 and recreationists). For the purposes of this discussion, "viewer sensitivity" is defined both as the viewers' estimated concern for scenic quality and the viewers' response to change in the visual resources that make up the view. Viewer sensitivity is categorized as low, moderate, or high.

Land uses within the Project area consist largely of rural residential throughout much of the Project alignment, with mixed commercial uses closer to HWY 50 and Pony Express Trail. The largest concentration of residences occurs near HWY 50, with additional residences spaced farther apart and occurring sporadically along the remainder of the Project alignment. Residence types vary from single-family homes to large, rural lots with acreage. In general, residential views can be spilt into two categories: 1) neighborhood views on the north side of HWY 50; and 2) sprawling rural views on the south side of HWY 50.

Views of residents north of HWY 50 are predominantly of surrounding structures and roadways. However, dense forested areas and tree lines occur throughout this area as well (See Photo 1). Residences who live south of HWY 50 generally have views of natural landscapes, including dense forested lands, creeks, and brush, and fewer views of structures and roadways than experienced to the north.

Viewer sensitivity would be considered high for residences in both of these settings (neighborhood and rural), because lengths of exposure are long, and their positions are fixed. Rural residences could have a slightly higher viewer sensitivity, since their views are generally unobstructed by other buildings and the surrounding topography is typically flat, allowing for further viewing distances.

Recreational users vary throughout the Project area depending on location and type of recreational activity. Jenkinson Lake, which is located approximately 1.2 miles east of the Project area, is a widely used recreational area that offers camping, hiking, and fishing throughout the lake and the surrounding area. Although Jenkinson Lake is not within viewing distance of the Project, it is possible that recreational users could use the surrounding trails and roadways in the nearby area to access Jenkinson Lake and the surrounding Eldorado National Forest.

Photo 1. Forested Nature of Project Area

Exposure levels for recreational users varies from high to low depending on the location of the recreational activity (i.e., in a natural setting versus a human-made area, such as a roadway) and movement during recreational activity (i.e., just passing through an area on a hike versus a stationary activity such as picnicking or fishing).

Motorists on roadways within the Project area would have views typical of roadway traffic, such as movement of other vehicles, passing signs, buildings, vegetation, and occasional construction work within

roadways. These views could range from full exposure to limited exposure, depending on topography of the surrounding landscape and obstacles that could obstruct views. Motorists' exposure when assessing Project impacts would be considered low, since their speed and movement allows for only short duration views of stationary objects (See Photo 2).

Photo 2. Example Motorists Views

Overall, viewer sensitivity levels within the Project area would depend on the location of a particular viewer and whether their views are fixed. Generally, fixed views that would be closer to construction activities would have a high viewer sensitivity, while temporary or passing views would have a lower viewer sensitivity.

3.5.4 ENVIRONMENTAL IMPACTS

This section analyzes the Project's potential to result in significant impacts to aesthetics and visual resources.

3.5.4.1 Project Impact Analysis

Impact AES-1 Potential to have a substantial adverse effect on a scenic vista.

Impact AES-1 Analysis

A scenic vista is generally defined as an expansive view of highly valued landscape observable from a publicly accessible viewpoint.

Construction

Although scenic vistas are not explicitly defined in the County General Plan, views of rivers, large water bodies, and views through scenic corridors are considered significant scenic resources within the County (El Dorado County 2003). Users, including residents, recreationists, and motorists would experience varying degrees of temporary visual resource change during construction.

The Project would involve the use of construction equipment and activities typical of pipeline and pump station development (see Section 2.6, Project Construction, for further details on construction equipment and methods). Impacts to scenic corridors would occur if construction activities were to take place over prolonged periods of time within the area. While construction activities and vehicles may temporarily disrupt views of scenic resources in the Project area, the overall nature and viewscape of the corridor would be preserved. Furthermore, construction of the pipeline would occur in a linear nature, with standard rate of pipeline construction occurring at 120 to 160 feet per day. Therefore, no single location along the pipeline alignment would be visually impacted by construction activities for a prolonged period of time. Post-construction in the overland portions of the Project alignment would be regraded and re-vegetated with a herbaceous layer, and the roadways would be repaved. Therefore, construction impacts of the Project related to scenic vistas would be less than significant.

Operation

Once the site is stabilized with vegetative cover post-construction, it would be maintained to avoid overgrowth. Therefore, herbaceous vegetated corridor would persist long term. The pipeline infrastructure would be located underground, with only valves exposed; therefore, during operation, the pipeline would not be visible above ground and the scenic character of the surrounding area would remain the same as under current conditions. During operation, the pipeline corridor would be maintained; however, such changes would remain relatively consistent with what is expected of residential and rural residential areas along an existing corridor. The new pump station would be constructed within the existing Reservoir A facility and would blend with the existing District-owned facilities in this area. Therefore, operational impacts of the Project related to scenic vistas would be less than significant.

Level of Significance: Less than Significant

Mitigation Required: None Required

Impact AES-2 Potential to substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway.

Impact AES-2 Analysis

As discussed above in Section 3.1.2, Regulatory Framework, HWY 50 within the Project area is an “Officially Designated” State Scenic Highway (Caltrans 2019a, 2019b).

Construction

At the northern end of the pipeline alignment (see Figure 2.2-1[a-d]), construction would begin on the northern side of HWY 50 along Pony Express Trail, cross under HWY 50 at Ridgeway Drive, and then proceed south. The presence of construction equipment and workers directly adjacent to HWY 50 would impact views for motorists traveling eastbound and westbound along this State scenic corridor. However, given the speed of travel along HWY 50 (i.e., 65 miles per hour [mph]) and the anticipated rate of pipeline construction of 120 to 160 feet per day, obstructed views from HWY 50 would be both fleeting and temporary. Additionally, no trees are anticipated for removal within viewing distance of HWY 50 (i.e.

Segment 1 of the Project alignment). Therefore, there would be no change in scenic resources from tree removal within a State Scenic Highway.

No other permanent above ground components or alterations to the views in the area would occur within viewing distance of HWY 50. Therefore, construction impacts related to scenic resources within a State Scenic Highway would be less than significant.

Operation

Once constructed, the new pipeline would be located underground, and occasional ongoing vegetation controls would maintain the pipeline corridor free of large woody vegetation. Views of the maintained corridor would be brief, when motorists are immediately upon and directly passing through the corridor, and partially obstructed, due to the presence of large trees that block direct views of the utility corridor as observed by motorists on HWY 50. Given the speed at which motorists are traveling and the narrow window of opportunity to view the utility corridor, the impact associated with maintaining the utility corridor free of large trees would not substantially change the viewshed as observed from HWY 50. Thus, operational impacts to scenic resources within a designated State Scenic Highway would be less than significant.

Level of Significance: Less than Significant

Mitigation Required: None Required

Impact AES-3	**In nonurbanized areas, potential to substantially degrade the existing visual character or quality of public views of the site and its surroundings; in urbanized areas, potential to conflict with applicable zoning and other regulations governing scenic quality.**

Impact AES-3 Analysis

The Project would be located primarily in non-urbanized areas, with some portions in the northern end of the pipeline alignment near HWY 50 located near commercial development. A project is considered to "substantially degrade" the visual character or quality of a site if it would have a strong negative influence on the public's experience and appreciation of the visual environment. As such, visual changes are always considered in the context of a site's or locale's visual sensitivity. Visual changes caused by a project are evaluated in terms of their visual contrast with the area's predominant landscape elements and features, their dominance in views relative to other existing features, and the degree to which they could block or obscure views of aesthetically pleasing landscape elements.

Construction

Construction of the Project would include movement and storage of equipment and materials within staging areas, as well as the operation of worker vehicles and construction equipment along the pipeline alignment and on nearby roads (see Section 2.6, Project Construction, for further details on construction equipment and methods). Additionally, trees would be removed along the approximately 4.5 miles of pipeline alignment to access and replace the existing pipeline. As such, construction of the Project could affect local views for

residents, recreationists, and motorists, including views of staging areas and construction equipment throughout the Project area.

More specifically, typical views within the Project area could be negatively affected by construction activities and tree removal, particularly in the case of rural residential viewers who have fixed views from vantage points. However, construction activities would not be permanently concentrated in any one location within the Project alignment; pipeline construction would occur at a standard rate of 120 to 160 feet of installation per day and tree removal would be spread out over the 4.5 miles of Project alignment. Therefore, no one neighborhood or residence would be impacted for an extended period of time or by large areas of vegetation removal. Recreationist and motorist views of construction activities would be less impacted by visual changes in the environment from construction due to movement throughout the Project area and distance from construction activities. Therefore, since the existing visual character and quality of the area would not be substantially affected for these viewer groups, impacts would be less than significant.

In urbanized areas, Project construction activities would not conflict with applicable zoning regulations since the construction would occur within the public roadways and existing rights-of-way and easements for public infrastructure. The Project would not conflict with zoning and other regulations in the area.

Operation

Once built, vegetation regrowth in the area will be maintained primarily as herbaceous to maintain access and avoid root intrusion into the pipeline area. The trees removed during site preparation along the 4.5-mile corridor would not be replanted and woody growth would be controlled as a part of site maintenance and fuel load management. Long term, the area would be dominated by a shrub and herb layer. Trees planned for removal that are located within the footprint of the Project area are discussed further in Section 2.5 and 2.6 of the Project Description and in Section 3.4.6 Biological Resources Project Impact Analysis.

Given the nature of the landscape, removing vegetation within the Project corridor, which is in roadways and along the existing and proposed SPI pipeline easements, would not adversely impact the scenic quality of public views, because the area would continue to remain dominated by dense vegetation and forestlands beyond the maintained corridor. Furthermore, most vegetation removal would occur in areas that are not easily accessible to the public and, therefore, are unlikely to be visible from public vantage points. The existing wooded forested character of the area would remain intact. Therefore, because long-term changes would not substantially affect the existing visual character within and surrounding area, this impact is considered less than significant.

Level of Significance: Less than Significant

Mitigation Required: None Required

Impact AES-4 Potential to create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Impact AES-4 Analysis

Construction

Construction of the Project would largely occur from 7:00 AM and 7:00 PM, Monday through Friday, and between 8:00 AM and 5:00 PM on weekends and holidays, consistent with the El Dorado County General Plan Policy 6.5.1.11. However, as discussed in Section 2.6.5, Construction Schedule, there is a possibility that some night work may be required during certain phases of construction (i.e., when creek crossing activities need to be completed to maintain stability, for tie ins to existing facilities, and/or for in-road work). Construction lighting would be required for any nighttime work for visibility and safety of the workers, which could temporarily impact nighttime views in the area, and thus result in a potentially significant impact prior to mitigation. However, these temporary impacts from construction lighting would be reduced to a less than significant level with the implementation of Mitigation Measure AES-1, Use of Best Management Practices to Minimize Lighting Impacts from Construction, which would implement protective measures such as selecting warm-toned lights and facing light fixtures in a downward direction to minimize potential impacts from temporary lighting. These measures would reduce nighttime glare that could otherwise adversely affect nearby residences. Therefore, the Project's potential to create a new source of light or glare during construction would be less than significant with the implementation of Mitigation Measure AES-1.

Operation

Once operational, the majority of the Project (i.e., the pipeline) would be located underground and, as such, would not result in any long-term lighting or glare impacts. The new pump station would include new lighting for security and maintenance purposes; however, this new pump station would be located within the District's existing Reservoir A facility, and any new lighting would be similar to existing lighting currently used at the facility. Therefore, operation of the Project would result in a less than significant impact relative to the creation of a new source of light or glare in the area which could adversely affect day or nighttime views.

Level of Significance: Less than Significant With Mitigation

Mitigation Required: Mitigation Measure AES-1

3.5.5 AESTHETICS AND VISUAL RESOURCES MITIGATION

3.5.5.1 Mitigation Measure AES-1: Use of Best Management Practices to Minimize Lighting Impacts from Construction

The following best management practices (BMPs) shall apply to Project construction activities and staging areas to ensure minimal adverse impacts to nighttime views for adjacent sensitive receptors. These BMPs shall be implemented by the contractor during construction.

BMPs shall include, but are not limited to:

- Identify when/where lighting is needed and confine/minimize lighting to the extent necessary to meet safety purposes.
- Select warm color temperature bulbs (less than 5000K).
- Limit the height of fixtures to minimize the amount of light crossing property lines and overall light levels.
- Utilize temporary lighting shields during construction where construction lighting impacts to residences and other habitable structures cannot be avoided.

Mitigation Measure AES-1 Implementation

Responsible Party: The District and contractor. This mitigation measure shall be referenced in the contract documents for the Project.

Timing: During construction of the Project

Monitoring and Reporting Program: The District shall verify that the chosen contractor is implementing construction light reduction measures and that the design plans meet the operational light reduction measures in accordance with this mitigation measure.

Standards for Success: Lighting impacts are reduced to a less than significant level for all residences and habitable structures adjacent to the Project during construction.

3.6 Agriculture and Forestry Resources

3.6.1 BASIS FOR ANALYSIS

The CEQA Guidelines' Appendix G Environmental Checklist was assessed during the NOP scoping process to identify the Project components that have the potential to cause a significant impact to agriculture and forestry resources. The following thresholds of significance were used to determine if further evaluation was warranted to ascertain whether the Project may:

- 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 (FMMP) of the California Resources Agency, to non-agricultural use.
- Conflict with existing zoning for agricultural use or a Williamson Act contract.
- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC Section 12220[g]), timberland (as defined by PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g]);
- Result in the loss of forest land or conversion of forest land to non-forest use.

- 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.

3.6.2 REGULATORY FRAMEWORK

3.6.2.1 Federal

Farmland Protection Policy Act

The Farmland Protection Policy Act of 1981 (Sections 1539−1549 Public Law 97−98, Dec 22, 1981), requires the Secretary of Agriculture to establish and carry out a program to "minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses, and to the extent practicable, will be compatible with state, units of local government, and private programs and policies to protect farmland" (7 United States Code [USC] 4201-4209 and 7 USC 658).

3.6.2.2 State

Z'Berg-Nejedly Forest Practice Act of 1973

The Z'Berg-Nejedly Forest Practice Act was enacted in 1973 to ensure that logging occurs in a manner that will preserve and protect California's fish, wildlife, forests, and streams. The California Department of Forestry and Fire Protection (CAL FIRE) ensures that private landowners abide by the act when harvesting trees. Although there are specific exemptions in some cases, compliance with the Z'Berg-Nejedly Forest Practice Act and the State Board of Forestry and Fire Protection rules apply to all commercial harvesting operations for landowners of small parcels, ranchers owning hundreds of acres, and large timber companies with thousands of acres.

The Timber Harvesting Plan (THP) is the environmental review document submitted by landowners to CAL FIRE outlining the timber proposed for harvest, how it would be harvested, and the steps that will be taken to prevent damage to the environment. THPs are prepared by Registered Professional Foresters who are licensed to prepare these comprehensive, detailed plans. Timber harvest activities must be performed by a Licensed Timber Operator. THPs are the functional equivalent of an EIR, in that they evaluate the potential impacts of a proposed project regarding logging and timber harvesting. A THP can implement feasible mitigation measures that can reduce potentially significant impacts to a level of less than significant, similar to that of an EIR.

PRC Section 4628 and CCR Title 14 Section 1104.1(b) exempts public agencies from the requirement to file an application for Timberland Conversion or a THP when they construct or maintain ROWs on their own property or that of another public agency. This exemption extends to easements over lands owned in fee by private parties. However, if the harvested trees are sold, bartered, or traded for commercial purposes, a timber operation has occurred pursuant to PRC Section 4527, and a notice of exemption is required to be filed by the timber owner. This is true if the timber is owned by the public agency, sold or given by the agency to another party, or the timber is owned by a private landowner subject to a public agency easement. If the harvested trees are not sold, bartered, or traded for commercial purposes, a notice of exemption is

not required. The timber owner is responsible to pay all yield taxes for timber harvested (14 CCR Section 1104.1(b)(c)).

California Public Resources Code

The following provides context relative to the impact discussion in Section 3.2.4, below.

PRC Section 122“0(g): "Forest land" is land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions and that allows for management of one or more forest resources including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

PRC Section“4526: "Timberland" means land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the board on a district basis.

PRC Section 511“4(g): "Timberland production zone" or "TPZ" means an area which has been zoned pursuant to Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, as defined in subdivision (h). With respect to the general plans of cities and counties, "timberland preserve zone" means “timberland production zone."

California Farmland Mapping and Monitoring Program

The FMMP, which monitors the conversion of the California’s farmland to and from agricultural use, relies on information from the Natural Resources Conservation Service (NRCS) soils surveys, NRCS land inventory and monitoring criteria, and land use and water availability. Topography, climate, soil quality, and available irrigation water all factor into the FMMP farmland classifications.

The FMMP was established by the California Department of Conservation, under the Division of Land Resource Protection. Important Farmland maps are compiled by the FMMP pursuant to Section 65570 of the California Government Code. Under the FMMP, “Important Farmland Categories” were established based on soil characteristics that have significant agricultural production values. Categories mapped by the FMMP are as follows:

- **Prime Farmland**. Prime Farmland is land that has been used for irrigated agricultural production and meets the physical and chemical criteria for Prime Farmland as determined by the NRCS. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

- **Farmland of Statewide Importance.** Farmland of Statewide Importance is similar to Prime Farmland, but generally includes steeper slopes or less ability to store soil moisture. In order to be classified as Farmland of Statewide Importance, the land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

- **Unique Farmland.** Unique Farmland is farmland of lesser quality soils used for the production of the California's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards. Land must have been cropped at some time during the four years prior to the mapping date.
- **Farmland of Local Importance.** Farmland of Local Importance is land important to the local economy as determined by the County Board of Supervisors and a local advisory committee. This land includes dryland grain producing lands and farmlands that are presently irrigated but do not meet the soil characteristics of Prime Farmland or Farmland of Statewide Importance.
- **Grazing Land.** Grazing Land is land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres.
- **Urban and Built-up Land.** Urban and Built-Up Land is land occupied by structures with a building density of at least one unit to 1.5 acres, or approximately six structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.
- **Other Land**. Other Land is land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines and borrow pits; and water bodies smaller than 40 acres.
- **Water.** This category includes perennial water bodies with an extent of at least 40 acres.

3.6.2.3 Local

El Dorado County General Plan

As noted above, the District supplies water to customers throughout much of the County. Pursuant to Government Code Sections 53091 (D) and (E), many of the District's activities are not subject to local zoning or land use requirements, as stated below.

> *Building and zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, or for the production or generation of electrical energy, facilities that are subject to Section 12808.5 of the Public Utilities Code.*

As a special district with equal authority, the District is exempt from following goals and policies within the County's General Plan and Zoning Ordinance. However, the District aims to comply with those goals and policies and use them as a metric for formulating an impact analysis (El Dorado County 2004, as amended).

Policy 7.1.1.1: *Conserve and maintain important agricultural soils for existing and potential agricultural and forest uses by limiting non-agricultural/non-forestry development on those soils.*

Objective 7.4.4: *Forest and Oak Woodland Resources: Protect and conserve forest and woodland resources for their wildlife habitat, recreation, water production, domestic livestock grazing, production of a sustainable flow of wood products, and aesthetic values.*

Policy 7.4.4.1*: The Natural Resource land use designation shall be used to protect important forest resources from uses incompatible with timber harvesting.*

Goal 8.3: *Forest Land Conservation: Maintain healthy sustainable forests that provide for raw materials while limiting the intrusion of incompatible uses into important forest lands.*

Policy 8.3.1.1: *Lands suitable for timber production which are designated Natural Resource on the General Plan land use map and zoned TPZ or Forest Resource are to be maintained for the purposes of protecting and encouraging the production of timber and associated activities.*

Objective 8.3.2: *Conservation of Forest Lands: Protect and conserve lands identified as suitable for commercial timber production within the County that are important to the local forest product industry and forest lands that serve other values such as watershed, wildlife habitat, recreation, hydroelectric power generation, grazing, mineral extraction, or other resource-based uses.*

Objective 8.3.3: *Long-Term Forest Resources: Ensure long-term viability of forest resources and timber production.*

Policy 8.3.3.1: *Forest lands are reserved for multiple use purposes directly related to timber production, mineral resource extraction, wildlife, grazing, and recreation.*

Policy 8.3.3.2: *The Natural Resource land use designation shall be applied for the purposes of conserving and protecting important forest lands and maintaining viable forest-based communities. In determining whether particular lands constitute important forest lands, the Board of Supervisors shall consider the advice of the Agricultural Commission.*

Goal 8.4: *Sustainable and Efficient Forest Production: Minimized constraints inhibiting sustainable and efficient forest resource production.*

3.6.3 ENVIRONMENTAL SETTING

3.6.3.1 Regional Setting

Lands on the west slope of the County are considered the most valuable for agriculture because of the area's gentler slopes and richer soils. Historically, grazing of cattle and other livestock was the primary economic contributor in the County; however, more recently, the production of fruit (including wine grapes)

and nuts have become a major contributor to the County's agricultural production value (El Dorado County 2003).

3.6.3.2 Local Setting

The local agricultural setting can be described as rural forested woodland Sierra foothills containing rural, low-density residential development. The Project area elevations range between approximately 3,000 and 3,730 feet (914 and 1,140 meters) amsl and traverses various private property, lands owned by the District, and lands administered by the USFS.

Forest Land

The lands in the Project area support a minimum of 10 percent native tree cover under natural conditions, meeting the definition of "Forest Land" as defined by PRC Section 12220(g). The forested land in the Project area consists of a mix of conifers and hardwoods. Coniferous species present in the Project area include ponderosa pine (*Pinus ponderosa*) and California incense-cedar (*Calocedrus decurrens*) as the dominant species, Douglas-fir (*Pseudotsuga menziesii*), canyon live oak (*Quercus chrysolepis*), and black oak (*Quercus kelloggii*) as co-dominant species. There are no TPZs located directly within the Project area; however, there are lands that are administered by USFS within the Project area.

Agricultural Land

According to the Important Farmland maps compiled by the FMMP, lands within the Project area have the following designations: "Urban Built-Up Land," "Farmland of Local Importance," "Grazing Land," and "Other Land" (California Department of Conservation 2022a). There are no Williamson Act contracted lands within the Project area (California Department of Conservation 2022b).

3.6.4 ENVIRONMENTAL IMPACTS

This section analyzes the Project's potential to result in significant impacts to agriculture and forestry resources.

3.6.4.1 Project Impact Analysis

Impact AG-1	**Potential to covert 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.**

Impact AG-1 Analysis

Construction and Operation

As discussed above in Section 3.2.3.2, the Project area does not contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Therefore, no impact would occur.

Level of Significance: No Impact

Mitigation Required: None Required

Impact AG-2	**Potential to conflict with existing zoning for agricultural use or Williamson Act contract.**

Impact AG-2 Analysis

Construction and Operation

As discussed above in Section 3.2.3.2, there are no Williamson Act contracted lands within the Project area (California Department of Conservation 2022b). Therefore, no impact would occur.

Level of Significance: No Impact

Mitigation Required: None Required

Impact AG-3	**Potential to 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)).**

Impact AG-3 Analysis

Construction and Operation

Although there are no TPZs within the Project area, the Project area meets the definition of “Forest Land” (PRC Section 12220(g)) since a majority of the Project area contains 10 percent native tree cover under natural conditions. However, the existing pipeline alignment is not located on lands zoned for timberland or forest land. The Project pipeline alignment, pump station, and associated appurtenances would be constructed and operated within existing District-owned parcels, parcels administered by the USFS, within public road ROWs, and within previously disturbed areas. Therefore, the Project would not conflict with zoning of forest land or timberlands. The impact would be less than significant.

Level of Significance: Less than Significant

Mitigation Required: None Required

Impact AG-4 Potential to result in the loss of forest land or conversion of forest land to non-forest use.

Impact AG-4 Analysis

Construction and Operation

Approximately 615 trees would be removed as a result of the Project, ranging in size from 6 to 24 inches DBH. These trees would be removed along the approximately 4.5 miles of pipeline alignment to access and replace the existing pipeline. Regrowth would be limited through ROW maintenance activities. Trees that are located within the footprint of the Project are discussed further in Sections 2.5 and 2.6.

The majority of the pipeline alignment is located in a densely forested area, with dense swaths of old and new growth trees occurring throughout the area. The removal of trees in the 4.5-mile, previously disturbed corridor amidst a densely forested area would not result in a substantial conversation of timberland, because there would substantial trees remaining in the immediate surrounding area.

Given the dense patches of forestland throughout El Dorado County, including surrounding the Project area, the amount of forestland lost to re-establish an existing corridor is considered minimal. As such, there would be a less than significant impact.

Level of Significance: Less than Significant

Mitigation Required: None Required

Impact AG-5 Potential to 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.

Impact AG-5 Analysis

Construction and Operation

The Project entails the replacement of an existing out-of-service pipeline. It will allow for connectivity and redundancy between Reservoir A and Reservoir 1. This increase in flexibility is to maintain the existing drinking water system and would not result in additional water availability. Therefore, since the Project would not convert farmland or forest lands to non-agricultural or non-forest use, no impact would occur.

Level of Significance: No Impact

Mitigation Required: None Required

3.6.5 AGRICULTURAL AND FORESTRY RESOURCES MITIGATION

The level of significance of potential impacts to agricultural and forestry resources is either no impact or less than significant impact; therefore, no mitigation is required.

3.7 Air Quality

3.7.1 BASIS FOR ANALYSIS

The CEQA Guidelines' Appendix G Environmental Checklist was assessed during the NOP scoping process to identify the Project components that have the potential to cause a significant impact to air quality. The following thresholds of significance were used to determine if further evaluation was warranted to ascertain whether the Project may:

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

3.7.2 REGULATORY FRAMEWORK

3.7.2.1 Federal

Clean Air Act

The Clean Air Act (CAA) of 1970 and the CAA amendment of 1971 required that the U.S. Environmental Protection Agency (USEPA) establish the National Ambient Air Quality Standards (NAAQS), which requires retaining the option to adopt more stringent standards or to include other specific pollutants. On April 2, 2007, the U.S. Supreme Court found that carbon dioxide (CO_2) is an air pollutant covered by the CAA; however, no NAAQS have been established for CO_2.

The NAAQS standards specify the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those "sensitive receptors" that are the most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed. NAAQS are listed in Table 3.3-1.

Table 3.3-1. California and National Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards	National Standards	
		Concentration	Primary	Secondary
Ozone	1 Hour	0.09 ppm (180 µg/m^3)	—	Same as Primary Standard
	8 Hour	0.070 ppm (137 µg/m^3)	0.070 ppm (137 µg/m^3)	

Pollutant	Averaging Time	California Standards	National Standards	
		Concentration	Primary	Secondary
Respirable Particulate Matter	24 Hour	50 µg/m^3	150 µg/m^3	Same as Primary Standard
	Annual Arithmetic Mean	20 µg/m^3	—	
Fine Particulate Matter	24 Hour	—	35 µg/m^3	Same as Primary Standard
	Annual Arithmetic Mean	12 µg/m^3	12 µg/m^3	
Carbon Monoxide	1 Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	—
	8 Hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	—
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)	—	—
Nitrogen Dioxide	1 Hour	0.18 ppm (339 µg/m^3)	100 ppb (188 µg/m^3)	—
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)	Same as Primary Standard
Sulfur Dioxide	1 Hour	0.25 ppm (655 µg/m^3)	75 ppb (196 µg/m^3)	—
	3 Hour	—	—	0.5 ppm (1,300 µg/m^3)
	24 Hour	0.04 ppm (105 µg/m^3)	0.14 ppm (for certain areas)	—
	Annual Arithmetic Mean	—	0.030 ppm (for certain areas)	—
Lead	30-Day Average	1.5 µg/m^3	—	—
	Calendar Quarter	—	1.5 µg/m^3	Same as Primary Standard
	Rolling 3-Month Average	—	0.15 µg/m^3	
Visibility-Reducing Particles	8 Hour	See Footnote 1	No National Standards	
Sulfates	24 Hour	25 µg/m^3		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)		
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m^3)	—	

Source: California Air Resources Board Ambient Air Quality Standards (CARB 2016)
Note:
[1] In 1989, the CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.
Key:
µg/m^3 = micrograms per cubic meter
mg/m^3 = milligrams per cubic meter

3.7.2.2 State

California Clean Air Act

The California Clean Air Act of 1988, as amended in 1992, sets the California Ambient Air Quality Standard (CAAQS) and outlines a program to attain the CAAQS for ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter (PM), and carbon monoxide (CO) by the earliest practical date. As shown in Table 3.3-1, the CAAQS are generally more stringent than NAAQS. The California Air Resources Board (CARB) delegates the authority to regulate stationary source emissions to local air quality management districts. CARB requires these agencies to develop their own strategies for achieving compliance with NAAQS and the CAAQS, but maintains regulatory authority over these strategies and all mobile source emissions throughout the State.

Assembly Bills 1807 and 2588 – Toxic Air Contaminants

Within California, toxic air contaminants (TAC) are regulated primarily through Assembly Bill (AB) 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxic Hot Spots Information and Assessment Act of 1987). AB 1807 sets forth a formal procedure for CARB to designate substances such as TACs. This includes research, public participation, and scientific peer review before CARB designates a substance as a TAC.

Existing sources of TACs that are subject to AB 2588 are required to: (1) prepare a toxic emissions inventory; (2) prepare a risk assessment if emissions are significant; (3) notify the public of significant risk levels; and (4) prepare and implement risk reduction measures.

Assembly Bill 617

In response to AB 617 (C. Garcia, Chapter 136, Statutes of 2017), CARB established the Community Air Protection Program. The focus of the Community Air Protection Program, which includes community air monitoring and community emissions reduction program, is to reduce exposure in communities most impacted by air pollution. The California Legislature has appropriated funding to support early actions to address localized air pollution through targeted incentive funding to deploy cleaner technologies in these communities and has secured grants to support community participation in the AB 617 process. AB 617 also includes new requirements for accelerated retrofit of pollution controls on industrial sources, increased penalty fees, and greater transparency and availability of air quality and emissions data, which will help advance air pollution control efforts throughout the State.

3.7.2.3 Regional

El Dorado Air Quality Management District

The El Dorado Air Quality Management District (AQMD) is the agency primarily responsible for monitoring NAAQS and CAAQS exceedances and ensuring that air quality conditions are maintained within the County. El Dorado AQMD rules and regulations that may apply during the construction of the Project include, but are not limited to, the following:

Rule 202 – Visible Emissions: *A person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminants for a period or periods aggregating more than three (3) minutes in any one (1) hours which is:*

1. *As dark or darker in shade as that designated as No. 1 on the Ringlemann chart, as published by the United States Bureau of Mines, or*

2. *Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subsection (A) of this section.*

Rule 207 – Particulate Matter: *A person shall not release or discharge into the atmosphere from any source or single processing unit, exclusive of sources emitting combustion contaminants only, particulate matter emissions in excess of 0.1 grams per cubic foot of dry exhaust gas at standard conditions.*

Rule 223 – Fugitive Dust:

223.1 General:

A. *Purpose: The purpose of this Rule is to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions.*

B. *Applicability: The provisions of this rule are applicable to specified outdoor fugitive dust sources. The definitions, exemptions, requirements, administrative requirements, recordkeeping requirements, and test methods set forth in this rule are applicable to Rules 223, 223-1 and 223-2 of the Rules and Regulations of the El Dorado County Air Quality Management District.*

223.4 Requirements:

A. *Visible Emissions Not Allowed Beyond Boundary Line: A person shall not cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area, such that the presence of such fugitive dust remains visible, or exceed shade darker as that designated as No. 0 on the Ringelmann Chart, or exceed zero percent opacity as determined in accordance with USEPA Method 9, in the atmosphere beyond the boundary line of the emission source.*

B. *Concentration Limit: A person shall not cause or allow PM10 levels to exceed 50 micrograms per cubic meter, 24-hour average, when determined, by simultaneous sampling, as the difference between upwind and downwind samples collected on high-volume particulate matter samplers or other USEPA approved equivalent methods for PM10 monitoring. Sampling, if deemed necessary and required by the Air Pollution Control Officer, shall be conducted in accordance with the procedures specified in Section 223.5.A.*

Rule 223-1 Fugitive Dust - Construction, Bulk Material Handling, Blasting, Other Earthmoving Activities and Carryout and Trackout Prevention

223-1.1 General:

A. *Purpose: The purpose of this rule is to limit fugitive dust emissions from construction, and construction related activities.*

B. *Applicability: This rule applies to any construction or construction related activities, including, but not limited to, land clearing, grubbing, scraping, travel on site, and travel on access roads. This rule also applies to all sites that are subject to this rule where carryout or trackout has occurred or may occur on paved public roads or the paved shoulders of a paved public road. This rule also applies to the construction of new landfill disposal sites or modification to existing landfill disposal sites prior to commencement of landfilling activities.*

C. *Discovery of Naturally Occurring Asbestos: If owner/operator discovers any naturally occurring asbestos, serpentine, or ultramafic rock after the Project has commenced, then:*

    1. *If naturally-occurring asbestos, serpentine, or ultramafic rock is discovered by the owner/operator, a Professional Geologist, or the Air Pollution Control Officer in the area to be disturbed after the start of any construction or construction related activity, the owner/operator must report the discovery to the El Dorado County AQMD no later than the next business day; and*

    2. *The Project must comply with applicable provisions of Rule 223-2 and the State of California Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations (CCR Title 17, Section 93105).*

Rule 223-2 Fugitive Dust – Asbestos Hazard Mitigation

5-2.1 General:

A. *Purpose: The purpose of this Rule is to reduce the amount of asbestos particulate matter entrained in the ambient air as a result of any construction or construction related activities that disturbs or potentially disturbs naturally occurring asbestos by requiring actions to prevent, reduce or mitigate asbestos emissions.*

B. *Applicability: Unless one of the exemptions specified in Section 223-2.2 Exemptions applies, this Rule shall apply to any construction or construction related activity that:*

    1. *Is in excess of 20 cubic yards of graded material per project, or if required by the Air Pollution Control Officer and*

2. *Meets either of the following criteria:*

   - *Any portion of the area to be disturbed:*

     – *is located in a geographic ultramafic rock unit, or*

     – *has naturally-occurring asbestos, serpentine or ultramafic rock as determined by owner/operator, Professional Geologist or the Air Pollution Control Officer, or*

     – *is located within designated Naturally Occurring Asbestos Review Areas on the current El Dorado County Naturally Occurring Asbestos Review Area Map.*

   - *Naturally-occurring asbestos, serpentine, or ultramafic rock is discovered by the owner/operator, a Professional Geologist, or the Air Pollution Control Officer in the area to be disturbed after the start of any construction or construction related activity.*

1-9.1 General Requirements

1. *Visible emissions shall not exceed the shade designated as No. 0 on the Ringelmann Chart, or 0% opacity as determined in accordance with USEPA Method 9, at 25 feet from the point-of-origin and at the property line. Visible emissions shall not exceed the shade designated as No. 1 on the Ringelmann Chart, or 20% opacity as determined in accordance with USEPA Method at the point of-origin.*

2. *Vehicle Speed Limitations and Posting of Speed Limit Signs*

   A. *An owner/operator shall limit the speed of vehicles traveling within construction sites to a maximum of 15 miles per hour.*

   B. *An owner/operator shall post speed limit signs limiting vehicle speed to a maximum of 15 miles per hour that meet State and Federal Department of Transportation standards at each construction site's uncontrolled unpaved access/haul road entrance.*

1. *When sustained wind speeds result in visible dust emissions in excess of the standards in Section 223-2.4A., despite the application of dust mitigation measures, grading and earthmoving operations except for dust mitigation activities shall be suspended.*

2. *Warning signs shall be posted at the main entrance(s) to the Project for the duration of soil disturbance activities. Signs shall be posted in letter of sufficient size as to be readily visible and legible. The following wording is recommended: "Warning. Soils in the area may contain naturally occurring asbestos. Asbestos is*

a known carcinogen. Report excessive fugitive dust to the contractor at (contractor phone number), NOA Hotline: 888-FYI4NOA or EDCAQMD: 530-621-6662."

3. *The following operations and activities are expressly prohibited:*

   - *Rock crushing of asbestos-containing material;*
   - *Use of blower device for any removal of asbestos-containing material.*

3.7.2.4 Local

El Dorado County General Plan

Pursuant to Government Code sections 53091(D) and (E), many of the District's activities are not subject to local zoning or land use requirements, as stated below.

> *Building and zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, or for the production or generation of electrical energy, facilities that are subject to Section 12808.5 of the Public Utilities Code.*

As a special district with equal authority, the District is exempt from following goals and policies within the County's General Plan and Zoning Ordinance. However, the District aims to comply with those goals and policies and use them as a metric for formulating an impact analysis (El Dorado County 2004, as amended).

> ***Goal 6.7:*** *Air Quality Maintenance. (A) Strive to achieve and maintain ambient air quality standards established by the U.S. Environmental Protection Agency and the California Air Resources Board. (B) Minimize public exposure to toxic or hazardous air pollutants and air pollutants that create unpleasant odors.*
>
> ***Objective 6.7.1:*** *El Dorado County Clean Air Plan. Adopt and enforce Air Quality standards to reduce the health impacts caused by harmful emissions.*
>
> ***Policy 6.7.1.1****: Improve air quality through land use planning decisions.*
>
> ***Policy 6.7.1.2:*** *Support local and regional air quality improvement efforts.*

3.7.3 ENVIRONMENTAL SETTING

3.7.3.1 Regional Air Quality

The Project is located within the Mountain Counties Air Basin (MCAB). The County varies considerably with elevation, with predominantly low elevations in the western valley and high elevations in the eastern mountains. The varied topography in the region leads to localized air quality conditions. Regional airflows are affected by the mountains and hills, which direct surface air flows, cause shallow vertical mixing, and create areas of high pollutant concentrations by hindering dispersion.

According to CARB, the MCAB violates state standards for ozone and particulate matter less than 10 microns (PM_{10}); this can be attributed to the transport of pollutants from the Sacramento Valley, San Joaquin, and San Francisco Bay area air basins. Prevailing eastward flowing surface winds can transport air pollution from these air basins up into the mountain valleys during the daytime, and back down at night (El Dorado AQMD 2002).

Criteria Air Pollutants

Criteria air pollutants are defined as pollutants for which the federal and State governments have established NAAQS and CAAQS, respectively, for outdoor concentrations. These standards are designed to protect the most sensitive persons, such as children, pregnant women, the elderly, schools, hospitals, and convalescent homes, from illness and discomfort. Criteria air pollutants include O_3, NO_2, CO, SO_2, PM_{10}, particulate matter 2.5 microns or less in diameter ($PM_{2.5}$), and lead (Pb). Note that reactive organic gases (ROG) – also known as volatile organic compounds – and nitrogen oxides (NOx) are not classified as criteria pollutants. However, ROGs and NOx are widely emitted from land development projects and participate in photochemical reactions in the atmosphere to form O_3; therefore, ROGs and NOx are relevant to the Project and are of concern in the basin. Criteria pollutants and ozone precursors that could be generated by Project construction and operations include the following (USEPA 2023a):

- **Ozone.** O_3 is a gas that is formed when NOx and ROGs, both byproducts of internal combustion engine exhaust and other sources, undergo slow photochemical reactions in the presence of sunlight. O_3 concentrations are generally highest during the summer months when the combination of direct sunlight, light wind, and warm temperature conditions create conditions favorable to the formation of this pollutant.

- **Reactive Organic Gases.** ROGs are compounds composed primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of these hydrocarbons. Adverse effects on human health are not caused directly by ROGs, but rather by reaction of ROGs to form secondary air pollutants, including ozone.

- **Nitrogen Dioxide and Nitrogen Oxides.** Fuel combustion produces nitrogen which combines with oxygen to produce nitric oxide (NO). Further oxidation of NO results in the formation of NO_2, which is a criteria pollutant. NO_2 is a reddish-brown, highly reactive gas which acts as an acute irritant and, in equal concentrations, is more injurious than NO. NO and NO_2 are referred to together as oxides of nitrogen. As noted above, NOx is involved in photochemical reactions that produce ozone.

- **Carbon Monoxide.** CO is a colorless, odorless gas produced by the incomplete combustion of fuels. CO concentrations tend to be the highest during winter mornings, with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines and motor vehicles operating at slow speeds, the highest ambient CO concentrations are generally found near congested transportation corridors and intersections.

- **Sulfur dioxide.** SO_2 is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high-sulfur-content fuel oils and coal and from chemical

processes occurring at chemical plants and refineries. When sulfur dioxide oxidizes in the atmosphere, it forms sulfates.

- **Respirable Particulate Matter.** PM_{10} consists of extremely small, suspended particles or droplets 10 microns or smaller in diameter. Some sources of PM_{10}, like pollen and windstorms, are naturally occurring. However, in populated areas, most PM_{10} is caused by road dust, diesel soot, and combustion products, abrasion of tires and brakes, and construction activities.

- **Fine Particulate Matter.** $PM_{2.5}$ refers to particulate matter that is 2.5 microns or smaller in size. The sources of $PM_{2.5}$ include fuel combustion from automobiles, power plants, wood burning, industrial processes, and diesel-powered vehicles such as buses and trucks. These fine particles are also formed in the atmosphere when gases such as sulfur dioxide, NOx, and ROGs are transformed in the air by chemical reactions.

- **Lead.** Pb occurs in the atmosphere as particulate matter. The combustion of leaded gasoline is the primary source of airborne lead in the MCAB. The use of leaded gasoline is no longer permitted for on-road motor vehicles, so most such combustion emissions are associated with off-road vehicles such as racecars that use leaded gasoline. Other sources of Pb include the manufacturing and recycling of batteries, paint, ink, ceramics, ammunition, and secondary lead smelters.

Ambient Air Quality

CARB collects and summarizes data from monitoring stations around the State. The average air quality emissions from all stations across the County are summarized in Table 3.3-2 from 2019 through 2021. The County monitoring stations only collect O_3.

Table 3.3-2. El Dorado County Air Quality Monitoring

Pollutant	Air Pollutant, Averaging Time (Units)	2019	2020	2021
Ozone (ppm)	Maximum 1- hour	0.090	0.127	0.101
	California 1-hour number of days over standard	0	4	5
	Maximum 8-hour	0.078	0.101	0.092
	National 8-hour number of days over standard	6	21	20
	California 8-hour number of days over standard	6	22	20

Source: CARB 2023
Key:
ppm = parts per million

Toxic Air Contaminants

A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health, even at low concentrations.

Some studies indicate that diesel particulate matter (DPM) poses the greatest health risk among the TACs listed above. A 10-year research program demonstrated that DPM from diesel-fueled engines is a human carcinogen and that long-term inhalation exposure to DPM poses a chronic health risk. In addition to

increasing the risk of lung cancer, exposure to diesel exhaust can have other health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. Diesel exhaust is a major source of fine particulate pollution as well, and studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems.

DPM differs from other TACs in that it is not a single substance but a complex mixture of hundreds of substances. Although DPM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies, depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present. Unlike the other TACs, however, no ambient monitoring data are available for DPM, because no routine measurement method currently exists. CARB has made preliminary concentration estimates based on a DPM exposure method. This method uses the CARB emissions inventory's PM_{10} database, ambient PM_{10} monitoring data, and the results from several studies to estimate concentrations of DPM.

The El Dorado AQMD has established screening levels as conservative indicators that a project would not result in significant emissions of TACs. The screening level relevant to the Project includes emissions of ROGs and NOx that are below the significance thresholds for maximum daily emissions.

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, childcare centers, playgrounds, retirement homes, convalescent homes, hospitals, and medical clinics.

The closest sensitive receptor to the backup generator location is a residence located approximately 450 feet east of the proposed pump station at the Reservoir A facility.

Asbestos

Asbestos is a fibrous mineral that naturally occurs in ultramafic rock (a rock type commonly found in California) and is used as a processed component of building materials. Because asbestos has been proven to cause a number of disabling and fatal diseases, such as asbestosis and lung cancer, it is strictly regulated either based on its natural widespread occurrence or in its use as a building material. In the initial Asbestos National Emission Standards for Hazardous Air Pollutants rule promulgated in 1973, a distinction was made between building materials that would readily release asbestos fibers when damaged or disturbed (friable) and those materials that were unlikely to result in significant fiber release (non-friable). The USEPA has since determined that, when severely damaged, otherwise non-friable materials can release significant amounts of asbestos fibers. Asbestos has been banned from many building materials under the Toxic Substances Control Act, the CAA, and the Consumer Product Safety Act. Naturally occurring asbestos is known to occur in many parts of the State and is commonly associated with ultramafic

or serpentine rock. There are no known likely areas of naturally occurring asbestos in the Project area (El Dorado County 2015).

3.7.3.2 Local Air Quality

Table 3.3-3 describes County area attainment designations for State and federal ambient air quality (CARB 2022; USEPA 2023b). Areas meeting CAAQS or NAAQS are designated as attainment, while areas exceeding the CAAQS or NAAQS are designated nonattainment.

Table 3.3-3. El Dorado County Area Designations for State and Federal Ambient Air Quality

Criteria Pollutants	State Designation	Federal Designation
Ozone	Nonattainment	Severe Nonattainment
PM_{10}	Nonattainment	Unclassified
$PM_{2.5}$	Unclassified	Unclassified/Attainment
Carbon Monoxide	Unclassified	Unclassified/Attainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
Sulfates	Attainment	-
Lead	Attainment	Unclassified/Attainment
Hydrogen Sulfide	Attainment	-
Visibility Reducing Particles	Unclassified	-

Source: CARB 2022; USEPA 2023b
Key:
$PM_{2.5}$ = particulate matter less than 2.5 microns
PM_{10} = particulate matter less than 10 microns

3.7.4 ENVIRONMENTAL IMPACTS

This section analyzes the Project's potential to result in significant impacts to air quality.

3.7.4.1 Methodology for Analysis

Construction

The Project would result in short-term emissions of criteria air pollutants. Construction emissions would include exhaust from the operation of conventional construction equipment/vehicles and from fugitive dust as a result of grading and equipment/vehicle travel on unpaved surfaces.

Construction emissions were estimated using the California Emissions Estimator Model (version 2022.1.1.13) (See Appendix B, CalEEMod). CalEEMod is a statewide land use emissions web model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutants associated with both construction and operation of a variety of land use projects. The model quantifies direct emissions from construction and operations (including vehicle use), as well as indirect emissions, such as greenhouse gas (GHG) emissions from

energy use, solid waste disposal, vegetation planting and/or removal, and water use for land use developments and linear projects (such as pipeline construction).

The model was developed in collaboration with the air districts in California. Default data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) have been provided by the various California air districts to account for local requirements and conditions. For the Project, site-specific grading calculations, equipment vehicle use, construction schedule, and hauling truck trips were developed in consultation with the Project engineer.

Operation

As a pipeline replacement, operation of the Project is anticipated to be similar to existing conditions. However, the Project would include the construction and operation of a new pump station and backup generator. The backup generator was assumed to operate up to 100 hours per year for scheduled maintenance. The emissions from these sources were captured within CalEEMod.

Thresholds

The El Dorado AQMD has established significance thresholds to help determine the significance of a project. The AQMD has determined that mass emissions in excess of the ROG and NOx levels shown in Table 3.3-4 from any project could affect the AQMD's commitment to attain the federal one-hour ozone standard in El Dorado County (which is a part of the Sacramento Metro Region) and, thus, could have a significant adverse impact on air quality in the region.

Table 3.3-4. Ozone Precursor Significance Thresholds

Pollutant	Pounds per Day
Reactive Organic Gases (ROG)	82
Oxides of Nitrogen (NOx)	82

Source: El Dorado AQMD 2002

3.7.4.2 Project Impact Analysis

Impact AIR-1 Potential to conflict with or obstruct implementation of the applicable air quality plan.

Impact AIR-1 Analysis

The El Dorado County General Plan and the El Dorado AQMD have adopted goals and rules intended to improve air quality in the County and the air basin as a whole. Western El Dorado County, in the Sacramento Metro region, is in nonattainment for federal ozone and State PM_{10}. El Dorado County is also in nonattainment for State ozone. The goals and rules of the County and the El Dorado AQMD that are applicable to the Project are listed above in the Regulatory Framework section.

The El Dorado AQMD has determined that mass emissions in excess of the ROG and NO_x levels shown in Table 3.3-4, from any project, could affect the AQMD's commitment to attain the federal one-hour ozone standard in the Sacramento Metro Region of El Dorado County and, thus, could have a significant adverse

impact on air quality in that region (El Dorado AQMD 2002). Air quality emissions are discussed under Impact AIR-2. Construction and operational emissions were found to be less than El Dorado AQMD thresholds (see Table 3.3-5 and Table 3.3-6). Moreover, consistent with the recommendations of El Dorado AQMD, the Project would comply with Mitigation Measure AIR-1 that requires implementation of BMPs defined under El Dorado AQMD Rule 223. As such, since the Project would be consistent with the goals of the County General Plan and the El Dorado AQMD, the impact would be considered less than significant with mitigation.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure AIR-1

Impact AIR-2	**Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.**

Impact AIR-2 Analysis

In order to assess the Project's potential to contribute to an existing or projected air quality violation, localized criteria pollutant emissions were analyzed, since these are the pollutants with established ambient air quality standards. Construction and operational emissions were evaluated with CalEEMod and compared to El Dorado AQMD thresholds, as shown in Table 3.3-4, to determine Project significance. Construction and operational emissions are discussed separately below.

Construction

The Project's construction-related emissions for construction of the pumping station and pipeline replacement were estimated using CalEEMod. The results of the unmitigated emissions modeling were compared to the El Dorado AQMD standards of significance, summarized in Table 3.3-5, in order to determine the associated level of impact.

Table 3.3-5. Project CalEEMod Predicted Maximum Daily Projected Emissions Estimates, Construction

	ROG	NOx	CO	PM_{10}	$PM_{2.5}$
Pump Station Maximum Daily Construction Emissions (lbs/day)	7.56	17.70	17.40	9.43	2.37
Pipeline Replacement Maximum Daily Construction Emissions (lbs/day)	3.18	32.30	25.80	34.00	5.51
Project Total Maximum Daily Construction Emissions (lbs/day)	10.74	50.00	43.20	43.43	7.88
El Dorado AQMD Significance Thresholds (lbs/day)	**82**	**82**	**n/a**	**n/a**	**n/a**
Exceed Threshold	**No**	**No**	**n/a**	**n/a**	**n/a**

Key:
AQMD = Air Quality Management District
CalEEMod = California Emissions Estimate Model
CO = carbon monoxide
lbs/day = pounds per day
n/a = not applicable
NOx = nitrogen oxides
PM2.5 = particulate matter less than 2.5 microns
PM10 = particulate matter less than 10 microns
ROG = reactive organic gases

During construction of the Project, various types of equipment and vehicles would temporarily operate on the Project site. Construction exhaust emissions would be generated from construction equipment, earth movement activities, construction workers' commutes, and construction material hauling for the entire construction period. These activities would involve the use of diesel- and gasoline-powered equipment that would generate emissions of criteria pollutants, such as ROG and NO_x, which leads to the creation of ozone emissions. Although the Project would temporarily cause localized increases in emission levels, the Project-related emissions are estimated to be less than the El Dorado AQMD thresholds of significance for all criteria pollutants (Table 3.3-5; Appendix B).

Project construction and associated emissions would be temporary and minimal. However, CARB has adopted regulations to control emissions from portable equipment as a component of the State's air quality plans. As such, all applicable portable engines and off-road equipment related to the Project would be registered with CARB's portable engine and off-road equipment programs and would align with the requirements set forth in the attainment plans. Mitigation Measure AIR-1 would require compliance with CARB regulations and includes BMPs to reduce air emissions from construction equipment, including reducing equipment idling times and ensuring properly maintained equipment, which would comply with required measures of regional and local air quality plans.

In addition to emissions, Project construction activities would also result in sources of fugitive dust, including PM_{10}, which is regulated as a criteria source pollutant but also is afforded additional protections in the air quality plans mentioned above.

According to the El Dorado AQMD, a project is considered to have a significant impact on air quality if it will cause or contribute significantly to a violation of applicable national or state ambient air quality standards. Because El Dorado County is listed as nonattainment for state PM_{10}, the AQMD has adopted rules to reduce PM_{10} emissions; compliance with these rules would ensure that impacts are not significant. Mitigation Measure AIR-1 would require compliance with El Dorado AQMD Rule 223: Fugitive Dust General Requirements and Rule 207: Particulate Matter in order to reduce potential impacts from fugitive dust. Mitigation Measure AIR-1 also would include BMPs and a Dust and Emissions Control Plan which would reduce air emissions from construction equipment, including reducing equipment idling times, ensuring properly maintained equipment, establishing speed limits on dirt roads, and watering exposed soils and soils being transported off-site. These measures would effectively limit emissions of fugitive dust from Project construction activities.

Based on the factors presented above, the Project would be consistent with the goals of the El Dorado AQMD through the implementation of Mitigation Measure AIR-1. Therefore, impacts are considered less than significant with mitigation incorporated.

Operation

The Project's operational-related emissions for the new pump station and emergency generator were estimated using CalEEMod. The results of the unmitigated emissions modeling were compared to the El Dorado AQMD standards of significance, summarized in Table 3.3-6, in order to determine the associated level of impact.

Table 3.3-6. Project CalEEMod Predicted Maximum Daily Projected Emissions Estimates, Operation

	ROG	NO_x	CO	PM_{10}	$PM_{2.5}$
Pump Station Maximum Daily Operational Emissions[1]	0.06	0.02	0.08	<0.005	<0.005
Emergency Generator Maximum Daily Operational Emissions	2.50	11.20	6.38	0.37	0.37
Total Maximum Daily Operational Emissions	2.56	1.22	6.46	0.37	0.37
El Dorado AQMD Significance Thresholds (lbs/day)	**82**	**82**	**n/a**	**n/a**	**n/a**
Exceed Threshold	**No**	**No**	**n/a**	**n/a**	**n/a**

Note:
[1] Pump station operational emissions from area and energy sources.
Key:
< = less than
AQMD = Air Quality Management District
CalEEMod = California Emissions Estimate Model
CO = carbon monoxide
lbs/day = pounds per day
n/a = not applicable
NOx = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns
PM_{10} = particulate matter less than 10 microns
ROG = reactive organic gases

As shown in Table 3.3-6 above, Project operational emissions would not exceed El Dorado AQMD thresholds and impacts would be less than significant.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure AIR-1

Impact AIR-3 Potential to expose sensitive receptors to substantial pollutant concentrations.

Impact AIR-3 Analysis

Project construction would involve operating heavy equipment and construction activities that would temporarily produce additional dust and air emissions. The nearest sensitive receptors in the vicinity of the Project area that could be affected by construction-generated air emissions are residences located near the new pump station. Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, childcare centers, playgrounds, retirement homes, convalescent homes, hospitals, and medical clinics.

Fugitive Dust

Fugitive dust is typically generated during earth-moving activities (e.g., grading and excavation). Fugitive dust can cause health concerns when airborne due to potential inhalation. To minimize potential impacts

from fugitive dust, Mitigation Measure AIR-1 would be implemented, which includes watering exposed soils and soils being transported off-site, as well as watering and establishing speed limits on dirt roads. These measures would effectively limit emissions of fugitive dust from Project construction activities.

Toxic Air Contaminants

CARB has identified DPM from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks from TACs are a function of both the concentration of emissions and the duration of exposure.

Construction activities have the potential to generate DPM emissions related to the number and types of equipment typically associated with construction. Off-road, heavy-duty diesel equipment used for site grading, paving, and other construction activities result in the generation of DPM. However, Project construction would be temporary and would occur over a relatively short duration in comparison to the operational lifetime of the Project. In addition, only portions of the site would be disturbed at one time and construction would occur intermittently throughout the course of a day. Moreover, operation of construction equipment is regulated by federal, State, and local regulations, including El Dorado AQMD rules and regulations. Therefore, the likelihood that any one sensitive receptor would be exposed to high concentrations of DPM for any extended period of time would be low.

During operation, the Project would include a diesel backup generator at the proposed Reservoir A pump station. As noted above, the generator was assumed to operate up to a total of 100 hours per year for scheduled maintenance. Therefore, given the limited use of the generator, DPM released from the generator would not result in long-term exposure to any nearby sensitive receptors.

In addition, the El Dorado AQMD has established screening levels as conservative indicators that a project would not result in significant emissions of TACs. The screening level relevant to the Project includes construction emissions of ROG and NO_x that meet the significant thresholds of maximum daily emissions of 82 pounds per day. Therefore, because the Project would not exceed the El Dorado AQMD significance thresholds for ROG or NO_x, the Project would not result in significant emission of TACs (see Table 3.3-5).

Localized Carbon Monoxide Emissions

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. Construction of the Project would temporarily increase traffic volumes on streets near the Project site (i.e., hauling and construction worker vehicles); therefore, the Project would be expected to increase local CO concentrations during construction. Concentrations of CO approaching the ambient air quality standards are only expected where background levels, traffic volumes, congestion levels are high. The Project is located in a rural residential location where background concentrations of CO are low. Although hauling and construction worker vehicle trips would increase during Project construction, it is not anticipated that these additional trips would expose sensitive receptors to substantial pollutant concentrations. Once operational, the Project is not anticipated to result in an increase in employee trips to the pipeline or pump station that would result in increased CO levels.

Asbestos

The Project is not located in an area mapped as having, or otherwise known to have, ultramafic rock, serpentine, or naturally occurring asbestos. The nearest mapped unit is approximately 9 miles to the west of the Project (El Dorado County 2015). Therefore, the statewide Asbestos ATCM would not apply unless ultramafic rock/serpentine is discovered during grading or excavation. In the unexpected event ultramafic rock or serpentine is discovered, the El Dorado AQMD must be notified no later than the following business day and the Project must comply with applicable provisions of Rule 223-2 and the California ATCM for Construction, Grading, Quarrying, and Surface Mining Operations.

As discussed above, with implementation of Mitigation Measure AIR-1, the Project would not cause or be exposed to substantial pollutant concentrations, including localized CO, TACs, or fugitive dust. Therefore, exposure of sensitive receptors to substantial pollutant concentrations would not occur and the impact is less than significant with mitigation.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure AIR-1

Impact AIR-4	**Potential to result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.**

Impact AIR-4 Analysis

Odors are generally regarded as an annoyance rather than a health hazard. Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, quantitative methodologies to determine the presence of a significant odor impact do not exist. According to the CARB's Handbook, some of the most common sources of odor complaints received by local air districts are sewage treatment plants, landfills, recycling facilities, waste transfer stations, petroleum refineries, biomass operations, autobody shops, coating operations, fiberglass manufacturing, foundries, rendering plants, and livestock operations. The Project site is not located near any such land uses, and the Project would not introduce any such land uses.

Diesel fumes from construction equipment are often found to have objectionable odors; however, Project construction would be temporary and associated diesel emissions would be regulated per federal, State, and local regulations, including compliance with all applicable El Dorado AQMD rules and regulations as part of the construction specifications, which would control construction-related odorous emissions. Therefore, construction of the Project would not be expected to create objectionable odors affecting a substantial number of people and would have a less than significant impact.

Level of Significance: Less than Significant

Mitigation Required: None Required

3.7.5 AIR QUALITY MITIGATION

3.7.5.1 Mitigation Measure AIR-1: Dust and Emissions Control Plan

The District shall require that the selected contractor prepare and implement a Project Dust and Emissions Control Plan that is approved by the El Dorado AQMD prior to construction. The following measures shall be conducted throughout the construction period to limit and control dust and air emissions:

- All material excavated, stockpiled, or graded shall be sufficiently watered, treated, or covered to prevent fugitive dust from leaving the property boundaries and/or causing a public nuisance.
- All areas with vehicle traffic shall be watered or have a dust palliative applied as necessary to minimize dust emissions.
- All on-site vehicle traffic shall be limited to a speed of 15 mph on unpaved roads.
- All land clearing, grading, earth moving, or excavation activities on the Project shall be suspended as necessary to prevent excessive windblown dust when winds are expected to exceed 20 mph.
- All inactive portions of the construction site shall be covered, seeded, or watered or otherwise stabilized until a suitable cover is established.
- All material transported off-site shall be either sufficiently watered or securely covered to prevent it from being entrained in the air and there must be a minimum of six (6) inches of freeboard in the bed of the transport vehicle.
- Paved streets adjacent to the Project shall be reasonably clean through methods such as sweeping or washing at the end of each day, or more frequently, if necessary, to remove excessive accumulations or visibly raised areas of soil which may have resulted from activities at the Project area.
- Prior to the end of construction, the applicant shall re-establish ground cover on the site through seeding.
- The Project contractor shall ensure that all construction equipment is properly maintained.

The Project is not located in an area mapped as having, or otherwise known to have, ultramafic rock, serpentine, or naturally occurring asbestos (El Dorado County 2015). However, if naturally occurring asbestos is discovered during Project construction, the following shall occur:

1. If naturally occurring asbestos, serpentine, or ultramafic rock is discovered in the area to be disturbed after the start of any construction or construction-related activity, a Professional Geologist or the Air Pollution Control Officer must report the discovery to the El Dorado AQMD no later than the next business day; and

2. The Project shall comply with applicable provisions of Rule 223-2 and the California Asbestos ATCM for Construction, Grading, Quarrying, and Surface Mining Operations (CCR Title 17, Section 93105).

Mitigation Measure AIR-1 Implementation

Responsible Party: The District shall require that the contractor prepare and implement a Construction Emissions and Dust Control Plan. The District shall be responsible for ensuring that all adequate dust control measures are implemented in a timely manner during all phases of Project development and construction by the contractor. This mitigation measure shall be referenced in the contract documents for the Project.

Timing: An Emissions and Dust Control Plan shall be prepared and approved by the El Dorado AQMD prior to construction and implemented during all phases of grading and activities that generate dust.

Monitoring and Reporting Program: During construction, regular inspections shall be performed by a District representative and reports shall be kept on file by the District for inspection by the El Dorado AQMD or other interested parties as specified in the Emissions and Dust Control Plan.

Standards for Success: Visible emissions and dust are kept to the lowest practicable level during construction periods. The goal is to minimize dust and emissions during construction, including asbestos particulate matter as a result of any construction activities, and to the extent feasible, avoid activities that would generate air quality complaints from the public.

3.8 Biological Resources

3.8.1 BASIS FOR ANALYSIS

The CEQA Guidelines' Appendix G Environmental Checklist was assessed during the NOP scoping process to identify the Project components that have the potential to cause a significant impact to biological resources. The following thresholds of significance were used to determine if further evaluation was warranted to ascertain whether the Project may:

- 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 CDFW or U.S. Fish and Wildlife Service (USFWS).
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or USFWS.
- 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.

- 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.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

3.8.2 REGULATORY FRAMEWORK

3.8.2.1 Federal

National Environmental Policy Act

National Environmental Policy Act (NEPA) compliance is required to inform federal discretionary actions, including project funding, land use approvals, or regulatory permit approvals. The NEPA lead agency is typically determined based on a federal agency collaborative decision regarding which agency has the most jurisdictional authority over a given project, sometimes termed "the largest handle." For the Project, currently there is no federal funding; however, there is a need for federal land use permission and federal permits.

More specifically, a portion of the Project bisects two parcels (Assessor's Parcel Number [APN] 076-011-021-100 [60.1 acres] and APN 076-011-045-100 [40 acres]) administered by USFS. The Project activities have been authorized under an existing Special Use Permit which the USFS documented compliance with NEPA prior to the issuance of the Special Use Permit # PVL1082.

Additionally, the Project will require authorization under a CWA Section 404 permit from the U.S. Army Corps of Engineers (USACE). It is anticipated that the Project will qualify for authorization under a Nationwide Permit (NWP) #58 for Utility Line Activities for Water and Other Substances from the USACE. NWPs are a type of general permit issued by the USACE approximately every five years. The activities authorized by NWPs have no more than minimal individual and cumulative adverse effects on the aquatic environment; and USACE completed the NEPA process as part of the issuance of the current set of NWPs. The Project is not anticipated to require additional NEPA compliance requirements from the USACE.

Endangered Species Act of 1973

The federal Endangered Species Act (ESA) was passed by Congress in 1973 to protect and recover imperiled species and the habitat on which they depend. The ESA is administered by USFWS and the National Oceanic and Atmospheric Administration, which includes the National Marine Fisheries Service (NMFS). Under the ESA, protected species are either listed as "endangered," in danger of extinction throughout all or a significant region of the species range; or as "threatened," likely to become endangered within the foreseeable future (USC Section 1531 et seq.). The ESA also designates "proposed" species, which are species that are formally proposed for listing as endangered or threatened, and "candidate"

species, which are species for which USFWS has sufficient information to support a proposal for listing, but a proposal is precluded by higher priority listing actions. Proposed species are afforded limited protection under the ESA for projects involving federal actions. Candidate species do not receive statutory protection under the ESA, but cooperative conservation activities are encouraged (16 USC Section 1531 et seq.).

The ESA mandates the protection of federally listed species and the habitats on which they depend (50 Code of Federal Regulations [CFR] 17.12 for listed plants, 50 CFR 17.11 for listed animals, and various notices in the Federal Register for proposed species). USFWS and NMFS can designate critical habitats (i.e., Designated Critical Habitat [DCH]) that are areas essential for the conservation of the species. DCH is applicable only to federal agency actions and/or federally funded and permitted activities. DCH is not applicable to non-federal actions if there is no federal "nexus" (i.e., link such as federal funding or federally issued permit) (16 USC Section 1531 et seq).

Section 9 of the ESA prohibits the "take" of federally listed species. "Take" is defined as to hunt, pursue, catch, capture, or kill; or attempt to hunt, pursue, catch, capture, or kill an endangered or threatened species. In addition, the ESA requires that federal agencies avoid "destruction" and "adverse modification" of DCH for a species (16 USC Section 1531 et seq; USFWS 2023a).

Consultation with the USFWS and/or NMFS under Section 7 of the ESA is required if a federal action (including projects with a federal nexus) could affect a federally listed species or DCH.

Migratory Bird Treaty Act of 1918 and the Bald and Golden Eagle Protection Act

The Migratory Bird Treaty Act (MBTA) (16 USC Sections 703−711) and the Bald and Golden Eagle Protection Act (BGEPA) (16 USC Section 668) protect specific species of birds and prohibit intentional take (i.e., harm or harassment) when the purpose of an activity is to take migratory birds, eggs, or nests (USFWS 2023b, 2023c). The MBTA protects migratory birds from take through the setting of hunting limits and seasons and protecting birds and their occupied nests and eggs. BGEPA prohibits the take or commerce of any part of the bald or golden eagle. USFWS administers the MBTA and BGEPA and reviews actions that may affect the protected species.

Clean Water Act

The CWA (33 USC Section 1251 et seq. [1972]) is administered by the USEPA and sets water quality standards for contaminants in surface waters. The USEPA has delegated responsibility for implementation of portions of the CWA, including water quality control planning and programs in California, to the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCB). Sections of the CWA (i.e., Sections 401, 402, and 404) provide regulatory context for impact assessments to:

- Biological resources (i.e., lake, stream, and wetland habitats if considered jurisdictional waters of the United States [WOTUS]);
- Geology and soils (sediment controls);
- Hydrology and water quality.

Under Section 401 of the CWA, a federal permit or license to conduct any activity that may result in any discharge into WOTUS is not valid until a Section 401 Water Quality Certification (WQC) is issued, verifying compliance with water quality requirements, or certification is waived. In California, the SWRCB and the nine RWQCBs have the primary responsibility for administering State and federal regulations related to water quality, including the Section 401 WQC. Based on review of a project, the SWRCB and RWQCBs can issue, waive, or deny the WQC (USEPA 2022a). If a project does not require a federal license or permit but does involve activities that may result in a discharge of harmful substances to waters of the State (WOTS), the RWQCB has the option to regulate such activities under its State authority in the form of Waste Discharge Requirements or NPDES permits (California Water Code Section13000 et seq.) (SWRCB 2023).

Section 402 of the CWA established the NPDES permitting program, which requires any discharge of pollutants into WOTUS to comply with the provisions of a NPDES permit (USEPA 2022b). The CWA 1987 amendments added Section 402(p), which provided a framework for regulating municipal and industrial stormwater discharges under an NPDES program. Although the regulations allow for two permitting options (Individual Permits and General Permits), the SWRCB in California elected to adopt a single Statewide NPDES General Construction Permit that regulates stormwater discharges associated with construction activities that disturb 1 or more acres of land or projects that disturb less than 1 acre of land but are part of a larger common plan of development or sale resulting in disturbances that total 1 or more acres.

The NPDES General Construction Permit requirements apply to construction activities that include clearing, grading, grubbing, and disturbances to the ground, such as excavation. However, the requirements do not apply to certain activities, such as regular maintenance activities to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, in addition to construction activities that disturb less than 1 acre of land (unless the construction activities are part of a larger common plan of development or sale with land disturbances occurring on one or more acres of land).

Project applicants are required to submit a Notice of Intent (NOI) to the SWRCB's Division of Water Quality. The NOI includes general information on the types of construction activities that would occur on the site. Applicants are also required to submit a site-specific Storm Water Pollution Prevent Plan (SWPPP) for construction activities. The SWPPP would include a description of BMPs to minimize the discharge of pollutants from the site during construction as well as appropriate monitoring, sampling, and reporting (SWRCB 2022).

Section 404 of the CWA regulates the discharge of dredged or fill material into WOTUS, including wetlands. Wetlands are defined, for regulatory purposes, as areas inundated or saturated by surface water or groundwater; at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated solid conditions (33 CFR Section 328.3). If a project results in discharges of any dredged or fill materials into WOTUS, including wetlands, it must be authorized under a permit from the USACE (USEPA 2023a).

The projected assessment of potential impacts on water quality are included in the hydrology and water quality section of this document.

National Threatened, Endangered, and Sensitive Species Program

The Threatened, Endangered, and Sensitive Species Program includes management for all threatened, endangered and designated sensitive species on National Forest System lands (USFS 2023a). USFS designates sensitive species for each national forest. A sensitive species is defined as any species of plant or animal that has been recognized by the Regional Forester as needing special management to prevent them from becoming endangered or threatened and are included on the 2013 Pacific Southwest Region's Sensitive Animal Species List (USFS 2023b) and the 2013 Pacific Southwest Region's Sensitive Plant Species List (USFS 2023c). Sensitive species receive special management attention as prescribed by the Forest Service Manual Section 2670, with the goal of habitat management to prevent these species from becoming candidates for threatened or endangered status (USFS 1997). Furthermore, within the land and resource management plans of each national forest, the USFS identifies Management Indicator Species (MIS), as directed by 36 CFR 219.19, to evaluate the effects of management alternatives. These species represent habitat types that occur either within the national forest boundary and/or are species that are presumed to be sensitive to the various forest management activities within that forest (USFS 2004).

3.8.2.2 State

California Endangered Species Act

The CDFW has jurisdiction over species listed as threatened or endangered under FGC Section 2080, which is the CESA. The CESA, enacted in 1970, prohibits take of state-listed threatened and endangered species. The California FGC defines take as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill" (FGC Section 86) (CLI 2023a). The CESA also designates "candidate species" which are afforded the same level of protection as listed species (CDFW 2023a). An Incidental Take Permit from the CDFW is required for take of any state-listed or candidate species, and any take must be minimized and fully mitigated (CLI 2023b).

In the 1960s, prior to the enactment of the CESA, California created a designation to provide protection to rare species. This designation remains today and is referred to as "fully protected" species, which "may not be taken or possessed at any time" (CDFW 2023b). CDFW cannot issue an Incidental Take Permit for fully protected species.

CDFW also designates "species of special concern" (SSC), which are species of limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational values. These species do not have the same legal protection as listed species but may be added to official lists in the future (CDFW 2023c).

Native Plant Protection Act: FGC, Section 1900 et seq.

The Native Plant Protection Act (NPPA) was enacted in 1977 and is administered by CDFW (FGC Section 1900 et seq.). The NPPA prohibits "take" of endangered, threatened, or rare plant species native to California, with the exception of special criteria identified in the FGC. A "native plant" means a plant growing in a wild, uncultivated state, which is normally found native to the plant life of the state. Under the FGC, species become endangered, threatened, or rare when the plants' prospects of survival and

reproduction are in immediate jeopardy for one or more causes (CLI 2023a). “Rare” species can be defined as species that are: broadly distributed but never abundant where found, narrowly distributed or clumped yet abundant where found, and/or narrowly distributed or clumped and not abundant where found. If a project would result in take of an endangered, threatened, or rare plant, then consultation with CDFW, permitting, and/or other conservation measures may be required.

Nesting Migratory Bird and Raptors: FGC, Sections 3503, 3503.5, and 3800

FGC Sections 3503, 3503.5, and 3800 prohibit the take, possession, or destruction of birds, their nests or eggs. Disturbances that cause nest abandonment and/or loss of reproductive effort (e.g., killing or abandonment of eggs or young) or the loss of habitat upon which the birds depend is considered “taking” and is potentially punishable by fines and/or imprisonment (FGC Section 3503−3503.5) (CLI 2023a).

Lake and Streambed Alteration Agreement: FGC, Sections 1600−1616

FGC Section 1602 requires any person, state, or local governmental agency or public utility to notify CDFW prior to beginning any activity that may do one or more of the following: substantially divert or obstruct the natural flow of any river, stream, or lake; substantially change the bed, channel, or bank of any river, stream, or lake; use material from any river, stream, or lake; or deposit or dispose of material into any river, stream, or lake. CDFW requires a Lake or Streambed Alteration Agreement (LSAA) when a project activity may affect fish and wildlife resources.

In practice, CDFW regulates activities under FGC Sections 1600 *et seq.* within the top of the stream or lake bank, or the outer edge of the riparian vegetation (where present) and may extend its authority to the edge of the 100-year floodplain (CLI 2023a). CDFW authorizes activities within stream and lake zones by entering into an LSAA with an applicant and can impose conditions on the agreement to protect fish and wildlife resources. The LSAA is not a permit, but a mutual agreement between CDFW and the applicant (CDFW 2023d).

California Environmental Quality Act

CEQA provides protection for federal- and state-listed species, as well as non-listed species that may be considered rare, threated, or endangered, if the species can be shown to meet specific criteria outlined in CEQA Guidelines Section 15380(b). Species that meet these criteria can include proposed species, candidate species, species of special concern, and other sensitive species. Plants appearing on the CDFW California Rare Plant Rank (CRPR) may also be considered to meet CEQA’s Section 15380 criteria. Impacts on these species may be considered “significant” and require mitigation (CDFW 2018).

Section 15380 was included in CEQA to address a potential situation in which a public agency is to review a project that may have a significant effect on, for example, a “candidate species,” that has not yet been listed by the USFWS or CDFW. Therefore, CEQA enables an agency to protect a species from significant impacts until the respective government agencies have had an opportunity to list the species as protected, if warranted (CDFW 2023e).

Porter-Cologne Water Quality Control Act of 1969

The SWRCB was established in 1967 by the California Legislature and it absorbed the functions of the former State Water Rights Board and the State Water Quality Control Board. The nine RWQCBs were established through the passage of the Dickey Water Pollution Control Act of 1949. The SWRCB and nine RWQCBs together enforce the Porter-Cologne Water Quality Control Act (Porter-Cologne Act), which established the California Water Code. The Porter-Cologne Act expanded the enforcement responsibilities of the SWRCB and nine RWQCBs. The nine RWQCBs have the primary responsibility for the coordination and control of water quality within their respective jurisdictional boundaries. Under the Porter-Cologne Act, water quality objectives (WQO) are limits or levels of water quality constituents or characteristics established for the purpose of protecting Beneficial Uses.

The Porter-Cologne Act requires the RWQCBs to establish WQOs while acknowledging that water quality may be changed to some degree without unreasonably affecting Beneficial Uses. Designated Beneficial Uses, together with the corresponding WQOs, and an antidegradation policy, also constitute water quality standards under the federal CWA. The WQOs provide requirements for water quality standards and control.

Additionally, certain wetlands and other waters are not considered WOTUS due to the EPA's 2023 change (88 FR 61964). In California, the SWRCB Implementation Guidance for the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to WOTS is used for wetlands that do not meet federal criteria for jurisdiction.

California Oak Woodlands Conservation Act: FGC Sections 1360-1372; PRC 21083.4

The California Oak Woodland Conservation Act defines an oak as "any species in the genus *Quercus*" and an oak woodland as "an oak stand with greater than ten percent canopy cover, or that may have historically supported greater than ten percent canopy cover" (FGC Sections 1360−1372) (CLI 2023a). The California Oak Woodland Conservation Act is designed to "support and encourage voluntary, long-term private stewardship and conservation of California's oak woodlands by offering landowners financial incentives to protect and promote biologically functional oak woodlands over time" as mandated by the Wildlife Conservation Board (WCB). The WCB has established a grant program, the California Oak Woodlands Conservation Program, designed to protect and restore oak woodlands using conservation easements, cost share and long-term agreements, technical assistance, and public education and outreach.

CEQA requires counties to determine whether projects within their jurisdiction may result in significant impacts on the environment due to the conversion of oak woodlands and requires that counties adopt specified mitigation measures for significant impacts on oak woodlands (CLI 2023b). The requirement applies to non-commercial native oak trees 5 inches or more DBH. Oaks less than 5 inches DBH would still be subject to any conservation measures contained in applicable local ordinances or general plans.

3.8.2.3 Local

El Dorado County General Plan

Pursuant to Government Code sections 53091(D) and (E), many of the District's activities are not subject to local zoning or land use requirements, as stated below.

> *Building and zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, or for the production or generation of electrical energy, facilities that are subject to Section 12808.5 of the Public Utilities Code.*

As a special district with equal authority, the District is exempt from following goals and policies within the County's General Plan and Zoning Ordinance. However, the District aims to comply with those goals and policies and use them as a metric for formulating an impact analysis (El Dorado County 2004, as amended).

> ***Goal 7.4:*** *Wildlife and Vegetation Resources: Identify, conserve, and manage wildlife, wildlife habitat, fisheries, andvegetation resources of significant biological, ecological, and recreational value.*
>
> ***Objective 7.4.2:*** *Identify and Protect Resources: Identification and protection, where feasible, of critical fish and wildlife habitat including deer winter, summer, and fawning ranges; deer migration routes; stream and river riparian habitat; lake shore habitat; fish spawning areas; wetlands; wildlife corridors; and diverse wildlife habitat.*
>
> ***Policy 7.4.2.1:*** *The County will coordinate wildlife and vegetation protection programs with appropriate federal and state agencies.*
>
> ***Policy 7.4.2.2****. The County shall continue to support the Noxious Weed Management Group in its efforts to reduce and eliminate noxious weed infestations to protect native habitats and to reduce fire hazards.*
>
> ***Objective 7.4.4:*** *Forest and Oak Woodland, and Tree Resources: Protect and conserve forests, oak woodlands, and tree resources for their wildlife habitat, recreation, water production, domestic livestock grazing, production of a sustainable flow of wood products, and aesthetic values.*

El Dorado County Oak Resources Management Plan

On October 24, 2017, the Board of Supervisors approved the General Plan Biological Resources Policy Update Project, adopted an Oak Resources Management Plan (ORMP) that replaces the 2008 Oak Woodland Management Plan, adopted an In-Lieu Mitigation Fee to mitigate impacts on oak woodland areas and individual oak trees, and adopted an Oak Resources Conservation Ordinance to implement the ORMP. The new ordinance became effective on November 23, 2017, and the In-Lieu Mitigation Fee took effect on December 23, 2017. The ORMP is intended to implement the El Dorado County General Plan and fulfill mitigation requirements with respect to individual oak trees and oak woodlands. The ORMP provides a

comprehensive approach for project-level oak woodland mitigation and simultaneously considers 'landscape level' conservation goals. The ORMP reviews both State and County level requirements for oak woodland mitigation standards (El Dorado County 2017).

The ORMP mitigation requirements are more stringent than State law, which only requires mitigation of impacts on oak woodlands. The County's ORMP also requires mitigation of individual native oak trees and greater mitigation (3 to 1 ratio) for heritage trees that are 36 inches in diameter or greater, measured 4 feet 6 inches from ground level. It also provides greater protection to individual valley oak trees and valley oak woodlands, which is the only oak woodland type in the County designated by the CDFW as a Special-status Vegetation Community protected under State law (El Dorado County 2017).

3.8.3 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 below and describe the existing biological conditions of the Project area.

The Project is located in western El Dorado County, which is characterized by a Mediterranean climate with cool, wet winters and hot, dry summers. Elevations in the Project area range between approximately 3,000 and 3,740 feet (914−1,140 meters) amsl. The vegetation is characterized primarily by Sierran mixed conifer forest and mixed montane chaparral habitat, including interspersed patches of open non-native grassland as well as isolated segments of montane riparian habitat along four stream crossings within the Project area. Surrounding land uses are forested land utilized by both public and private entities. Parts of the Project area are within the boundaries of the Eldorado National Forest managed by USFS.

The existing SPI alignment is approximately 4.5 miles long and runs from Reservoir 1 through mixed conifer forest, non-native grassland, rural residential areas, and undeveloped parcels to Reservoir A. The predominant land use within and immediately adjacent to the Project area includes rural residential development. These properties are accessed by a network of paved and dirt or gravel roads, some of which cross the existing alignment.

The Project area traverses two watersheds: the North Fork Weber Creek watershed and the Clear Creek watershed (USEPA 2023b). Stream crossings in the Project area include, from north to south, North Fork Weber Creek, South Fork Weber Creek, North Fork Clear Creek, and Clear Creek (USFWS 2023d).

3.8.3.1 Vegetation Communities

The vegetation communities within and surrounding the Project area are typical of the Sierra Nevada foothills and include Sierran mixed conifer forest, mixed montane chaparral, annual grassland, and montane riparian. These vegetation communities are described below.

Sierran Mixed Conifer

Sierran mixed conifer is the dominant vegetation community within the Project area. This community includes the *Pinus ponderosa – Calocedrus decurrens – Pseudotsuga menziesii* Forest and Woodland Alliance (Ponderosa pine – Incense Cedar – Douglas fir forest and woodland). This habitat occurs on the slopes and within the raised stream benches of the Project area. The parent materials and soils are variable throughout this vegetation community (Sawyer et al. 2009). The indicator species specific to this alliance that were identified within the Project area include ponderosa pine (*Pinus ponderosa*) and California incense-cedar (*Calocedrus decurrens*) as the dominant species, Douglas-fir (*Pseudotsuga menziesii*), canyon live oak (*Quercus chrysolepis*), and black oak (*Quercus kelloggii*) as co-dominant species.

Species observed included canopy species such as white fir (*Abies concolor*), ponderosa pine, Douglas fir, California incense-cedar, black oak, and Pacific madrone (*Arbutus menziesii*). Dominant species occurring in the understory or in adjacent openings include whiteleaf manzanita (*Arctostaphylos viscida*), mountain whitethorn (*Ceanothus cordulatus*), deer brush (*Ceanothus integerrimus*), mountain dogwood (*Cornus nuttallii*), tan-oak (*Lithocarpus densiflora*), golden fleece (*Ericameria arborescens*), poison oak (*Toxicodendron diversilobum*), mountain misery (*Chamaebatia foliolosa*), Himalayan blackberry (*Rubus armeniacus*), scotch broom (*Cytisus scoparius*), yellow star thistle (*Centaurea solstitialis*), blue wildrye (*Elymus glaucus*), and several non-native annual grass species. Blue elderberry (*Sambucus nigra ssp. caerulea*) shrubs were also documented within the Project area (AECOM 2017; Stantec 2023a).

Mixed Montane Chaparral

Mixed montane chaparral occurs in larger open areas primarily within the southern portion of the Project area on south-facing slopes along the edges of Sierran mixed conifer forest. Dominated by mountain whitethorn, the mixed montane chaparral vegetation community also includes coyote brush (*Baccharis pilularis*), California yerba santa (*Eriodictyon californicum*), whiteleaf manzanita, golden fleece, as well as non-native annual grass species in adjacent openings. The proposed staging area paralleling Lynx Trail is dominated by deer brush with scattered poison oak and tree saplings associated with the mixed conifer forest (AECOM 2017).

Annual Grassland

Interspersed among the Sierra mixed conifer and mixed montane chaparral habitats are openings of non-native annual grassland dominated by wild oat (*Avena fatua*), soft chess (*Bromus hordeaceus*), blue wildrye (*Elymus glaucus*) – a native perennial grass – and numerous native and nonnative forbs such as clover species (*Trifolium* spp.) and common mustard (*Brassica rapa*). There are also areas covered with dense stands of non-native invasive species, particularly Himalayan blackberry, scotch broom, and yellow star thistle. Non-native annual grasslands can be found throughout the extent of the Project area; however, frequency and occurrences increase in its southern region.

Montane Riparian

The montane riparian vegetation community occurs adjacent to the four stream crossings within the Project area. The streams generally flow through the canyons in an east to west direction with the vegetation

present on north- and south-facing slopes. Common species include big-leaf maple (*Acer macrophyllum*) and occasional white alder (*Alnus rhombifolia*), pacific willow (*Salix lasiandra*), and arroyo willow (*Salix lasiolepis*). Douglas-fir, incense-cedar, and black oak are present as well. Willow species were not present on North Fork Clear Creek and Clear Creek due to dense riparian tree canopy cover, which included incense-cedar and other conifers. However, these streams had areas of sparse Himalayan blackberry and occasional clumps of perennial grass in the understory. Willow species were common along North Fork Weber Creek where the riparian tree canopy was open, and they grew farther up the banks with areas of dense Himalayan blackberry, scotch broom, and native shrub and sapling trees. No wetland marsh or floating or submerged aquatic plants were observed within any of the four streams. However, moss-covered rocks and fern species were observed growing within and/or adjacent to the channels.

3.8.3.2 Hydrology

The Project area traverses two watersheds: the North Fork Weber Creek watershed and the Clear Creek watershed (USEPA 2023b). A total of four stream crossings and one drainage is present within the Project area. This includes two perennial streams (North Fork Weber Creek and North Fork Clear Creek) two intermittent streams (South Fork Weber Creek and Clear Creek), and one unnamed ephemeral drainage located at the intersection of Manx Road and Starkes Grade Road (USFWS 2023d). The four streams generally flow through the canyons in an east to west direction while the unnamed ephemeral drainage runs north to south through a culvert beneath Starkes Grade Road.

3.8.3.3 Wildlife Habitat

The observed vegetation communities within the Project area provide habitat for wildlife species. Specifically, riparian and wetland habitats are considered to be high value habitat for wildlife including birds, mammals, reptiles, amphibians, and invertebrates alike. Riparian areas have increased biological productivity and provide a valuable connection between terrestrial and aquatic habitats (BLM 2023). The Project area primarily traverses through Sierran mixed conifer, mixed montane chaparral, annual grasslands, and at four stream crossings, montane riparian habitat is present as well. These habitat types have the potential to support a variety of wildlife species, including rodents such as the western gray squirrel (*Sciurus griseus*) and dusky-footed woodrat (*Neotoma fuscipes*) and; mammals such as mule deer (*Odocoileus hemionus*) that may use this habitat for foraging, cover, and fawning; various predators, including gray fox (*Urocyon cinereoargenteus*) and raptors that may feed on the rodents and other small mammals; and a variety of bird species, such as the California scrub-jay (*Aphelocoma californica*) and acorn woodpecker (*Melanerpes formicivorus*).

3.8.3.4 Wildlife Corridors

Wildlife movement corridors have been recognized by USFWS and CDFW as important habitats worthy of conservation. Wildlife corridors provide migration channels seasonally (i.e., between winter and summer habitats); provide non-migratory wildlife with the opportunity to move within their home range for food, cover, and reproduction; and allow for dispersal for individuals to colonize new areas (CDFW 2023f; USFWS 2023e). Although data on the locations and value of wildlife movement corridors specific to the Project area are lacking, the vegetation communities and variety of habitats have the potential to support wildlife movement. Specifically, the Project area includes or is adjacent to mixed vegetation covers in association

with seasonal riparian and stream channels and may be highly favored habitats for a variety of wildlife species. This habitat type provides corridors for wildlife movement, specifically undisturbed and continuous expanses of land as opposed to areas with fragmentation like nearby highways such as HWY 50.

Other contributing factors that are useful for wildlife migration include undisturbed and continuous expanses of land. According to CDFW's Terrestrial Connectivity, Areas of Connectivity (ACE) dataset accessed through CDFW's Biogeographic Information and Observation System, the majority of the Project area is ranked as ACE Rank 1 or ACE Rank 2 (CDFW 2019a):

- ACE Rank 1: Limited Connectivity Opportunity. These are other areas, including lakes where land use may limit options for providing connectivity (e.g., agriculture, urban) or no connectivity importance has been identified in models.
- ACE Rank 2: Large natural habitat areas. These are large blocks of natural habitat (greater than 2,000 acres) where connectivity is generally intact.

3.8.3.5 Designated Critical Habitat

Critical habitat is defined in Section 3(5)A of the ESA as specific regions in the geographical area occupied by federally listed species that contain the physical or biological features essential to the conservation of the species and that may require special management considerations or protection. Critical habitat does not have to be occupied by that species at the time it is designated; however, specific areas outside of the geographical area occupied by the species may also be included in critical habitat designations if determined to be essential for the conservation of the species.

California Red-legged Frog Designated Critical Habitat

In California, a total of approximately 1,636,609 acres was designated as critical habitat for the California red-legged frog in May 2006 (USFWS 2006a) becoming final rule in April 2010 (USFWS 2010). This acreage included 48 units and all were occupied by the species at the time of listing (USFWS 2010). To determine what areas to designate as critical habitat where the California red-legged frog is present at the time of listing, the USFWS identified the physical or biological features required for its conservation that may require special management or protection. These features include (USFWS 2010):

1. Space for individual and population growth and for normal behavior;
2. Food, water, air, light, minerals, or other nutritional or physiological requirements;
3. Cover or shelter;
4. Sites for breeding, reproduction or rearing (or development) of offspring; and
5. Habitats protected from disturbance or representative of the historical, geographic, and ecological distributions of the species.

Based on the current knowledge of the physical or biological features and habitat characteristics required to sustain the species' life-history processes, the USFWS determined that the physical and biological

features that the California red-legged frog needs for life processes and successful reproduction, formerly known as its Primary Constituent Elements (PCE), include the following (USFWS 2010):

PCE 1: Aquatic Breeding Habitat. Standing bodies of fresh water (with salinities less than 4.5 parts per thousand), including natural and manmade (e.g., stock) ponds, slow-moving streams or pools within streams, and other ephemeral or permanent water bodies that typically become inundated during winter rains and hold water for a minimum of 20 weeks in all but the driest of years.

PCE 2: Aquatic Non-Breeding Habitat. Freshwater pond and stream habitats, as described above, that may not hold water long enough for the species to complete its aquatic life cycle, but which provide for shelter, foraging, predator avoidance, and aquatic dispersal of juvenile and adult California red-legged frogs. Other wetland habitats considered to meet these criteria include but are not limited to: plunge pools within intermittent streams, seeps, quiet water refugia within streams during high water flows, and springs of sufficient flow to withstand short-term dry periods.

PCE 3: Upland Habitat. Upland areas adjacent to or surrounding breeding and non-breeding aquatic and riparian habitat up to a distance of 1 mile (1.6 kilometer) in most cases (i.e., depending on surrounding landscape and dispersal barriers), including various vegetation types such as grassland, woodland, forest, wetland, or riparian areas that provide shelter, forage, and predator avoidance for the California red-legged frog. Upland features are also essential in that they are needed to maintain the hydrologic, geographic, topographic, ecological, and edaphic features that support and surround the aquatic, wetland, or riparian habitat. These upland features contribute to: (1) filling of aquatic, wetland, or riparian habitats; (2) maintaining suitable periods of pool inundation for larval frogs and their food sources; and (3) providing nonbreeding, feeding, and sheltering habitat for juvenile and adult frogs (e.g., shelter, shade, moisture, cooler temperatures, a prey base, foraging opportunities, and areas for predator avoidance). Upland habitat should include structural features such as boulders, rocks and organic debris (e.g., downed trees, logs), small mammal burrows, or moist leaf litter.

PCE 4: Dispersal Habitat. Accessible upland or riparian habitat within and between occupied or previously occupied sites that are located within 1 mile (1.6 kilometer) of each other, and that support movement between such sites. Dispersal habitat includes various natural habitats, and altered habitats such as agricultural fields, that do not contain barriers (e.g., heavily traveled roads without bridges or culverts) to dispersal. Dispersal habitat does not include moderate- to high-density urban or industrial developments with large expanses of asphalt or concrete, nor does it include large lakes or reservoirs over 50 acres (20 hectares) in size, or other areas that do not contain those features identified in PCE 1, 2, or 3 as essential to the conservation of the species.

Designated Critical Habitat Unit ELD-1

DCH Unit ELD-1 includes approximately 5,471 acres (705 acres of federal land and 4,766 acres of privately owned land). The unit is in central El Dorado County, south of HWY 50 and east of Newton Road (USFWS 2010). Unit ELD-1 is one of five known extant breeding populations in the Sierra Nevada foothills and is in the easternmost portion of the species' historical range (USFWS 2010). PCEs in Unit ELD-1 may require special management considerations or protection due to wildland fire suppression activities, which may dewater aquatic habitats. These activities could potentially result in the desiccation of egg masses or direct

death of adults. Other threats to the California red-legged frog in Unit ELD-1 include timber harvest activities and predation by non-native species (USFWS 2010).

Unit ELD-1 is inhabited by the California red-legged frog and it contains features essential for the conservation of the species, including aquatic habitat for breeding and non-breeding activities as well as upland habitat for foraging and dispersal activities (PCEs 1−4) (USFWS 2010). Although excluded from critical habitat status, within the boundary of Unit ELD-1 is the Spivey Pond Management Area, a 54-acre parcel surrounding Spivey Pond managed by the U.S. Bureau of Land Management (BLM). California red-legged frog was first observed in the Weber Creek watershed in 1972 and 1975, and in 1997, breeding California red-legged frog were observed on North Fork Weber Creek within Spivey Pond (USFWS 2010). At that time, Spivey Pond was privately owned with future plans for timber harvest and subdivision development. With the assistance of the USFWS and the U.S. Bureau of Reclamation (Reclamation), the American River Conservancy (ARC) was able to purchase the 54-acre property in 1998 (USFWS 2010). Following pond stabilization and restoration work, the property was transferred to BLM to be managed specifically for the California red-legged frog. A site-specific management plan for the California red-legged frog was finalized by BLM, USFWS, USFS, Reclamation, CDFW, ARC, the County, and the District in July 2004 (USFWS 2010). The management plan included six management objectives specifically for the conservation of the California red-legged frog (BLM 2004):

1. Predatory species control (e.g., American bullfrogs and predatory fish);
2. Water quality monitoring for potential contaminants;
3. Maintenance of the pond's integrity and habitat/water quality;
4. Management and creation of additional breeding habitat for California red-legged frog;
5. Promotion of research and maintenance of a geographic information system database; and
6. Providing input for watershed-level planning and activities that may benefit Spivey Pond.

Approximately the northern half of the Project area is located within Unit ELD-1. The closest known occurrence of California red-legged frog is within Spivey Pond (within the boundary of Unit ELD-1), approximately 0.75 miles upstream and to the east of the Project area (Figure 3.4-1).

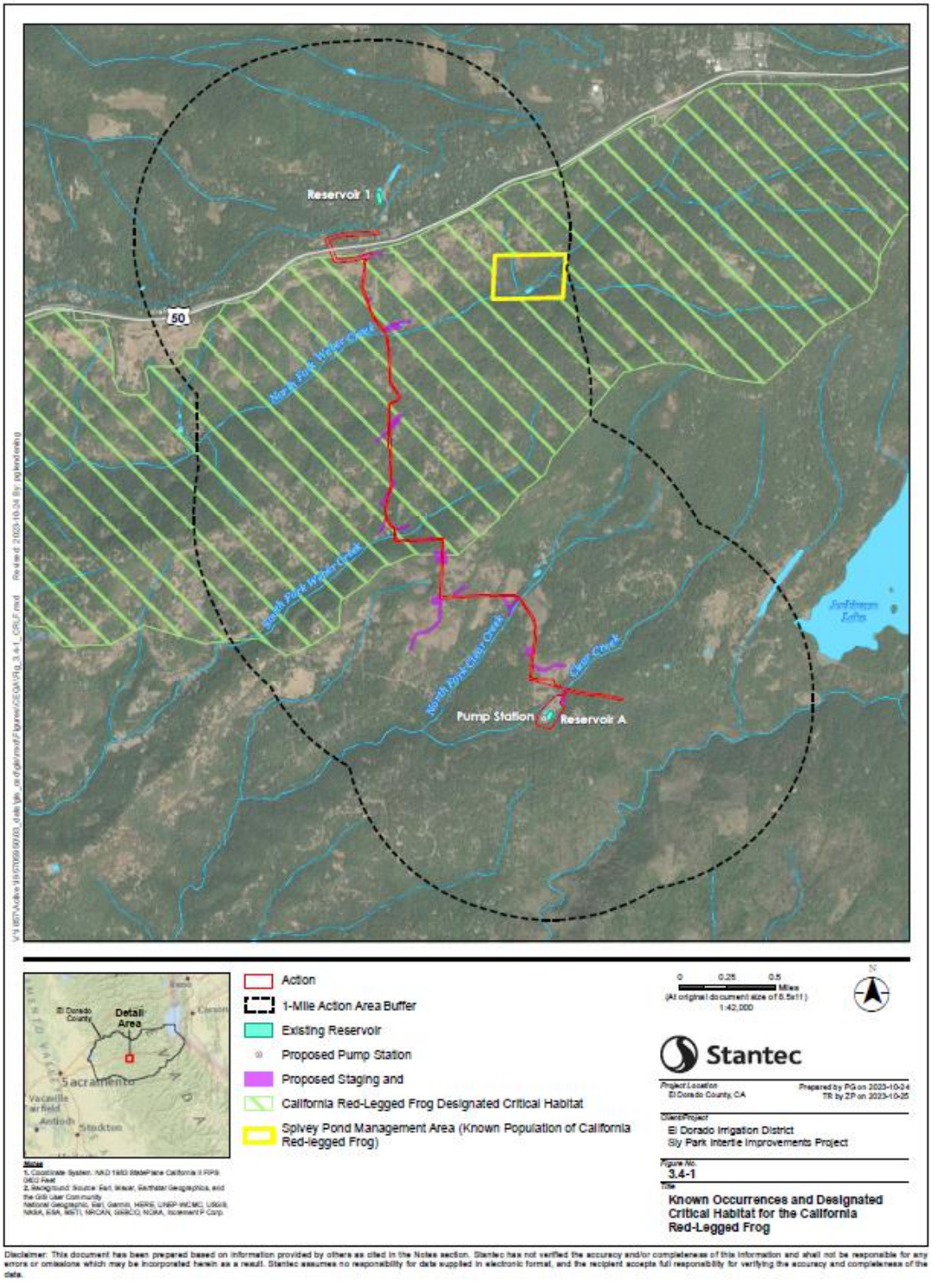


Figure 3.4-1. Known Occurrences and Designated Critical Habitat for the California Red-Legged Frog

3.8.4 METHODOLOGY

A combination of desktop analysis and reconnaissance-level field surveys were conducted to identify potential biological resources within and adjacent to the Project area using the methods described below. Sensitive biological resources were initially identified by desktop analysis and later verified and further assessed during the reconnaissance-level field surveys. These resources included special-status plant and wildlife species; sensitive natural communities; aquatic resources, including wetlands, streams, and drainages; and wildlife habitat connectivity corridors.

3.8.4.1 Desktop Analysis

Stantec conducted background research and desktop analysis to identify potentially occurring sensitive biological resources. This included a review of the following resources:

- CDFW California Natural Diversity Database (CNDDB) records search of known occurrences of special-status plant and wildlife species within 5 miles of the Project area (Figure 3.4-2, CDFW 2023g);
- California Native Plant Society (CNPS) online Inventory of Rare and Endangered Plants of California for *Caldor, Stump Spring, Calif., Riverton, Slate Mtn., Aukum, Omo Ranch, Camino, Sly Park, and Pollock Pines, California* 7.5-minute USGS quadrangles between 3,000 and 3,800 feet (914 and 1,158 meters) amsl (CNPS 2023);
- USFWS list of federally proposed, candidate, threatened, and endangered species and DCH that have the potential to occur within 5 miles of the Project area (USFWS 2023f);
- USFWS Online Mapper: Critical Habitat for Threatened and Endangered Species (USFWS 2023g);
- NMFS West Coast Region California Species List Tool KMZ for the *Sly Park, California* USGS 7.5-minute quadrangle;
- NMFS National Endangered Species Act Critical Habitat Mapper (NMFS 2022);
- USFS Pacific Southwest Region 5 sensitive species list for wildlife (USFS 2023b);
- USFS Pacific Southwest Region 5 sensitive species list for plants within the Eldorado National Forest between the elevations of 3,000−3,800 feet (914−1,158 meters) amsl (USFS 2023c);
- Calflora online database (Calflora 2023) used as a secondary tool for the purpose of assessing any and all other rare plant species that have the potential to occur within the Project area.

Special-status plant and animal species are defined by the following parameters:

- Species listed or proposed for listing as threatened or endangered and candidate species under the federal ESA;

- Please note that the USFWS also designates bird species as birds of conservation concern (BCC). BCC are migratory and non-migratory bird species identified by the USFWS (beyond those already designated as federally threatened or endangered) that represent the highest conservation priorities (USFWS 2021a). Although BCC designations are noted within this EIR, those bird species are not considered special-status species with this designation alone.
- Species that are listed or candidates for listing by the State as threatened or endangered under the CESA (14 CCR 670.5);
- Plants listed as rare under the NPPA of 1977 (FGC Section 1900 et seq.);
- Plants ranked by the CNPS as Rank 1A: Plants presumed extirpated in California and either rare or extinct elsewhere; or Rank 1B: Rare, threatened, or endangered in California and elsewhere;
- Plants ranked by the CNPS as Rank 2A: Plants presumed extirpated in California, but common elsewhere; or 2B: Rare, threatened, or endangered in California and common elsewhere;
- Plants ranked by the CNPS as Rank 3: Plants about which more information is needed and cannot yet be excluded from review;
- Plants ranked by the CNPS as Rank 4: Plants with limited distribution;
- Species that meet the definitions of “rare” or “endangered” under CEQA Guidelines Section 15380;
- Animals designated SSC or Fully Protected by CDFW;
- Species designated by the Pacific Southwest Region of the USFS to be “sensitive” and that occur in the Eldorado National Forest.
- Please note: the USFS also designates species as MIS. MIS are species identified by USFS in the land and resource management plans of each national forest that represent habitat types that either occur within the national forest boundary and/or species that are presumed to be sensitive to the various forest management activities within that forest (USFS 2004). Although MIS designations are noted within this EIR, species are not considered special-status species with this designation alone.

3.8.4.2 Field Surveys

Stantec biologists conducted reconnaissance-level biological field surveys of the Project area on May 27, 2022, May 31, 2022, July 18, 2022, and June 13, 2023. Surveys were conducted on foot by walking meandering transects to identify WOTUS and other wetland features, the presence of rare plants, and the presence of habitat for special-status species.

3.8.5 RESULTS

3.8.5.1 Desktop Analysis

Based on the background research and desktop analysis conducted and described above, 36 special-status plant species and 23 special-status animal species (not including nesting raptors and other migratory birds) were identified as having the potential to occur within 5 miles of the Project area (Table 3.4-1).

Conclusions in Table 3.4-1 regarding the potential for species occurrence were based on the background research and database searches, desktop analysis, research on local habitat suitability, and field verification. For each special-status species either known to occur or with the potential to occur within the Project area or within 5 miles of the Project area, the potential for occurrence within the Project area has been evaluated and is defined as follows:

Very Low to Nil: The Project area provides limited to no suitable habitat for a particular species and/or the Project area is outside the species known range.

Low Potential: The Project area provides limited habitat for a particular species.

Moderate Potential: The Project area provides suitable habitat for a particular species.

High Potential: The Project area provides ideal habitat conditions for a particular species and/or known populations occur in the immediate area.

Present: Known occurrence within the Project area and/or species observed within the Project area during biological surveys.

Species listed in Table 3.4-1 with a moderate potential, high potential, or known to be present in the Project area are further described below. The foothill yellow-legged frog (*Rana boylii*), California spotted owl (*Strix occidentalis occidentalis*), and northwestern pond turtle (*Actinemys marmorata*) are also discussed below based on their high-profile status and listing status under the CESA and ESA. Figure 3.4-2 shows known occurrences of special-status species within 5 miles of the Project area.

Table 3.4-1. Special-Status Plant and Animal Species and Their Potential to Occur in the Sly Park Intertie Improvements Project Area, El Dorado County, California.

Common Name Scientific Name	Listing Status				Geographic Distribution	Preferred Habitat	Identification Period	Level of Potential of Occurrence within Project Area
	Federal	State	Forest Service	CNPS				
Plants								
Beautiful shootingstar *Primula pauciflora*	–	S3	S	4.2	3,280–7,810 ft (1,000–2,380 m)	Great Basin scrub, meadows and seeps, pinyon and juniper woodland.	April–June	**Very Low to Nil.** This species was not detected during the surveys and is not likely to be present within the Project area.
Big-scale balsam root *Balsamorhiza macrolepis*	–	S2	S	1B.2	150–5,100 ft (45–1,555 m)	Chaparral, cismontane woodland, valley and foothill grassland.	April–June	**Very Low to Nil.** This species was not detected during the surveys and is not likely to be present within the Project area.
Brandegee's clarkia *Clarkia biloba* ssp. *brandegeeae*	–	S4	S	4.2	245–3,000 ft (75–915 m)	Chaparral, cismontane woodland, lower montane coniferous forest.	May–July	**Very Low to Nil.** This species was not detected during the surveys and is not likely to be present within the Project area.
Brownish beaked-rush *Rhynchospora capitellata*	–	S1	–	2B.2	148–6,562 ft (45–2,000 m)	Lower and upper montane coniferous/ yellow pine forest; meadows; seeps, (coastal) marshes, swamps, wetlands, riparian.	July–August	**Very Low to Nil.** This species was not detected during the surveys and is not likely to be present within the Project area.
Finger rush *Juncus digitatus*	–	S1	S	1B.1	2,165–3,600 ft (660–1,097 m)	Cismontane woodland, lower montane coniferous forest, vernal pools.	May–June	**Very Low to Nil**. This species was not detected during the surveys and is not likely to be present within the Project area.
Fresno ceanothus *Ceanothus fresnensis*	–	S3.3	–	4.3	2,953–6,900 ft (900–2,103 m)	Cismontane woodland, Lower montane coniferous forest.	May–July	**Very Low to Nil**. This species was not detected during the surveys and is not likely to be present within the Project area.
Grassland suncup *Camissonia lacustris*	–	S2	–	1B.2	590–4,005 ft (900–2,103 m)	Chaparral, cismontane woodland, Lower montane coniferous forest, valley and foothill grassland.	May–June	**Very Low to Nil**. This species was not detected during the surveys and is not likely to be present within the Project area.
Humboldt lily *Lilium humboldtii* ssp. *humboldtii*	–	S3	S	4.2	295–4,200 ft (90–1,280 m)	Chaparral, cismontane woodland, lower montane coniferous forest.	May–July	**Very Low to Nil.** This species was not detected during the surveys and is not likely to be present within the Project area.
Hutchison's lewisia *Lewisia kelloggii* ssp. *hutchisonii*	–	S2S3	S	3.2	2,509–7,759 ft (765–2,365 m)	Upper montane coniferous forest.	April–August	**Very Low to Nil.** This species was not detected during the surveys and is not likely to be present within the Project area.
Long-fruit jewelflower *Streptanthus longisiliquus*	–	S3	–	4.3	2,345–4,920 ft (715–1,500 m)	Cismontane woodland, lower montane coniferous forest.	April–September	**Very Low to Nil**. This species was not detected during the surveys and is not likely to be present within the Project area.
Marsh claytonia *Claytonia palustris*	–	S4	–	4.3	3,280–8,205 ft (1,000–2,500 m)	Marshes and swamps, meadows and seeps, upper montane coniferous forest.	May–October	**Very Low to Nil.** This species was not detected during the surveys and is not likely to be present within the Project area.
Mountain lady's slipper *Cypripedium montanum*	–	S4	S	4.2	605–7,300 ft (185–2,225 m)	Broad-leafed upland forest, cismontane woodland, lower montane coniferous forest, North Coast coniferous forest.	March–August	**Very Low to Nil.** This species was not detected during the surveys and is not likely to be present within the Project area.
Nissenan manzanita *Arctostaphylos nissenana*	–	S1	S	1B.2	1,475–3,610 ft (450–1,100 m)	Chaparral, closed-cone coniferous forest.	February–March	**Very Low to Nil.** This species was not detected during the surveys and is not likely to be present within the Project area. Known occurrences approximately 3.5 miles north of the Project area.
Northern adder's tongue *Ophioglossum pusillum*	–	S1	S	2B.2	3,280–6,560 ft (1,000–2,000 m)	Meadows and seeps, marshes and swamps.	July	**Very Low to Nil.** This species was not detected during the surveys and is not likely to be present within the Project area.

Common Name Scientific Name	Listing Status				Geographic Distribution	Preferred Habitat	Identification Period	Level of Potential of Occurrence within Project Area
	Federal	State	Forest Service	CNPS				
Northern Sierra daisy *Erigeron petrophilus* var. *sierrensis*	–	S4	–	4.3	985–6,800 ft (300–2,073 m)	Cismontane woodland, upper and lower montane coniferous forest.	June–October	**Very Low to Nil.** This species was not detected during the surveys and is not likely to be present within the Project area.
Obtuse starwort *Stellaria obtusa*	–	S4	–	4.3	490–7,515 ft (150–2,290 m)	Lower montane coniferous forest, riparian woodland, upper montane coniferous forest.	May–September	**Very Low to Nil.** This species was not detected during the surveys and is not likely to be present within the Project area.
Parry's horkelia *Horkelia parryi*	–	S2	S	1B.2	262–3,510 ft (80–1,070 m)	Cismontane woodland, chaparral.	April–September	**Very Low to Nil.** This species was not detected during the surveys and is not likely to be present within the Project area. Known occurrences approximately 4 miles north and west of the Project area.
Pleasant Valley mariposa lily *Calochortus clavatus* var. *avius*	–	S2	S	1B.2	1,000–5,905 ft (305–1,800 m)	Lower montane coniferous forest.	May–July	**Moderate.** This species was not detected during the surveys. However, it has a moderate potential to occur in the Project area. Known occurrences approximately 1 mile of the Project area.
Red Hills soaproot *Chlorogalum grandiflorum*	–	S3	–	1B.2	805–5,545 ft (245–1,690 m)	Chaparral, cismontane woodland, lower montane coniferous forest.	May–June	**Very Low to Nil.** This species was not detected during the surveys and is not likely to be present within the Project area. Known occurrences within approximately 2.5 miles to the north and northwest of the Project area.
Sanborn's onion *Allium sanbornii var. sanbornii*	–	S3S4	–	4.2	855–4,955 ft (260–1,510 m)	Chaparral, cismontane woodland, lower montane coniferous forest.	May–September	**Very Low to Nil.** This species was not detected during the surveys and is not likely to be present within the Project area.
Saw-toothed lewisia *Lewisia serrata*	–	S2	S	1B.1	2,959–4,780 ft (900–1,435 m)	Mesic environments; rocky slopes; broad–leafed upland forest; lower montane coniferous forest.	May–June	**Very Low to Nil.** This species was not detected during the surveys and is not likely to be present within the Project area. One occurrence within five 5 miles north of the Project area.
Sierra arching sedge *Carex cyrtostachya*	–	S2S3		1B.2	2,000–4,462 ft (610–1,360 m)	Lower montane coniferous forest, Marshes and swamps, Meadows and seeps, riparian forest.	May–August	**Very Low to Nil.** This species was not detected during the surveys and is not likely to be present within the Project area.
Sierra blue grass *Poa sierrae*	–	S2S3	S	1B.3	1,197–4,921 ft (365–1,500 m)	Openings, lower montane coniferous forest.	April–June	**Very Low to Nil.** This species was not detected during the surveys and is not likely to be present within the Project area.
Sierra bolandra *Bolandra californica*	–	S4	S	4.3	3,200–8,040 ft (975–2,450 m)	Upper and lower montane coniferous forest.	June–July	**Very Low to Nil.** This species was not detected during the surveys and is not likely to be present within the Project area.
Sierra clarkia *Clarkia virgata*	–	S3	–	4.3	1,310–5,300 ft (400–1,615 m)	Cismontane woodland, lower montane coniferous forest.	May–August	**Present**. This species was detected in one area adjacent to the Project area.
Sierra sweet bay *Myrica hartwegii*	–	S4	–	4.3	490–5,740 ft (150–1,750 m)	Cismontane woodland, lower montane coniferous forest, riparian forest.	May–June	**Low.** This species was not detected during the surveys and is not likely to be present within the Project area; however, there is potential habitat in the riparian areas.
Stebbins' phacelia *Phacelia stebbinsii*	–	S3	S	1B.2	2,001–6,594 ft (610–2,010 m)	Cismontane woodland, lower montane coniferous forest, meadows, seeps.	May–July	**Very Low to Nil.** This species was not detected during the surveys and is not likely to be present within the Project area.
Streambank spring beauty *Claytonia parviflora ssp. grandiflora*	–	S3	–	4.2	820–3,935 ft (250–1,200 m)	Cismontane woodland.	Feb–May	**Low.** This species was not detected during the surveys and has a low likelihood to be present within the Project area.
Tehachapi monardella *Monardella Linoides* ssp. *oblonga*	–	S2	S	1B.3	2,955–8,105 ft (900–2,740 m)	Pinyon and juniper woodland, upper and lower montane coniferous forest.	April–August	**Very Low to Nil.** This species was not detected during the surveys and is not likely to be present within the Project area.

Common Name Scientific Name	Listing Status				Geographic Distribution	Preferred Habitat	Identification Period	Level of Potential of Occurrence within Project Area
	Federal	State	Forest Service	CNPS				
Three-bracted onion *Allium tribracteatum*	–	S2	S	1B.1	3,610–9,845 ft (1,100–3,000 m)	Chaparral, upper and lower montane coniferous forest.	April–August	**Very Low to Nil.** This species was not detected during the surveys and is not likely to be present within the Project area.
Tripod buckwheat *Eriogonum tripodum*	–	S4	S	4.2	655–5,250 ft (200–1,600 m)	Chaparral, cismontane woodland.	May–July	**Very Low to Nil.** This species was not detected during the surveys and is not likely to be present within the Project area.
Upswept moonwort *Botrychium ascendens*	–	S2	S	2B.3	3,660–9,990 ft (1,115–3,045 m)	Lower montane coniferous forest, meadows and seeps.	July–August	**Very Low to Nil.** This species was not detected during the surveys and is not likely to be present within the Project area.
Western waterfan lichen *Peltigera gowardii*	–	S3	S	4.2	3,494–8,595 ft (1,065–2,620 m)	Cold water creeks, riparian forests; non–disturbed areas, rocky and other environments exhibiting shallow sediments.	Year-round	**Very Low to Nil.** This species was not detected during the surveys and is not likely to be present within the Project area.
Yellow bur navarretia *Navarretia prolifera* ssp. *lutea*	–	S3	S	4.3	2,800–4,600 ft (853–1,402 m)	Chaparral, cismontane woodland.	May–July	**Present**. This species was detected in three areas within the Project area and in one area adjacent to the Project area.
Yellow-lip pansy monkeyflower *Diplacus pulchellus*	–	S2	S	1B.2	1,970–6,560 ft (600–2,000 m)	Lower montane coniferous forest, meadows and seeps.	April–July	**Very Low to Nil**. This species was not detected during the surveys and is not likely to be present within the Project area.
Yosemite tarplant *Jensia yosemitana*	–	S3	–	3.2	3,935-7,545 ft (1,200-2,300 m)	Lower montane coniferous forest, meadows and seeps.	May-July	**Low.** This species was not detected during the surveys and has a low likelihood to be present within the Project area; as the project area is just outside of the known elevation range for the species. Known occurrences approximately 1 mile east of the Project area (Calflora 2023).
Invertebrates								
Monarch butterfly *Danaus plexippus*	C	S2S3	–	N/A	Throughout North America to southern Canada as well as Hawaii and other Pacific islands, Australia, New Zealand, Spain, and Portugal. Most numerous in North America and here they are known to migrate hundreds or even thousands of miles from their breeding grounds across the U.S. and southern Canada to overwintering sites located in primarily in Mexico and California.	The U.S. western monarch population breeds west of the Rocky Mountains and overwinters in forested groves along the Pacific Coast from Mendocino, California, south into western Baja, Mexico.	Spring–summer	**Very Low to Nil.** No suitable habitat (milkweed sp.), and no known occurrences within 5 miles of the Project area.
Western bumble bee *Bombus occidentalis*	–	S1	S	N/A	Northwestern and central United States extending north into Canada and Alaska. Since 1998, drastic declines have occurred in western and central California. Found in isolated areas, primarily in the Rocky Mountains.	Open flowering grasslands, savannas, and alpine meadows. Do not depend on one flower type.	Spring–summer	**Low**. Limited suitable habitat, and no known occurrences within 5 miles of the Project area.
Fish								
Delta smelt *Hypomesus transpacificus*	T	E	–	N/A	San Francisco Estuary.	Most spawning happens in tidally influenced backwater sloughs and channel edge-waters.	Year-round	**Very Low to Nil.** No suitable habitat within the Project area. Does not occur in the Project's watersheds, and no known occurrences within 5 miles of the Project area.

Common Name Scientific Name	Listing Status				Geographic Distribution	Preferred Habitat	Identification Period	Level of Potential of Occurrence within Project Area
	Federal	State	Forest Service	CNPS				
Hardhead *Mylopharodon conocephalus*	–	SSC, S3	S	N/A	Sierra Nevada foothills from Shasta south to Sequoia. Limited distribution in the coastal range north of San Francisco Bay.	Bottom feeders in lakes and streams.	Year-round	**Very Low to Nil.** Limited suitable habitat, and the Project area is out of the species' known range. No known occurrences within 5 miles of the Project area.
Pacific lamprey *Entosphenus tridentatus*	–	SSC, S3	S	N/A	Historically abundant along the West Coast of North America; however, Pacific Lamprey are extirpated in parts of Southern California and above dams and other passage barriers.	Cool mountain slopes to moist coastal drainages to arid southern chaparral (first 3-7 years of life ammocoete larvae live in freshwater with silt, sand, and detritus substrate). Then migrate downstream to ocean to live 1-3 years before returning to freshwater to spawn once.	Year–round	**Very Low to Nil**. Limited suitable habitat, and the Project area is out of the species' known range. No known occurrences within 5 miles of the Project area.
Amphibians and Reptiles								
California red-legged frog *Rana draytonii*	T, X	SSC	–	N/A	Coastal Range of California, foothill rangeof Sierra Nevada mountains.	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation.	Year-round	**High.** The Project is located within the Designated Critical Habitat Unit ELD-1 and aquatic non-breeding, dispersal habitat, and upland habitat exists in the Project area. Known occurrences exist in Spivey Pond approximately 0.75 miles upstream from the North Fork Weber Creek stream crossing.
Foothill yellow-legged frog *Rana boylii* – South Sierra DPS	E	E, S2	S	N/A	Found from near sea levels to 6,365 ft (1,940 m) in California, mostly distributed throughout the foothill portions of most drainages from the Oregon border to the San Gabriel River. The South Sierra DPS ranges from the north fork of the American River south to Tehachapi.	Partly shaded shallow streams and riffles with a rocky substrate in a variety of habitats.	Year-round	**Low.** Limited suitable habitat within the Project area. Many known occurrences within 5 miles of the Project area; however, the majority are in separate watersheds. Surveys were conducted along North Fork Weber Creek 1997–2017, including environmental DNA analysis, with no detections.
Sierra Nevada yellow-legged frog *Rana sierrae*	E	T, WL, S1	S	N/A	Northern and central Sierra Nevada Mountains.	High mountain lakes, streams, and ponds above 4,000 ft (1,219 m); rarely found more than three ft from water.	Spring–fall	**Very Low to Nil.** Limited to no suitable habitat within the Project area. The Project area is below the lower limit of the species' elevation range, and no known occurrences within 5 miles of the Project area.
Northwestern pond turtle *Actinemys marmorata*	PT	SSC, S3	S	N/A	Washington, Oregon, Nevada, as well as northern and central California.	Slow moving streams, marshes and ponds, typically less than 4,000 ft (1,219 m) in elevation.	Spring–fall	**Low**. Limited suitable habitat within the Project area. Two known occurrences within 5 miles of the Project area including observations of individuals within manmade ponds along North Fork Weber Creek (Spivey Pond) and there have been additional sightings at the Forebay Reservoir.
Yosemite toad *Anaxyrus canorus*	T	SSC, S2S3	S	N/A	Sierra Nevada from Alpine County, California to Fresno County, California. Scattered throughout their historic range at elevations of 8,500–10,000 ft (2,591–3,048 m).	Slow bodies of fresh water, including wet meadows, slow-moving streams, shallow ponds, springs or shallow areas of lakes for breeding. Upland habitat such as conifer forests and the edges of steep slopes for foraging and overwintering.	Spring–fall	**Very Low to Nil.** Limited to no suitable, and no known occurrences within 5 miles of the Project area.
Birds								
Bald eagle *Haliaeetus leucocephalus*	D, MBTA, BCC	E, FP, FGC, S2	S	N/A	North America including all continuous U.S.	Near lakes or streams.	Year–round	**Very low to nil**. Limited to no suitable habitat, and no known occurrences within 5 miles of the Project area.

Common Name Scientific Name	Listing Status				Geographic Distribution	Preferred Habitat	Identification Period	Level of Potential of Occurrence within Project Area
	Federal	State	Forest Service	CNPS				
Bank swallow *Riparia riparia*	MBTA	T. FGC, S3	–	N/A	During breeding season, bank swallows are found throughout most of North America from Canada to Texas. In California, most breeding colonies are found along the Sacramento and Feather Rivers. Scattered breeding colonies also occur in several northeastern counties as well as Monterey, Mono, and Inyo Counties.	Found in lowland areas near bodies of water. They tend to avoid forests, woodlands, or areas where they cannot find appropriate nesting habitats such as vertical cliffs or banks where they nest in colonies.	Spring–Fall	**Very low to nil**. Limited to no suitable habitat. One known occurrence within approximately 5 miles west of the Project area.
California spotted owl *Strix occidentalis occidentalis*	PT, BCC, MBTA	SSC, FGC, S3	S, MIS	N/A	Found throughout northern California extending into southern California along the Sierra Nevada, Coastal, and transverse ranges.	Multi-layered forest habitat with high canopy closure with a mixture of tree sizes and densities, including large diameter old–growth trees for nesting and roosting. Found in elevations up to approximately 8,500 ft (2,591 m).	Year–round	**Low.** Limited suitable habitat and nesting habitat within the Project area. Known occurrences and protected activity centers within 5 miles of the Project area.
Great gray owl *Strix nebulosa*	MBTA	E, FGC, S1	S	N/A	Primarily found in Canada and Alaska with a portion of range extending into the United States following the northern Rockies and Sierra Nevada Mountains.	Pine and fir forests adjacent to mountain meadows at elevations between 2,500–7,500 ft (762–2,286 m). Often found at lower elevation in oak woodlands or mixed deciduous and evergreen forests in the winter months.	Year–round	**Very low to nil.** No suitable habitat, and no known occurrences within 5 miles of the Project area.
Northern goshawk *Accipiter gentilis*	MBTA	SSC, FGC, S3	S	N/A	North American forests habitats, typically higher elevation mountainous areas south into central Mexico.	Locally, prefer mature forests down to about 2,500 ft (762 m). Nest stands generally consist of larger trees with greater canopy cover, with relatively open understory.	Year–round	**Low.** Limited suitable habitat within the Project Area, and no known occurrences within 5 miles of the Project area.
Willow flycatcher *Empidonax traillii*	BCC, MBTA	E, FGC, S1S2	S	N/A	United States, through Mexico south into the northern region of South America.	Nests in riparian areas, often marsh areas with shrubs and standing or running water.	Summer	**Very low to nil.** Limited to no suitable habitat, and no known occurrences within 5 miles of the Project area.
Nesting raptors and other migratory birds	MBTA	FGC	N/A	N/A	Migrants and resident species.	Tree, shrub, ground, and riparian vegetation.	February–August	**High.** Suitable habitat present within and adjacent to the Project area.
Mammals								
North American wolverine *Gulo gulo luscus*	–	T, FP, S1	S	N/A	Scarce resident of North Coast mountains and Sierra Nevada, 4,300–7,300 ft (1,311–2,225 m) in the northern Sierra Nevada.	In northern Sierra Nevada, mixed conifer, red fir, lodgepole. Likely subalpine conifer, wet meadow, and montane riparian habitats. Prefers low human disturbance, finds cover generally in dense forest.	Year-round	**Very Low to Nil**. Limited to no suitable habitat, and no known occurrences within 5 miles of the Project area.
Fisher *Pekania pennanti*	–	SSC, S2S3	S	N/A	In California, currently in two separated regions: the northwest including the northern Coast Range and Klamath Province, and the southern Sierra Nevada.	Typically, late successional forests associated with high canopy closure. Areas without frequent deep fluffy snow (restricts movement). Large live trees, snags, and logs used for resting and denning.	Year-round	**Low.** Limited suitable habitat. One known occurrence from 1916 approximately 5 miles west of the Project area (no more recent sightings have been documented).
Fringed myotis *Myotis thysanodes*	–	S3	S	N/A	Throughout California, Oregon, and Washington. From British Columbia east to the Rocky Mountain states and south to Mexico at elevations between 5,000–8,000 ft (1,524–2,438 m).	Most frequently in coastal and montane forests and mountain meadows; nursery colonies and roosting sites are typically in caves or old buildings.	Year-round	**Low**. Limited suitable nesting and roosting habitat, and no known occurrences within 5 miles of the Project area.
Pallid bat *Antrozous pallidus*	–	SSC, S3	S	N/A	Occurs in California except for the high Sierra Nevada from Shasta to Kern Counties to northern Mendocino County. Found at lower elevation, below 6,562 ft (2,000 m).	Grasslands, shrublands, woodlands, and mixed conifer forests. Water and suitable roosting habitat must be close by. Roosts in cliff fissures, abandoned buildings, and under bridges.	Year-round (in most of its range)	**Low.** Limited suitable nesting and roosting habitat. No known occurrence within 5 miles of the Project area.

Common Name Scientific Name	Listing Status				Geographic Distribution	Preferred Habitat	Identification Period	Level of Potential of Occurrence within Project Area
	Federal	State	Forest Service	CNPS				
Sierra marten *Martes caurina sierrae*	–	S3	S	N/A	Salmon-Trinity Mountains east to the Cascades and south throughout the Sierra Nevada above 3,937 ft (1,200 m).	Remote sections of boreal forest of pine, fir, and hemlock. Talus slopes and open rocky areas.	Year-round	**Very low to nil.** Limited to no suitable habitat, and no known occurrences within 5 miles of the Project area.
Townsend's big-eared bat *Corynorhinus townsendii*	–	SSC, S2	S	N/A	Found throughout California.	Wide range of habitat from coniferous forest to desert to riparian communities but prefers mesic habitats. Populations dependent on caves and other suitable roosting habitat.	Spring−Fall	**Low.** Limited suitable nesting and roosting habitat. No known occurrence within 5 miles of the Project area.
Western red bat *Lasiurus blossevillii*	–	SSC	–	N/A	Shasta County to the Mexican border west of the Sierra Nevada and Cascade Mountain ranges.	Roosts in trees in edge habitats near fields or streams in forest and mixed woodland habitats. Forages in grasslands, shrublands, open woodlands, and agricultural areas.	Year-round	**Low.** Limited suitable nesting habitat. Limited suitable roosting habitat exists in trees along the stream crossings, and no known occurrences within 5 miles of the Project area.

Sources: Bolster 1998, Bombay et al. 2003, Calflora 2023, CaliforniaHerps 2023, CDFW 2019b, CDFW 2023g, CNPS 2023, Cornell 2023, Goodman and Reid 2012, Jameson and Peeters 2004, Shuford and Gardali 2008, UC Davis 2023, USFS 2007, USFS 2023b, USFS 2023c, USFWS 2013, USFWS 2021a, Xerces Society 2018, Xerces Society 2023, Zeiner et al. 1988−1990.

Federal
E = Endangered under the federal Endangered Species Act
T = Threatened under the federal Endangered Species Act
C = Candidate for listing under the federal Endangered Species Act
D = Delisted under the federal Endangered Species Act
PE = Proposed Endangered under federal Endangered Species Act
PT = Proposed Threatened under the federal Endangered Species Act
MBTA = Protected under the Migratory Bird Treaty Act
PX = Proposed Designated Critical Habitat
X = Designated Critical Habitat
BCC = Bird of Conservation Concern
− = No listing

State
E = Endangered under the California Endangered Species Act
T = Threatened under the California Endangered Species Act
R = Rare under the California Native Plant Protection Act
C = Candidate for listing under the California Endangered Species Act
SSC = Species of Special Concern
FP = Fully Protected
WL = Watch List
FGC = California Fish and Game Code
CESA = Protected under California Endangered Species Act
− = No listing

State Rank (plants and wildlife)
S1 = Critically Imperiled
S2 = Imperiled
S3 = Vulnerable
S4 = Apparently Secure
S5 = Secure
0.1 = Seriously threatened in California
0.2 = Fairly threatened in California
0.3 = Not very threatened in California

California Native Plant Society
1A = Plants presumed extirpated in CA and either rare or extinct elsewhere
1B = Plants rare, threatened, or endangered in California and elsewhere
2A = Plants presumed extirpated in CA but more common elsewhere
2B = Plants rare, threatened, or endangered in California but more common elsewhere
3 = Plants about which more information is needed − a review list
4 = Plants of limited distribution − a watch list

Key:
CNDDB = California Natural Diversity Database
DCH = Designated Critical Habitat
DPS = Distinct Population Segment
ft = foot/feet
m = meter
USGS = U.S. Geological Survey

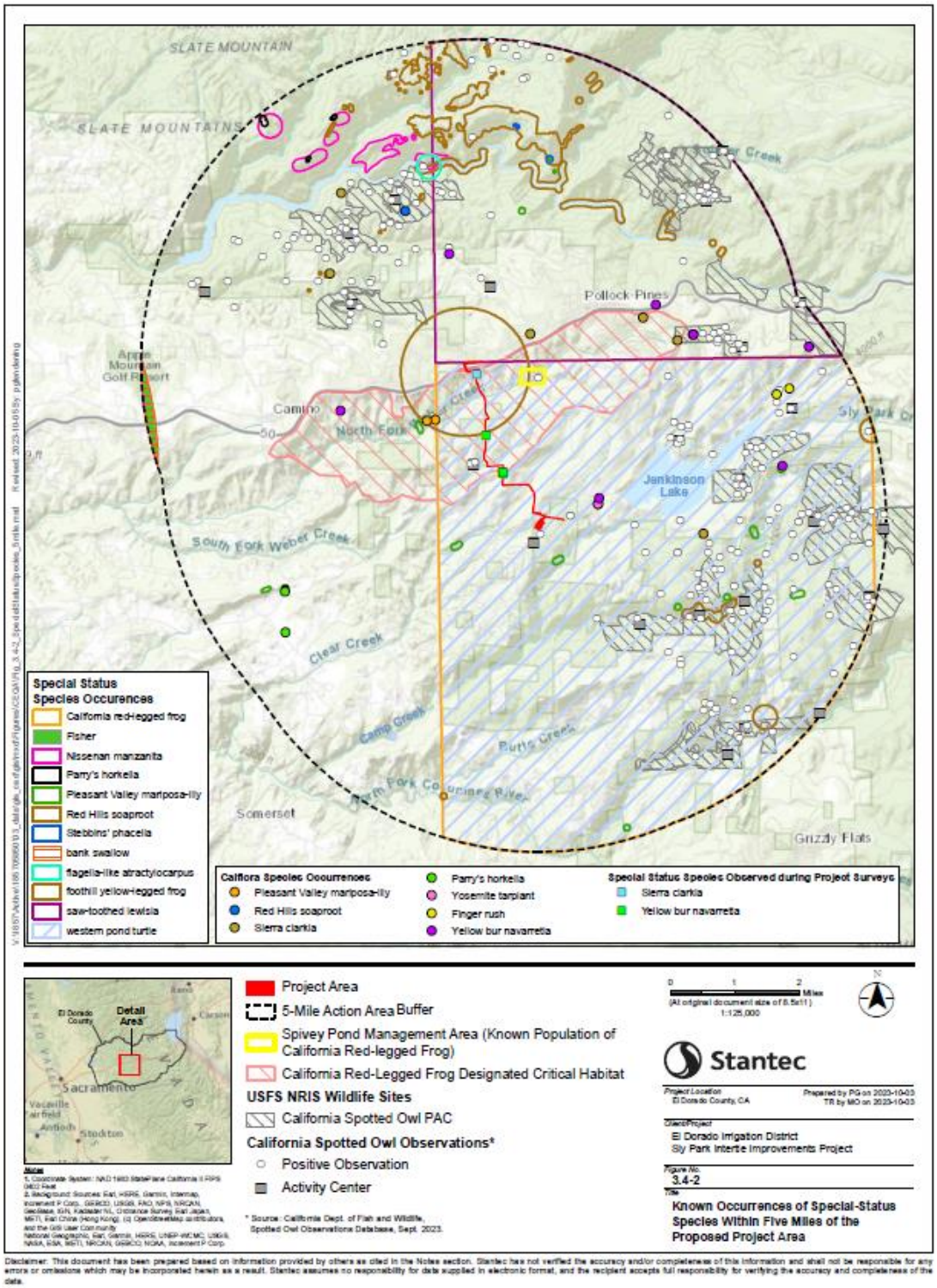


Figure 3.4-2. Known Occurrences of Special-Status Species Within Five Miles of the Project Area

3.8.5.2 Field Surveys

Potential Waters of the United States and Waters of the State

An assessment of riparian and stream zones within the Project area was conducted during the field surveys in May 2022 and June 2023. In summary, the aquatic resources survey found that within the Project area, there are two perennial streams, two intermittent streams, and one ephemeral drainage. Additional supplemental details can be found in the Aquatic Resources Delineation (Stantec 2023b).

Special-Status Plants

Prior to field verification, a species site suitability analysis was conducted to evaluate the potential for all plant species that were identified through background research to occur within and near the Project area. This analysis compared the Project area's biological characteristics and habitat suitability with individual species' suitability requirements, such as natural vegetation community type, habitat availability, elevation, soils, and known occurrences in the Project area documented by Calflora, CDFW, and/or CNPS. Following the reconnaissance-level surveys conducted May 27, 2022, May 31, 2022, July 18, 2022, and June 13, 2023, a level for potential of occurrence within the Project area was determined for each special-status species within Table 3.4-1. Additionally, Stantec conducted reference site visits where documented populations occurred on May 24, May 27, and May 31, 2022, to assess the appropriate bloom period of special-status plants that have a potential to occur within the Project area.

Typical blooming (phenological) periods for all vegetation species, including those listed as special-status within the Project area, are as follows: early-bloom (April−May), mid-bloom (June to mid-July), and late-bloom (mid-July to September). The combination of the mid- and late -bloom period surveys provided for full coverage, but not during a single bloom period. Rather, during the combined mid- and late-bloom surveys, for the purpose of baseline data collection, a habitat assessment was conducted to determine the potential for special-status plant species to occur within the Project area.

Of the 37 regionally occurring plant species identified in the background research, one species was identified as having a moderate potential to occur in the Project area: Pleasant Valley mariposa lily (*Calochortus clavatus var. avius*). Two species, Sierra clarkia (*Clarkia virgata*) and yellow bur navarretia (*Navarretia prolifera* ssp. *lutea*), were observed within and adjacent to the Project area. These three species are further discussed below. A Botanical Resources Report was prepared for the Project and includes the specific locations of special-status species observed during the surveys conducted in May and July 2022 and June 2023 (Stantec 2023a).

Pleasant Valley Mariposa Lily

Federal Status: None; State Status: Imperiled USFS: Sensitive; CNPS Status: 1B.2

Pleasant Valley mariposa lily is a CRPR 1B.2 species. The species is a perennial bulbiferous herb in the lily family (Liliaceae) that grows in lower montane coniferous forest vegetation communities. It occurs in California in the foothills of the central Sierra Nevada in El Dorado, Calaveras, and Amador counties. Pleasant Valley mariposa lily generally flowers between May through July and occurs at elevations between

1,000 and 5,905 feet (305−1,800 meters) amsl (CNPS 2023). This species has a moderate potential to occur in the Project area, because there are nearby known locations of this species and the appropriate habitat occurs in the Project area; however, the species was not observed during surveys in or adjacent to the Project area.

Sierra Clarkia

Federal Status: None; State Status: Vulnerable; USFS: None; CNPS Status: 4.3

Sierra clarkia is a CRPR 4.3 species. The species is an annual herb in the evening primrose family (*Onagraceae*) that grows in cismontane woodland and lower montane coniferous forest vegetation communities. It occurs in California in the foothills of the central Sierra Nevada in El Dorado, Calaveras, Tuolumne, and Mariposa counties. Sierra clarkia generally flowers between May through August and occurs at elevations between 1,310 and 5,300 feet (400−1,615 meters) amsl (CNPS 2023). This species was observed in cismontane woodland habitat near live oak trees and on a grassland hillslope. In total, one population that is adjacent to the Project area and approximately 10 individuals of Sierra clarkia were observed during the May 27 and 31, 2022, survey. No observations of Sierra clarkia were made during the June 13, 2023, survey.

Yellow Bur Navarretia

Federal Status: None; State Status: Vulnerable; USFS: Sensitive; CNPS Status: 4.3

Yellow bur navarretia is a CRPR 4.3 species. Yellow bur navarretia is an annual herb within the phlox family (*Polemoniaceae*) that grows in chaparral and cismontane woodland. It occurs in California in El Dorado County. Yellow bur navarretia usually flowers from May to July and occurs at elevations between 2,800−4,600 feet (853−1,402 meters) amsl (CNPS 2023). Within the Project area, this species was observed in open grassland areas among cismontane woodland, near the homes south of Lynx Trail and west of Pine Tree Lane. In total, three populations and approximately 60 individuals of yellow bur navarretia were observed during the surveys conducted in May 27 and 31, 2022. No observations of yellow bur navarretia were made during the June 13, 2023, survey.

Special-Status Animals

Based on the background research and desktop analysis conducted and described above, 23 special-status animal species were identified as having the potential to occur or have been known to occur within 5 miles of the Project area (Table 3.4-1). Nesting raptors and other migratory birds were also considered sensitive species due to their protection under the MBTA and the FGC. Reconnaissance-level biological surveys were conducted by Stantec biologists in May 2022 and June 2023 within the Project area to assess and verify the existing habitats to determine habitat suitability, including level for potential occurrence for the 23 animal species identified during the background research and desktop analysis.

Based on desktop analysis, habitat assessment, and the reconnaissance-level field surveys, 22 special-status species were found to have a low or low to nil potential to occur within the Project area. One species, the California red-legged frog, and nesting raptors and migratory birds were found to have a high potential

to be within the Project area. The foothill yellow-legged frog, northwestern pond turtle, and California spotted owl were determined to have a low potential to occur in the Project area; however, they are discussed below based on their high-profile status and listing status under the CESA and ESA. No special-status animal species were observed within the Project area during the surveys conducted in May 2022 and June 2023.

California Red-Legged Frog

Federal Status: Threatened, DCH; State Status: SSC; USFS Status: None

The California red-legged frog was federally listed as a threatened species on May 1996 (USFWS 1996). Revised Critical Habitat for this species was designated by USFWS in March 2010 (USFWS 2010). The California red-legged frog is the largest native frog within California with a snout to vent length measuring up to 5.4 inches (13.8 centimeters) for adult females and 4.5 inches (11.6 centimeters) for adult males (USFWS 2002, USFWS 2010). The abdomen and hind legs of adults are mostly red, and its back has small black flecks and larger irregular dark blotches (usually with light centers and indistinct outlines) on a brown, gray, olive, or reddish background color. Dorsolateral folds are prominent on the back (USFWS 2002, 2010).

Estimated to be eliminated from 70 percent of its former range, the California red-legged frog historically occurred in wetlands and ponds from Mendocino County to Baja California (USFWS 2002). It formerly occupied portions of the western slope of the Sierra Nevada from Shasta County south to Tulare County, but historically it has probably always been scarce in the Sierra Nevada. Approximately 18 historical Sierra Nevada populations have been unambiguously confirmed (Jennings and Hayes 1994). According to the *Recovery Plan for the California Red-legged Frog*, the true status of the Sierra Nevada range in regard to occupancy of California red-legged frog is largely unknown, because it consists mainly of private land and remains to be surveyed (USFWS 2002). The most significant threats to California red-legged frog are habitat loss and alteration, introduced predators, water management, mismanagement of grazing livestock, extended drought conditions, and chemical contamination from urban, agricultural, and industrial runoff (USFWS 2002).

The majority of the California red-legged frog's life is spent in or near aquatic habitats, which the species uses for breeding (USFWS 2002, 2010). These habitats include ponds, stream courses, permanent pools, and intermittent streams fed by drainage areas no larger than 115 square miles (USFWS 2006a, 2010). The California red-legged frog occurs at elevations between zero and 5,000 feet (0−1,524 meters) amsl (USFWS 2006a). Typical aquatic habitat characteristics include water depth of at least 2.5 feet, largely intact emergent or shoreline vegetation (e.g., cattails [*Typha* spp.], tules [*Scirpus* spp.], or willows and absence of competitors or predators, such as the American bullfrog (*Lithobates catesbeiana*) and largemouth bass (*Micropterus salmoides*) (USFWS 2010). Adults are highly aquatic and are most active at night (USFWS 2010) and may use a wide variety of aquatic habitats in the absence of optimal conditions, including temporary pools and streams, permanent watercourses, ponds, concrete-lined pools, isolated wells, stock ponds absent of shoreline vegetation, and refuse piles near ponds. Both aquatic breeding habitat and non-breeding aquatic habitats are essential to the survival of California red-legged frog populations; aquatic breeding habitat is characterized mainly by bodies of freshwater that hold water for a minimum of 20 weeks, while non-breeding aquatic habitat may hold water for a shorter period of time, but

provide refuge from predators, foraging, shelter, and aquatic dispersal for both adult and juvenile California red-legged frog (USFWS 2006a).

Upland habitat may include grasslands, woodlands, and riparian plant species (USFWS 2006a). Dispersal habitat is considered upland or riparian habitat within 2.2 miles (3.5 kilometers) of areas occupied by California red-legged frog. Dispersal habitat may include various natural or altered habitat, including agricultural fields. Fellers and Kleeman (2007) and Bulger et al. (2003) found that migration corridors can be less than "pristine" (e.g., closely grazed fields, plowed agricultural land) and observed that California red-legged frog did not avoid or prefer any landscape feature or vegetation type. The presence of dispersal habitat can be affected by dispersal barriers (USFWS 2006a).

Juvenile California red-legged frog are active both day and night, while adults are primarily nocturnal. They are generally inactive in cold or hot, dry temperatures in the later summer and winter months. However, in coastal areas, California red-legged frog may be active year-round due to few fluctuations in temperature (USFWS 2002, 2010). Large adults may feed on small vertebrates like Pacific tree frogs (*Pseudacris regilla*) and California mice (*Peromyscus californicus*), while most adult and juvenile California red-legged frog prey on mainly insects and other invertebrates. Larvae (tadpoles) feed on algae by grazing on the surface of rocks and vegetation (USFWS 2002, 2010).

Breeding typically begins between late November and mid-December and may last through May in most years but is dictated by winter rainfall (Bulger et al. 2003; Jennings and Hayes 1994; USFWS 2005). Breeding typically occurs in permanent ponds and may occur in slower water of streams (e.g., pools or backwaters) (USFWS 2010). At breeding sites, males call in groups, or leks, of three to seven individuals to attract females (Jennings and Hayes 1994). During amplexus (breeding posture), an egg mass containing 300 to 4,000 eggs are fertilized by the male while the female deposits the egg mass on emergent vegetation (Jennings and Hayes 1994; USFWS 2002, 2010). However, breeding has also been documented to occur in ponds that lack emergent vegetation (Bobzien and DiDonato 2007). Larvae typically hatch in six to 22 days, and metamorphosis is usually completed in four to five months (Jennings and Hayes 1994; Bobzien and DiDonato 2007). There have been several documented cases of tadpoles overwintering and then completing metamorphosis during the following spring (Bobzien and DiDonato 2007; Fellers et al. 2001; USFWS 2010). Males and females usually attain sexual maturity at two to three years, respectively, and are often prolific breeders (USFWS 2002, 2010; Jennings and Hayes 1994).

The Project area is within the historic range of the California red-legged frog (USFWS 2002); and according to the CDFW's CNDDB, there are no records of historic or recent occurrences of California red-legged frog within the Project area (CDFW 2023g). However, there is a known population of breeding California red-legged frog located in Spivey Pond, approximately 0.75 miles upstream (to the east) from where the Project area bisects North Fork Weber Creek. Both the northern section of the Project area and Spivey Pond are within the boundary of the DCH Unit ELD-1. Various surveys have been conducted over the last couple decades by various entities, including Wildlife Research Associates, University of California (Davis), CDFW, USGS, and the BLM, confirming their presence (CDFW 2023g). Surveys suggest this population is stable; however, the population is threatened by the presence of American bullfrog and rainbow trout (*Oncorhynchus mykiss*) (pers. comm. Jeff Jones 2022; Adams et al. 2020). One California red-legged frog was found to be positive for *Batrachochytrium dendrobatidis* (Bd), a fungus that can cause the infectious

and sometimes deadly disease, Chytridiomycosis (Adams et al. 2020). In addition, Weber Creek is known to contain rainbow trout, California roach (*Lavinia symmetricus*), and Sacramento sucker (*Catostomus occidentalis*) (CDFW 2023g).

No observations of California red-legged frog were made during the field surveys conducted in May 2022 and June 2023 within the Project area. However potential suitable habitat was identified within the Project area, specifically along North Fork Weber Creek, including aquatic non-breeding, dispersal, and upland habitats. With the close proximity and hydrological connection of a known population, there is a high potential for the California red-legged frog to occur within the Project area. As such, Project-specific permitting (ESA Section 7) and avoidance and minimization measures are applicable for this species.

Foothill Yellow-Legged Frog

Federal Status: Endangered; State Status: Endangered; USFS Status: Sensitive

The Project area is within the range of the East/Southern Sierra Clade, or South Sierra Distinct Population Segment, of foothill yellow-legged frog, which was listed as State Endangered in February 2020 and was listed as Federal Endangered in August 2023 (CDFW 2019b; USFWS 2023h).

The foothill yellow-legged frog is a medium-sized frog measuring approximately 1.5−3.2 inches (3.8−8.1 centimeters) in length (CDFW 2019b). Their coloration tends to match the background of their habitat ranging from red, gray, brown to olive, and they can be plain or mottled with dark spotting. Their skin is grainy rather than smooth, their undersides are cream-colored with dark spotting on the throat and chest, and the hind legs are generally yellow underneath (especially adults), giving this frog its name. Foothill yellow-legged frog have indistinct dorsolateral folds and commonly have a light-colored band across the top of their head (CDFW 2019b). The historic range of the foothill yellow-legged frog extends from northern Oregon west of the Cascades, south along coast ranges, and along the western foothills of the Sierra Nevada to the Tehachapi Mountains (CDFW 2019b).

Foothill yellow-legged frogs are active mainly during the day, and almost exclusively are found near water. They are typically found in rocky streams and rivers with open, sunny banks, within woodland or chaparral habitats at elevations from sea level up to approximately 6,000 feet (1,829 meters) amsl (CDFW 2019b). They may also be found in isolated pools, vegetated backwaters, and deep shaded spring-fed pools. When threatened, foothill yellow-legged frogs dive to the bottom of the stream seeking cover and hide in rocks or litter (CaliforniaHerps 2023). Rarely heard, the foothill yellow-legged frog call is a low-pitched and faint single note including a raspy series of four to six notes per second. Calls may also include grunts and oinks, are made primarily under water (occasionally in the air) and may be made during the day or night (CaliforniaHerps 2023).

Mating and egg-laying occurs in streams and rivers from April until early July after streams have slowed from winter runoff. Breeding habitat within rivers and large streams are often located near the confluence of tributary streams in sunny, wide, shallow reaches (CDFW 2019b). In contrast to cooler, deeper, closed-canopy sites, these areas are highly productive (CDFW 2019b). Egg masses are typically laid in shallow slow-moving water on the downstream side of submerged rocks, pebbles, vegetation, bedrock, or logs to prevent them from being washed away (CDFW 2019b). Egg masses are tennis- to softball-sized, including

approximately 300 to 2,000 eggs. Eggs hatch within five to 37 days, depending on water temperature. Tadpoles transform in three to four months (July–October) (CaliforniaHerps 2023).

During the nonbreeding season, foothill yellow-legged frogs typically remain within approximately 10 feet (3 meters) from the water's edge and tend to select sunny areas with limited canopy cover close to riffles and pools (CDFW 2019b). Food availability, ability to thermoregulate (e.g., basking sites and cool refugia), adequate water, cover from predators, and the absence of non-native predators are the key components of suitable nonbreeding habitat (CDFW 2019b).

Adult and juvenile foothill yellow-legged frogs eat a wide variety of aquatic and terrestrial invertebrates, mostly depending on life stage and/or body size (CDFW 2019b). Initially located by sight, prey is caught with their large sticky tongue and brought to the frog's mouth. Tadpoles graze the surface of rocks and vegetation foraging on algae and detritus (CaliforniaHerps 2023).

Known and potential predators of foothill yellow-legged frog include (but are not limited to) gartersnakes (*Thamnophis* spp.), dragon fly (*Aeshna walkeri*) nymph, signal crayfish (*Pacifastacus leniusculus*), Sacramento pikeminnow (*Ptychocheilus grandis*), rough-skinned newt (*Taricha granulosa*), American bullfrog, California red-legged frog, American dipper (*Cinclus mexicanus*), American robin (*Turdus migratorius*), and raccoon (*Procyon lotor*) (CDFW 2019b).

Nearly 66 percent of historic foothill yellow-legged populations in the Sierra Nevada foothills and south of Interstate 80 are nearly extinct (CaliforniaHerps 2023). Threats to foothill yellow-legged frog in the Sierra Nevada foothills include the release of fast-moving water from reservoirs that, if released at the wrong time, can wash away the egg masses and tadpoles as well as force adult frogs away from streams making them more vulnerable to predation. Other threats include habitat loss; disease; air-borne pesticides; recreation, mining, and logging along streambeds; and introduced species such as crayfish and the American bullfrog that will outcompete and eat foothill yellow-legged frogs (CDFW 2019b; CaliforniaHerps 2023).

According to the CNDDB, there are 12 records of foothill yellow-legged frog within 5 miles of the Project area. The majority of these records occur within tributaries to and/or in the South Fork American River north of HWY 50 and within a different watershed than the Project area (Figure 3.4-2 (CDFW 2023g). Two records are located within Camp Creek, approximately 2 miles south of Jenkinson Lake, and one record in a drainage to Sly Park Creek from 2004 east of Jenkinson Lake, also within a different watershed (Camp Creek watershed) (CDFW 2023g; USEPA 2023b). The closest record to the Project area is an occurrence in the North Fork Weber Creek approximately 2 miles west-southwest of the community of Pollock Pines and intersects the northern region of the Project area (Figure 3.4-2) (CDFW 2023g). According to the CNDDB, this occurrence consisted of two adults collected in 1916. Additional surveys for foothill yellow-legged frog were later conducted along North Fork Weber Creek in 1997 and 2000−2003, and environmental DNA surveys were conducted in 2017 and no detections were made. According to Mark Jennings, a well-known and published herpetologist and ichthyologist, foothill yellow-legged frog are extirpated from the vicinity (CDFW 2023g). Additionally, the American bullfrog, a known predator of the foothill yellow-legged frog, was detected within North Fork Weber Creek during 2000−2003 (CDFW 2023g).

Foothill Yellow-Legged Frog Habitat Assessment

A habitat assessment was conducted for foothill yellow-legged frog by a qualified biologist on May 27, 2022, at the four wetted stream crossings within the Project area both up and downstream where safely accessible. The habitat assessment included evaluating the potential for the foothill yellow-legged frog to occur based on the location of known occurrences, the presence or absence of suitable habitat, as well as if foothill yellow-legged frogs were observed.

At the stream crossings, the habitat assessment included walking upstream and downstream for up to approximately 300 feet (91 meters) where safely accessible to evaluate the aquatic habitat suitability. Each stream crossing within the Project area lies within similar montane riparian habitats with excess shade. North Fork Weber Creek, although very shady with few basking sites, contains the most suitable habitat given its cobble and boulder substrate and increased volume and flow. The South Fork Weber Creek was mostly dry at the time of the May survey and is unlikely to support breeding foothill yellow-legged frog. North Fork Clear Creek is very shaded and has limited suitable habitat with fewer cobbles. Similarly, Clear Creek presented shady conditions and unfavorable substrate including more silt and fewer cobbles, which would also not likely support foothill yellow-legged frog.

Additionally, there were no observations of foothill yellow-legged frog during the habitat assessment and field surveys conducted in May 2022 and June 2023. Given the information from the CNDDB, including surveys conducted within the Project area and the known presence of predators within North Fork Weber Creek, there is a low potential for foothill yellow-legged frog to occur within the Project area.

Northwestern Pond Turtle

Federal Status: Proposed Threatened; State Status: SSC; USFS Status: Sensitive

Two species of the western pond turtle were petitioned for listing as threatened under the ESA on October 3, 2023. The USFWS issued a Proposed Rule (88 Federal Registrar 68370) for listing both the northwestern pond turtle (*Actinemys marmorata*) and the southwestern pond turtle (*Actinemys pallida*) as threatened (USFWS 2023h). If the Proposed Rule is finalized, the western pond turtle will be added to the list of federally threatened wildlife and extend ESA protections to them. In California, the two species of western pond turtle remain SSC, and as a sensitive species by the USFS.

Adult turtles of both species are medium sized and although variable, most appear olive to dark brown, or blackish in color with occasional skin patterning made up of a network of spots, lines, or dashes of brown or black. Both species are sexually dimorphic; males typically possess a light throat with no markings, pointed chin compared with that of a female, a low-domed carapace, and a concave and less patterned plastron (CaliforniaHerps 2023).

The northwestern pond turtle is found in from Washington, Oregon, Nevada, as well as northern and central California. The southwestern pond turtles' range includes southern California from Monterey County south to Los Angeles, Riverside, and San Diego Counties into continues into northern Baja California, Mexico (USFWS 2023i). These species require both aquatic and upland habitat throughout their life cycle, and although maximum lifespan is unknown, some can live to be over 55 years old in the wild (National Archives

2023). Reproductive adults, especially females, are critical for population stability. The greatest ongoing threats to both species of turtle in the Western U.S. are worsening drought conditions, habitat loss and fragmentation, and predation by invasive species, which primarily include non-native bullfrogs (CaliforniaHerps 2023).

Mating and egg-laying occurs primarily in April and May. However, some females lay two clutches in a year while others lay eggs every other year. Sometime between late April and August, females climb onto land to dig a nest, usually along stream or pond margins in areas with full sunlight, where they lay a clutch of 2−11 eggs. The length of incubation is not known however, it may vary with altitude and latitude (CaliforniaHerps 2023). Eggs incubated in a laboratory hatched in 73−81 days. Hatchlings may emerge in late summer or fall, but some turtles may overwinter in the nest and emerge the following spring (CaliforniaHerps 2023).

Western pond turtles may be found in a variety of habitats including ponds, lakes, rivers, streams, creeks, marshes, irrigation ditches with abundant vegetation with either rocky or muddy bottoms, as well as in woodlands, forests, and grasslands. In streams, they prefer pools to shallower areas. Western pond turtles require logs, rocks, cattail mats, and exposed banks for basking. Western pond turtles eat a wide variety including aquatic plants, invertebrates, amphibian eggs and larvae, crayfish, carrion, and occasionally frogs and fish (CaliforniaHerps 2023).

According to the CNDDB, there is one record of the northwestern pond turtle within five miles of the Project area. The closest record to the Project area is an occurrence along North Fork Weber Creek east of the Project area in Spivey Pond (Figure 4) (CDFW 2023g). The American bullfrog (*Lithobates catesbeianus*), a known predator of both species of the western pond turtle, was detected within North Fork Weber Creek in 2000−2003 (CDFW 2023g).

There were no observations of northwestern pond turtles during the habitat assessment and field surveys conducted in May 2022 and June 2023. Given the information from the CNDDB, including surveys conducted within the Project area and the known presence of predators within North Fork Weber Creek, there is a low potential for northwestern pond turtle to occur within the Project area.

California Spotted Owl

Federal Status: Proposed Threatened, BCC, protected under MBTA; State Status: SSC; USFS Status: MIS, Sensitive

The California spotted owl was petitioned for listing as threatened or endangered, but upon status review, the USFWS found it did not warrant listing on May 24, 2006 (USFWS 2003, 2006b). The USFWS was again petitioned to list the California spotted owl in 2015 and issued a 90-day finding on September 17, 2015, that found the petition contained information to warrant a more in-depth review of the species' conservation status (USFWS 2015). On November 8, 2019, the USFWS announced it had thoroughly reviewed the status of the California spotted owl and concluded it does not require protection under the ESA. Then on February 23, 2023, after an updated review of the best available scientific and commercial information, the USFWS issued a Proposed Rule (88 Federal Registrar 11600) for listing the Coastal-Southern California DPS as endangered, and the Sierra Nevada DPS as threatened under the ESA (USFWS 2023j). If the Proposed

Rule is finalized, the two DPSs will be added to the list of endangered and threatened wildlife and extend ESA protections to them.

A medium-sized owl, the California spotted owl, is one of three subspecies of the spotted owl: the California spotted owl (*Strix occidentalis occidentalis*), the northern spotted owl (*Strix occidentalis caurina*), and the Mexican spotted owl (*Strix occidentalis lucida*). Both the northern and Mexican subspecies are listed as threatened by the USFWS. The three subspecies occupy geographically distinct areas, with the California spotted owl in the southern Cascades south throughout the Sierra Nevada mountains, the mountainous regions of southern California, and the central coast ranges at least as far north as Monterey County (Gutiérrez and Barrowclough 2005).

All subspecies possess similar characteristics: dark eyes, dark to medium brown coloring, a white spotted head and neck, and white mottling on the chest and abdomen, and females tend to be slightly larger (USFWS 2017, 2023i). The elevation of known nest sites ranges from approximately 1,000−7,700 feet (305−2,347 meters) amsl, with about 86 percent occurring between 3,000 and 7,000 feet. They occur throughout the forests of the western Sierra Nevada mountain range from Shasta south to the Tehachapi Pass, while the eastern side of the Sierra Nevada has a limited amount of suitable habitat and fewer numbers of occupancy. Additionally, they occur in the southern and central coastal California ranges with a gap in their distribution between the Sierra Nevada and forests in Southern California. Specifically, to the Sierra Nevada California spotted owl prefer multi-layered, mature mixed-confer and yellow pine forest, but may also use riparian/hardwood and red fir forests as well where they may nest, roost, and forage on rodents such as northern flying squirrel (*Glaucomys sabrinus*) and woodrat (*Neotoma* sp.) (USFWS 2017). California spotted owl nests are found most often in cavities within the Sierra region. They do not typically nest every year as nesting largely depends on the weather before and during breeding season, which begins typically mid-February, with peak egg-laying (1 to 3 eggs) in mid-April (USFWS 2017, 2023i).

There are many positive observations of the California spotted owl within 5 miles of the Project area, primarily to the east and the north of the Project area. The closest activity center is less than 1 mile to the west of the Project area from 2001 where a pair and suspected nest were recorded. Other observations close to the Project area include an activity center noted in 1980 and a single audio observation in 1998 (Figure 3.4-2, CDFW 2023g). According to the CNDDB, the most recent observation was an incidental detection made by the BLM while conducting a frog survey along the North Fork Weber Creek east of the Project area within the Spivey Pond Management Area (CDFW 2023g). Limited suitable nesting habitat exists along the Project alignment in the Project area, and therefore, a low potential exists for the California spotted owl to occur within the Project area. No observations of individual California spotted owls or sign of the species were made during the surveys conducted in May 2022 and June 2023.

Nesting Raptors and Other Migratory Bird Species

Federal Status: None, protected under MBTA; State Status: None, protected under FGC; USFS Status: None

The Project area contains suitable habitat for bird species protected under the MBTA and FGC, including cavity-nesting species such as the white-headed woodpecker (*Leuconotopicus albolarvatus*) and the red-breasted nuthatch (*Sitta canadensis*); tree-nesting species such as black-headed grosbeak (*Pheucticus*

melanocephalus) and western tanager (*Piranga ludoviciana*); and ground nesting species such as dark-eyed junco (*Junco hyemalis*) and song sparrow (*Melospiza melodia*). Raptors that may potentially nest within the Project area include red-tailed hawk (*Buteo jamaicensis*), Cooper's hawk (*Accipiter cooperii*), and great horned owl (*Bubo virginianus*).

Suitable nesting habitat exists throughout the Project area and, therefore, there is a high potential for nesting raptors and other migratory bird species to occur. No nesting bird species were observed in the Project area during field surveys conducted in May 2022 and June 2023.

3.8.6 ENVIRONMENTAL IMPACTS

This section analyzes the Project's potential to result in significant impacts to biological resources. When the Project's impact was determined to be significant, mitigation measures were identified to reduce or avoid that impact.

3.8.6.1 Project Impact Analysis

Impact BIO-1	**Potential to 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 CDFW or USFWS.**

Impact BIO-1 Analysis

Potential Impacts to Special-Status Plant Species

As discussed in the Environmental Setting, 34 of the 37 special-status plant species that were assessed were determined to have a low or very low potential to occur in the Project area (Table 3.4-1). One species, the Pleasant Valley mariposa lily, was determined to have a moderate potential to occur in the Project area. Two species, Sierra clarkia and yellow bur navarretia, were observed within the Project area during the field surveys conducted in May 2022.

Due to the presence of special-status species with the Project area, and the requirement by CDFW survey protocols that surveys for seasonal plants are only good for one-year, additional pre-construction surveys, as described by Mitigation Measure BIO 1: Pre-Construction Botanical Surveys, would be conducted prior to construction during the May to July mid-bloom period to reassess the presence of special-status plant species in the Project areas with suitable habitat for the three special-status species identified as having a moderate potential to occur including areas where special-status species were previously identified and located.

Additionally, worker environmental awareness training would be required through implementation of Mitigation Measure BIO-2: Biological Resources Awareness Training. This training would educate construction staff to recognize species listed with the potential to occur in Table 3.4-1 and any other special-status species identified during pre-construction surveys, to stop work in the immediate area in the event of identification and avoid/or mitigate to appropriate standards any encountered special-status species.

Lastly, indirect impacts to special-status plant species could result if construction equipment, Project personnel, or erosion control materials were to introduce non-native or invasive species that have the potential to inhibit the success of native species survivorship by increasing competition for resources. To reduce the potential for spread of invasive species and the potential for their impact on any nearby special-status plant communities Mitigation Measure BIO-3: Reduce the Spread and Introduction of Invasive Noxious Weeds would be implemented. Mitigation Measure BIO-3 would require the District to reduce the potential introduction or spread of invasive noxious weeds by requiring BMPs during construction to appropriately clean and inspect construction equipment brought in from other construction sites. Additionally, any imported topsoil, mulch, and seed used in Project-related activities (e.g., restoration, reseeding, erosion control, and soil stabilization) shall be certified weed-free. With the implementation of Mitigation Measures BIO-1, BIO-2, and BIO-3, potential impacts to special-status plants would be reduced to a less than significant level.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure BIO-1, Mitigation Measure BIO-2, Mitigation Measure BIO-3

Potential Impacts to California Red-Legged frog

The California red-legged frog is listed as federally threatened and as a designated California SSC. Therefore, both species individuals as well as its designated critical habitat are protected under federal and State law. The disturbance of its occupied upland or aquatic habitats may result in direct impacts to the California red-legged frog, with the potential for individuals to be impacted during construction. Potential indirect impacts include the changes in upland, aquatic non-breeding, and dispersal habitats due to changes in vegetation cover, structure, and composition within the pipeline alignment (i.e., change from forest and woodland vegetation types to non-woody herbaceous vegetation types (e.g., grassland) and degradation of aquatic non-breeding habitat due to potential erosion and sedimentation as a result of ground disturbance.

The Project area is within the historic range of the California red-legged frog (USFWS 2002); however, there are no records of historic or recent occurrences of California red-legged frog within the Project area (CDFW 2023g). The closest occurrence to the Project area is a breeding population of California red-legged frog located in Spivey Pond, approximately 0.75 miles upstream (to the east) from where the Project area bisects North Fork Weber Creek. Both the northern section of the Project area and Spivey Pond are within the boundary of the DCH Unit ELD-1. Surveys conducted over the last couple decades by various entities suggest this population is stable; however, the population is threatened by the presence of American bullfrog and rainbow trout (Pers. comm. Jeff Jones 2022, Adams et al. 2020), and one California red-legged frog was found to be positive for Bd, a fungus that can cause the infectious and sometimes deadly disease, Chytridiomycosis (Adams et al. 2020). Weber Creek is known to contain rainbow trout, California roach (*Lavinia symmetricus*), and Sacramento sucker (*Catostomus occidentalis*) (CDFW 2023g).

No observations of California red-legged frog were made during the field surveys conducted in May 2022 and June 2023 within the Project area. However potential suitable habitat was identified within the Project area, specifically along North Fork Weber Creek, including aquatic non-breeding, dispersal, and upland habitats. With the close proximity and hydrological connection of a known population, there is a high

potential for the California red-legged frog to occur within the Project area. As such, Project-specific permitting (ESA Section 7) and avoidance and minimization measures are applicable for this species.

Due to the proximity and connectivity of the Project area with the DCH Unit and Spivey Pond, the District will implement Mitigation Measure BIO-4: Avoid and Minimize Impacts to California Red-legged Frog and Suitable Habitat to ensure impacts to the California red-legged frog are less than significant. Mitigation Measure BIO-4 entails pre-construction measures, including planning, preparation, surveys, monitoring, and relocation measures. Project-specific construction and post-construction measures will also be applied.

Additionally, worker environmental awareness training would be required through implementation of Mitigation Measure BIO-2: Biological Resources Awareness Training to educate Project personnel to properly identify the California red-legged frog and inform them on the proper actions to take in the event that a frog is observed in the Project area. With the implementation of Mitigation Measure BIO-2 and BIO-4, impacts to the California red-legged frog and their habitat would be reduced to a less than significant level.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure BIO-2, Mitigation Measure BIO-4

Potential Impacts to Foothill Yellow-Legged Frog

The Project area is within the range of the East/Southern Sierra Clade, or South Sierra Distinct Population Segment, of foothill yellow-legged frog, which was listed as State Endangered in February 2020 and was listed as federal Endangered in 2023 (CDFW 2019b; USFWS 2023h). Additionally, the foothill yellow-legged frog is a USFS Sensitive Species. The disturbance of its habitat may result in direct impacts to the foothill yellow-legged frog, specifically disturbance within the aquatic habitats within the Project area that are considered suitable habitat (i.e., North Fork Weber Creek). Potential indirect impacts include the degradation of aquatic habitat due to potential erosion and sedimentation as a result of ground disturbance.

As described above, there are 12 records of foothill yellow-legged frog within 5 miles of the Project area. The majority of these records occur within tributaries to and/or in the South Fork American River north of HWY 50 and within a different watershed than the Project area. Other known occurrences are south and east of the Project area and are within a different watershed, with no known observations within the waterways that are within and/or connected to those within the Project area. There is a low potential for the foothill yellow-legged frog to occur within the Project area and no observations were made during the field surveys and habitat assessment conducted within the aquatic features in May 2022. However, since potential suitable habitat was observed within the Project area, the District will implement Mitigation Measure BIO-5: Avoid or Minimize Impacts to Foothill Yellow-Legged Frog and Northwestern Pond Turtle to ensure impacts to the foothill yellow-legged frog and northwestern pond turtles are less than significant. Mitigation Measure BIO-5 includes the implementation of Biological Resources Awareness Training (Mitigation Measure BIO-2) and pre-construction visual encounter surveys prior to any in-water work. Mitigation Measure BIO-5 will also occur in conjunction with Mitigation Measure BIO-4, which includes specific measures for the California red-legged frog that will also play a role in the minimization of potential impacts to the foothill yellow-legged frog and northwestern pond turtle. With the implementation of Mitigation

Measures BIO-2, BIO-4, and BIO-5, impacts to the foothill-yellow legged frog and their habitat would be reduced to a less than significant level.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure BIO-2, Mitigation Measure BIO-4, Mitigation Measure BIO-5

Potential Impacts to Northwestern Pond Turtle

The Project area is within the range of the northwestern pond turtle, which was proposed as federal Threatened in 2023 (USFWS 2023i). Additionally, the northwestern pond turtle is a USFS Sensitive Species. The disturbance of its habitat may result in direct impacts to the northwestern pond turtle, specifically disturbance within the aquatic habitats within the Project area that are considered suitable habitat (i.e., North Fork Weber Creek). Potential indirect impacts include the degradation of aquatic habitat due to potential erosion and sedimentation as a result of ground disturbance.

As described above, there is one record of northwestern pond turtle within 5 miles of the Project area. The closest record to the Project area is an occurrence along North Fork Weber Creek east of the Project area in Spivey Pond (CDFW 2023g). The American bullfrog (*Lithobates catesbeianus*), the northwestern pond turtle, was detected within North Fork Weber Creek in 2000−2003 (CDFW 2023g). There is a low potential for the northwestern pond turtle to occur within the Project area and no observations were made during the field surveys and habitat assessment conducted within the aquatic features in May 2022. However, since potential suitable habitat was observed within the Project area, the District will implement Mitigation Measure BIO-5: Avoid or Minimize Impacts to Foothill Yellow-Legged Frog and Northwestern Pond Turtle to ensure impacts to the foothill yellow-legged frog and northwestern pond turtle are less than significant. Mitigation Measure BIO-5 includes the implementation of Biological Resources Awareness Training (Mitigation Measure BIO-2) and pre-construction visual encounter surveys prior to any in-water work. Mitigation Measure BIO-5 will also occur in conjunction with Mitigation Measure BIO-4, which includes specific measures for the California red-legged frog that will also play a role in the minimization of potential impacts to the foothill yellow-legged frog and northwestern pond turtle. With the implementation of Mitigation Measures BIO-2, BIO-4, and BIO-5, impacts to the foothill-yellow legged frog, northwestern pond turtle, and their habitat would be reduced to a less than significant level.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure BIO-2, Mitigation Measure BIO-4, Mitigation Measure BIO-5

Potential Impacts to Native Aquatic Species

The Project area contains four stream crossings and one drainage: North Fork Weber Creek and North Fork Clear Creek (perennial); South Fork Weber Creek and Clear Creek; (intermittent); and one unnamed ephemeral drainage located at the intersection of Manx Road and Starkes Grade Road. The Project proposes to traverse the stream crossings and drainage using an open-trench method and would be timed during periods of no or low flows, likely in early fall to reduce potential water quality and aquatic wildlife species impacts. However, the disruption of flow in these waterways has the potential to directly and indirectly impact aquatic species and their habitat. To avoid and/or minimize potential impacts on native

aquatic species and water quality during the stream crossings within the Project area, the District would implement Mitigation Measure BIO-6: Native Aquatic Species Rescue and Relocation. Mitigation Measure BIO-6 requires that an aquatic species rescue plan will be prepared prior to any in-water work. This plan would be approved by the CDFW and would include the methodology and procedures required to rescue and relocate native aquatic species stranded during the dewatering and diversion process. Additionally, Mitigation Measure GEO-1 (Section 3.7) will be implemented to ensure all the proper BMPs are in place to reduce impacts to water quality, along with any requirements in the CWA 401, CWA 404, and CDFW 1602 permits/agreement.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure BIO-2, Mitigation Measure BIO-6, Mitigation Measure GEO-1

Potential Impacts to California Spotted Owl

The Project area is within the range of the California spotted owl Sierra Nevada DPS, which is a California SSC and designated by the USFS as a MIS and USFS Sensitive Species. Additionally, in February 2023, the USFWS issued a Proposed Rule (88 Federal Registrar 11600) for listing the Sierra Nevada DPS as threatened under the ESA (USFWS 2023j). If the Proposed Rule is finalized, the two DPSs will be added to the list of endangered and threatened wildlife and extend ESA protections to them.

There are many positive observations of the California spotted owl within 5 miles of the Project area, primarily to the east and the north of the Project area. The closest activity center (an active nest or suspected nest stand based on owl territorial behavior) is less than 1 mile to the west of the Project area from 2001 where a pair and suspected nest were recorded. Other observations close to the Project area include an activity center noted in 1980 and a single audio observation in 1998 (Figure 4, CDFW 2023g). According to the CNDDB, the most recent observation was an incidental detection made by the BLM while conducting a frog survey along the North Fork Weber Creek east of the Project area within the Spivey Pond Management Area (CDFW 2023g).

Suitable California spotted owl habitat in the Sierra Nevada consists of dense, multi-layered mature forested stands with greater than 70 percent canopy closure preferred for nesting and roosting, and greater than 50 percent canopy cover for foraging (Verner et al.1992). The presence of large snags and down logs are also play an important role, as they are utilized for nesting and as habitat for some of the owl's primary prey species, the Humboldt's flying squirrel (*Glaucomys oregonensis*) and the woodrat (*Neotoma* sp.) (Munton et al. 2002). In the Eldorado National Forest, California spotted owls are known to occur between 2,000 and 7,200 feet in elevation, with most of the nesting pairs found in the Sierran mixed conifer habitat type. Although the Project area and vicinity is predominantly Sierra mixed conifer, much of the existing pipeline alignment does not include a multi-layered mature forest as well as the preferred canopy closure of the California spotted owl for nesting. There is a low potential for nesting California spotted owl to occur within the Project area; however, to ensure that potential impacts to the California spotted owl are less than significant, the District will implement Mitigation Measure BIO-7 Avoid or Minimize Impacts to Special-Status Bird Species, Nesting Raptors, and Other Migratory Birds Protected under the MBTA and FGC along with Mitigation Measure BIO-2, which requires Biological Resources Awareness Training for Project personnel.

With the implementation of Mitigation Measure BIO-2 and BIO-7, impacts to the California spotted owl will be reduced to a less than significant level.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure BIO-2, Mitigation Measure BIO-7

Potential Impacts to Special-status Bird Species, Nesting Raptors, and Other Migratory Birds

There is a high potential for nesting raptors and other migratory birds protected under the MBTA and FGC to occur within the Project area and vicinity. Although any impact would be incidental to Project construction, and not the purpose of the Project or project-related activity, construction activities during the nesting season (approximately March 1 through August 31) have the potential to cause direct impacts to birds including the loss of habitat and direct fatality. Any destruction or disturbance of breeding or foraging habitat could directly impact the survivorship of birds, and the removal or disturbance of nests may result in breeding failure or fatality of individual birds. Birds could be killed, injured, or disturbed by vehicles or equipment related to proposed Project construction. Any disturbance resulting in nest abandonment, the loss of eggs, or direct mortality to a nesting bird would be considered a significant impact. Indirect impacts to birds could result from habitat changes that affect sources of food or breeding suitability. Construction disturbance such as noise may cause short-term avoidance of the Project area by birds. Habitat fragmentation may impact bird dispersal and increase populations of species that prey on special-status birds (e.g., raccoons, brown-headed cowbirds).

The introduction of non-native or invasive species could alter breeding or foraging habitat suitability, however with the implementation of Mitigation Measure BIO-3, the introduction of invasive and noxious weeds should be minimized.

However, the implementation of Mitigation Measure BIO-2: Biological Resources Awareness Training and BIO-7: Avoid or Minimize Impacts to Special-status Bird Species, Nesting Raptors, and Other Migratory Birds Protected under the MBTA and FGC would ensure protected bird species are identified and appropriately avoided. Therefore, no direct or indirect effects are expected to occur to raptors and other migratory birds. For example, Mitigation Measure BIO-7 includes pre-construction surveys during the typical nesting period for the region, and specific measures to mitigate if a nesting bird is discovered within the Project area. Mitigation Measure BIO-2 will train all Project personnel on how to identify an active bird nest including the proper actions to take if a nest is discovered within the Project area after Project construction has begun. Therefore, with the implementation of Mitigation Measure BIO-2 and BIO-7, potential impacts to special-status bird species, nesting raptors, and other migratory birds would be reduced to a less than significant level.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure BIO-2, Mitigation Measure BIO-7

Overall Impact BIO-1 Level of Significance: Less than Significant with Mitigation

Overall Impact BIO-1 Mitigation Required: Mitigation Measure BIO-1 through BIO-7, Mitigation Measure GEO-1

Impact BIO-2	**Potential to have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or USFWS.**

Impact BIO-2 Analysis

The Project involves the replacement of an existing 4.5-mile pipeline that traverses through predominately overland areas consisting of Sierran mixed conifer, mixed montane chaparral, and annual grassland. However, montane riparian vegetation also occurs adjacent to the four stream crossings that contain riparian habitat within the Project area. The streams generally flow through the canyons in an east to west direction with the vegetation present on north- and south-facing slopes. Common species include big-leaf maple and occasional white alder, pacific willow, and arroyo willow. Willow species were not present on North Fork Clear Creek or Clear Creek due to dense riparian tree canopy cover, which included incense-cedar and other conifers. These streams also have areas of Himalayan blackberry, scotch broom, and native shrub and sapling trees. No wetland marsh or floating or submerged aquatic plants were observed within any of the four streams. The Project proposes to traverse the stream crossings using an open-trench method with a construction corridor of 30 feet (15 feet on either side of the current alignment) and would be timed during periods of no or low flows likely in early fall to reduce potential water quality and aquatic wildlife species impacts.

Project activities would result in temporary impacts along the four stream crossings within riparian habitat, which is considered a sensitive natural community by CDFW and the County. Therefore, Mitigation Measure BIO-8: Avoid and Minimize Impacts to Riparian Habitat would be implemented to ensure that any vegetation disturbance is kept to a minimum within the Project area, as well as be revegetated with native species post-construction. In addition, Mitigation Measure BIO-4 would be implemented to ensure proper restoration of riparian areas post-construction, and Mitigation Measure GEO-1 would be implemented to ensure sediment control BMPs would be in place in any area where construction activities approach water features.

With implementation of Mitigation Measure BIO-4, Mitigation Measure BIO-8, and Mitigation Measure GEO-1 (Section 3.7), the potential impacts of the proposed Project on riparian habitats and other sensitive habitats would be minimized to less than significant levels.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure BIO-4, Mitigation Measure BIO-8, Mitigation Measure GEO-1

Impact BIO-3 Potential to 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.

Impact BIO-3 Analysis

Jurisdictional WOTUS and WOTS include jurisdictional wetlands as well as all other WOTUS and WOTS such as creeks, ponds, and drainages. Wetlands are defined as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances, support a prevalence of vegetation typically adapted for life in saturated soil conditions. Jurisdictional WOTUS can also be defined by exhibiting a defined bed and bank and an ordinary high water mark (OHWM). The Project involves the replacement of an existing 4.5-mile pipeline with four stream crossings and one roadside drainage crossing within the Project area all of which have a defined bed and bank. The Project proposes to traverse the stream crossings using an open-trench method with a construction corridor of 30 feet (15 feet on either side of the current alignment) and would be timed during periods of no or low flows likely in early fall to reduce potential water quality and aquatic wildlife species impacts. Where culverts are present along the pipeline alignment, if undercrossing is infeasible, the culverts would be removed and replaced in kind.

Project activities would cause direct impacts to these features through the direct fill and hydrological interruption. The placement of the new pipeline and associated culverts, which are considered fill, as well as work within the stream channels, would require a CWA Section 404 permit which requires completion of a wetland and/or waters delineation, a USACE verification of that delineation, and proof of compliance with the CWA Section 404. Mitigation Measure BIO-9: Avoid and Minimize Impacts on Waters of the United States and Waters of the State provides requirements for completing these components of the CWA Section 404 permitting process and would ensure that potential impacts to protected wetlands are adequately quantified and mitigated through the CWA Section 404 permitting process, reducing the potential for substantial adverse effects to a less than significant level. Furthermore, because the Project would require a CWA Section 404 permit, a CWA Section 401 WQC would also be obtained. A CWA Section 401 WQC would ensure that the activities of the Project comply with all applicable water quality standards, limitations, and restrictions.

With the implementation of Mitigation Measure BIO-9 and Mitigation Measure GEO-1 (Section 3.7) to ensure sediment control BMPs would be in place in any area where construction activities approach WOTUS, the potential impact to state or federally protected wetlands through direct removal, filling, hydrological interruption, or other means would be considered less than significant.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure BIO-9, Mitigation Measure GEO-1

Impact BIO-4 Potential to 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.

Impact BIO-4 Analysis

Potential Impacts to the Movement of Terrestrial Wildlife Species

Wildlife corridors provide migration channels seasonally (i.e., between winter and summer habitats); provide non-migratory wildlife with the opportunity to move within their home range for food, cover, and reproduction; and allow for dispersal for individuals to colonize new areas (CDFW 2023f, USFWS 2023e). Though small travel corridors generally facilitate movement for daily activities within a home range (e.g., foraging and avoiding predators), these corridors also provide connection between other populations, allowing gene flow between populations resulting in a healthier gene pool for the particular species.

Available data on the locations and value of wildlife movement corridors specific to the Project area are lacking; however, the vegetation communities and variety of habitats have the potential to support wildlife movement. The Project area includes or is adjacent to mixed vegetation covers in association with seasonal riparian and stream channels and may be highly favored habitats for a variety of terrestrial wildlife species. This habitat type provides corridors for wildlife movement, specifically undisturbed and continuous expanses of land as opposed to areas with fragmentation like nearby highways such as HWY 50. The majority of the Project area is ranked as ACE Rank 1 or ACE Rank 2 (CDFW 2019a), which provides a mix of limited connectivity opportunity and large natural habitat areas, respectively. The region of the Project area south of HWY 50, where large natural habitat and rural residential areas exist currently has the potential to provide a means for the movement of species within the local region. However, Project implementation would be temporary, and the Project area would be returned to pre-construction conditions with the exception of periodic vegetation maintenance to ensure pipeline access. Overall, the Project would not result in a significant impact to common species, and they would be able to continue to use the area as a movement corridor.

According to CDFW, urban expansion may pose a threat to deer migration corridors. Critical habitat is defined by CDFW as habitat that is essential to the long-term productivity of the herd. The migratory deer herd that overlaps the Project area is referred to as the Grizzly Flat Deer Herd (CDFW 2022, 2023g). The Grizzly Flat Deer Herd winters in the western foothills of the Sierra Nevada near Grizzly Flats, California, approximately 6.5 miles to the southeast of the Project area (USGS 2022). The winter range is located on a mix of private and public lands including conifer, vineyards, and oak woodlands. In the spring, the Grizzly Flat Deer Herd typically migrates east to higher elevation terrain in the Eldorado National Forest, staying south of HWY 50 and primarily north of U.S. Highway 88, to the crest of the Sierra Nevada. In the summer, the deer herd is typically found in mixed conifer habitat and up to high alpine granite near the crest of the Sierra Nevada. The population size of the Grizzly Flat Deer Herd is largely unknown due to limited surveys, but it is currently considered stable to declining, and it is assumed to be primarily affected by dense overstory, environmental stressors, and habitat loss (USGS 2022). According to a data collected from 2018−2021, the majority of the Grizzly Flat Deer Herd's migratory corridors, migration stopovers, and winter range were concentrated south and east of the Project area (CDFW 2022). Therefore, it is unlikely that the

temporary construction disturbance associated with the Project as it moves along the pipeline alignment would have a significant impact to migrating deer as well as other native terrestrial wildlife species. Therefore, the potential impact to the migration of native terrestrial wildlife species would be considered less than significant and no mitigation would be required.

Level of Significance: Less than Significant

Mitigation Required: None required.

Potential Impacts to the Movement of Aquatic Wildlife Species

The Project area contains four stream crossings and one drainage: North Fork Weber Creek and North Fork Clear Creek (perennial); South Fork Weber Creek and Clear Creek; (intermittent); and one unnamed ephemeral drainage located at the intersection of Manx Road and Starkes Grade Road. Much like terrestrial corridors, these waterways provide habitat and movement corridors for a variety of native aquatic species including fish, amphibians, and invertebrates so they can migrate or move within their home range.

The Project proposes to traverse the stream crossings and drainage using an open-trench method and would be timed during periods of no or low flows likely in early fall to reduce potential water quality and aquatic wildlife species impacts. However, the disruption of flow in these waterways have the potential to directly and indirectly impact aquatic species and their habitat. To avoid and/or minimize potential impacts on native aquatic species and water quality during the stream crossings within the Project area, Mitigation Measure BIO-6: Native Aquatic Species Rescue and Relocation will be implemented. Mitigation Measure BIO-6 requires that an aquatic species rescue plan be prepared prior to any in-water work. This plan would be approved by CDFW and would include the methodology and procedures required to rescue and relocate native aquatic species stranded during the dewatering and diversion process. Additionally, Mitigation Measure GEO-1 would be implemented to ensure all the proper BMPs are in place to reduce impacts to water quality.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure BIO-6, Mitigation Measure GEO-1

Overall Impact BIO-4 Level of Significance: Less than Significant with Mitigation

Overall Impact BIO-4 Mitigation Required: Mitigation Measure BIO-6, Mitigation Measure GEO-1

Impact BIO-5 Potential to conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Impact BIO-5 Analysis

This analysis pertains to conflicts with local policies or ordinances protecting biological resources. The Project has the potential to conflict with policies from the County General Plan Conservation and Open Space element relating to biological resources and the County ORMP (El Dorado County 2017) and other oak woodland guidance documents relating to the spread of southern pine bark beetle. The Project's

potential to conflict with policies and ordinances governing impacts associated with forestlands is assessed within Section 3.2, Agricultural and Forestry Resources.

Potential to Conflict with the El Dorado County General Plan

The Project does not conflict with the County General Plan Conservation Element. Specifically, in compliance with Goal 7.4 and Objective 7.4.2 and the associated policies, during Project development, the District reviewed the wildlife and vegetation resources present within the Project area to identify and protect resources with potentially significant biological, ecological, and recreational value. Extensive reviews and surveys were conducted for sensitive biological resources and wetlands allowing for impacts to be avoided, as discussed above.

In addition, in accordance with General Plan Objective 7.4.2 and as discussed in Impact Assessments BIO-1 through BIO-7, the Project would not significantly impact critical fish and wildlife habitat, including deer winter, summer, and fawning ranges; deer migration routes; stream and river riparian habitat; lake shore habitat; fish spawning areas; wetlands; wildlife corridors; and diverse wildlife habitat. Compliance with Objective 7.4.4 and associated oak woodland policies is assessed under the Potential to Conflict with Oak Woodland Management Policies impact section below.

Level of Significance: Less than Significant

Mitigation Required: None Required

Potential to Conflict with Oak Resources Management Policies

To minimize tree removal and undisturbed area impacts, the Project has been designed to replace the existing pipeline primarily within its current alignment, where absent the proposed Project, vegetation maintenance and removal activities are planned as part of the District-wide Right-of-Way Reinforcement Program (EID 2023). As discussed in the Environmental Setting above, a range of tree species were identified within the Project area during baseline biological surveys conducted in May 2022 and June 2023. Canyon live-oak and black oak can be found at varying densities and areas within the Project area. Tree removal along the alignment and in the construction corridor would be required due to construction associated with the Project activities. However, as noted above, absent the proposed Project, these trees would be removed under the Right-of-Way Reinforcement Program. Additionally, the corridor selected was previously disturbed and is a narrow strip relative to the vast surrounding forested area. The DBH's of the oak trees to be removed range from 6 to 24 inches, and none of them are considered to be Heritage Trees (i.e., oak trees greater than 36 inches in diameter).

According to the El Dorado County ORMP (El Dorado County 2017), hardwood oak woodlands, which include black oaks, can contribute to soil retention and contribute to healthy lands and watersheds, as well as provide habitat and forage for animals, among other benefits. As such, the removal of individual oaks and/or oak woodlands, as defined in the County ORMP, could constitute a significant impact if not adequately mitigated. Since the District is an agency of equal authority with the County (Government Code sections 53091[D] and [E]), the District is not bound by the County's policy, but aims to implement mitigation consistent with the County's plans and policies associated with oak woodlands management as a metric for formulating avoidance and minimization measures.

As such, Mitigation Measure BIO-10, Avoid and Minimize Impacts to Oak Trees and Oak Woodlands, detailed below would be implemented in order to reduce and/or mitigate potential impacts to oaks and oak woodlands. Mitigation Measure BIO-10 requires the District to avoid impacts to oaks to the extent practicable through use of best management practices (e.g., exclusionary fencing, avoiding excessive soil compaction) during construction. Thus, with the implementation of Mitigation Measure BIO-10, the Project would be consistent with the ORMP and would not conflict with a local plan or policy protecting biological resources.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure BIO-10

Potential to Conflict with the Pine Bark Beetle Infestations

The spread of pine bark beetle has been impacting forest habitat and affecting public safety. Bark beetles survive in trees that are stressed, diseased, or injured whether by human activity or caused by storms, wildfires, or drought. In drought conditions, bark beetles have the potential to increase rapidly, because trees are stressed and therefore more food is available for the beetles (USDA 2015). The number of beetles present, and tree vigor are the two principle interacting factors regarding the competition between the trees and the tree-killing beetles. Healthy trees often produce enough resinous pitch to drown and “pitchout” the beetles that attempt to enter when beetle populations are low. However, when trees are stressed, they may not be able produce sufficient amounts of defensive pitch. Thus, when beetle populations are high, even an apparently healthy tree may not be able to produce enough pitch to ward off hundreds of attacks (USDA 2015).

The Project involves the replacement of an existing pipeline and would not remove any water from the source from which the existing pine tree species get their water. The forested land in the Project area consists of a mix of conifers and hardwoods. Coniferous species present in the Project area include ponderosa pine and California incense-cedar as the dominant species, and Douglas-fir, canyon live oak, and black oak as co-dominant species. Additionally, tree removal within the Project area would occur in order to replace the existing pipeline and to prevent hazards to personnel and facilities, which would allow the trees not removed and nearest to the Project area to potentially benefit through less competition for water. The District would utilize the County’s Tree Mortality Tree Removal Plan (El Dorado County 2016) as a model to remove and dispose of trees infested with bark beetle. Therefore, impacts related to the spread of pine bark beetle would be considered less than significant.

Level of Significance: Less than Significant

Mitigation Required: None Required.

Overall Impact BIO-5 Level of Significance: Less than Significant with Mitigation

Overall Impact BIO-5 Mitigation Required: Mitigation Measure BIO-10

Impact BIO-6 Potential to conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Impact BIO-6 Analysis

The Project area is not currently subject to an approved habitat conservation plan, or other approved local, regional, or State habitat conservation plans. Therefore, the Project would not conflict with any approved or planned local policies or ordinances protecting biological resources. As such, this potential impact would be considered less than significant, and no mitigation would be required.

Level of Significance: Less than Significant

Mitigation Required: None Required

3.8.7 BIOLOGICAL RESOURCES MITIGATION

3.8.7.1 Mitigation Measure BIO-1: Pre-Construction Botanical Surveys

A qualified botanist shall conduct special-status plant surveys prior to construction activities in areas with suitable habitat for the three special-status species identified as having a moderate potential to occur or are present in the Project area (Pleasant Valley Mariposa lily, Sierra clarkia, and yellow bur Navarretia). Surveys shall follow protocols designated by CDFW (CDFW 2018) and CNPS (CNPS 2001) and shall occur during the appropriate floristic bloom periods. The mid-bloom period overlaps for the three species identified occurring May through July and would be appropriate for the three species with the potential to occur in the Project area.

Previous rare plant surveys detected two special-status plant species within the Project area: Sierra clarkia and yellow bur navarretia (Stantec 2023a). To avoid or minimize and compensate for potential impacts on special-status plant species, the following measures are recommended:

1. Where special-status plants have been determined to be absent in the Project area, then no further measures are required.

2. Where special-status plants have been determined present within the Project area (e.g., Sierra clarkia and yellow bur navarretia), Project activities shall be reduced and minimized to avoid impacts with the following:

    a. A qualified botanist shall map the population, place flagging to identify the population location, and install environmentally sensitive exclusion fencing and appropriate signage at an appropriate buffer distance (e.g., ~25 feet), starting from the edge of the special-status plant and/or plant population. Signage shall indicate that the area is environmentally sensitive and not to be disturbed.

    b. Adjust the location of Project activities away from special-status plants to the extent practicable.

3. If Project activities cannot avoid a special-status plant population and would directly disturb more than 25 percent of the population by either number of plants or extent of occupied habitat, a conservation plan shall be implemented in coordination with a qualified botanist and consultation with CDFW. The conservation plan may consist of but is not limited to: plant salvage and relocation; collection and subsequent planting of seed, or incorporating seed from native nursery into seed mix used for revegetation efforts; stockpiling, storing, and replacing topsoil containing the local seed bank; or other measures determined practicable based on the species and site conditions.

   For some species and site conditions, conservation efforts may not have a reasonable probability of success; or could result in detrimental effects on existing special-status plant populations. In these cases, as determined by a qualified botanist, no conservation measures shall be required.

Mitigation Measure BIO-1 Implementation

Responsible Party: The District. This mitigation measure shall be referenced in the contract documents for the Project.

Timing: Pre-construction rare plant surveys shall be conducted by a qualified botanist or biologist between May and July, or as otherwise deemed appropriate by a qualified botanist. Avoidance or buffer zones shall be marked before construction begins.

Monitoring and Reporting Program: The survey shall be conducted by a qualified botanist and a Rare Plant Survey Report shall be developed and kept on file with the District. If special-status species are encountered, the Rare Plant Survey Report shall be submitted to the appropriate regulatory agencies (i.e., CDFW, USFS, and/or USFWS).

Standards for Success: The presence or absence of special-status plant species are documented and, if observed, are handled and mitigated according to the performance standards outlined above and developed with the appropriate regulatory agencies.

3.8.7.2 Mitigation Measure BIO-2: Biological Resources Awareness Training

The District shall provide biological resources awareness training for workers prior to beginning Project construction activities. The District shall have a qualified biologist prepare training materials (i.e., printed handouts) that provide information on the following topics:

- How to recognize special-status plant species, wildlife species, and sensitive habitats that could occur in the Project area (i.e., special-status amphibian identification and habitat, special-status avian identification and habitat, wetland habitats, and riparian habitats);
- What to do if special-status species are encountered in the Project area;
- Information on practicing good housekeeping (e.g., removing litter, trash, and other debris on a daily basis to avoid attracting animals to the Project site) and implementing BMPs;
- Information on other mitigation measures relevant to biological resources;

- Information on regulations and applicable civil and criminal penalties for violations.

The training shall initially be presented to key Project personnel at the Project kickoff. Printed handouts shall be distributed and used for future reference by Project personnel. Project personnel that are trained during the Project kickoff shall be responsible for making sure that other workers on the Project receive the training before initiating on-site work. A roster of trained Project personnel shall be maintained in the Project construction office and made available for review by regulatory agencies, if needed. This training may be conducted in coordination with the cultural resources awareness training (MM CUL-2), paleontological resources awareness training (MM GEO-2), and tribal cultural resource awareness training (MM TRIB-2).

Mitigation Measure BIO-2 Implementation

Responsible Party: The District and the contractor. This mitigation measure shall be referenced in the contract documents for the Project.

Timing: Training shall be conducted before work begins, and new personnel shall be trained before initiating on-site work.

Monitoring and Reporting Program: The training shall be conducted by trained personnel and documented (by sign-in sheet or other method) by the District's contractor for the dates the training occurred, and the staff trained. Retention of the training reference pamphlets shall also be kept on the construction site and within District files.

Standards for Success: Construction personnel are trained in the key characteristics for identifying and avoiding impacts to special-status species and sensitive habitats.

3.8.7.3 Mitigation Measure BIO-3: Reduce the Spread and Introduction of Invasive Noxious Weeds

Invasive and noxious weeds have the potential to directly and indirectly impact plant communities at or near the Project area. To reduce the spread and introduction of weeds, the following measures shall be implemented:

- All Project-related equipment and vehicles shall be decontaminated of weeds and soils prior to initiation of work on the Project; and
- Any imported topsoil, mulch, and seed used in Project-related activities (e.g., restoration, reseeding, erosion control, and soil stabilization) shall be certified weed-free.

Mitigation Measure BIO-3 Implementation

Responsible Party: The District and the contractor. This mitigation measure shall be referenced in the contract documents for the Project.

Timing: Prior to the initiation of construction and with each new piece of equipment and/or materials.

Monitoring and Reporting Program: The District shall verify that all equipment and other materials brought on-site are certified weed-free through visual inspection and/or a signed affidavit from the contractor.

Standards for Success: Minimize the potential for introduction of new invasive weed species into the Project area through visual inspection of equipment and/or signed affidavits from the contractor of weed free certification.

3.8.7.4 *Mitigation Measure BIO-4: Avoid and Minimize Impacts to California Red-legged Frog and Suitable Habitat*

The northern portion of the Project area is located within DCH Unit ELD-1 for California red-legged frog, a federally listed species and a California SSC. California red-legged frog are known to occur at Spivey Pond located approximately 0.75 mile upstream from the Project's North Fork Weber Creek crossing (CDFW 2023g).

Although no observations of California red-legged frog were made within the Project area during the field surveys performed in May 2022 and June 2023, the Project area, specifically along North Fork Weber Creek, was determined to provide potential aquatic non-breeding, dispersal, and upland habitats.

The following measures shall be implemented to avoid or minimize the potential for adverse impacts on California red-legged frog:

1. EID shall retain a biological monitor (or qualified biologist) for the Project that possess the necessary qualifications and experience to identify all life stages of CRLF, conduct surveys, and identify suitable aquatic and upland habitat.

2. A qualified biologist shall train other personnel to monitor for California red-legged frog to facilitate compliance with the conservation measures described herein and minimize potential adverse effects to this species associated with implementation of the Proposed Action. Construction personnel will include a trained inspector responsible for monitoring the implementation of RPMs for California red-legged frog on a daily basis. The inspector will contact a qualified biologist as needed during construction.

3. A qualified biologist will conduct focused daytime and nighttime surveys for California red-legged frog within one week of initial ground disturbance or vegetation removal. The surveys will focus on stream and riparian habitats and adjacent upland areas. "Spot check" monitoring will be performed at least once per week by a qualified biologist during construction.

4. EID will ensure the contractor stops work at the request of the qualified biologist, the Service, or the California Department of Fish and Wildlife, if activities are identified that may result in take of a California red-legged frog. The contractor will temporally suspend activities in the immediate area that could result in take of the animal until it leaves the site of its own volition or is removed by the qualified biologist, the Service, or the California Department of Fish and Wildlife to an appropriate release site using Service-approved techniques.

Each California red-legged frog encountered within the Action Area will be treated on a case-by-case basis by the qualified biologist in coordination with the Service (note: in cases of dispute, the Service will have final authority), but the general protocol is as follows: (1) leave the non-injured frog alone if it is not in danger or (2) move the frog to a nearby secure location if it is in danger. These two options are as follows.

a. When a California red-legged frog is encountered in the Action Area, the first priority will be to temporarily stop activities in the immediate surrounding area that are likely to result in harm, harassment, injury, or death of the individual as determined by the qualified biologist. The qualified biologist will then assess the situation to select a course of action that will minimize adverse effects to the animal.

   The qualified biologist will determine if the appropriate course of action is to avoid contact with the California red-legged frog and allow it to move out of the hazardous situation on its own volition to a safe location. The animal will not be picked up and moved because it is not moving fast enough or it is inconvenient for the project schedule. This protocol only applies to situations where a California red-legged frog is encountered on the move to a location that contains habitat that will not be damaged or destroyed by the Proposed Action.

b. If the qualified biologist determines the appropriate course of action to prevent the immediate injury or death of a California red-legged frog is to move it, it will be captured and moved to a location with suitable habitat that is not proposed for construction, tree or vegetation removal, timber harvest, borrow excavation, or other activities. The qualified biologist will monitor the animal for an appropriate period of time to ensure it does not re-enter a work area. If secure suitable habitat is located immediately adjacent to, or close to, where the animal was captured, the preferred action is relocation to that location. A general guidance is the animal should not be moved outside of the area it would have traveled on its own. Under no circumstances will a California red-legged frog be relocated to a property without the landowner's written permission. It is EID's responsibility to arrange for that permission.

   The qualified biologist should be the individual to capture and handle California red-legged frogs. Nets or bare hands may be used to capture the animals. Soaps, oils, creams, lotions, repellents, or solvents of any sort will not be used on hands within 2 hours before and during periods when the qualified biologist is capturing and relocating a California red-legged frog. To avoid transferring disease or pathogens between sites when handling the animals, the qualified biologist will follow the appropriate recommendations in the Declining Amphibian Population Task Force Fieldwork Code of Practice (https://www.fws.gov/ventura/docs/species/protocols/DAFTA.pdf).

c. After the California red-legged frog is determined to be secure at the original location or it has been moved to a new location by the qualified biologist, and the Service has not been involved, EID will report all observed and relocated California red-legged frogs to

the USFWS, as soon as practicable and no longer than 48 hours from the time of observation.

5. If requested verbally by the Service or the California Department of Fish and Wildlife (CDFW), the District shall provide immediate access, when safe to do so, to the Action Area to personnel from one or both of these agencies to inspect potential project-related effects to the California red-legged frog and its habitat.

6. The District shall require all contractors and subcontractors to comply with the biological opinion for the California red-legged frog during the performance of their contract and ensure that all project personnel do their utmost to prevent disturbance to California red-legged frogs. The contracts will include specific language that requires contractors to work within the specific boundaries of the Action Area, including construction, staging areas, and access routes identified in the project description of the biological assessment for the Proposed Action.

7. The District shall provide biological resources awareness training for workers prior to beginning Proposed Action construction activities. The District shall have a qualified biologist prepare training materials (i.e., printed handouts) that provide information on the following topics:

    a. How to recognize special-status plant species, wildlife species, and sensitive habitats that could occur in the Action Area (i.e., special-status amphibian identification and habitat, special-status avian identification and habitat, wetland habitats, and riparian habitats);

    b. What to do if special-status species are encountered in the Action Area;

    c. Information on practicing good housekeeping (e.g., removing litter, trash, and other debris on a daily basis to avoid attracting animals to the Action Area) and implementing BMPs;

    d. Information on other mitigation measures relevant to biological resources;

    e. Information on regulations and applicable civil and criminal penalties for violations.

    The training shall initially be presented to key project personnel at the Proposed Action kickoff meeting. Printed handouts shall be distributed and used for future reference by project personnel. Project personnel that are trained during the kickoff meeting shall be responsible for making sure that other workers on the Proposed Action receive the training before initiating on-site work. A roster of trained Proposed Action personnel shall be maintained in the on-site construction office and made available for review by regulatory agencies, if needed.

8. BMPs (e.g., weed free straw bales, straw mulch, non-monofilament fiber rolls, silt fence) will be implemented to prevent erosion and provide stormwater runoff protection. Plastic mono-filament netting or similar non-biodegradable material will not be used for erosion control or other purposes. Additionally, erosion and sediment control measures including the implementation of a SWPPP will be in place throughout construction activities.

9. All food-related trash items, such as wrappers, cans, bottles, and food scraps will be disposed of in a closed container and removed daily from the construction area.

10. EID shall implement a hazardous materials prevention plan and a spill prevention and contingency plan to prevent hazardous substances and construction by-products (e.g., gas, oil, other petroleum products, chemicals, fresh cement, asphalt) from contaminating the soil or entering aquatic habitat. Spill kits with a sufficient quantity of absorbent and barrier materials to adequately contain and recover potential spills of fuels or oils will be maintained on-site. Refueling will be limited to designated locations outside riparian habitat.

11. EID shall implement a stream diversion plan that complies with applicable permit conditions.

12. EID shall implement a site restoration and revegetation plan.

13. To prevent the potential entrapment of California red-legged frog within the Action Area, all steep-walled holes, trenches, pits or any other excavated area more than one foot deep will be filled, covered, or constructed with an escape ramp at the close of each working day. Covers will be provided with plywood or similar material and escape ramps will be constructed of earthen fill or wooden planks. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals. If at any time a trapped California red-legged frog is discovered, escape ramps or other appropriate structures will be placed to allow the animal to escape, and a qualified biologist will be contacted to assist as needed. Any observations of a California red-legged frog will be reported to the USFWS, as soon as practicable and no longer than 48 hours from the time of observation.

1.

Mitigation Measure BIO-4 Implementation

Responsible Party: The District and the contractor. This mitigation measure shall be referenced in the contract documents for the Project.

Timing: Measures shall be conducted prior to and during construction activities.

Monitoring and Reporting Program: All monitoring shall be conducted by a qualified biologist or trained inspector and records of monitoring shall be developed and kept on file with the District. Additionally, all observed and relocated frogs shall be reported to the USFWS as soon as practicable and no longer than 48 hours from the time of observation.

Standards for Success: California red-legged frog shall not be disturbed without a Section 10(a)(1)(A) recovery permitted biologist before, during, or after Project construction activities.

3.8.7.5 Mitigation Measure BIO-5: Avoid or Minimize Impacts to Foothill Yellow-Legged Frog and Northwestern Pond Turtle

The Project area is within the range of the East/Southern Sierra clade (South Sierra DPS) of foothill yellow-legged frog, which is listed as endangered under CESA and endangered under the ESA and northwestern

pond turtle, which is listed as proposed threatened under the ESA. Foothill yellow-legged frog are not known to occur in the Project area or within the watersheds of the Project area and there is one occurrence of northwestern pond turtle nearby the Project area. However, limited potential suitable habitat for both species was identified within North Fork Weber Creek where the Project area bisects the stream (CDFW 2023g). As such, in addition to the measures described above for the California red-legged frog, the following measures are recommended to avoid or minimize the potential for adverse impacts on foothill yellow-legged frog and northwestern pond turtle:

1. Provide training specific to the foothill yellow-legged frog and northwestern pond turtle.
2. A qualified biologist shall conduct pre-construction visual encounter surveys for foothill yellow-legged frog prior to any work (e.g., excavation, pipe installation, cofferdam installation and removal) within the stream zones.
3. A qualified biologist shall conduct pre-construction northwestern pond turtle surveys prior to any work (e.g., excavation, pipe installation, cofferdam installation and removal) within the stream zones.

Mitigation Measure BIO-5 Implementation

Responsible Party: The District and the contractor. This mitigation measure shall be referenced in the contract documents for the Project.

Timing: Biological resources awareness training as specified in BIO-2 will be provided for all Project personnel before work begins, and new personnel shall be trained before initiating on-site work. A qualified biologist shall conduct pre-construction visual encounter surveys for foothill yellow-legged frog and pre-construction surveys for northwestern pond turtles prior to any in-water work.

Monitoring and Reporting Program: All surveys shall be conducted by a qualified biologist and a brief survey report shall be developed and kept on file with the District.

Standards for Success: Foothill yellow-legged frog shall not be disturbed without a Section 10(a)(1)(A) recovery permitted biologist and northwestern pond turtles shall not be disturbed without a qualified biologist before, during, or after Project construction activities.

3.8.7.6 Mitigation Measure BIO-6: Native Aquatic Species Rescue and Relocation

To avoid and/or minimize potential impacts on native aquatic species during the four stream crossings within the Project area, an aquatic species rescue plan shall be prepared to determine how native fish and other aquatic species will be rescued and relocated. This plan shall be submitted to the CDFW and shall include the methodology and procedures required to rescue and relocate native aquatic species stranded during the dewatering process including, but not limited to, the following:

1. A CDFW-approved biologist (or crew of biologists) shall be on-site immediately prior to and during the dewatering process to conduct any necessary native aquatic species rescue activities in the immediate work area (e.g., fish, frogs).

2. If a special-status species (e.g., California red-legged frog) is present and in harm's way, this species shall be relocated by a qualified biologist according to the aquatic species rescue plan or species-specific measures per USFWS and CDFW guidance.

3. A qualified biologist shall relocate all stranded native aquatic species individuals to appropriate suitable habitat outside of the work areas.

Mitigation Measure BIO-6 Implementation

Responsible Party: The District. This mitigation measure shall be referenced in the contract documents for the Project.

Timing: Aquatic species rescue shall be conducted as needed prior to any in water work or water diversion is scheduled to take place.

Monitoring and Reporting Program: Aquatic species rescue shall be conducted by qualified biologists and a brief aquatic species rescue report shall be developed and kept on file with the District.

Standards for Success: Native aquatic species will not be disturbed before, during, or after Project construction activities.

3.8.7.7 Mitigation Measure BIO-7: Avoid or Minimize Impacts to Special-Status Bird Species, Nesting Raptors, and Other Migratory Birds Protected under the MBTA and FGC

Suitable nesting habitat for birds occurs throughout the Project area. Therefore, the District will implement one of the following measures, depending on the specific construction timeframe, to avoid disturbance to ground, tree, and other nesting birds:

1. If construction activities are scheduled to occur during the nesting season (nesting season is approximately March 1 to August 31), a pre-construction nesting survey shall be conducted by a qualified biologist.

    a. The survey shall be conducted within the Project area and within approximately 100 feet of the Project area for migratory birds and 500 feet for raptors (as accessible).

    b. The survey shall be conducted within one week before initiation of construction activities. If no active nests are detected, then no additional measures are required.

    c. If active nests are present in any areas that would be directly or indirectly affected by construction activities, a no-disturbance buffer shall be established around the nest site until after the nesting season or after a qualified biologist determines that the young have fledged (typically late June to mid-July). The extent of the buffer shall be determined by a qualified biologist based on consideration of the species, the expected extent of noise or construction disturbance, ambient levels of noise and other disturbances, and line of sight between the nest and the disturbance (e.g., topographic or other visual barriers).

d. For California Spotted Owl, surveys shall be conducted following the latest Service-approved protocols for either callback survey or acoustically-assisted survey. Surveys will be conducted implementing the one-year six-survey guidelines as presented within the *Protocol for Surveying Spotted Owls in Proposed Management Activity Areas and Habitat Conservation Areas* (USFS 1993).

    i. If surveys detect nesting or roosting California spotted owl, a limited operating period (LOP) will be implemented within 0.25 mile of the active nest or roost site (if known) or within an Activity Center (if active nest/roost site is not known), or in and within 0.25 mile of nesting/roosting habitat (if surveys were not conducted in habitat). For habitat-manipulating activities (e.g., removal of large trees 20-inch dbh and greater), implement an LOP from March 1 through August 31. For noise-generating activities that do not reduce habitat quantity or quality (e.g., vegetation removal and construction within the utility corridor), implement an LOP from March 1 through July 9. The specified buffer sizes and/or LOPs may be modified on a case-by-case basis if compelling information demonstrates a smaller buffer distance or shortened LOPs will still avoid potential effects. Requests to reduce the specified buffer sizes or LOPs will be submitted to the Service for review and approval. LOPs may be discontinued in a year if protocol-level surveys for determining reproductive status confirm owls are not nesting or fledglings have dispersed in that calendar year.

2. If construction activities are initiated outside the nesting season (approximately September 1 to February 28), then no pre-construction nesting survey shall be required.

3. If construction activities have been continuous (i.e., no lapse in construction activities of 10 days or longer in a specific area) once the nesting season begins, any birds nests that become established in or near the Project area shall be considered to be habituated to the construction activities (assuming there won't be a significant increase in construction disturbance or noise). If there has been a lapse in construction activities of 10 days or longer in a specific area during the nesting season or there will be a significant increase in construction disturbance or noise, a pre-construction nesting survey shall be conducted by a qualified biologist and no-disturbance buffers established (if needed) as described above.

Mitigation Measure BIO-7 Implementation

Responsible Party: The District. This mitigation measure shall be referenced in the contract documents for the Project.

Timing: One nesting survey shall be conducted by a qualified biologist within one week prior to construction, should the proposed Project be initiated between March 1 and August 31.

Monitoring and Reporting Program: The survey shall be conducted by a qualified biologist and a brief survey report shall be documented and kept on file with the District.

Standards for Success: Special-status species, nesting raptors and other migratory birds covered under the MBTA and FGC will not be disturbed during the Project construction activities; exclusion buffers will be installed and monitored.

3.8.7.8 Mitigation Measure BIO-8: Avoid and Minimize Impacts to Riparian Habitat

Riparian habitat is present at the four stream crossings within the Project area: North Fork Weber Creek, South Fork Weber Creek, North Fork Clear Creek, and Clear Creek. The Project would result in temporary impacts to riparian habitat along the four stream crossings within the Project area, which is considered a sensitive natural community. Therefore, per FGC Section 1602, if Project activities would obstruct the flow of, or alter the bed, channel, or bank of, any stream, a Notification of LSAA shall be submitted to CDFW. If required, an LSAA shall be obtained from CDFW and all conditions of the LSAA shall be implemented. Additionally, the implementation of Mitigation Measure BIO-4: Avoid and Minimize Impacts to California Red-legged Frog and Mitigation Measure BIO-9: Avoid and Minimize Impacts on WOTUS/WOTS will further aid in the avoidance or minimization of the potential for adverse impacts on riparian habitat.

Mitigation Measure BIO-8 Implementation

Responsible Party: The District and the contractor. This mitigation measure shall be referenced in the contract documents for the Project.

Timing: If required, an LSAA shall be obtained from CDFW prior to construction.

Monitoring and Reporting Program: The District shall ensure that, if required, an LSAA shall be obtained from CDFW prior to construction and the appropriate fees paid to comply with the FGC Section 1602.

Standards for Success: Appropriate permit compliance and compensation in coordination with CDFW.

3.8.7.9 Mitigation Measure BIO-9: Avoid and Minimize Impacts on Waters of the United States and Waters of the State

The Project, including access and staging areas, has been designed to avoid waters and wetland features to the extent practicable. However, the Project would involve vegetation removal, trenching, and potential dewatering or diversion at the four stream crossings. These streams are WOTUS and WOTS (Stantec 2023b). In addition to Mitigation Measure BIO-4: Avoid and Minimize Impacts to California Red-legged Frog and Mitigation Measure BIO-8: Avoid and Minimize Impacts to Riparian Habitat, the following measures are recommended to avoid or minimize the potential for adverse impacts on WOTUS and WOTS:

1. Before any discharge of dredge or fill material into WOTUS/WOTS, the required permits/authorizations shall be obtained from USACE and the RWQCB. All terms and conditions of the required permits/authorizations shall be implemented.

2. Before any activities that would obstruct the flow of, or alter the bed, channel, or bank of any stream, a Notification of Streambed Alteration shall be submitted to CDFW. An LSAA shall be obtained from CDFW and all conditions of the LSAA shall be implemented.

3. All WOTUS/WOTS that are temporarily affected by Project construction shall be restored as close as practicable to their original contours within 10 days of the completion of construction activities.

4. Riparian vegetation removal shall be minimized to the greatest extent practicable. Where practicable, vegetation shall be cut with hand tools at ground level to enable regrowth from roots when construction is complete.

Mitigation Measure BIO-9 Implementation

Responsible Party: The District and the contractor. This mitigation measure shall be referenced in the contract documents for the Project.

Timing: Prior to construction, the District shall obtain a NWP #58 for Utility Line Activities for Water and Other Substances from USACE to comply with CWA Section 404, and a CWA Section 401 WQC from the RWQCB.

Monitoring and Reporting Program: The District shall ensure that environmental permits shall be obtained prior to construction and the appropriate fees paid to comply with the regulatory agency compensatory mitigation schedule for temporary and permanent impacts to WOTUS or WOTS and riparian areas.

Standards for Success: Appropriate State and federal permit compliance and compensation, including no net loss of WOTUS or WOTS from the Project.

3.8.7.10 Mitigation Measure BIO-10: Avoid and Minimize Impacts to Oak Trees and Oak Woodlands

Construction of the Project may require oak tree removal within the densely treed portions of the Project area. Also, trenching and other ground disturbance could encroach within the dripline of oak trees. The following measures will be implemented to avoid or minimize the potential for adverse impacts on oak trees and oak woodlands.

1. Final design of the Project shall avoid oak tree removal and encroachment into the driplines of oak trees to the maximum extent practicable.

2. Protection zones for oak trees and oak woodlands that can be avoided shall be marked in the field (e.g., by installing and maintaining tree exclusion/protection fencing around oak tree driplines). No encroachment into the fenced areas shall be allowed and fencing shall remain in place until all construction activities in the vicinity have been completed.

3. Excessive soil compaction shall be prevented by carefully selecting storage areas and construction traffic routes. Stockpiled soil, construction materials, and excessive foot traffic shall be prohibited within the driplines of oak trees to the maximum extent practicable.

4. Oak tree roots to be severed shall be the maximum practicable distance from the trunk. To the extent practicable, roots that are damaged as a result of construction activities (e.g., jagged roots

resulting from excavation with heavy equipment) shall be traced back and cleanly cut behind any split, cracked, or damaged area. Removed soil shall be backfilled as soon as practicable to minimize the drying of the roots.

5. Removal of soil, leaves, and vegetation within dripline of oaks shall be minimized to the extent practicable.

Mitigation Measure BIO-10 Implementation

Responsible Party: The District and the contractor. This mitigation measure shall be referenced in the contract documents for the Project.

Timing: Prior to construction protection zones for oak trees and oak woodlands that can be avoided shall be marked in the field by installing and maintaining tree exclusion/protection fencing at least 1 foot outside of the oak tree driplines.

Monitoring and Reporting Program: Any oak tree removal shall be documented by the contractor and a brief survey report shall be developed and kept on file with the District.

Standards for Success: Impacts to oak trees within the Project area will be minimized to the greatest extent feasible.

3.9 Cultural Resources

3.9.1 BASIS FOR ANALYSIS

The CEQA Guidelines' Appendix G Environmental Checklist was assessed during the NOP scoping process to identify the Project components that have the potential to cause a significant impact to cultural resources. The following thresholds of significance were used to determine if further evaluation was warranted to ascertain whether the Project may:

- Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.
- Disturb any human remains, including those interred outside of formal cemeteries.

3.9.2 REGULATORY FRAMEWORK

3.9.2.1 Federal

National Historic Preservation Act of 1966

Enacted in 1966, the NHPA declared a national policy of historic preservation and instituted a multifaceted program, administered by the Secretary of the Interior, to encourage the achievement of preservation goals

at the federal, state, and local levels. The NHPA authorized the expansion and maintenance of the National Register of Historic Places (NRHP), established the position of State Historic Preservation Officer and provided for the designation of State Review Boards, set up a mechanism to certify local governments to carry out the purposes of the NHPA, assisted Native American tribes in preserving their cultural heritage, and created the Advisory Council on Historic Preservation (ACHP).

Section 106 of the National Historic Preservation Act

Section 106 of the NHPA states that federal agencies with direct or indirect jurisdiction over federally funded, assisted, or licensed undertakings must take into account the effect of the undertaking on any historic property that is included in or eligible for inclusion in the NRHP, and that the ACHP must be afforded an opportunity to comment on such undertakings through a process outlined in 36 CFR Part 800. The Section 106 process involves the identification of significant historic and archaeological resources ("historic properties") within an Area of Potential Effect (APE), the determination of whether the undertaking will cause an adverse effect on historic properties, and the resolution of those adverse effects through execution of a Memorandum of Agreement. In addition to the ACHP, interested members of the public – including individuals, organizations, and agencies (such as the California Office of Historic Preservation) – are provided with opportunities to participate in the process.

National Register of Historic Places

The NRHP was established by the NHPA of 1966 as "an authoritative guide to be used by federal, state, and local governments, private groups, and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment" (36 CFR 60.2).

The NRHP recognizes properties that are significant at the national, state, and local levels. To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, and association. A property is eligible for the NRHP if it is significant under one or more of the following criteria:

- Criterion A: It is associated with events that have made a significant contribution to the broad patterns of our history.
- Criterion B: It is associated with the lives of persons who are significant in our past.
- Criterion C: It embodies the distinctive characteristics of a type, period, or method of construction; represents the work of a master; possesses high artistic values; or represents a significant and distinguishable entity whose components may lack individual distinction.
- Criterion D: It has yielded, or may be likely to yield, information important in prehistory or history (36 CFR 60.4).

Cemeteries, birthplaces, graves of historic figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, and properties that are primarily commemorative in nature are not considered eligible for the

NRHP unless they satisfy certain conditions. In general, a resource must be at least 50 years old to be considered for the NRHP, unless it satisfies a standard of exceptional importance.

Native American Graves Protection and Repatriation Act of 1990

The Native American Graves Protection and Repatriation Act of 1990 sets provisions for the inadvertent discovery and/or intentional removal of human remains and other cultural items from federal and tribal lands. It clarifies the ownership of human remains and sets forth a process for repatriation of human remains and associated funerary objects and sacred religious objects to the Native American groups claiming to be lineal descendants or culturally affiliated with the remains or objects. It requires any federally funded institution housing Native American remains or artifacts to compile an inventory of all cultural items within the museum or with its agency and to provide a summary to any Native American tribe claiming affiliation.

3.9.2.2 State

California Environmental Quality Act

Pursuant to CEQA, a historical resource is a resource listed in, or eligible for listing in, the California Register of Historical Resources (CRHR). In addition, resources included in a local register of historic resources, or identified as significant in a local survey conducted in accordance with state guidelines, are also considered historic resources under CEQA, unless a preponderance of the facts demonstrates otherwise. According to CEQA, the fact that a resource is not listed in, or determined eligible for listing in, the CRHR, or is not included in a local register or survey, shall not preclude a Lead Agency, as defined by CEQA, from determining that the resource may be a historic resource as defined in PRC Section 5024.1.7.

CEQA applies to archaeological resources when (1) the historic or prehistoric archaeological resource satisfies the definition of a historical resource, or (2) the historic or prehistoric archaeological resource satisfies the definition of a “unique archaeological resource.” A unique archaeological resource is an archaeological artifact, object, or site that has a high probability of meeting any of the following criteria (PRC Section 21083.2[g]):

1. The archaeological resource contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.

2. The archaeological resource has a special and particular quality such as being the oldest of its type or the best available example of its type.

3. The archaeological resource is directly associated with a scientifically recognized important prehistoric or historic event or person.

In most situations, resources that meet the definition of a unique archaeological resource also meet the definition of historical resource. As a result, it is current professional practice to evaluate cultural resources for significance based on their eligibility for listing in the CRHR.

California Register of Historical Resources

Created in 1992 and implemented in 1998, the CRHR is "an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC § 5024.1[a]). Certain properties, including those listed in or formally determined eligible for listing in the NRHP and California Historical Landmarks numbered 770 and higher are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historic resources surveys, or designated by local landmarks programs may be nominated for inclusion in the CRHR.

A resource, either an individual property or a contributor to a historic district, may qualify as a historical resource and be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria (PRC Section 5024.1[c]):

- Criterion 1: It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- Criterion 2: It is associated with the lives of persons important in our past.
- Criterion 3: It embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.
- Criterion 4: It has yielded, or may be likely to yield, information important in history or prehistory.

Resources nominated to the CRHR must retain enough of their historic character or appearance to be recognizable as historic resources and to convey the reasons for their significance. It is possible that a resource whose integrity does not satisfy NRHP criteria may still be eligible for listing in the CRHR. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if, under Criterion 4, it maintains the potential to yield significant scientific or historical information or specific data. Resources that have achieved significance within the past 50 years also may be eligible for inclusion in the CRHR, provided that enough time has lapsed to obtain a scholarly perspective on the events or individuals associated with the resource.

Government Code Sections 6254(r) and 6254.10

These sections of the California Public Records Act were enacted to protect archaeological sites from unauthorized excavation, looting, or vandalism. Section 6254(r) explicitly authorizes public agencies to withhold information from the public relating to "Native American graves, cemeteries, and sacred places maintained by the Native American Heritage Commission." Section 6254.10 specifically exempts from disclosure requests for "records that relate to archaeological site information and reports, maintained by, or in the possession of the Department of Parks and Recreation, the State Historical Resources Commission, the State Lands Commission, the Native American Heritage Commission, another state agency, or a local agency, including the records that the agency obtains through a consultation process between a Native American tribe and a state or local agency."

Discovery of Human Remains, Health and Safety Code Sections 7050 and 7052

Health and Safety Code Section 7050.5 declares that, in the event of the discovery of human remains outside of a dedicated cemetery, all ground disturbance must cease, and the county coroner must be notified. Section 7052 establishes a felony penalty for mutilating, disinterring, or otherwise disturbing human remains, except by relatives.

Of particular note to cultural resources is subsection (c), which requires the coroner to contact the Native American Heritage Commission (NAHC) within 24 hours if discovered human remains are determined to be Native American in origin. After notification, NAHC would follow the procedures outlined in PRC Section 5097.98, which include notification of most likely descendants (MLD), if possible, and recommendations for treatment of the remains. The MLD would have 24 hours after notification by the NAHC to make their recommendation (PRC Section 5097.98). In addition, knowing or willful possession of Native American human remains or artifacts taken from a grave or cairn is a felony under State law (PRC Section 5097.99).

3.9.2.3 Local

Pursuant to Government Code Sections 53091(D) and (E), many of the District's activities are not subject to local zoning or land use requirements, as stated below.

> *Building and zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, or for the production or generation of electrical energy, facilities that are subject to Section 12808.5 of the Public Utilities Code.*

As a special district with equal authority, the District is exempt from following goals and policies within the County's General Plan and Zoning Ordinance. However, the District aims to comply with those goals and policies and use them as a metric for formulating an impact analysis (El Dorado County 2004, as amended).

> ***Goal 7.5:*** *Ensure the preservation of the County's important cultural resources.*
>
> ***Objective 7.5.1****: Creation of an identification and preservation program for the County's cultural resources.*
>
> ***Policy 7.5.1.1****: The County shall establish a Cultural Resources Ordinance. This ordinance shall provide a broad regulatory framework for the mitigation of impacts on cultural resources (including historic, prehistoric and paleontological resources) by discretionary projects. This Ordinance should include (but not be limited to) and provide for the following:*
>
> A. *Appropriate (as per guidance from the Native American Heritage Commission) Native American monitors to be notified regarding projects involving significant ground-disturbing activities that could affect significant resources.*
>
> B. *A 100-foot development setback in sensitive areas as a study threshold when deemed appropriate.*

C. *Identification of appropriate buffers, given the nature of the resources within which ground-disturbing activities should be limited.*

D. *A definition of cultural resources that are significant to the County. This definition shall conform to (but not necessarily be limited to) the significance criteria used for the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR) and Society of Vertebrate Paleontology.*

E. *Development of a cultural resources sensitivity map of the County.*

***Policy 7.5.1.2**: Reports and/or maps identifying specific locations of archaeological or historical sites shall be kept confidential in the Planning Department but shall be disclosed where applicable.*

***Policy 7.5.1.3**: Cultural resource studies (historic, prehistoric, and paleontological resources) shall be conducted prior to approval of discretionary projects. Studies may include, but are not limited to, record searches through the North Central Information Center at California State University, Sacramento, the Museum of Paleontology, University of California, Berkeley, field surveys, subsurface testing, and/or salvage excavations. The avoidance and protection of sites shall be encouraged.*

***Policy 7.5.1.4**: Promote the registration of historic districts, sites, buildings, structures, and objects in the National Register of Historic Places and inclusion in the California State Office of Historic Preservation's California Points of Historic Interest and California Inventory of Historic Resources.*

***Policy 7.5.1.5:** Cultural Resources Preservation Commission shall be formed to aid in the protection and preservation of the County's important cultural resources. The Commission's duties shall include, but are not limited to:*

A. *Assisting in the formulation of policies for the identification, treatment, and protection of cultural resources (including historic cemeteries) and the curation of any artifacts collected during field collection/excavation;*

B. *Assisting in preparation of a cultural resources inventory (to include prehistoric sites and historic sites and structures of local importance);*

C. *Reviewing all projects with identified cultural resources and making recommendations on appropriate forms of protection and mitigation; and*

D. *Reviewing sites for possible inclusion in the National Register of Historic Places, California Register, and other State and local lists of cultural properties.*

E. *The County shall request to become a Certified Local Government (CLG) through the State Office of Historic Preservation. Certification would qualify the County for*

grants to aid in historic preservation projects. The Cultural Resources Preservation Commission could serve as the Commission required for the CLG program.

***Policy 7.5.1.6**: The County shall treat any significant cultural resources (i.e., those determined California Register of Historical Resources/National Register of Historic Places eligible and unique paleontological resources), documented as a result of a conformity review for ministerial development, in accordance with CEQA standards.*

***Objective 7.5.3**: Recognition of the value of the County's prehistoric and historic resources to residents, tourists, and the economy of the County, and promotion of public access and enjoyment of prehistoric and historic resources where appropriate.*

***Policy 7.6.1.1C**: Maintaining areas of importance for outdoor recreation including areas of outstanding scenic, historic and cultural value; areas particularly suited for park and recreation purposes including those providing access to lake shores, beaches and rivers and streams; and areas which serve as links between major recreation and open space reservations including utility easements, banks of rivers and streams, trails and scenic highway corridors (El Dorado County General Plan 2004).*

3.9.3 ENVIRONMENTAL SETTING

3.9.3.1 Prehistoric Setting

The archaeology of the north-central Sierra Nevada is complex and related to the surrounding areas, such as the Central Valley, Southern Sierra Nevada, and the Great Basin. The Project area, however, is primarily associated with the Martis Complex.

In the 1950s, research into lifeways and subsistence practices were investigated, and the north-central Sierra Nevada prehistoric chronology can be observed in two distinct material cultures: Martis (4,000- 2,000 years Before Present [B.P.]) and Kings Beach (Anno Domini 1,000-Historic Period) (Heizer and Elsasser 1953). In the 1970s, this chronology was expanded to divide the Martis Complex into three phases: Early (5,000-3,000 B.P.), Middle Martis (3,500-2,500 B.P.), and Late Martis (2,500-1,500 B.P.).

3.9.3.2 Ethnographic Setting

Prior to the arrival of Euroamericans in the region, California was inhabited by groups of Native Americans speaking more than 100 different languages and occupying a variety of ecological settings. Kroeber (1925, 1936) recognized the uniqueness of California Native Americans and classified them as belonging to the California culture area. Kroeber (1925, 1936) further subdivided California into four subculture areas: Northwestern, Northeastern, Southern, and Central. The Central area encompasses the current Project area and includes the Nisenan or Southern Maidu and Northern Sierra Miwok. The Washoe also utilized the Project area but are included in the Great Basin culture area. Kroeber (1925:916), however, states that California and the Great Basin are regions of close cultural kinship that should be joined into a larger culture area with the Sacramento River Delta area as a center of major cultural development.

Nisenan inhabited the drainages of the Yuba, Bear, and American rivers, and also the lower reaches of the Feather River, extending from the east banks of the Sacramento River on the west to the mid-/high elevations of the western flank of the Sierra Nevada (Wilson and Towne 1978). Northern Sierra Miwok inhabited the southern end of the area bounded on the north by the Cosumnes River, extending beyond the Calaveras River to the south, demarcated on the west by the 500-foot elevation contour, and continuing toward the east to beyond the snowline (Levy 1978). Washoe historically inhabited the region east of the crest of the Sierra Nevada into Carson Valley, extending from the Walker River in the south to Honey Lake in the north, with peripheral territory extending to the mid-elevations of the west Sierra slope (d'Azevedo 1986). All three ethnographic groups probably exploited resources in the Project area.

3.9.3.3 Historical Setting

The Project area is in El Dorado County, one of the original 27 counties created when California became a state in 1850. Originally, the County's boundaries included parts of present-day Amador, Alpine, and Placer Counties. By 1919, the State adopted the current boundary lines that are marked to the east by the state of Nevada and to the west by Sacramento and Placer Counties. The American and Cosumnes Rivers form the County's northern and southern boundaries. The original County seat was the town of Coloma, but in 1857 it was moved to Placerville.

Gold mining was the predominant industry in the County for many years. Other mineral products in the region include large deposits of slate, granite, lime, and asbestos, as well as building stones. By the turn of the 20th century, lumbering, raising livestock, and farming had joined mining as the principal industries of the County. Crops included pears, plums, apples, peaches, cherries, oranges, olives, walnuts, wheat, rye, corn, and acres of vineyards.

3.9.4 METHODS AND RESULTS

3.9.4.1 Methods

Records Search

On May 27, 2022, a records search of the Project area and a 0.25-mile radius beyond the Project area boundaries was conducted by HELIX Environmental Planning (HELIX) at the North Central Information Center at California State University, Sacramento. The purpose of the record search was to: (1) identify prehistoric and historic resources previously documented in the Project area and within 0.5 miles of Project area boundaries; (2) determine which portions of the Project area may have been previously studied, when those studies took place, and how the studies were conducted; and (3) ascertain the potential for archaeological resources, historical resources, and human remains to be found in the Project area.

Native American Heritage Commission Sacred Lands File Search

On May 26, 2022, HELIX requested that the NAHC conduct a search of their Sacred Lands File for the presence of Native American sacred sites or human remains in the vicinity of the Project area. A written response received from the NAHC on July 14, 2022, stated that the Sacred Lands File failed to indicate the presence of Native American cultural resources in the immediate area. The response included a list of

Native American contacts that were recommended by the NAHC as potential sources of information related to cultural resources in the vicinity of the Project area. On August 14, 2023, the District sent letters requesting information regarding the presence of Native American sacred sites or human remains in the vicinity of the Project area to the tribes and individuals identified by the NAHC that were not included as part of the AB 52 consultation notification. None of the Native American Tribes or individuals contacted responded to the request for information.

Field Survey

Two qualified HELIX archaeologists and a District Environmental Review Analyst surveyed the Project area on June 13 and 14, 2022. The pedestrian survey involved systematic investigation of the ground surface throughout the pipeline ROW and associated Project elements, although formal transects were generally found to be impractical due to topography, vegetation, and the linear nature of the APE. During the survey, the ground surface was examined for artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, fire-affected rock, prehistoric ceramics), soil discoloration that might indicate the presence of a prehistoric cultural midden, soil depressions, land modifications (e.g., ditches, roads and trails, mining features), and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations, wells) or historical debris (e.g., metal, glass, ceramics). The survey was cursory in portions of the APE where the pipeline alignment is currently capped with asphalt or concrete.

3.9.4.2 Known Cultural Resources

The cultural resources records searches determined that six previously recorded cultural resources are located within 0.25 miles of the Project area; these are shown in Table 3.2-1. One of these resources, which intersects the Project area, is shown in bold and discussed briefly below.

Table 3.2-1. North Central Information Center Records Search Results

Primary Number	Resource Type	Description	Within Project Area
P-09-000702	**Multicomponent (Historic and Prehistoric)**	**Prehistoric lithic scatter and milling stations; possible cabin remains**	**Yes**
P-09-003555	Historic	Historic can dump and refuse scatter	No
P-09-003556	Historic	Collapsed adit (mining feature)	No
P-09-003557	Historic	Placer mining feature	No
P-09-003558	Prehistoric	Bedrock milling station	No
P-09-005298	Historic	Sportsman's Hall	No

P-09-000702 (CA-ELD-000614/H; FS 05-03-56-197) was tested and evaluated in 1990 and, as a result, was recommended ineligible for the NRHP and CRHR. A portion of this site is now occupied by the District's Reservoir A water treatment plant. It was documented as a multi component site consisting of three discontinuous loci and it included the remnants of an unmortared stone cabin foundation, rough-hewn beams, historic-era refuse and building materials, several bedrock mortars, and two discrete lithic scatters.

3.9.4.3 Archaeological Survey

The pedestrian survey did not detect any prehistoric or historic-era archaeological built environment resources within the Project area.

3.9.4.4 Architectural History Review

During the records search review, HELIX examined historical topographic maps, including versions of the Pollock Pines, California 7.5' USGS quad from 1950 through 1976, and the Sly Park, California 7.5' USGS quad from 1953 through 1972; General Land Office (GLO) plat maps from 1870 and 1874; and historical aerial photographs from 1984 to the present.

The only structures in the vicinity of the Project area that are shown on the historical topographic maps are two structures located on Starkes Grade Road, west of the south-central portion of the Project area, and a sawmill located approximately 250 feet east of the Neilsen Road proposed staging area. The two structures were not investigated further because they are located in a residential area where the pipeline alignment runs under a paved street and a gravel road, and potential effects are expected to be minimal as the new pipeline will be installed in the footprint of the existing pipeline once it has been removed. Little additional information is readily available about the sawmill, other than that its construction predates 1950. GLO land records indicate that a 160-acre homestead patent, which included the land surrounding the sawmill, was granted to Alexander K. Fleming in 1900. It is not known if Fleming or his family are associated with the sawmill.

3.9.5 ENVIRONMENTAL IMPACTS

This section analyzes the Project's potential to result in significant impacts to cultural resources. When the Project's impact was determined to be significant, mitigation measures were identified to reduce or avoid that impact.

3.9.5.1 Project Impact Analysis

Impact CUL-1	**Potential to cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.**

Impact CUL-1 Analysis

The records search identified one historical resource site in the Project area, CA-ELD-000614/H. This site comprised a prehistoric-era lithic scatter, bedrock milling, and a possible historic-era cabin. This site was recommended as ineligible for the NRHP and CRHR, and the portion of the site in the Project area is located in the Reservoir A facility. Additionally, a pedestrian survey of the Project area yielded no historic resources.

However, given the historic and prehistoric context of the Project area, there is a potential for ground-disturbing construction activities to inadvertently unearth potentially significant historical resources which, if not properly identified and evaluated, could result in significant impacts to the resource(s). To ensure potential harm to unidentified resources does not occur, the District would implement Mitigation Measure

CUL-1: Proper Handling of Inadvertent Discovery of Cultural Resources to ensure any resources identified are properly handled, evaluated, and treated. With the implementation of Mitigation Measure CUL-1, procedures including stopping all work and conducting appropriate assessment, treatment, and documentation of any inadvertent finds would be in place to ensure a substantial adverse change to the resource does not occur. Mitigation Measure CUL-2: Cultural Resource Awareness Training would provide training for on-site workers so that in the event of an inadvertent discovery, Mitigation Measure CUL-1 could be effectively implemented. With mitigation incorporated, the impact would be less than significant.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure CUL-1 and Mitigation Measure CUL-2

Impact CUL-2 Potential to cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.

Impact CUL-2 Analysis

As discussed under Impact CUL-1 above, the evaluated resource (CA-ELD-000614/H) in the Project area was recommended as ineligible and the pedestrian survey was negative. However, similar to the potential to encounter historic resources, the potential to uncover previously unidentified archaeological resources exists during construction of the proposed Project. If these resources were to go unidentified, they would have the potential to be adversely changed. Therefore, Mitigation Measure CUL-1 would be required to reduce impacts to a less than significant level. Mitigation Measure CUL-2 would provide training for on-site workers so that in the event of an inadvertent discovery, Mitigation Measure CUL-1 could be effectively implemented. With mitigation incorporated, the potential impact would be less than significant.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure CUL-1 and Mitigation Measure CUL-2

Impact CUL-3 Potential to disturb human remains, including those interred outside of formal cemeteries.

Impact CUL-3 Analysis

There are no known human burials or remains within the Project area; and given the previously disturbed nature of the site, the likelihood of encountering a burial would be limited. However, given the prehistoric and historical setting of the Project area, there is a potential for inadvertent discoveries of human remains. If human remains are encountered during construction of the proposed Project, Mitigation Measure CUL-3: Proper Handling of Inadvertent Discovery of Human Remains would be employed, which would include procedures for stopping work and contacting the El Dorado County Coroner. The potential impact would be less than significant with mitigation incorporated.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure CUL-3

3.9.6 CULTURAL RESOURCES MITIGATION

3.9.6.1 Mitigation Measure CUL-1: Proper Handling of Inadvertent Discovery of Cultural Resources

If cultural resources are encountered during construction, compliance with federal and State regulations and guidelines regarding the treatment of cultural resources and/or human remains shall be required.

1. If potential prehistoric or historic-period archaeological resources are encountered during Project implementation, all construction activities within 100-feet shall halt and the District shall be notified.

2. A qualified archaeologist, defined as one meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology, shall inspect the findings as soon as practicable following discovery and report the results of the inspection to the District.

3. If the identified archaeological resource is determined to be prehistoric, the District and qualified archaeologist shall coordinate with and solicit input from a culturally affiliated Native American Tribal Representative regarding significance and treatment of the resource as a potential Tribal Cultural Resource. Any Tribal Cultural Resources discovered during Project work shall be treated in consultation with the tribe, with the goal of preserving in place with proper treatment. See MM TRIB-1, TRIB-2, and TRIB-3 for more discussion of tribes and culturally sensitive areas.

4. If the District determines that the resource qualifies as a historical resource or a unique archaeological resource (as defined pursuant to the CEQA Guidelines) and that the Project has potential to damage or destroy the resource, mitigation shall be implemented in accordance with PRC Section 21083.2 and CEQA Guidelines Section 15126.4. Consistent with CEQA Guidelines Section 15126.4(b)(3), mitigation shall be accomplished through either preservation in place or, if preservation in place is not feasible, data recovery through excavation.

5. If preservation in place is feasible, this may be accomplished through one of the following means: (1) modifying the construction plan to avoid the resource; (2) incorporating the resource within open space; (3) capping and covering the resource before building appropriate facilities on the resource site; or (4) deeding the resource site into a permanent conservation easement.

6. If avoidance or preservation in place is not feasible, a qualified archaeologist shall prepare and implement a detailed treatment plan to recover the scientifically consequential information from and about the resource, which shall be reviewed and approved by the District prior to any excavation at the resource site.

7. Treatment of unique archaeological resources shall follow the applicable requirements of PRC Section 21083.2, including creation of a treatment plan. Treatment for most resources shall consist of (but shall not be limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim of targeting the recovery of important scientific data contained in the portion(s) of the significant resource to be impacted by the Project. The treatment plan shall include provisions for analysis of data in a regional context, reporting of results within a timely

manner, curation of artifacts and data at an approved facility, and dissemination of reports to local and State repositories, libraries, and interested professionals.

Mitigation Measure CUL-1 Implementation

Responsible Party: The District and contractor. This mitigation measure shall be referenced in the contract documents for the Project.

Timing: Prior to and during implementation of Project activities

Monitoring and Reporting Program: If subsurface cultural resources are uncovered during Project ground disturbing activities, the District's contractor shall complete the above steps.

Standards for Success: Protection of archaeological resources

3.9.6.2 Mitigation Measure CUL-2: Cultural Resource Awareness Training

The District shall provide cultural resources awareness training for workers prior to beginning Project construction activities. The District shall have a qualified archaeologist prepare training materials (I.e., printed handouts) that provide information on the following topics:

- How to recognize cultural resources, including prehistoric and historic artifacts
- What to do if artifacts are encountered in the Project area
- Information on other measures relevant to cultural resources
- Information on regulations and applicable civil and criminal penalties for violations.

The training shall initially be presented to key Project personnel at the Project kickoff. Printed handouts shall be distributed and used for future reference by Project personnel. Project personnel that are trained during the Project kickoff shall be responsible for making sure that other workers on the Project receive the training before initiating on-site work. A roster of trained Project personnel shall be maintained in the Project construction office and made available for review by regulatory agencies, if needed. This training may be conducted in coordination with the biological resources awareness training (MM BIO-2), paleontological resources awareness training (MM GEO-2), and tribal cultural resource awareness training (MM TRIB-2).

Mitigation Measure CUL-2 Implementation

Responsible Party: The District and contractor. This mitigation measure shall be referenced in the contract documents for the Project.

Timing: Training shall be conducted before work begins and new personnel shall be trained before initiating on-site work.

Monitoring and Reporting Program: The training shall be conducted by trained personnel and documented (by sign-in sheet or other method) by the District's contractor for the dates the training occurred

and the names of the staff trained. Retention of the reference pamphlets shall also be kept on the construction site and within District files.

Standards for Success: Construction personnel are trained in the key characteristics for identifying and avoiding impacts to cultural resources.

3.9.6.3 Mitigation Measure CUL-3: Proper Handling of Inadvertent Discovery of Human Remains

If human remains are encountered, work shall halt in the vicinity and the El Dorado County Coroner shall be notified immediately pursuant to PRC Section 7050.5. At the same time, an archaeologist shall be contacted to evaluate the situation. If human remains are of Native American origin, the coroner shall notify the NAHC within 24 hours of this identification. The NAHC shall identify the person or persons it believes to be the MLD from the deceased Native American. The MLD shall have an opportunity to make a recommendation to the landowner or the person responsible for the excavation work for means of treating, with appropriate dignity, the human remains, and any associated grave goods as provided in PRC Section 5097.98.

Mitigation Measure CUL-3 Implementation

Responsible Party: The District and contractor. This mitigation measure shall be referenced in the contract documents for the Project.

Timing: Prior to and during implementation of Project activities.

Monitoring and Reporting Program: If human remains are encountered (or are suspected) during any project related activity, the District's contractor shall complete the activities in this mitigation measure.

Standards for Success: Protection of archaeological, tribal cultural resources, and human remains.

3.10 Energy Resources

3.10.1 BASIS FOR ANALYSIS

The CEQA Guidelines' Appendix G Environmental Checklist was assessed during the NOP scoping process to identify the Project components that have the potential to cause a significant impact to energy resources. The following thresholds of significance were used to determine if further evaluation was warranted to ascertain whether the Project may:

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation.
- Conflict with or obstruct a State or local plan for renewable energy efficiency.

3.10.2 REGULATORY FRAMEWORK

3.10.2.1 Federal

Federal Energy Policy and Conservation Act

The Energy and Policy Conservation Act (EPCA) was enacted by Congress in 1975. This act established the first fuel economy standards for on-road motor vehicles in the U.S. Pursuant to the act, the National Highway Traffic Safety Administration (NHTSA) is responsible for establishing additional vehicle standards.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (EISA) set increased Corporate Average Fuel Economy (CAFE) standards for motor vehicles and includes the following provisions related to energy efficiency:

- Renewable fuel standards (RFS)
- Appliance and lighting efficiency standards
- Building energy efficiency

This act requires increasing levels of renewable fuels to replace petroleum. The USEPA is responsible for developing and implementing regulations to ensure transportation fuels sold into the U.S. contain a minimum volume of renewable fuel.

The RFS regulations were developed in collaboration with refiners, renewable fuel producers, and other stakeholders, and were created under the Energy Policy Act of 2005. The RFS program established the first renewable fuel volume mandate in the U.S. The original RFS program required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. The RFS program was expanded in several ways that laid the foundation for achieving significant reductions of GHG emissions through the use of renewable fuels, for reducing imported petroleum, and for encouraging the development and expansion of the nation's renewable fuels sector. More specifically, the updated program, referred to as RFS2, was expanded to include diesel, in addition to gasoline, and also:

- Increased the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022;
- Established new categories of renewable fuel and set separate volume requirements for each one;
- Applied lifecycle GHG performance threshold standards, as required by the USEPA, to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces.

Additional provisions of the EISA address energy savings in government and public institutions, promoting research for alternate energy, additional research in carbon capture, international energy programs, and the creation of "green jobs."

Federal Vehicle Standards

EPCA mandated that the NHTSA establish and implement a regulatory program for motor vehicle fuel economy (i.e., the CAFE program) to reduce national energy consumption. As codified in USC, Title 49, Chapter 329 and, as amended by the EISA, EPCA sets forth specific requirements concerning the establishment of average fuel economy standards for passenger cars and light trucks. These are motor vehicles with a gross vehicle weight rating less than 8,500 pounds and medium-duty passenger vehicles with a gross vehicle weight rating less than 10,000 pounds. The Secretary of Transportation delegated responsibility for implementing the CAFE program to NHTSA.

EISA, enacted by Congress in December 2007, amended the EPCA CAFE program requirements by providing the Department of Transportation additional rulemaking authority and responsibilities. Consistent with its statutory authority in rulemaking to establish CAFE standards for model year 2017 and beyond passenger cars and light trucks, NHTSA developed two phases of standards. The first phase included final standards for model years 2017 through 2021. The second phase, covering model years 2022 through 2025, included standards that were not final, due to the statutory requirement that NHTSA set average fuel economy standards not more than five model years at a time. Rather, NHTSA wrote that those standards were augural, meaning that they represented its best estimate, based on the information available at that time, of what levels of stringency might be maximum feasible in those model years. In 2012, the agencies jointly adopted more stringent Phase 2 standards for light duty cars and trucks, which would cover model years 2017 through 2025. In August 2016, the agencies adopted more stringent Phase 2 standards for medium and heavy duty vehicles, which would cover model years 2018 through 2027 for certain trailers and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks.

On March 31, 2020, NHTSA and the USEPA released a new rule, the final Safer Affordable Fuel Efficient (SAFE) Vehicles Rule, setting CAFE and CO_2 emissions standards for model years 2021 through 2026 passenger cars and light trucks. The rule rolled back the 2012 standards for model years 2021 through 2026 for passenger cars and light trucks that required an average fleetwide fuel economy equivalent of 54.5 miles per gallon in model year 2025 with a 5 percent annual increase to an average fuel economy of about 40 miles per gallon in model year 2025 with annual increases of 1.5 percent starting in 2021. As a part of issuing the new SAFE rule, NHTSA issued a Final Environmental Impact Statement which found that the relaxed standards would result in increased petroleum consumption which, in turn, would result in increases to greenhouse gases and criteria pollutants known to contribute to adverse health impacts (NHTSA 2020). These estimated increases from the roll back of the 2012 standards are expected to result in more than a billion metric tons of additional climate pollution through 2040, as determined by calculating the difference from the reduction of 2 billion metric tons the 2012 rule was expected to accomplish compared to the standards of the 2020 rule (NHTSA 2020).

3.10.2.2 State

California Energy Code

Compliance with the California Energy Code (CCR Title 24, Part 6, California's Energy Efficiency Standards) and Title 20, Public Utilities and Energy Standards, must occur for all new buildings constructed

in California. These efficiency standards apply to new construction of both residential and nonresidential buildings, and they regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The building efficiency standards are enforced through the local building permit processes, and local government agencies may adopt and enforce energy standards for new buildings provided that these standards meet or exceed those provided in the Title 24 regulations.

3.10.2.3 Local

El Dorado County General Plan

Pursuant to Government Code sections 53091(D) and (E), many of the District's activities are not subject to local zoning or land use requirements, as stated below.

> *Building and zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, or for the production or generation of electrical energy, facilities that are subject to Section 12808.5 of the Public Utilities Code.*

As a special district with equal authority, the District is exempt from following goals and policies within the County's General Plan and Zoning Ordinance. However, the District aims to comply with those goals and policies and use them as a metric for formulating an impact analysis (El Dorado County 2004, as amended).

> ***Goal 5.6: Gas, Electric, and Other Utility Services.*** *Sufficient utility service availability consistent with the needs of a growing community.*
>
> ***Objective 5.6.1: Provide Utility Services.*** *Community regions shall be provided with adequate and reliable utility services such as gas, electricity, communication facilities, satellite and/or cable television, and water distribution facilities, while recognizing that levels of service will differ between Community Regions, Rural Centers, and Rural Regions.*
>
> ***Policy 5.6.1.1.*** *Promote and coordinate efforts with utilities for the undergrounding of existing and new utility distribution lines in accordance with current rules and regulations of the California Public Utility Commission and existing overhead power lines within scenic areas and existing Community Regions and Rural Centers.*
>
> ***Policy 5.6.1.2.*** *Reserve adequate rights-of-way to facilitate expansion of services in a timely manner.*
>
> ***Objective 5.6.2: Encourage energy-efficient development.*** *Encourage development of energy-efficient buildings, subdivisions, development, and landscape designs.*
>
> ***Policy 5.6.2.1.*** *Require energy conserving landscaping plans for all project requiring design review or other discretionary approval.*

3.10.3 ENVIRONMENTAL SETTING

Pacific Gas and Electric (PG&E) is the provider of electrical power services and natural gas to the County (PG&E 2014). PG&E's service area spans 70,000 square miles and serves over 16 million people in Northern and Central California. In 2020, PG&E distributed approximately 35,838 gigawatt-hours (GWh) of electricity and 848,705 million cubic feet of natural gas across its service area. In 2020, approximately 85 percent of the electricity supplied from PG&E was produced free of GHG emissions (PG&E 2021). Sources of electricity sold by PG&E in 2020 were:

- 30.6 percent eligible renewable (solar, wind, geothermal, biomass, and small hydroelectric)
- 16.4 percent fossil fuel-fired
- 42.8 percent nuclear
- 10.1 percent large hydroelectric

The California Energy Commission tracks electricity and natural gas consumption across the State for residential and non-residential sources. In 2021, the County used a total of 1,293 GWh of electricity and 33.21 million therms of natural gas. Approximately 34.9 percent of the electricity usage and 27.3 percent of the natural gas in the County came from non-residential sources (CEC 2016a, 2016b).

3.10.4 ENVIRONMENTAL IMPACTS

This section analyzes the Project's potential to result in significant impacts to energy resources.

3.10.4.1 Project Impact Analysis

Impact ENRG-1	**Potential to result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation.**

Impact ENRG-1 Analysis

The energy requirements for the Project were determined using the construction and operational estimates generated from air quality modeling calculated through CalEEMod. The calculation worksheets for energy consumption are provided in Appendix B. This impact analysis addresses the energy consumption from both the short-term construction and long-term operations and are discussed separately below.

Construction

Off-Road Equipment

Construction activities associated with the Project are estimated to consume 19,287 gallons of diesel fuel. There are no unusual Project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in other parts of the State.

On-Road Vehicles

On-road vehicles for construction workers and haulers would require fuel for travel to and from the Project site during construction. On-road vehicles during construction are estimated to consume 31,279 gallons of gasoline or diesel fuel. There are no unusual Project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in other parts of the State. Therefore, it is expected that construction fuel consumption associated with the Project would not be any more inefficient, wasteful, or unnecessary than at other construction sites in the region.

Operations

Project operation would result in fuel use from the new emergency back-up generator, natural gas, electricity use from heating, lighting, and operation of the new pump station. The typical annual operations for the pump station would be approximately 2,300 MW-hr. Additionally, maintenance workers would use fuel as they travel to the site. However, maintenance is not anticipated to increase substantially from existing conditions and operations of a typical water treatment facility. The Project would not generate other trips that would increase petroleum fuel demand.

Diesel Demand from the Backup Generator

The Project would install a backup, diesel generator for emergencies. The backup generator would require periodic maintenance and operation to ensure that it is in good working condition. The annual diesel demand from scheduled maintenance is estimated at approximately 889 gallons of diesel.

***Pump Station** Energy Demand*

As shown in Appendix B, the Project is estimated to demand 16,528 kilowatt hours of electricity and 66,334 kilo British thermal units of natural gas on an annual basis for operation of the pump station. It is expected that building energy consumption associated with the Project would be similar to the existing buildings in the region, however, current State regulatory requirements for new building construction contained in the 2022 CALGreen and Title 24 standards would increase energy efficiency and reduce energy demand in comparison to existing structures and, therefore, would reduce actual environmental effects associated with energy use from the Project. Given the above, short-term construction and long-term potential impacts would be less than significant.

Level of Significance: Less than Significant

Mitigation Required: None Required

Impact ENRG-2	**Potential to conflict with or obstruct a State or local plan for renewable energy or energy efficiency.**

Impact ENRG-2 Analysis

The Project would comply with federal, State, and local regulations aimed at reducing energy consumption. Local regulations have been developed in accordance with federal and State energy regulations, such as

the California Energy Code Building Energy Efficiency Standards (CCR Title 24, Part 6), the CALGreen Code (CCR Title 24, Part 11), and Senate Bill (SB) 743, which are also aimed at reducing energy consumption.

The Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. The impact would be less than significant.

Level of Significance: Less than Significant

Mitigation Measure: None Required

3.10.5 ENERGY RESOURCES MITIGATION

The level of significance of potential impacts to energy resources is either no impact or less than significant impact; therefore, no mitigation is required.

3.11 Geology and Soils

3.11.1 BASIS FOR ANALYSIS

The CEQA Guidelines' Appendix G Environmental Checklist was assessed during the NOP scoping process to identify the Project components that have the potential to cause a significant impact to geology and soils. The following thresholds of significance were used to determine if further evaluation was warranted to ascertain whether the Project may:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State geologist for the area or based on other substantial evidence of a known fault or strong seismic ground shaking;
  - Seismic-related ground failure, including liquefaction; or
  - Landslides.
- Result in substantial soil erosion or the loss of topsoil.
- 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.
- Be located on expansive soil, as defined in Table 18-1-B of the International Conference of Building Officials Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

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

3.11.2 REGULATORY FRAMEWORK

3.11.2.1 Federal

Uniform Building Code Chapter 18, Division 1, Sections 1803.2 and 1804.5

The Uniform Building Code (UBC) 1994, Chapter 18, Division 1, Section 1803.2 mandates that special foundation design consideration be employed if the soil Expansion Index is 20 or greater in accordance with Table 18-1-B. The methodology and scope for a geotechnical investigation are described in UBC Section 1803, and require an assessment of a variety of factors, such as slope stability, soil strength, adequacy of load-bearing soils, the presence of compressible or expansive soils, and the potential for liquefaction. The required content of the geotechnical report includes recommendations for foundation type and design criteria. These recommendations can include foundation design provisions that are intended to mitigate the effects of expansive soils, liquefaction, and differential settlement. In general, mitigation can be accomplished through a combination of ground modification techniques (i.e., stone columns, reinforcing nail and anchors, deep soil mixing), selection of an appropriate foundation type and configuration, and use of appropriate building/foundation structural systems. Section 1804.5 Excavation, Grading, and Fill require the preparation of a geotechnical report where a building will be constructed on compacted fill.

The International Building Code (IBC) replaced earlier regional building codes (including the UBC) in 2000 and established consistent construction guidelines for the U.S. In 2006, the IBC was incorporated into the 2007 California Building Code (CBC) (see Section 3.7.2.2 below) and currently applies to all structures constructed in California. The national model codes are therefore incorporated by reference into the building codes of local municipalities. The CBC includes building design and construction criteria that take into consideration the California's seismic conditions.

Clean Water Act

The CWA primarily focuses on WOTUS and is more thoroughly described in Section 3.4, Biological Resources, and Section 3.10, Hydrology and Water Quality. However, the CWA includes sediment control aspects in three ways. First, USACE administers CWA Section 404, which regulates the discharge of fill into WOTUS. Secondly, the SWRCB administers CWA Section 401, which applies to stormwater discharges where erosion control is an integral part of achieving permit compliance. Third, under direction from the SWRCB, the RWQCB administers CWA Section 402, which regulates point and non-point source discharges requiring a general or individual permit based on discharge type and size through the NPDES permit program.

Earthquake Hazards Reduction Act of 1977

The Earthquake Hazards Reduction Act of 1977 established the National Earthquake Hazards Reduction Program (NEHRP) "to reduce the risks of life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards reduction program." The four principal goals of the NEHRP are:

- Develop effective practices and policies for earthquake loss reduction and accelerate their implementation;
- Improve techniques for reducing earthquake vulnerabilities of facilities and systems;
- Improve earthquake hazards identification and risk assessment methods, and their use; and
- Improve the understanding of earthquakes and their effects.

Many of the tools used to assess, as well as mitigate, earthquake hazards and impacts were developed under the NEHRP.

Occupational Safety and Health Administration

The Occupational Safety and Health Act of 1970 created the Occupational Safety and Health Administration (OSHA), which is responsible for protecting the health of workers in events that could cause injury to workers. OSHA has created regulations to set federal standards for workplace safety, including hazardous materials exposure limits, mandatory workplace training, accident and injury reporting, and safety procedures. These regulations are recorded in CFR Title 29. Regulations specific to safety of trench work include: 29 CFR 1926.620, 29 CFR 1926.651, and 29 CFR 1926.652.

3.11.2.2 State

Alquist-Priolo Fault Zoning Act

The Alquist-Priolo Fault Zoning Act (AP Act), administered by the California Geological Survey (CGS), provides a mechanism for reducing losses from surface fault ruptures on a statewide basis. The AP Act requires the mapping of zones around active faults in California, in an effort to prohibit the construction of structures for human occupancy on active faults and minimize damage due to rupture of a fault. Active faults are those that have ruptured within the past 11,000 years. Where the AP Act identifies an earthquake fault zone, a geologic investigation and report is necessary to prevent siting of buildings on active fault traces.

Seismic Hazard Mapping Act

The Seismic Hazard Mapping Act governs the responsibilities of city, county, and State agencies in identifying and mapping seismic hazard zones and mitigating seismic hazards to protect public health and safety in accordance with the provision of PRC Division 2, Geology, Mines and Mining, Seismic Hazards Mapping – Chapter 7.8. The publication delineates zones where earthquakes could cause hazardous ground shaking and ground failure, including liquefaction and landslides. Currently, zones near the San Andreas Fault in the urban centers of the Greater San Francisco Bay Area and Los Angeles have been delineated. Local cities and counties within these zones regulate construction in order to minimize loss associated with these seismic hazards.

California Building Code

Title 24, Part 2 of the CBC of the CCR contains specific requirements for construction with respect to earthquakes and seismic hazards intended to protect public health. Chapter 16 Section 1613 Earthquake Loads of the 2016 CBC (effective January 1, 2017) deals with structural design and requires that every structure, and portion thereof, including nonstructural components that are permanently attached to structures and their supports and attachments, shall be designed and constructed to resist the effects of earthquake motions. For pipelines and other infrastructure, structural stability is guided by American Society for Civil Engineers (ASCE)-7, Minimum Design Loads for Buildings and Other Structures, which is produced by ASCE and adopted into CBC design standards. ASCE-7 sets standards for above-ground facilities, such as pump stations.

Paleontological Resources

CEQA includes in its definition of historical resources "any object [or] site …that has yielded or may be likely to yield information important in prehistory" (14 CCR 15064.5[3]), which is typically interpreted as including fossil materials and other paleontological resources. More specifically, destruction of a "unique paleontological resource or site or unique geologic feature" constitutes a significant impact per CEQA Guidelines Appendix G. Treatment of paleontological resources under CEQA is generally similar to treatment of cultural resources, requiring evaluation of resources relative to a project; assessment of potential impacts on significant or unique resources; and development of mitigation measures for potentially significant impacts, which may include monitoring combined with data recovery excavation and/or avoidance.

3.11.2.3 Local

El Dorado County General Plan

Pursuant to Government Code sections 53091(D) and (E), many of the District's activities are not subject to local zoning or land use requirements, as stated below.

> *Building and zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, or for the production or generation of electrical energy, facilities that are subject to Section 12808.5 of the Public Utilities Code.*

As a special district with equal authority, the District is exempt from following goals and policies within the County's General Plan and Zoning Ordinance. However, the District aims to comply with those goals and policies and use them as a metric for formulating an impact analysis (El Dorado County 2004, as amended).

> ***Objective 7.1.2:*** *Erosion/Sedimentation - Minimize soil erosion and sedimentation.*
>
> ***Policy 7.1.2.1****: Development or disturbance of slopes over 30 percent shall be restricted. Standards for implementation of this policy, including but not limited to exceptions for access, reasonable use of the parcel, and agricultural uses shall be incorporated into the Zoning Ordinance.*

> ***Policy 7.1.2.2:*** *Discretionary and ministerial projects that require earthwork and grading, including cut and fill for roads, shall be required to minimize erosion and sedimentation, conform to natural contours, maintain natural drainage patterns, minimize impervious surfaces, and maximize the retention of natural vegetation. Specific standards for minimizing erosion and sedimentation shall be incorporated into the Zoning Ordinance.*
>
> ***Policy 7.1.2.3:*** *Enforce Grading Ordinance provisions for erosion control on all development projects and adopt provisions for ongoing, applicant-funded monitoring of project grading.*
>
> ***Objective 7.3.1:*** *Water Resources Protection - Preserve and protect the supply and quality of the County's water resources including the protection of critical watersheds, riparian zones, and aquifers.*
>
> ***Policy 7.3.1.1:*** *Encourage the use of Best Management Practices, as identified by the Soil Conservation Service, in watershed lands as a means to prevent erosion, siltation, and flooding.*
>
> ***Objective 7.3.2:*** *Water Quality - Maintenance of and, where possible, improvement of the quality of underground and surface water.*
>
> ***Policy 7.3.2.1:*** *Stream and lake embankments shall be protected from erosion, and streams and lakes shall be protected from excessive turbidity.*

Grading, Erosion, and Sediment Control Ordinance

The Grading, Erosion, and Sediment Control Ordinance contained in the El Dorado County Code of Ordinances Chapter 15.14 regulates grading activity in the unincorporated area of the County to safeguard life, limb, health, property and public welfare; to avoid pollution of watercourses; and to ensure that the intended use of a graded site is consistent with the following:

- County General Plan;
- Specific Plans adopted;
- Adopted Stormwater Management Plan;
- California Fire Safe Standards; and
- Any applicable County ordinances, including the Zoning Ordinance and the CBC.

The ordinance determines the administrative procedures for issuing permits and the approval of plans and inspections of grading construction in accordance with the El Dorado Grading, Erosion and Sediment Control Chapter of the Design and Improvement Standards Manual adopted by the El Dorado County Board of Supervisors (El Dorado County 2023).

3.11.3 ENVIRONMENTAL SETTING

3.11.3.1 Regional Geology

The Project site is located within the geomorphic province of the Sierra Nevada, which is a northwest trending mountain range that extends for 400 miles in length, and 40 to 100 miles in width. In a regional geomorphic context, the Sierra Nevada province is bounded by the Cascade Range to the north, by the Basin and Range Province on the east, the intersection of the Transverse Ranges and the Mohave Desert Provinces to the south, and the Great Valley Province to the west. Sierra Nevada bedrock consists of varied rock types and geological ages, from Paleozoic metamorphic to Holocene sedimentary and volcanic rock. Downslope of the Project, mostly loamy soils underlain by sand and gravel deposits make up much of the region. These characteristics, along with the natural steep and varied topography of the region, have led to frequent landslides and erosion (El Dorado County 2003).

3.11.3.2 Local Geology

Elevations in the Project area range from about 3,000 to 3,740 feet (914 and 1,140 meters) amsl. Slopes along the alignment are generally slightly inclined. Drainage along the Project pipeline alignment occurs as sheet flow into the creeks crossed by the alignment. Locally, some of the sheet flow is captured by access roads. A preliminary desktop geotechnical report was conducted and included in the Sly Park Intertie Project Basis of Design Report (Water Works Engineers 2022).

3.11.3.3 Project Site Soils

Based on the May 20, 2023, NRCS Web Soil Survey map, there are nine different soil series present within the Project area (USDA 2023). These Project site soils are listed in Table 3.7-1 below.

Table 3.7-1. Project Site Soils

Map Unit Name	Drainage	Depth to Water Table	Runoff
Cohasset loam, shoulders, 3 to 20 percent slopes, dry	Well-drained	More than 80 Inches	Medium
Cohasset cobbly loam, 15 to 50 percent slopes	Well-drained	More than 80 Inches	Medium
Cohasset loam, backslopes, 10 to 30 percent slopes, dry	Well-drained	More than 80 Inches	Medium
Mariposa-Josephine very rocky loams, 15 to 50 percent slopes	Well-drained	More than 80 Inches	Medium
Iron Mountain very rocky sandy loam, 3 to 50 percent slopes	Somewhat excessively drained	More than 80 Inches	Medium
McCarthy cobbly loam, 9 to 50 percent slopes	Well-drained	More than 80 Inches	Medium
Crozier cobbly loam, 9 to 50 percent slopes	Well-drained	More than 80 Inches	Medium
Aiken loam, 15 to 30 percent slopes, Low Montane	Well-drained	More than 80 Inches	Medium
Aiken loam, 9 to 15 percent slopes, low precipitation	Well-drained	More than 80 Inches	Medium

Source: USDA 2023

3.11.3.4 Seismic Activity

Faults near the Project include several unnamed pre-Quaternary faults (older than 1.6 million years or without recognized Quaternary displacement) and the Bear Mountains Fault Zone, which includes Pre-Quaternary fault zones and a small segment of late Quaternary fault (displacement at some point during the past 700,000 years). The nearest active fault is the Cleveland Hill fault, which is located more than 50 miles northwest of the Project area (CGS 2015a). There are no Alquist-Priolo Earthquake Fault Zones in or near the Project area (CGS 2023).

3.11.3.5 Ground Failure and Liquefaction

Soil liquefaction occurs when ground shaking from an earthquake causes a sediment layer saturated with groundwater to lose strength and take on the characteristics of a fluid, thus becoming similar to quicksand. Factors determining the liquefaction potential are soil type, the level and duration of seismic ground motions, the type and consistency of soils, and the depth to groundwater. Loose sands and peat deposits, along with recent Holocene age deposits, are more susceptible to liquefaction, while older deposits of clayey silts, silty clays, and clays deposited in freshwater environments are generally stable under the influence of seismic ground shaking. The Project pipeline alignment is underlain by lithified bedrock that is not subject to liquefaction (Water Works Engineers 2022).

3.11.3.6 Landslides and Lateral Displacement

Any slope where relatively large masses of material are supported by soil that is likely to soften under strain is prone to a landslide. The risk increases in areas where the ground is steep, weak, or fractured; is saturated by heavy rain; or is compromised by historical ground movements. Landslides occur most frequently during or following large storms or seismic activity and is most likely to take place in areas where large storms or seismic activity have previously occurred (Branz 2023).

Lateral movement (i.e., displacement, spreading, etc.) occurs when seismic shaking causes a mass of soil to lose cohesion and move relative to the surrounding soil. Lateral movement can be entirely horizontal and can occur on flat ground, but it is more likely to occur on or around sloping ground, such as adjacent to hillsides and waterways (Branz 2023).

The preliminary desktop geotechnical report completed for the Project found that two dormant landslides could be present along the Project alignment. However, based on hill shade models and aerial photographs, there are no indications of active or incipient movement of these possible landslide areas (Water Works Engineers 2022).

3.11.3.7 Paleontological Resources

Society of Vertebrate Paleontology Guidelines

The Society of Vertebrate Paleontology (SVP) has guidance for assessing and mitigating paleontological resources which could potentially be impacted from land development. This guidance is included in SVP's Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources.

As part of the assessment process for paleontological resources, the SVP guidance groups rock units into a high, undetermined, low, or no potential category for containing significant paleontological resources. These categories then determine the level of mitigation required, or further assessment prior to construction, for adequate protection or salvage of paleontological resources within a project area (SVP 2021).

The CGS was reviewed to determine the potential for paleontological resources within the Project area. As shown in Figure 3.7-1 below, the Project area contains Tertiary age deposits, indicating a high potential for paleontological resources (CGS 2015b).

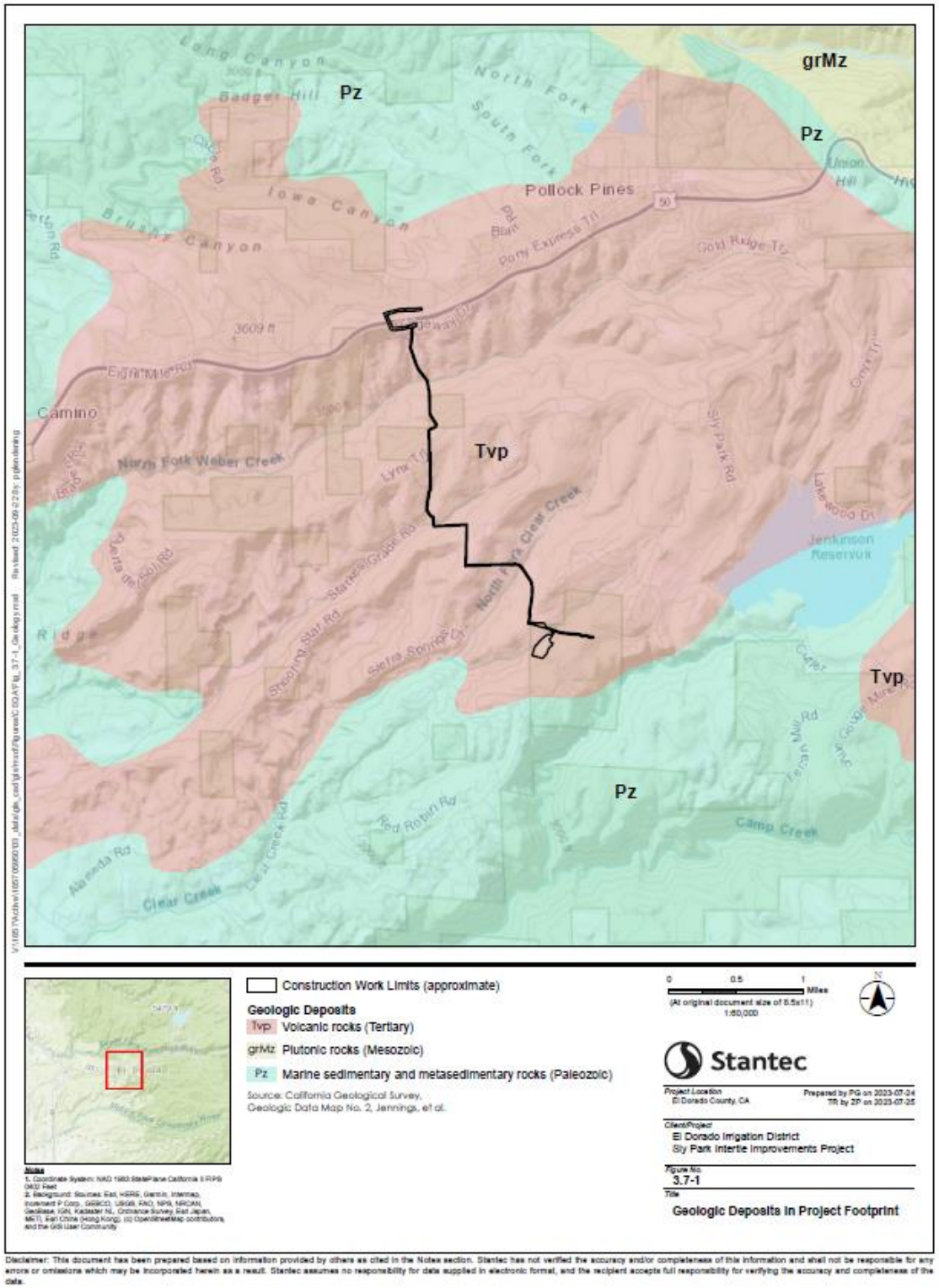


Figure 3.7-1. Geologic Deposits in Project Footprint

3.11.4 ENVIRONMENTAL IMPACTS

This section analyzes the Project's potential to result in significant impacts to geology and soils.

3.11.4.1 Project Impact Analysis

Impact GEO-1	**Potential to directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:** **(1) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault;** **(2) Seismic-related ground failure, including liquefaction; or** **(3) Landslides.**

Impact GEO-1 Analysis

Rupture of a Known Earthquake Fault or Strong Seismic Ground Shaking

There are no Alquist-Priolo Earthquake Fault Zones within the Project area (CGS 2023). Surface fault rupture and resulting damage to structures is most likely to occur on active faults (i.e., faults showing evidence of displacement within the last 11,000 years). Although the County has experienced some ground shaking from northern Sierra Foothill and San Francisco Bay Area fault systems, any impacts or damage from this shaking occurrence was minimal and did not cause any public safety problems or cause substantial damage to buildings or structures. Further, the Project would not introduce habitable structures that would expose people to the risk of injury or harm. Therefore, there would be no impact.

Seismic-Related Ground Failure

The nearest active fault is over 50 miles northwest of the Project area (CGS 2015a). As stated above, although ground shaking impacts from an earthquake are minimal, the Project area does have the potential to be subject to ground failure in the event of a major earthquake from the surrounding area. The Project area consists primarily of well-drained, coarse-loamy soils that have a low potential for liquefaction or ground failure due to liquefaction. Additionally, the Project would be developed in accordance with current design standards and codes (Section 3.7.2, Regulatory Framework: Uniform Building Code, California Building Code). Project design plans would require a stamp by a licensed civil and/or structural engineer whose professional licensures ensure implementing structural standards accounting for seismic hazards, thus limiting the potential for placing people or infrastructure at risk of substantial adverse effects from rupture or ground shaking from a known earthquake fault.

Additionally, the Project would not include uses for human habitation, although the pump station would occasionally be occupied by District personnel. As stated, the facilities built as part of the Project would meet the necessary design requirements to limit the risk of injury, loss, or death as a result of seismic-related ground failure.

The majority of the Project (i.e., the pipeline) would be located underground and would not pose a risk related to injury, loss, or death. To date, the existing pipeline and associated appurtenances have not experienced rupture, failure, or release of raw water as a result of ground shaking from an earthquake, indicating that the construction and operation of an improved pipeline would not further expose people or structures to potential substantial effects as a result of the Project. Construction and operation of the Project would be similar to the existing system related to structural stability and installation methods. Therefore, the potential for rupture of a known earthquake fault or seismic shaking that could expose people or structures to risk from implementation of the Project is less than significant.

Landslides

As stated above in Section 3.7.3.6, although there are two potentially dormant landslides that could be present along the Project alignment, there are no indications of active or incipient movement of these possible landslide areas, therefore the impact would be less than significant (Water Works Engineers 2022). While localized landslides associated with construction requiring trenching or digging could occur even with low potential for landslides in the area, construction safety precautions, such as shoring or other trench stabilization techniques, would be included as a part of OSHA regulations, specifically, 29 CFR 1926.620, 29 CFR 1926.651, and 29 CFR 1926.652 (refer to Section 3.7.2.1 Regulatory Framework), and would not directly or indirectly expose people or structures to the threat of landslide. The potential for landslides to occur and cause substantial harm or threat to persons or structures as a result of implementation of the Project would be less than significant.

Level of Significance: Less than Significant

Mitigation Required: None Required

Impact GEO-2 Potential to result in substantial soil erosion or the loss of topsoil.

Impact GEO-2 Analysis

Construction

Construction of the Project has the potential to increase the possibility of soil erosion or loss of topsoil due to soil disturbance from activities such as grading, soil and tree removal, the use of construction vehicles and equipment, and the potential failure to properly stabilize the site post-construction. Without proper BMPs, soil disturbed by construction would be vulnerable to the elements, particularly rain from a storm event that could cause local runoff and erosion in the Project area. Disturbed soil particles are also susceptible to being removed from the Project site by wind. Temporary stockpiles of soil have the potential to result in loss of topsoil during construction when soils are exposed and being transported and could potentially result in a significant impact if not appropriately stored and handled. However, Mitigation Measure GEO-1, Prepare and Implement a Stormwater Pollution Prevention Plan (SWPPP) would be required to implement proper BMPs and reduce potential impacts related to runoff and erosion during Project construction.

Specifically, Mitigation Measure GEO-1 supplements the requirements of the NPDES General Permit (as described further in Section 3.10, Hydrology and Water Quality), which contains requirements and standards that a SWPPP must meet to prevent and/or reduce erosion and stormwater pollution. By requiring the Project contractor to develop and adhere to the plan set forth in the SWPPP, BMPs for handling soil disturbance during construction activities and post-construction standards by which to measure performance are guaranteed to be implemented. The General Construction permit and Mitigation Measure GEO-1 would effectively reduce any potential risk of substantial soil erosion or loss of topsoil from construction of the Project either on site, or downstream. By following the conditions of the General Construction permit and Mitigation Measure GEO-1, the Project site would not experience substantial soil erosion or the loss of topsoil resulting from the Project. Impacts would therefore be less than significant with mitigation incorporated.

Operation

There would be no operational impacts related to loss of topsoil because once constructed, Project components would be stationary and would not result in substantial movement of soils and above-ground sites would be regulated by existing NPDES permits (i.e., CWA Section 402) that are used for existing water operations in the area. Ongoing maintenance of the pipeline alignment would continue under the District's Right-of-Way Reinforcement Program. Therefore, impacts from operation would be less than significant.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure GEO-1

Impact GEO-3	**Potential to 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.**

Impact GEO-3 Analysis

Construction and Operation

As discussed in Impact GEO-1 above, the potential for ground shaking in the Project area is considered low and it is not expected that soil issues resulting from interaction with groundwater from the groundwater table or seismic related ground failure would occur. The Project area consists of nine soil series, which are well-drained and not known to be unstable (see Table 3.71 above). Further, the Project pipeline alignment is underlain by lithified bedrock that is not subject to liquefaction.

In addition, there is a very low to nonexistent potential for soils and underlying geology to become unstable due to Project construction and operations. Even though there is a low to nonexistent potential for unstable soils, the Project would be built in accordance with State and local standards, including ASCE-7, Minimum Design Loads for Buildings and other Structures, for above-ground Project components such as the pump station, and with the District's standards for common engineering structures, which include stability specifications for pipelines. These standards would include the use of appropriate construction materials and installation methods, and the stabilization of underlying soils. Further, as required to meet these design

standards, site-specific geotechnical investigations were performed prior to the start of Project construction activities to identify any possible unstable soils. Therefore, impacts related to unstable soils would be less than significant.

Level of Significance: Less than Significant

Mitigation Required: None Required

Impact GEO-4 Potential to be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.

Impact GEO-4 Analysis

Construction and Operation

Expansive or collapsible soils are characterized by the ability to undergo significant volume change (e.g., shrink and swell) as a result of variation in soil moisture content. Specifically, the causes of soil expansion or collapse are related to the type and amount of clay minerals in the soil, conditions under which the clay originated, and the original density of the soil. Clay minerals can form in place by weathering of rocks, or they can be transported and deposited by water or wind. A change in the moisture content of a soil can cause clay minerals to shrink or expand (i.e., swell). Soil moisture content can change due to many factors, including perched groundwater, landscape irrigation, rainfall, and utility leakage. Engineering standards govern expansion potential evaluations and the expansion index. Section 1803.2 of the 1994 UBC directs expansive soil tendency be graded by this method. The UBC mandates that “special [foundation] design consideration” be employed if the expansion index is 20 or greater (Section 3.7.2.1, Regulatory Framework).

The Project is not located in an area with soils that have high clay content, and the area consists mostly of well-drained, coarse-loamy soils with a low to medium expansion potential, therefore the impact would be less than significant. Additionally, the Project would be built in accordance with State and local standards, including ASCE-7, Minimum Design Loads for Buildings and other Structures, and with the District’s standards for common engineering structures, which would include the use of appropriate construction materials and installation methods, and the stabilization of underlying soils. Further, as required to meet these design standards, site-specific geotechnical investigations were performed prior to the start of Project construction activities to identify possible unstable soils. Therefore, the impact associated with expansive soils in conjuncture with the implementation of the Project would be less than significant.

Level of Significance: Less than Significant

Mitigation Required: None Required

Impact GEO-5 Potential to have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

Impact GEO-5 Analysis

Construction and Operation

The Project includes replacement of an existing pipeline and construction of a new pump station to improve the District's ability to convey drinking water. The Project does not include installation or alteration of septic tanks or alternative wastewater disposal systems. Therefore, there would be no impact.

Level of Significance: No Impact

Mitigation Required: None Required

Impact GEO-6 Potential to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Impact GEO-6 Analysis

Construction

As discussed in Section 3.7.3.7, Paleontological Resources, above, the Project area contains Tertiary age deposits, indicating a high potential for paleontological resources (See Figure 3.7-1 above, and CGS 2015b). Given the high paleontological potential of rock units in the Project area, there is the potential for Project ground-disturbing construction activities to unearth potentially significant paleontological resources in previously undisturbed areas. Therefore, in order to ensure that construction personnel are trained in appropriate identification and treatment procedures for these potentially significant resources, Mitigation Measure GEO-2: Paleontological Resources Awareness Training would be required and would include the development of a worker environmental awareness training for paleontological resources.

Further, if previously undiscovered paleontological resources are encountered in the Project area, Mitigation Measure GEO-3, Proper Handling of the Unanticipated Discovery of Paleontological Resources or Unique Geologic Features, would also be required to properly handle and treat these resources in compliance with federal regulations and SVP guidelines. Proper handling of these previously undiscovered resources identified in Mitigation Measure GEO-3 would include stopping all work within 100 feet of the discovery, notifying District staff, retaining a qualified geologist or paleontologist to evaluate the resource, and implementing further treatment measures as prescribed by professional standards, and if a significant resource, consulting with the resource agencies. Implementation of Mitigation Measure GEO-2 and Mitigation Measure GEO-3 would develop treatment measures to effectively eliminate potentially significant impacts to resources related to undiscovered paleontological resources. Therefore, impacts would be considered less than significant with mitigation incorporated.

Operation

Once operational, the Project would not involve ground-disturbing activities that would have an impact to paleontological resources. Therefore, there would be no impact.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure GEO-2 and Mitigation Measure GEO-3

3.11.5 GEOLOGY AND SOILS MITIGATION

3.11.5.1 Mitigation Measure GEO-1: Prepare and Implement a Stormwater Pollution Prevention Plan (SWPPP)

The selected construction contractor shall be required to comply with a site-specific SWPPP to reduce the risk of substantial soil erosion or loss of topsoil in accordance with requirements of the latest amendment of the NPDES General Construction Permit. The Construction General Permit requires the development of a SWPPP by a certified QSD. The SWPPP is required to identify appropriate BMPs to prevent erosion or soil loss from the Project site. These measures would include the implementation of construction staging in a manner that minimizes the amount of area disturbed at any one time; secondary containment for storage of fuel and oil; and the management of stockpiles and disturbed areas by means of earth berms, diversion ditches, straw wattles, straw bales, silt fences, gravel filters, mulching, revegetation, and temporary covers as appropriate. The SWPPP shall also meet post-construction performance standards to ensure the post construction site is stabilized appropriately.

Mitigation Measure GEO-1 Implementation

Responsible Party: The District shall ensure the SWPPP is prepared by a certified QSD and implemented consistent with all applicable requirements. This mitigation measure shall be referenced in the contract documents for the Project.

Timing: The SWPPP shall be prepared prior to construction and implemented during the duration of construction, and the site should be stabilized post-construction.

Monitoring and Reporting Program: The District shall monitor implementation of the mitigation measure and a copy of the SWPPP shall be present at the Project site during construction as well as at District offices.

Standards for Success: Adherence to all applicable conditions and no substantial erosion or topsoil loss during or post-construction.

3.11.5.2 Mitigation Measure GEO-2: Paleontological Resources Awareness Training

The District shall provide paleontological awareness training for workers prior to beginning Project construction activities. The District shall have a qualified paleontologist prepare training materials (i.e., printed handouts) that provide information on the following topics:

- How to recognize paleontological resources
- What to do if paleontological resources are suspected or encountered in the Project area
- Information on avoidance and other measures relevant to paleontological resources
- Confidentiality and appropriate treatment of paleontological resources (MM GEO-3)
- Information on regulations and applicable civil and criminal penalties for violations

The training shall initially be presented to key Project personnel at the Project kickoff. Printed handouts shall be distributed and used for future reference by Project personnel. Project personnel that are trained during the Project kickoff shall be responsible for making sure that other workers on the Project receive the training before initiating on-site work. A roster of trained Project personnel shall be maintained in the Project construction office and made available for review by regulatory agencies, if needed. This training may be conducted in coordination with the biological resources awareness training (MM BIO-2), cultural resources awareness training (MM CUL-2), and tribal cultural resource awareness training (MM TRIB-2).

Mitigation Measure GEO-2 Implementation

Responsible Party: The District and contractor. This mitigation measure shall be referenced in the contract documents for the Project.

Timing: Training shall be conducted before work begins, and new personnel shall be trained before initiating on-site work.

Monitoring and Reporting Program: The training shall be conducted by trained personnel and documented (by sign-in sheet or other method) by the District's contractor for the dates the training occurred, and the staff trained. Retention of the training reference pamphlets shall also be kept on the construction site and within District files.

Standards for Success: Construction personnel are trained in the key characteristics for identifying and avoiding impacts to paleontological resources.

3.11.5.3 Mitigation Measure GEO-3: Proper Handling of the Unanticipated Discovery of Paleontological Resources or Unique Geologic Features

If paleontological resources (i.e., fossils) and/or unique geologic features are encountered during construction, compliance with federal regulations (16 USC Chapter 1C, Sections 470aa through 470aaa-11) and guidelines (SVP guidelines) regarding the treatment of such resources shall be required. If paleontological resources or unique geologic features are encountered during ground disturbing activities, work within 100 feet of the discovery shall be halted until the District notifies a qualified geologist or paleontologist to evaluate the significance of the find. If the find is determined to be significant, the District shall determine the appropriate avoidance measures or other appropriate mitigation in consultation with a qualified geologist or paleontologist and landowner, such as site salvage. Significant paleontological resources recovered shall be subject to scientific analysis, professional museum curation, and a report

prepared by the qualified paleontologist according to current professional standards. The SVP provides guidelines on assessment and mitigation of adverse impacts to paleontological resources.

Mitigation Measure GEO-3 Implementation

Responsible Party: The District and contractor. This mitigation measure shall be referenced in the contract documents for the Project.

Timing: During all ground-disturbing activities.

Monitoring and Reporting Program: If any find is determined to be significant, representatives of the District shall document consultation with a qualified geologist or paleontologist and document the determination of recommended protection and avoidance measures or other appropriate mitigation. The District shall prepare a brief memorandum incorporating notes and records from the contractor and qualified geologist or paleontologist to document steps taken to comply with the avoidance measures or other appropriate mitigation. The memorandum shall be kept on file at the District's offices.

Standards for Success: The evaluation and recording of any newly identified paleontological resources and unique geologic features, and treatment by avoidance, protection, or documentation of any discovered resource that qualify as significant.

3.12 Greenhouse Gas Emissions

3.12.1 BASIS FOR ANALYSIS

The CEQA Guidelines' Appendix G Environmental Checklist was assessed during the NOP scoping process to identify the Project components that have the potential to cause a significant impact to greenhouse gas emissions. The following thresholds of significance were used to determine if further evaluation was warranted to ascertain whether the Project may:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

3.12.2 REGULATORY FRAMEWORK

3.12.2.1 Federal

There are no federal requirements related to GHGs that are applicable to the proposed Project.

3.12.2.2 State

Executive Order S-3-05

Executive Order (EO) S-3-05 was established by Governor Arnold Schwarzenegger in June 2006, and establishes statewide emission reduction targets through the year 2050 as follows:

1. By 2010, reduce GHG emissions to 2000 levels;

2. By 2020, reduce GHG emissions to 1990 levels; and

3. By 2050, reduce GHG emissions to 80 percent below 1990 levels.

This EO does not include any specific requirements that pertain to the Project; however, future actions taken by the State to implement these goals may affect the Project, depending on the specific implementation measures that are developed.

Executive Order B-30-15

EO B-30-15 was issued by Governor Jerry Brown in April 2015. The Order established a mid-term GHG reduction target for California of 40 percent below 1990 levels by 2030. Similarly to EO S-3-05, the Order does not include any specific requirements that pertain to the Project, but future actions taken by the state to implement the goals may affect the Project.

Executive Order B-30-15

EO B-55-18 was issued in by Governor Jerry Brown September 2018 and established a new statewide goal to achieve carbon neutrality as soon as possible, but no later than 2045, and to achieve and maintain net negative emissions thereafter. The EO directs CARB to work with relevant State agencies to develop a framework for implementation and an account that tracks progress toward this goal.

Assembly Bill 32

AB 32, also known as the Global Warming Solutions Act of 2006, requires CARB to establish a statewide GHG emissions cap for 2020 based on 1990 emission levels and tasks CARB with creating a Scoping Plan to set a blueprint for reaching these emission reductions. As part of AB 32, CARB is tasked with updating the Scoping Plan every five years to include a suite of updates to help the State achieve its GHG targets. Since the release of the original Scoping Plan in 2008, CARB has prepared three plan updates in 2013, 2017, and 2022. The State achieved the reduction target set by AB 32 in 2018 (CARB 2018).

Senate Bill 97

In 2007, the California State Legislature passed SB 97, which required amendment of the CEQA Guidelines to incorporate analysis of, and mitigation for, GHG emissions from projects subject to CEQA. The amendments took effect March 18, 2010. The amendments added Section 15064.4 to the CEQA Guidelines, specifically addressing the potential significance of GHG emissions. Section 15064.4 neither

requires nor recommends a specific analytical methodology or quantitative criteria for determining the significance of GHG emissions. Rather, the section calls for a "good faith effort" to "describe, calculate or estimate" GHG emissions and indicates that the analysis of the significance of any GHG impacts should include consideration of the extent to which a project would:

- Increase or reduce GHG emissions.
- Exceed a locally applicable threshold of significance; or
- Comply with "regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions."

The CEQA Guidelines also state that a project may be found to have a less-than-significant impact related to GHG emissions if it complies with an adopted plan that includes specific measures to sufficiently reduce GHG emissions (14 CCR Section 15064(h)(3)). Importantly, however, the CEQA Guidelines do not require or recommend a specific analytical methodology or provide quantitative criteria for determining the significance of GHG emissions.

Senate Bill 32

SB 32 was signed into law in September 2016 and requires that the State reduce GHG emissions to 30 percent below 1990 levels by the year 2030. SB 32 also gives CARB the statutory responsibility to include 2030 in the 2017 Scoping Plan.

Assembly Bill 1279

AB 1279 codified EO B-55-18 into law in September 2022. AB 1279 requires the State to achieve net zero GHG emissions as soon as possible, but no later than 2045, to achieve and maintain net negative GHG emissions; and to ensure that by 2045, statewide anthropogenic GHG emissions are reduced to at least 85 percent below 1990 levels.

CARB Scoping Plan

CARB was tasked with preparing a Scoping Plan to set a blueprint for the State to meet GHG reduction targets as part of AB 32, SB 32, ad AB 1279. The scoping plans must be updated every five years to account for updated regulations and reduction measures to guide the State's GHG reduction targets. The first Scoping Plans were released in 2008 and 2013 to meet AB 32's goal of reducing statewide emissions to 1990 levels by 2020. CARB's 2017 Scoping Plan built upon the previous iterations while further integrating efforts to reduce GHG emissions and meet SB 32's 2030 GHG reduction goal. In 2022, CARB released the latest scoping plan, which lays out a path to achieve the carbon neutrality targets set by AB 1279 as well as reduce GHG emissions by 85 percent below 1990 levels no later than 2045.

17 California Code of Regulations Section 95350 et seq.

The purpose of this regulation is to achieve GHG emission reductions by reducing sulfur hexafluoride (SF_6) emissions from gas-insulated switchgear. Owners of such switchgear must not exceed maximum allowable

annual emissions rates, which are currently 1.0 percent. Owners must regularly inventory gas-insulated switchgear equipment, measure quantities of SF_6, and maintain records of these for at least three years. Additionally, by June 1 each year, owners also must submit an annual report to CARB's Executive Officer for emissions that occurred during the previous calendar year.

3.12.2.3 Local

El Dorado County General Plan

The El Dorado AQMD does not currently have an established thresholds for construction or operational related GHG emissions.

El Dorado County General Plan

Pursuant to Government Code sections 53091(D) and (E), many of the District's activities are not subject to local zoning or land use requirements, as stated below.

> *Building and zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, or for the production or generation of electrical energy, facilities that are subject to Section 12808.5 of the Public Utilities Code.*

As a special district with equal authority, the District is exempt from following goals and policies within the County's General Plan and Zoning Ordinance. However, the District aims to comply with those goals and policies and use them as a metric for formulating an impact analysis (El Dorado County 2004, as amended).

> ***Goal 6.7A:*** *Strive to achieve and maintain ambient air quality standards established by the U.S. Environmental Protection Agency and the California Air Resources Board.*
>
> ***Goal 6.7B:*** *Minimize public exposure to toxic or hazardous air pollutants and air pollutants that create unpleasant odors.*
>
> ***Objective 6.7.1:*** *Adopt and enforce Air Quality standards to reduce the health impacts caused by harmful emissions.*
>
> ***Objective 6.7.4:*** *Encourage project design that protects air quality and minimizes direct and indirect emissions of air contaminants.*
>
> ***Objective 6.7.7:*** *Reduce construction related, short-term emissions by adopting regulations which minimize their adverse effects.*

3.12.3 ENVIRONMENTAL SETTING

3.12.3.1 Environmental Setting

To fully understand global climate change, it is important to recognize the naturally occurring "greenhouse effect" and to define the GHGs that contribute to this phenomenon. Various gases in the earth's

atmosphere, classified as atmospheric GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space and a portion of the radiation is absorbed by the earth's surface. The earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. GHGs, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect.

Greenhouse Gases

Among the prominent GHGs contributing to the greenhouse effect are CO_2, CH_4, nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulfur hexafluoride (SF_6). Primary GHGs attributed to global climate change are discussed in the following subsections (USEPA 2023).

- **Carbon Dioxide.** CO_2 is a colorless, odorless gas. CO_2 is emitted in a number of ways, both naturally and through human activities. The largest source of CO_2 emissions globally is the combustion of fossil fuels, such as coal, oil, and gas in power plants, automobiles, industrial facilities, and other sources. A number of specialized industrial production processes and product uses such as mineral production, metal production, and the use of petroleum-based products can also lead to CO_2 emissions. The atmospheric lifetime of CO_2 is variable because it is so readily exchanged in the atmosphere.

- **Methane.** CH_4 is a colorless, odorless gas that is not flammable under most circumstances. CH_4 is the major component of natural gas, about 87 percent by volume. It is also formed and released to the atmosphere by biological processes occurring in anaerobic environments. CH_4 is emitted from a variety of both human-related and natural sources. Human-related sources include fossil fuel production, animal husbandry (enteric fermentation in livestock and manure management), rice cultivation, biomass burning, and waste management. These activities release significant quantities of methane to the atmosphere. Natural sources of methane include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires. The atmospheric lifetime of CH_4 is about 12 years.

- **Nitrous Oxide.** N_2O is a clear, colorless gas with a slightly sweet odor. N_2O is produced by both natural and human-related sources. Primary human-related sources of N_2O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. N_2O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N_2O is approximately 120 years.

- **Hydrofluorocarbons.** HFCs are human-made chemicals, many of which have been developed as alternatives to ozone-depleting substances for industrial, commercial, and consumer products. The only significant emissions of HFCs before 1990 were of the chemical HFC-23, which is generated as a byproduct of the production of HCFC-22 (or Freon 22, used in air conditioning applications). The atmospheric lifetime for HFCs varies from just over a year for HFC-152a to 260 years for HFC-23. Most of the commercially used HFCs have atmospheric lifetimes of less than 15 years (e.g.,

HFC-134a, which is used in automobile air conditioning and refrigeration, has an atmospheric life of 14 years).

- **Perfluorocarbons**. PFCs are colorless, highly dense, chemically inert, and nontoxic. There are seven PFC gases: perfluoromethane, perfluoroethane, perfluoropropane, perfluorobutane, perfluorocyclobutane, perfluoropentane, and perfluorohexane. Natural geological emissions have been responsible for the PFCs that have accumulated in the atmosphere in the past; however, the largest current source is aluminum production, which releases perfluoromethane and perfluoroethane as byproducts. The estimated atmospheric lifetimes for perfluoromethane and perfluoroethane are 50,000 and 10,000 years, respectively.

- **Nitrogen Trifluoride.** NF_3 is an inorganic, colorless, odorless, toxic, nonflammable gas used as an etchant in microelectronics. NF_3 is predominantly employed in the cleaning of the plasma-enhanced chemical vapor deposition chambers in the production of liquid crystal displays and silicon-based thin film solar cells. In 2009, NF_3 was listed by California as a potential GHG to be listed and regulated under AB 32 (Health and Safety Code Section 38505).

- **Sulfur Hexafluoride.** SF_6 is an inorganic compound that is colorless, odorless, nontoxic, and generally nonflammable. SF_6 is primarily used as an electrical insulator in high voltage equipment. The electric power industry uses roughly 80 percent of all SF_6 produced worldwide. Leaks of SF_6 occur from aging equipment and during equipment maintenance and servicing. SF_6 has an atmospheric life of 3,200 years.

- **Black Carbon.** Black carbon is the most strongly light-absorbing component of particulate matter emitted from burning fuels such as coal, diesel, and biomass. Black carbon contributes to climate change both directly by absorbing sunlight and indirectly by depositing on snow and by interacting with clouds and affecting cloud formation. Black carbon is considered a short-lived species, which can vary spatially and, consequently, it is very difficult to quantify associated global-warming potentials. The main sources of black carbon in California are wildfires, off-road vehicles (e.g., locomotives, marine vessels, tractors, excavators, dozers), on-road vehicles (e.g., cars, trucks, and buses), fireplaces, agricultural waste burning, and prescribed burning (planned burns of forest or wildlands). California has been an international leader in reducing emissions of black carbon, including programs that target reducing particulate matter from diesel engines and burning activities (CARB 2013).

Global Warming Potential

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO_2e), which weight each gas by its global warming potential (GWP).

Expressing GHG emissions in CO_2e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were emitted, based on a 100-year horizon. Methane traps over 25 times more heat per molecule than CO_2, and N_2O absorbs

roughly 298 times more heat per molecule than CO_2. Additional GHGs with high GWP include NF_3, SF_6, PFCs, and black carbon (United Nations 2007).

3.12.4 ENVIRONMENTAL IMPACTS

This section analyzes the Project's potential to result in significant impacts to GHGs.

3.12.4.1 Methodology for Analysis

The Project would result in both short- and long-term emissions of GHGs. Construction emissions would include exhaust from the operation of conventional construction equipment and vehicles. Long-term, operational GHG emissions would result from the operation of the new pump station and backup generator.

Construction and operational emissions were estimated using CalEEMod (version 2022.1.1.13.). CalEEMod is a statewide land use emissions web model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutants associated with both construction and operation of a variety of land use projects. The model quantifies direct emissions from construction and operations (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use for land use developments and linear projects (such as pipeline construction).

The model was developed in collaboration with the air districts in California. Default data (e.g., emission factors, trip lengths, meteorology, source inventory) have been provided by the various California air districts to account for local requirements and conditions. For the Project, site-specific grading calculations, equipment vehicle use, construction schedule, and hauling truck trips were developed in consultation with the District and design engineering firm. Modeling input details are included within the Project Description (Section 2.0).

Thresholds

The El Dorado AQMD has not established GHG thresholds to determine the significance of a project. Therefore, this impact analysis uses the current significance thresholds developed by the Sacramento Metropolitan Air Quality Management District (SMAQMD). The SMAQMD has established GHG thresholds for construction and operational phases. Although these thresholds are not binding on the El Dorado AQMD, they are useful for comparative purposes. In addition, these thresholds are relevant to the El Dorado AQMD due to the regional scale of GHG emissions and impacts. SMAQMD emissions significance thresholds consider any construction or operational phase of a project emitting over 1,100 metric tons/year of CO_2e (MT CO_2e/year) to be considered significant (SMAQMD 2009).

3.12.4.2 Project Impact Analysis

Impact GHG-1 Potential to generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

Impact GHG-1 Analysis

The primary sources of Project-related GHG emissions are temporary and anticipated to be combustion of fossil fuels from the operation of internal combustion engines used during Project construction (portable equipment, off-road equipment, and vehicles). During operation, GHG emissions would be generated from the new pump station and emergency generator. Other operational emissions, such as pipeline operation, maintenance, and employee vehicle trips, are expected to be similar to existing District operations. The emissions from construction and operation are discussed below separately.

Construction

GHG emissions anticipated from Project construction were calculated using CalEEMod. The CalEEMod outputs were compared to the SMAQMD significance thresholds of 1,100 MT CO_2e/year. Construction GHG emissions are presented in Table 3.8-1.

Table 3.8-1. Total Annual Construction Emissions (MT CO_2e/year)

Source	MT CO_2e
Pump Station	67.2
Pipeline Replacement	789.4
Total	**856.6**
Threshold	1,100
Exceed?	No

Operation

GHG emissions during Project operation were calculated using CalEEMod. The emissions also include amortized construction GHG emissions, which are the total GHG construction emissions divided by the lifetime of the Project (assumed to be about 30 years). The CalEEMod outputs were compared to the SMAQMD significance threshold of 1,100 MT CO_2e/year. Operational GHG emissions are presented in Table 3.8-2.

Table 3.8-2. Total Annual Operational Emissions (MT CO_2e/year)

Source	MT CO_2e
Pump Station	6.4
Emergency Generator	29.1
Amortized Construction Emissions	28.6
Total	**64.1**
Threshold	1,100
Exceed?	No

As shown in Tables 3.8-1 and 3.8-2, the Project's GHG emissions would not exceed SMAQMD thresholds for construction or operational GHGs. As a result, the Project would result in a less than significant impact.

Level of Significance: Less than Significant

Mitigation Required: None Required

Impact GHG-2 Potential to conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

Impact GHG-2 Analysis

The Project would be considered significant if it conflicted with the emission reduction goals set forth by SB 32 and AB 1279. As mentioned above, CARB adopted the 2022 Scoping Plan, which outlines actions recommended to obtain the emission reduction goals contained in both SB 32 and AB 1279 (CARB 2022). These goals aim to reduce GHG emissions 40 percent below 1990 levels by 2030 and reach carbon neutrality no later than 2045. As a pipeline replacement, the Project would not conflict with any measures within CARB's 2022 Scoping Plan and would not interfere with the State's long-term GHG reduction goals.

Because the Project is consistent with the CARB Scoping Plan and the SMAQMD thresholds developed to reduce GHG emissions, it would not conflict with an applicable plan, policy, or regulation with the purpose of reducing GHG emissions, and the Project would result in a less than significant impact.

Level of Significance: Less than Significant

Mitigation Required: None Required

3.12.5 GREENHOUSE GAS EMISSIONS MITIGATION

The level of significance of potential impacts to greenhouse gases is either no impact or less than significant impact; therefore, no mitigation is required.

3.13 Hazards and Hazardous Materials

3.13.1 Basis for Analysis

The CEQA Guidelines' Appendix G Environmental Checklist was assessed during the NOP scoping process to identify the Project components that have the potential to cause a significant impact related to hazards and hazardous materials. The following thresholds of significance were used to determine if further evaluation was warranted to ascertain whether the Project may:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- 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.
- For a project located within an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in safety hazard or excessive noise for people residing or working in the Project area.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

3.13.2 REGULATORY FRAMEWORK

3.13.2.1 Federal

Hazardous Material Management

Resources Conservation and Recovery Act

The Resources Conservation and Recovery Act (RCRA) set up the federal regulatory program for hazardous substances and gives the USEPA the authority to regulate the generation, transport, treatment, and disposal of hazardous substances in a “cradle to grave” system. Under RCRA, USEPA regulates the generation, transportation, treatment, storage, and disposal of hazardous substances. This regulatory system includes tracking all generators of hazardous waste.

1984 Hazardous and Solid Waste Amendment Act

RCRA was amended by the 1984 Hazardous and Solid Waste Amendment Act, which prohibited the use of certain techniques for the disposal of certain hazardous wastes (USEPA 2016a). The Emergency Planning and Community Right-to-Know Act of 1986 imposes safety requirements to protect local communities in the event of accidental release of hazardous substances. The requirements provide measures so that the risks from interaction with hazardous materials, such as handling, storage, and disposal, are mitigated or prevented. This law protects human health and the environment if the unintended release of hazardous materials were to occur (USEPA 2016b). USEPA has delegated fulfillment of many of RCRA’s requirements to the California Department of Toxic Substances Control (DTSC).

Clean Air Act

Regulations under the CAA (42 USC 7401 et seq., as amended) are designed to prevent accidental releases of hazardous materials. The regulations require facilities that store a threshold quantity or greater

of listed regulated substances to develop a risk management plan, including hazard assessments and response programs to prevent accidental releases of listed chemicals.

Hazardous Materials Transportation

Hazardous Materials Transportation Act

The transport of hazardous materials is regulated by Caltrans under the Hazardous Materials Transportation Act. To accomplish this, the Federal Aviation Administration, Federal Motor Carrier Safety Administration, Federal Railway Administration, Pipeline and Hazardous Materials Safety Administration, and the U.S. Coast Guard have been given authority to enforce hazardous material transport regulations.

Worker Safety

Occupational Safety and Health Administration

The Occupational Safety and Health Act of 1970 created OSHA, which is responsible for protecting the health of workers, such as during the handling of hazardous materials. OSHA has created regulations to set federal standards for workplace safety, including exposure limits, mandatory workplace training, accident and injury reporting, and safety procedures.

Wildfire

CFR Title 36, Chapter II, Part 261 discusses actions that are prohibited and could result in fire damages to federal lands. These include (a) carelessly or negligently throwing or placing any ignited substance or other substance that may cause a fire, (b) firing any tracer bullet or incendiary ammunition; (c) causing timber, trees, slash, brush, or grass to burn except as authorized by permit; (d) leaving fire without completely extinguishing it; (e) causing and failing to maintain control of a fire that is not a prescribed fire that damages forest lands; (f) building, attending, maintaining, or using a campfire without removing all flammable material from around the campfire adequate to prevent its escape; and (g) negligently failing to maintain control of a prescribed fire on federal lands that damages the land.

Executive Oder 13855

Executive Order 13855 promotes active management of U.S. forests, rangelands, and other federal lands to improve conditions and reduce wildfire risk. The Executive Order emphasizes that federal agencies must collaborate with state and local institutions and incorporate active management principles into all land management planning efforts in order to address the challenges of wildland fire.

Secretary Order 3374 – Implementation of the John D. Dingell, Jr. Conservation, Management, and Recreation Act

Secretarial Order 3374 established a Department of the Interior task force to facilitate the implementation of the Dingell Act, which was established on March 12, 2019. The Dingell Act lays out provisions for various programs and activities affecting the management and conservation of natural resources on federal lands, to include wildland fire operations.

3.13.2.2 State

Hazardous Material Management

Hazards Waste Control Act

The Hazardous Waste Control Act created the State hazardous waste management program. It is similar to, but more stringent than, the RCRA program. The act is implemented by regulations contained in CCR Title 26, which describes the following required aspects for the proper management of hazardous waste: identification and classification; generation and transportation; design and permitting of recycling treatment, storage, and disposal facilities; operation of facilities and staff training; and closure of facilities and liability requirements.

These regulations list more than 800 materials that may be hazardous and establish criteria for identifying, packaging, and disposing of such waste. Under the Hazardous Waste Control Act and Title 26, the generator of hazardous waste must complete a manifest that accompanies the waste from generator to transporter to the ultimate disposal location. Copies of the manifest must be filed with DTSC.

Department of Toxic Substances and Control

DTSC, an agency within the California Department of Environmental Protection, was formed under the Hazardous Waste Control Act. DTSC is responsible for regulating hazardous waste, remediating existing contamination, and identifying ways to reduce production of hazardous wastes. DTSC can delegate enforcement responsibilities to local jurisdictions.

Unified Program

The unified hazardous waste and hazardous materials management regulatory program (Unified Program) is a unified hazardous materials management program that was established by California's Secretary for Environmental Protection following Senate Bill 1082 (1993). The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of the following programs:

- Hazardous Materials Release Response Plans and Inventories
- California Accidental Release Prevention Program
- Underground Storage Tank Program
- Above Ground Petroleum Storage Act Program
- Hazardous Waste Generator and On-site Hazardous Waste Treatment Programs
- California Uniform Fire Code: Hazardous Material Management Plans and Hazardous Material Inventory Statements

These six environmental programs are implemented at the local government level by Certified Unified Program Agencies, which provide a central permitting and regulatory hub for permits, reporting, and compliance enforcement. PRC Section 21151.4 sets special requirements for EIRs and negative declarations for projects that involve the construction or alteration of a facility within one-quarter mile from a school that creates the following conditions:

- Might reasonably be anticipated to emit hazardous air emissions;
- Would handle an extremely hazardous substance or a mixture containing extremely hazardous substances in a quantity equal to or greater than the state threshold quantity specified in Section 25532(j) of the Health and Safety Code; or
- May pose a health or safety hazard to persons who would attend or would be employed at the school.

As part of the CEQA process, the lead agency preparing the EIR must consult with the appropriate school district regarding the potential impact of the project on the school and the school district must be notified about the project in writing at least 30 days before the proposed certification of the EIR or adoption of the mitigated negative declaration (PRC Section 21151.4; 14 CCR Section 15186[b]).

Cortese List Government Code Section 65962

Government Code Section 65962 was enacted in 1985 and was amended in 1992. It is used as a planning document to comply with CEQA and requires information about locations of hazardous materials release sites. It states that the through the combined efforts of DTSC, the Department of Health Service, the SWRCB and local enforcement agencies, a list of potentially hazardous areas and sites will be compiled and remain up to date (at a minimum annually updated). The list is consolidated by the Secretary for Environmental Protection and is distributed to each city and county in which sites on the list are located. The list can be found on the DTSC's data management system known as EnviroStor, which includes information from the SWRCB GeoTracker database.

Worker Safety

Division of Occupational Safety and Health

The Division of Occupational Safety and Health, also known as CalOSHA, is responsible for enforcing workplace safety regulations and requirements in California, including hazardous materials requirements recorded under CCR Title 8. These regulations include requirements for safety training, availability of safety equipment, accident and illness prevention programs, warnings about hazardous substance exposure (such as asbestos), and preparation of emergency action and fire prevention plans.

CalOSHA also enforces hazard-communication program regulations that contain training and information requirements. Such requirements include procedures for identifying and labeling hazardous substances, communicating information about hazardous substances and their handling, and preparing health and safety plans to protect workers and employees at hazardous waste sites. Under the hazard-communication

program, employers must make Material Safety Data Sheets available to employees and document employee information and training programs.

Emergency Response

California Emergency Services Act

The California Emergency Services Act provides the basic authority for conducting emergency operations following a proclamation of emergency by the Governor and/or appropriate local authorities. Local government and District emergency plans are considered to be extensions of the California Emergency Plan, established in accordance with the Emergency Services Act.

The California Emergency Management Agency (CAL EMA) is the State agency responsible for establishing emergency response and spill notification plans related to hazardous materials accidents. CAL EMA regulates businesses by requiring specific businesses to prepare an inventory of hazardous materials (CCR Title 19). CAL EMA is also the lead State agency for emergency management and is responsible for coordinating the State-level response to emergencies and disasters.

Fire Protection

California fire safety regulations apply to State Responsibility Areas (SRA) during the time of year designated as having hazardous fire conditions. CAL FIRE has developed a fire hazard severity scale that considers vegetation, climate, and slope to evaluate the level of wildfire hazard in all SRAs. An SRA is defined as the part of the State where CAL FIRE is primarily responsible for providing basic wildland fire protection assistance. Areas under the jurisdiction of other fire protection services are considered to be Local Responsibility Areas, or on federal lands are considered Federal Responsibility Areas.

During the fire hazard season, these regulations: (1) restrict the use of equipment that may produce a spark, flame, or fire; (2) require the use of spark arrestors on any equipment that has an internal combustion engine; (3) specify requirements for the safe use of gasoline-powered tools in fire hazard areas; and (4) specify fire suppression equipment that must be provided on-site for various types of work in fire-prone areas. CAL FIRE has primary responsibility for fire protection within SRAs.

3.13.2.3 Local

El Dorado County General Plan

Pursuant to Government Code sections 53091(D) and (E), many of the District's activities are not subject to local zoning or land use requirements, as stated below.

> *Building and zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, or for the production or generation of electrical energy, facilities that are subject to Section 12808.5 of the Public Utilities Code.*

As a special district with equal authority, the District is exempt from following goals and policies within the County's General Plan and Zoning Ordinance. However, the District aims to comply with those goals and policies and use them as a metric for formulating an impact analysis (El Dorado County 2004, as amended).

> ***Goal 6.1:*** *Coordination. A coordinated approach to hazard and disaster response planning.*
>
> ***Objective 6.1.1:*** *El Dorado County Multi-Jurisdictional Local Hazard Mitigation Plan. The El Dorado County Multi-Jurisdictional Local Hazard Mitigation Plan shall serve as the implementation program for this Goal.*
>
> ***Policy 6.1.1.1:*** *The El Dorado County Multi-jurisdictional Local Hazard Mitigation Plan (LHMP) shall serve as the implementation program for the coordination of hazard planning and disaster response efforts within the County and is incorporated by reference to this Element. The County will ensure that the LHMP is updated on a regular basis to keep pace with the growing population.*
>
> ***Goal 6.2:*** *Fire Hazards. Minimize fire hazards and risks in both wildland and developed areas.*
>
> ***Objective 6.2.1:*** *Defensible Space. All new development and structures shall meet "defensible space" requirements and adhere to fire code building requirements to minimize wildland fire hazards.*
>
> ***Objective 6.2.2:*** *Limitations to Development. Regulate development in areas of high and very high fire hazard as designated by the California Department of Forestry and Fire Prevention Fire Hazard Severity Zone Maps.*
>
> ***Policy 6.2.2.1:*** *Fire Hazard Severity Zone Maps shall be consulted in the review of all projects so that standards and mitigation measures appropriate to each hazard classification can be applied. Land use densities and intensities shall be determined by mitigation measures in areas designated as high or very high fire hazard.*
>
> ***Policy 6.2.2.2:*** *The County shall preclude development in areas of high and very high wildland fire hazard or in areas identified as wildland-urban interface (WUI) communities within the vicinity of Federal lands that are a high risk for wildfire, as listed in the Federal Register Executive Order 13728 of May 18, 2016, unless such development can be adequately protected from wildland fire hazard, as demonstrated in a WUI Fire Safe Plan prepared by a qualified professional as approved by the El Dorado County Fire Prevention Officers Association. The WUI Fire Safe Plan shall be approved by the local Fire Protection District having jurisdiction and/or California Department of Forestry and Fire Protection (Resolution 124-2019, August 6, 2019).*
>
> ***Objective 6.2.3:*** *Adequate Fire Protection. Application of uniform fire protection standards to development projects by fire districts.*

Policy 6.2.3.1: *As a requirement for approving new development, the County must find, based on information provided by the applicant and the responsible fire protection district that, concurrent with development, adequate emergency water flow, fire access, and fire fighting personnel and equipment will be available in accordance with applicable State and local fire district standards.*

Policy 6.2.3.2: *As a requirement of new development, the applicant must demonstrate that adequate access exists, or can be provided to ensure that emergency vehicles can access the site and private vehicles can evacuate the area.*

Policy 6.2.3.4: *All new development and public works projects shall be consistent with applicable State Wildland Fire Standards and other relevant State and federal fire requirements.*

Goal 6.6: *Management of Hazardous Materials. Recognize and reduce the threats to public health and the environment posed by the use, storage, manufacture, transport, release, and disposal of hazardous materials.*

Objective 6.6.1: *Regulation of Hazardous Materials. Regulate the use, storage, manufacture, transport and disposal of hazardous materials in accordance with State and Federal regulations.*

Policy 6.6.1.1: *The Hazardous Waste Management Plan shall serve as the implementation program for management of hazardous waste in order to protect the health, safety, property of residents and visitors, and to minimize environmental degradation while maintaining economic viability.*

Policy 6.6.1.2: *Prior to the approval of any subdivision of land or issuing of a permit involving ground disturbance, as site investigation, performance by a Registered Environmental Assessor or other person experienced in identifying potential hazardous wastes, shall be submitted to the County for any subdivision or parcel that is located on a known or suspected contaminated site included in a list on file with the Environmental Management Department as provided by the State of California and federal agencies. If contamination is found to exist by the site investigations, it shall be corrected and remediated in compliance with applicable laws, regulations, and standards prior to the issuance of a new land use entitlement or building permit.*

El Dorado Hazardous Waste Management Plan

The El Dorado Hazardous Waste Management Plan serves as the implementation program for hazardous waste management in the County in order to protect residents, visitors, property, and the environment (El Dorado County 1990).

El Dorado County Code

El Dorado County Ordinance Code Chapter 8.38 regulates any person that would handle, store, use, transport, process or dispose of a hazardous material, hazardous waste, or extremely hazardous waste. Requirements under Chapter 8.38 include disclosure of hazardous materials release, possible hazardous materials inspection, and prevention of possible environmental impacts due to hazardous material (El Dorado County 2023a).

Community Wildfire Protection Plan

The El Dorado County Fire Safety Council has developed a Community Wildfire Protection Plan (CWPP) based on the requirements of the Healthy Forest Restoration Act of 2003, which identifies measures that protect and restore forest land and the 2010 Federal Land Assistance Management and Enhancement Act, which led to the development of a cohesive strategy of interagency cooperation to address wildfire problems. The CWPP coordinates with the Local Hazard Mitigation Plan (LHMP) on wildfire issues. The CWPP provides educational opportunities for the public to understand the complex issues of fire and fuels and to engage in the decision-making process for community safety. The February 15, 2022, Western El Dorado County CWPP is the latest CWPP for the area (El Dorado Fire Safe Council 2022).

El Dorado County Multi-Jurisdiction Local Hazard Mitigation Plan

As described under the El Dorado County General Plan, the El Dorado County Multi-Jurisdiction LHMP provides a risk assessment of all potential natural and selected human-caused hazards and identifies all potential types of disaster likely to occur in El Dorado County, including wildland fire. One purpose of the LHMP is to minimize the magnitude of potential wildfire disasters (El Dorado County 2004, as amended).

El Dorado County Operational Area Emergency Operations Plan

The 2006 El Dorado County Operational Area Emergency Operations Plan (EOP) is intended to guide the County in meeting the compliance requirements of the California Emergency Services Act, the Standardized Emergency Management System, and the federal National Incident Management System. The El Dorado County Operational Area EOP addresses El Dorado County's planned response to extraordinary emergency situations associated with natural disasters, technological (man-made) emergencies, and acts of war and terrorism. The operational concepts reflected in the plan focus on large-scale emergencies and disasters that often generate situations requiring planned and coordinated responses by multiple disciplines, agencies, and jurisdictions. The plan is split into four federally defined phases: preparedness, response, recovery, and prevention. The EOP states that it is expected that primary water sources could be compromised due to damage to their treatment plants, pump stations and/or the pipelines that distribute potable water. The plan defines a hazardous materials incident as the result of an uncontrolled release of a hazardous substance(s) during storage or use from a fixed facility, residence, and agricultural operation or during transport. Because of the multitude of hazardous substances being transported, incidents are more likely to occur along highways. Fixed facilities do have occurrences of hazardous materials incidents, too; however, stringent facility safety requirements help to limit these occurrences. Common fixed facilities include manufacturing, industrial, retail, bulk fuel storage, water and wastewater treatment facilities.

The EOP identifies the District as a Principal Agency responsible for initial response to their utility systems during the following emergency events: wildland fire, severe weather, flooding, utility failure, HAZMAT event, dam/levee failure, landslide/avalanche, building fire/explosion, earthquake, civil disturbance, national security threat, terrorism, transportation mass casualty incident, public health threat, school emergency, and agricultural emergencies. Utilities, such as the District, are also identified in the EOP as having a supporting role in evacuation alerting, public information, scene management and a shared role in situational analysis and public information in the emergency events that they have the responsibility for initial response to utility systems.

3.13.3 ENVIRONMENTAL SETTING

3.13.3.1 Definition of Terms

Hazardous Materials and Wastes

For purposes of this section, the term “hazardous materials” refers to both hazardous substances and hazardous wastes. A “hazardous material” is defined in the CFR as “a substance or material that…is capable of posing an unreasonable risk to health, safety, and property when transported in commerce” (49 CFR 171.8). California Health and Safety Code Section 25501 defines a hazardous material as follows:

> *Hazardous material means any material that, because of its quantity, concentration, or physical, or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. “Hazardous materials” include, but are not limited to, hazardous substances, hazardous waste, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.*

Hazardous Wastes

Hazardous wastes are defined in California Health and Safety Code Section 25141(b) as wastes that:

> *Because of their quantity, concentration, or physical, chemical, or infectious characteristics, [may either] cause, or significantly contribute to an increase in mortality or an increase in serious illness [, or] pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.*

Section 25532(j) of the Health and Safety Code defines "regulated substances accident risk" to mean a potential for the accidental release of a regulated substance into the environment that could produce a significant likelihood that persons exposed may suffer acute health effects resulting in significant injury or death.

Section (j) defines "regulated substance" to mean any substance that is either of the following (20 CFR Article 2 Section 25532):

(1) *A regulated substance listed in Section 68.130 of Title 40 of the Code of Federal Regulations pursuant to paragraph (3) of subsection (r) of Section 112 of the Clean Air Act (42 U.S.C. Sec. 7412(r)(3)).*

(2) *An extremely hazardous substance listed in Appendix A of Part 355 (commencing with Section 355.10) of Subchapter J of Chapter I of Title 40 of the Code of Federal Regulations that is any of the following:*

i. *A gas at standard temperature and pressure.*

ii. *A liquid with a vapor pressure at standard temperature and pressure equal to or greater than 10 millimeters mercury.*

iii. *A solid that is one of the following:*

I. *In solution or in molten form.*

II. *In powder form with a particle size less than 100 microns.*

III. *Reactive with a National Fire Protection Association rating of 2, 3, or 4.*

iv. *A substance that the office determines may pose a regulated substances accident risk pursuant to subclause (II) of clause (i) of subparagraph (B) or pursuant to Section 25543.3.*

Acute Hazardous Wastes

Acute hazardous wastes have been found to be fatal to humans in low doses or, in the absence of data on human toxicity, it has been shown in studies to have an oral LD 50 toxicity (rat) of less than 50 milligrams per kilogram, an inhalation LC 50 toxicity (rat) of less than 2 milligrams per liter, or a dermal LD 50 toxicity (rabbit) of less than 200 milligrams per kilogram or is otherwise capable of causing or significantly contributing to an increase in serious irreversible, or incapacitating reversible, illness (CFR 40 261.11).

Asbestos

Asbestos is a mineral fiber that occurs in rocks and soils, due to its fiber strength and heat resistant properties it has been used in a variety of building materials for insulation and as a fire retardant. Asbestos may be found in wall insulation, vinyl sheet flooring, roofing shingles, oil and coal furnaces, heat-resistant fabrics, hot water and steam pipe coatings, and automobile clutches and brakes (USEPA 2023).

Hazardous Air Pollutants

The USEPA defines hazardous emissions, also known as Hazardous Air Pollutants, as those pollutants that are known or suspected to cause cancer or other serious health effects. These pollutants can come from sources such as gasoline, motor oils, asbestos, and paint strippers and can be inhaled or ingested. Fuels such as diesel and gasoline would be required for the operation of construction equipment and are considered Class 3, flammable liquid, hazardous materials which can lead to fires or explosions if handled

incorrectly. Additionally, oils and lubricants would also be needed for operation of equipment and the control facilities and are also considered Class 3 hazardous materials.

3.13.3.2 Schools

The Project site is located in the area served by the Pollock Pines School District. The nearest school to the Project site is Pinewood Elementary School, located approximately 1.8 miles east of the Project area. Additionally, the Sly Park Environmental Education Center is located at 5600 Sly Park Road in Pollock Pines, which is directly within the southern end of the project alignment. However, this education center operates on a more sporadic basis than a typical school and hosts outdoor science and education events periodically throughout the summer.

3.13.3.3 Cortese List Government Code Section 65962

As discussed above, the Cortese list, which is compiled pursuant to Government Code Section 65962, is used to comply with CEQA requirements and provides a list of the known locations of hazardous material release sites. The EnviroStor database, which is management by DTSC, is used to determine the proximity of a project to the nearest hazardous materials site. The Project site is not listed on the Cortese list and would not be eligible for listing based on the criteria outlined in Government Code Section 65962. The nearest DTSC hazardous site to the proposed Project is the Amador El Dorado Ranger Unit, California Department of Forestry, which is located approximately 4 miles west of the Project Site (EnviroStor 2023a). This site is designated as an evaluation site with no further action needed (EnviroStor 2023b). The nearest SWRCB hazardous sites to the Project are the 13-Mile Post and the Former Pollock Pines Elementary School site, which are both located approximately 1.5 miles east of the Project area. Additionally, the Fresh Pond Hydroplant lies east of the area. These three sites are designated as leaking underground storage tanks sites with a cleanup status of open. Within Sly Park Campground on the southern portion of the site lies the Sly Park Resort and Sly Park Ranger Station, which are both closed cleanup sites (SWRCB 2023).

3.13.3.4 Hazardous Materials

Hazardous materials associated with the Project would be limited to those originating from construction and the construction equipment. Fuels such as diesel and gasoline would be required for the operation of construction equipment. The backup generator will also include a 1,000 gallon diesel tank that is double walled for spill prevention. Additionally, oils and lubricants would also be needed for operation of construction equipment.

3.13.3.5 Emergency Response and Emergency Evacuation Plans

The Project site and the District, as a special district providing water and wastewater utility in the area, are covered in the 2006 El Dorado County Operational Area EOP, as identified in Section 3.9.2.3 above.

3.13.3.6 Airports and Airstrips

The nearest private airports are the Placerville Airport which is approximately 7.5 miles east of Ridgeway Drive and the Perryman Airport – 7CL9 located approximately 8.5 miles east of the Project area. There are no other airports or airstrips near the Project.

3.13.3.7 Fire Hazards

The Project is located largely within the SRA that is protected by the Amador-El Dorado CAL FIRE unit and is considered to have a Very High fire hazard severity rating (CAL FIRE 2022). However, there are portions of the Project that are located within a Federal Responsibility Area (FRA) (CAL FIRE 2023). As the Project is in both an SRA and FRA, both the State and USFS are responsible for fire prevention and suppression. Fire hazard zoning is used to indicate both the likelihood for a fire (e.g., prevalence of fuels) and the potential for damage (e.g., proximity to residences).

The severity of wildland fires is influenced by vegetation, topography, and weather (temperature, humidity, and wind). The CAL FIRE severity scale defined in the Regulatory Framework above considers vegetation, climate, and slope to evaluate the level of wildfire hazard in an SRA. CAL FIRE designated three levels of Fire Hazard Severity Zones (Moderate, High, and Very High) to indicate the severity of fire hazard in a particular geographic or SRA area.

3.13.4 ENVIRONMENTAL IMPACTS

This section analyzes the Project's potential to result in significant impacts to hazards and hazardous materials.

3.13.4.1 Project Impact Analysis

Impact HAZ-1	**Potential to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.**

Impact HAZ-1 Analysis

Construction

The Project would include short-term construction activities to replace an existing pipeline. Project construction activities would entail the storage and use of hazardous substances necessary for the routine operation of construction equipment, such as fuels, lubricants, and oils.

The transport and use of hazardous materials is strictly regulated by local, State, and federal agencies to minimize adverse hazards from accidental release. Contractors would be required to use, store, and dispose of any hazardous materials in accordance with applicable regulations. Additionally, Mitigation Measure HAZ-1 would require the preparation of a Hazardous Materials Release Prevention Plan, which would include steps construction crews must follow to minimize release of hazards materials and appropriate response and clean up measures in the event of a hazardous material spill during construction.

Additionally, the implementation of Mitigation Measure HAZ-1: Prepare and Implement a Hazardous Materials Release Prevention Plan and Mitigation Measure GEO-1: Prepare and Implement a Stormwater Pollution Prevention Plan (described further in Section 3.7, Geology and Soils) would ensure the risk of a construction-related spill of hazardous materials would be minimized. Compliance with these mitigation measures would minimize the potential risk to the public and the environment associated with the use, storage, and transport of hazardous materials associated with the Project.

Operation

Project operation would be similar to existing conditions and would not result in any increased hazard from transport, use, or disposal of hazardous materials. Although there would be a new 1,000 gallon diesel tank for the backup generator, this diesel tank would be double walled for spill prevention and would be consistent with the existing Reservoir A operations. Operations and maintenance of the pipeline and new pump station would occur similar to existing conditions and would not result in additional transport or use of hazardous materials. There would be no impact.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure HAZ-1 and Mitigation Measure GEO-1

Impact HAZ-2	**Potential to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.**

Impact HAZ-2 Analysis

Construction

The Project would include short-term construction activities to replace an existing pipeline. Project construction activities would entail the storage and use of hazardous substances necessary for the routine operation of construction equipment, such as fuels, lubricants, and oils which may result in the accidental release of hazardous materials into the environment.

The transport and use of hazardous materials is strictly regulated by local, State, and federal agencies to minimize adverse hazards from accidental release. Contractors would be required to use, store, and dispose of any hazardous materials in accordance with applicable regulations. The Project would implement Mitigation Measure HAZ-1, which requires the preparation of a Hazardous Materials Release Prevention Plan. Additionally, the Project would implement Mitigation Measure GEO-1, which would require the preparation and implementation of a SWPPP that would identify appropriate BMPs to reduce the risk contaminated runoff from the site. Compliance with these mitigation measures would minimize the potential risk to the public and the environment associated with the foreseeable upset and accident conditions involving the release of hazardous materials.

Operation

Project operation would be similar to existing conditions and would not result in any increased hazard from potential release of hazardous materials into the environment. Operations and maintenance of the pipeline and new pump station would occur similar to existing conditions and would not result in additional potential for release of hazardous materials into the environment. There would be no impact.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure HAZ-1 and Mitigation Measure GEO-1

Impact HAZ-3	**Potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.**

Impact HAZ-3 Analysis

Construction and Operation

The Project is located in a rural residential area. The nearest school to the Project area is Pinewood Elementary School, which is located approximately 1.8 miles east of the Project. Additionally, the Sly Park Environmental Education Center is located directly within the southern end of the Project alignment. However, this education center operates on a more sporadic basis than a typical school and hosts outdoor science and education events periodically throughout the summer. Project construction in this area would likely only occur for a week's time and would not impact activities at this education center. Therefore, there would be a less than significant impact.

Level of Significance: Less than Significant Impact

Mitigation Required: None Required

Impact HAZ-4	**Potential to 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, create a significant hazard to the public or the environment.**

Impact HAZ-4 Analysis

Construction and Operation

A review of DTSC's EnviroStor and SWRCB's Geotracker were conducted on May 22 and 23, 2023, respectively. The Project area was not identified on either of these databases or any list compiled pursuant to Government Code Section 65962.5 (EnviroStor 2023a, 2023b; SWRCB 2023). There would be no impact.

Level of Significance: No Impact

Mitigation Required: None Required

Impact HAZ-5 **Potential to be 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, resulting in a safety hazard or excessive noise for people residing or working in the Project area.**

Impact HAZ-5 Analysis

Construction and Operation

The Project area is not located within an airport land use plan or within 2 miles of a public or public use airport. There would be no impact.

Level of Significance: No Impact

Mitigation Required: None Required

Impact HAZ-6 **Potential to be within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the Project area.**

Impact HAZ-6 Analysis

Construction and Operation

The nearest private airports are the Placerville Airport which is approximately 7.5 miles east of Ridgeway Drive and the Perryman Airport – 7CL9 located approximately 8.5 miles east of the Project area. Therefore, the Project is not located within the vicinity of a private airstrip and would not result in a safety hazard for people residing or working in the area. There would be no impact.

Level of Significance: No Impact

Mitigation Measure: None Required

Impact HAZ-7 **Potential to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.**

Impact HAZ-7 Analysis

Construction and Operation

The location of the Project is within the operational management of the El Dorado County LHMP and the El Dorado County Operational Area EOP (El Dorado County 2004, as amended). These plans apply to the District and the Project in the event of an emergency related to water supply, and the EOP identifies both the Emergency Response Plan and the Emergency Evacuation Plan for the Project area. These plans are relevant to the District for planning and preparing for, and for response to, emergency conditions.

Potential emergencies identified in the plans relating to the Project involve disruption of potable water service through one of several identified hazards, such as public health concerns, contamination, terrorist attack, or natural disaster. The Project would not impair implementation of one of these adopted plans and would in fact be beneficial and in accordance with the planning purpose of the plans by providing upgrades to the existing system. Since the Project would replace the existing Sly Park Intertie Pipeline and provide upgrades to the existing infrastructure, the potential to impair implementation of an adopted emergency plan is less than significant.

Access to the Project site is expected to utilize HWY 50, Sly Park Road, Pony Express Trail, and Ridgeway Drive. These roads provide access to homes within Pollock Pines. It is possible that construction traffic along these roads, as well as temporary lane closures or detours could negatively affect traffic flow and limit access to homes for short durations of time throughout construction (El Dorado County 2019); however, as discussed in Section 3.17, Transportation, traffic controls would be implemented to maintain resident access during construction. While this use has the potential to reduce the ability to quickly access or exit these properties during an emergency, construction crews would be on-site during any temporary closure and would be able to restore emergency ingress/egress as needed and described by the traffic control plan required through Mitigation Measure TRA-1. As discussed in the Project Description (Chapter 2.0) and Transportation (Section 3.17) sections of this Draft EIR, the Traffic Control Plan as part of Mitigation Measure TRA-1 would be required for the Project and emergency access would be maintained. Therefore, the potential risk that the Project would interfere with an adopted emergency response plan is less than significant with mitigation incorporated.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure TRA-1

Impact HAZ-8 Potential to expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

Impact HAZ-8 Analysis

Construction

The Project area is located within a wildland-urban interface, with rural residential development surrounding the northern portion of the Project and Jenkinson Lake and rural residents in the southern portion of the Project area. The forested/wildland nature of the Project area combined with the Very High fire hazard severity rating (CAL FIRE 2022) indicates that the Project has the potential to increase fire risk due to construction activity.

Some construction activities would occur within existing paved ROWs, existing disturbed areas and built-up areas with concrete, and paved areas (e.g., pump station construction) where groundcover vegetation is minimal and less prone to flammability. However, some construction activities in overland segments of the alignment could occur adjacent to dry brush, undisturbed areas, grasses, or other flammable woody vegetation that are on steep slopes. Moreover, construction of the Project would involve the use of equipment that could cause the unintentional release of sparks or heat into nearby flammable material,

such as brush or grasses, which has the potential to expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

As such, Mitigation Measure WILD-1 would be required to reduce these potential impacts to less than significant levels. Mitigation Measure WILD-1 would require the preparation of a Fire Safety Plan prior to construction activities and the implementation of that plan during all vegetation removal and construction activities. The Fire Safety Plan would describe preventative measures for fire protection, procedures for evaluating weather conditions during which fire risk is elevated, conditions under which activities would cease due to elevated fire conditions, and equipment used to prevent fire and respond to a fire immediately. The Fire Safety Plan would also define personnel responsibilities and assignments to implement the plan and other measures to reduce fire risk during construction.

Furthermore, in addition to the implementation of Mitigation Measure WILD-1, the Project would be constructed in compliance with all applicable local, State, and federal requirements, including the California Fire Code and the El Dorado County Ordinance 8.08 - Fire Prevention (El Dorado County 2023b).

Operation

As a pipeline replacement, the Project would not result in a long-term fire hazard, because operation of the Project would not be substantially different than the existing operations. Ongoing vegetation management along the pipeline alignment would be conducted under the District's Right-of-Way Reinforcement Program resulting in reduced fuel loads and provide an increased benefit related to fire safety. The pipeline would also be passive and underground. In the event of a wildfire in the Project area, mandatory evacuations would be put in place and firefighting operations would be handled by CAL FIRE or the USFS, reducing the potential for the Project to further exposure people or structures to the risks associated with wildfires beyond which are already present within the densely forested area. Given the above, the impact from the Project is less than significant.

Level of Significance: Less than Significant

Mitigation Required: Mitigation Measure WILD-1

3.13.5 HAZARDS AND HAZARDOUS MATERIALS MITIGATION

3.13.5.1 Mitigation Measure GEO-1: Prepare and Implement a Stormwater Pollution Prevention Plan

See Mitigation Measure GEO-1, Section 3.7.

3.13.5.2 Mitigation Measure TRA-1: Prepare and Implement a Traffic Control Plan

See Mitigation Measure TRA-1, Section 3.17.

3.13.5.3 Mitigation Measure HAZ-1: Prepare and Implement a Hazardous Materials Release Prevention Plan

The District shall create and implement a Hazardous Materials Release Prevention Plan to reduce the risk of exposure to hazards due to the handling of hazardous materials during construction. The plan shall identify control measures to prevent the release of hazardous materials, as well as a detailed action plan to respond to an incidental spill in compliance with all local, State, and federal regulations relating to the handling and disposal of hazardous materials.

The plan shall include, but would not be limited to, the following:

- Containment and cleanup equipment (e.g., absorbent pads, mats, socks, granules, drip pans, shovels, and lined clean drums) shall be at the staging areas and construction sites for use, as needed.
- Staging areas where refueling, storage, and maintenance of equipment occur shall not be located within 100 feet of drainages to reduce the potential for contamination by spills.
- Construction equipment shall be maintained and kept in good operating condition to reduce the likelihood of line breaks or leakage.
- No refueling or servicing shall be done within 25 feet of a waterway and without absorbent material (e.g., absorbent pads, mats, socks, pillows, and granules) or drip pans underneath to contain spilled material. If these activities result in an accumulation of materials on the soil, the soil shall be removed and properly disposed of as hazardous waste.
- If a spill is detected, construction activities shall immediately cease in the area, and the procedures described in the plan shall be immediately enacted to safely contain and remove spilled materials.
- Hazardous waste shall not be stored or accumulated within the Project area. All contaminated materials shall be classified as hazardous waste and disposed of in accordance with all local, State, and federal regulations.
- Spill areas shall be restored to pre-spill conditions, as practicable.
- Spills shall be documented and reported to the District and appropriate resource agency personnel.

Mitigation Measure HAZ-1 Implementation

Responsible Party: The District shall be responsible for verifying and documenting that the Hazardous Materials Release Prevention Plan meets all applicable requirements. The selected construction contractor shall be responsible for following the plan and implementing the action plan in event of a spill. This mitigation measure shall be referenced in the contract documents for the Project.

Timing: Plan preparation shall be required prior to construction. Plan implementation shall be required throughout construction.

Monitoring and Reporting Program: The Hazardous Materials Release Prevention Plan shall be developed by the construction contractor and shall be required to be kept on-site during Project activities. Additionally, the contractor shall provide the District with copies of the plan; one shall remain on file at the Project site and the other shall remain at District offices. The contractor shall ensure all construction workers involved in the operation and movement of construction equipment are familiar with the plan and that the plan is appropriately followed throughout construction.

Standards for Success: Hazardous materials release prevention and adherence to plan conditions and release prevention practices.

3.13.5.4 Mitigation Measure WILD-1: Prepare and Implement a Fire Safety Plan

See Mitigation Measure WILD-1, Section 3.20.

3.14 Hydrology and Water Quality

3.14.1 BASIS FOR ANALYSIS

The CEQA Guidelines' Appendix G Environmental Checklist was assessed during the NOP scoping process to identify the Project components that have the potential to cause a significant impact to hydrology and water quality. The following thresholds of significance were used to determine if further evaluation was warranted to ascertain whether the Project may:

- Violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin.
- 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:
  - Result in substantial erosion or siltation on- or off-site;
  - Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
  - Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff ; or
  - Impede or redirect flood flows.
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation.
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

3.14.2 REGULATORY FRAMEWORK

3.14.2.1 Federal

Federal Clean Water Act

The CWA (33 USC Section 1251 et seq.), formerly the Federal Water Pollution Control Act of 1972, was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of WOTUS. The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and certain non-point source discharges to surface water. Those discharges are regulated by the NPDES permit process (CWA Section 402). Section 401 of the CWA regulates surface water quality and a WQC is required for federal actions (including construction activities) that may entail impacts to surface water. In California, NPDES permitting authority is delegated to, and administered by, the nine RWQCBs. The Project is located with the Central Valley RWQCB, which has a Water Quality Control Plan (Basin Plan) for the Sacramento River Basin and the San Joaquin river basin (Central Valley RWQCB 2019).

Section 404 of the CWA establishes a program to regulate the discharge of dredged and fill material into waters of the U.S., including some wetlands. Activities in waters of the U.S. that are regulated under this program include fills for development, water resource projects (e.g., dams and levees), infrastructure development (e.g., highways and airports), and conversion of wetlands to uplands for farming and forestry. Under Section 404, any person or public agency proposing to locate a structure, excavate, or discharge dredged or fill material into waters of the U.S. or to transport dredged material for the purpose of dumping it into ocean waters must obtain a permit for the proposed activity from the USACE.

NPDES Construction Permit

The CWA prohibits certain discharges of stormwater containing pollutants, except in compliance with a NPDES permit. The federal statutes and regulations require discharges to surface waters composed of stormwater associated with construction activity, including demolition, clearing, grading, and excavation, and other land disturbance activities (except operations that result in disturbance of less than one acre of total land area and discharges to municipalities with combined stormwater and sewer systems) to obtain coverage under a NPDES permit. The NPDES permit must require implementation of Best Available Technology Economically Achievable and Best Conventional Pollutant Control Technology to reduce or eliminate pollutants in stormwater runoff.

National Flood Insurance Act

The Federal Emergency Management Agency (FEMA) is responsible for managing the National Flood Insurance Program (NFIP), which makes federally backed flood insurance available for communities that agree to adopt and enforce floodplain management ordinances to reduce future flood damage. The NFIP, established in 1968 under the National Flood Insurance Act, requires that participating communities adopt certain minimum floodplain management standards, including restrictions on new development in designated floodways, a requirement that new structures in the 100-year flood zone be elevated to or above the 100-year flood level known as base flood elevation. To facilitate identifying areas with flood potential,

FEMA has developed Flood Insurance Rate Maps (FIRM) that can be used for planning purposes, including floodplain management, flood insurance, and enforcement of mandatory flood insurance purchase requirements.

3.14.2.2 State

Porter Cologne Water Quality Control Act

The State established the SWRCB, which oversees the nine RWQCBs, through passage of the Porter-Cologne Act in 1969. Through the enforcement of the Porter-Cologne Act, the SWRCB determines the beneficial uses of the waters (surface and groundwater) of the State, establishes narrative and/or numerical water quality standards, and initiates policies relating to water quality. The SWRCB and, more specifically, each RWQCB, is authorized to prescribe Waste Discharge Requirements for the discharge of waste, which may impact the WOTS. Furthermore, the development of water quality control plans, or basin plans, is required by the Porter-Cologne Act to protect water quality in the State's watersheds.

The SWRCB issues both General Construction Permits and individual permits under the umbrella of the federal NPDES program. Projects disturbing more than 1 acre of land during construction are required to file an NOI with the SWRCB to be covered under the State NPDES General Construction Permit for discharges of stormwater associated with construction activity. Construction activities that are subject to this General Permit include: clearing, grading, disturbances to the ground such as stockpiling, or excavation that results in soil disturbances of at least one acre of total land area. The project proponent must implement control measures that are consistent with the State General Permit. A SWPPP must be developed and implemented for each site covered by the General Permit. A SWPPP describes BMPs the discharger would use to protect stormwater runoff and reduce potential impacts to surface water quality through the construction period. The SWPPP must contain the following: a visual monitoring program, a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs, and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment (SWRCB 2013).

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA), passed in 2014 and amended in 2015, creates a framework for sustainable, local groundwater management. The act defines sustainable groundwater management as the "management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results," such as land subsidence and water quality degradation.

California Safe Drinking Water Act (Chapter 7 of Part 1 of Division 5 of the Health Safety Code)

The SWRCB Division of Drinking Water (DDW) also has a concurrent interest in problems caused by improperly constructed, defective, or "abandoned" wells. This interest is evidenced in the Safe Drinking Water Act, which deals with the health aspects of public water supplies. Under this authorization, the DDW requires a water purveyor to apply for an amended water permit before a new well is constructed and

connected to the water system. Before the amended (or new) permit is issued, a thorough review is made of (1) the location of the well with respect to potential contamination hazards, (2) design and construction of the well necessary to prevent contamination or the exclusion of undesirable water, and (3) the bacterial and chemical quality of the water produced. The DDW may issue a permit if it finds that the water "under all circumstances is pure, wholesome, and potable and does not endanger the lives or health of human beings." Specific water quality and monitoring standards have been adopted by regulation. If at any time water produced from an existing well fails to comply with such standards, the DDW may require changes or modifications of the well, provisions of appropriate water treatment, or cause the curtailed use, even destruction of the well, in order to assure a safe supply to the public.

3.14.2.3 Local

El Dorado County General Plan

Pursuant to Government Code sections 53091(D) and (E), many of the District's activities are not subject to local zoning or land use requirements, as stated below.

> *Building and zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, or for the production or generation of electrical energy, facilities that are subject to Section 12808.5 of the Public Utilities Code.*

As a special district with equal authority, the District is exempt from following goals and policies within the County's General Plan and Zoning Ordinance. However, the District aims to comply with those goals and policies and use them as a metric for formulating an impact analysis (El Dorado County 2004, as amended).

> ***Goal 5.1:*** *Provision of Public Services: Provide and maintain a system of safe, adequate, and cost-effective public utilities and services; maintain an adequate level of service to existing development while allowing for additional growth in an efficient manner; and ensure a safe and adequate water supply, wastewater disposal, and appropriate public services for rural areas.*
>
> ***Objective 5.1.2:*** *Concurrency: Ensure through consultation with responsible service and utility purveyors that adequate public services and utilities, including water supply, wastewater treatment and disposal, solid waste disposal capacity, storm drainage, fire protection, police protection, and ambulance service are provided concurrent with discretionary development or through other mitigation measures provided, and ensure that adequate school facilities are provided concurrent with discretionary development to the maximum extent permitted by State law. It shall be the policy of the County to cooperate with responsible service and utility purveyors in ensuring the adequate provision of service. Absent evidence beyond a reasonable doubt, the County will rely on the information received from such purveyors and shall not substitute its judgment for that of the responsible purveyors on questions of capacity or levels of service.*

Policy 5.2.1.10: *The County shall support water conservation and recycling programs and projects that can reduce future water demand consistent with the policies of this General Plan.*

Policy 5.2.1.13: *The County shall encourage water purveyors to design water supply and infrastructure projects in a manner that avoids or reduces significant environmental effects to the maximum extent feasible in light of the water supply objectives of a given project.*

Objective 5.2.3: *Groundwater Systems: Demonstrate that water supply is available for proposed groundwater dependent development and protect against degradation of well water supplies for existing residents.*

Goal 5.4: *Storm Drainage: Manage and control stormwater runoff to prevent flooding, protect soils from erosion, prevent contamination of surface waters, and minimize impacts to existing drainage infrastructure.*

Goal 7.3: *Water Quality and Quantity: Conserve, enhance, and manage water resources and protect their quality from degradation.*

Objective 7.3.1: *Water Resource Protection: Preserve and protect the supply and quality of the County's water resources including the protection of critical watersheds, riparian zones, and aquifers.*

Objective 7.3.2: *Water Quality: Maintenance of and, where possible, improvement of the quality of underground and surface water.*

Objective 7.3.5: *Water Conservation: Conservation of water resources, encouragement of water conservation, and construction of wastewater disposal systems designed to reclaim and re-use treated wastewater on agricultural crops and for other irrigation and wildlife enhancement projects.*

3.14.3 ENVIRONMENTAL SETTING

3.14.3.1 Regional Setting

The Project area is located within the Upper American River watershed and the Sacramento Hydrologic Basin Planning Area, which consists of the USGS Hydrologic Unit Codes (HUC) 18020128 and 18020129 (HUC 8 level watersheds). This watershed spans from the Sierra Nevada Mountains to the east and Folsom Dam and reservoir to the west, encompassing 1,863 square miles of headwaters. The American River is the primary water body in the watershed and has three forks: North, Middle, and South. This watershed also includes many reservoirs such as Silver Lake, Caples Lake, Echo Lake, Lake Aloha, Folsom Lake, Ice House, Union Valley, Hell Hole, and French Meadows Reservoirs (USBR 2021). Additionally, Clear Creek within the Project area ultimately drains into the San Joaquin River Basin in central California.

The climate within El Dorado County is characterized by strong marine air that flows from the Pacific Ocean, which results in heavy precipitation, including snowfall in the winter. Rainfall in the summer is light and is

limited to a few scattered thunderstorms. Precipitation ranges from 25 inches per year in the lower elevations to about 50 inches per year in the upper elevations (El Dorado County 2003).

3.14.3.2 Local Setting

Flooding

FEMA oversees the delineation of flood zones and the provision of federal disaster assistance. FEMA manages the NFIP and publishes the FIRMs, which show the expected frequency and severity of flooding by area. Floodplains are divided into flood hazard zones designated by the potential for an area to flood. Zone X may include those areas that are located within the 100-year floodplain but are adequately protected by levee systems, while Zones A, AE, and AO are designated as areas inundated by a 100-year storm event.

Flooding in the vicinity of the Project area is typically caused by severe winter storms that combine with snowmelt runoff into the rivers from the foothills. The majority of the Project area is located with a Zone X or D on the FEMA FIRM Map 06017C0825E (FEMA 2008). These zones indicate areas that are outside the 0.2 percent annual chance floodplain and areas that have an undetermined flood hazard. Additionally, the Project area is not located within any inundation areas (El Dorado County 2004, as amended).

Groundwater

The geology of the west slope of the County is principally hard crystalline or metamorphic rock that forms the land surface or underlies a thin soil or isolated alluvial cover. Although groundwater does not actually penetrate the hard rock mass, it can be found in fractures below the ground surface. Previous studies regarding groundwater availability in fractured rock indicate that well yields generally decline over time and that recharge is dependent primarily on the ability of localized precipitation to infiltrate into fractures (El Dorado County 2003).

The California Department of Water Resources (DWR) does not have data on the quality of groundwater in the Project area, and the Sierra Nevada foothill region is not considered to have an identified aquifer (DWR 2020). Although local alluvial deposits may be developed for groundwater supply, it is much more common for wells drilled the in the Sierra Nevada region to be installed in fractured rock. Fractured rock groundwater sources in the Sierra Nevada Mountain Range are highly variable in terms of water quantity and quality. The primary mode of groundwater transport to a bedrock well is through contacts between lithologic units, as well as secondary porosity developed through fractures and faults, which can often be limited in aerial extent. Accordingly, wells drilled in fractured bedrock typically have a low yield. Groundwater in fractured rock also has the potential for encountering naturally occurring minerals such as iron, manganese, and mineral deposits, as well as potential natural contaminants such as arsenic and uranium, as well as radon gas and other elements.

3.14.3.3 Surface Water Quality

Surface water sources near the Project area include Jenkinson Lake, Clear Creek, North Fork Clear Creek, North Fork Weber Creek, and South Fork Weber Creek. Water quality is regulated under the Porter-

Cologne Act, which requires that each of the nine RWQCBs prepare and periodically update basin plans for water quality control. Each basin plan sets forth water quality standards for surface water and groundwater and actions to control nonpoint and point sources of pollution to achieve and maintain these standards. In the Project area, water quality standards are contained in the Basin Plan for the Sacramento River Basin and the San Joaquin River Basin. There are no water bodies in the vicinity of the Project that do not meet WQOs and, thus, appear on the 303(d) list as an impaired water (SWRCB 2023).

3.14.4 ENVIRONMENTAL IMPACTS

This section analyzes the Project's potential to result in significant impacts to hydrology and water quality.

3.14.4.1 Project Impact Analysis

Impact HYD-1 Potential to violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.

Impact HYD-1 Analysis

Construction

Construction of the Project would require site preparation, mobilization of equipment to the construction site, installation of new infrastructure, and site restoration of the affected areas. Additionally, if water is present during construction, a temporary stream bypass would be necessary where the pipeline would cross creeks. These construction activities have the potential to degrade surface water quality by introducing sediment to surface waters, potentially increasing turbidity, and adversely affecting both surface and groundwater quality by introducing pollutants to receiving waters throughout the Project area. Construction activities could also generate hazardous wastes that if improperly managed, could enter both surface and groundwater sources.

Construction activities, including those associated with Project construction, can generate loose soils that if not properly managed, can run offsite and increase sediment loads to waterways. Runoff risk is highest during the rainy season when soils can get washed away into nearby waterways. Sedimentation to the waterways degrades water quality by increasing suspended sediment, reducing the channel's flood capacity, and potentially adversely affecting associated aquatic and riparian habitats, thus resulting in a potentially significant impact prior to mitigation. As such, Mitigation Measure GEO-1: Prepare and Implement a Stormwater Pollution Prevention Plan (SWPPP), Mitigation Measure BIO-8: Avoid and Minimize Impacts to Riparian Habitat, and Mitigation Measure BIO-9: Avoid and Minimize Impacts of Waters of the United States and Waters of the State, would be implemented to ensure that disturbed soils during construction activities are properly stored and managed throughout the duration of construction activities, and riparian and waterways are protected, thus protecting water quality. A SWPPP is required for all construction activities disturbing greater than 1 acre, which includes year-round BMPs designed to prevent impacts to water quality. Mitigation Measure GEO-1, Mitigation Measure BIO-8, Mitigation Measure BIO-9 would reduce water quality impacts from construction related runoff and erosion to a less than significant level. The Project would also be required to comply with 404, 401, and 1602 permit/agreement stipulations

as identified in the Clean Water Act, and Fish and Game Code (See Regulatory Framework sections for Hydrology and Water Quality, 3.10.2 and Biological Resources, 3.4.2).

Additionally, improper storage of hazardous materials on-site could pose a risk of release and lead to the degradation of water quality. Chemicals associated with construction could adhere to soil particles and be washed into surface water sources, potentially further degrading the quality of surface water sources. As such, Mitigation Measure HAZ-1: Prepare and Implement a Hazardous Materials Release Prevention Plan, would be required to reduce potential impacts to water quality from construction materials release into waterways. Mitigation Measure HAZ-1 includes the development and implementation of a release prevention plan, which would effectively minimize impacts related to release of chemicals into waterways by limiting refueling distances from waterways, maintaining construction equipment, and including measures to be followed should an accidental spill occur within the Project area during construction activities. Therefore, impacts to water quality resulting from construction material release would be less than significant with mitigation incorporated.

Operation

Once the new pipeline is constructed, it would be located underground and would not result in any additional impacts to surface water or groundwater quality. Similarly, once the new pump station and associated above ground appurtenances are constructed, they would not result in additional surface or groundwater quality impacts. Operations of these facilities would be similar to existing conditions and would follow the District's existing O&M and utility corridor maintenance practices. No additional surface water or groundwater impacts would occur as a result of the Project.

Therefore, the potential impacts would be reduced to less than significant through the implementation of the Mitigation Measure GEO-1 and Mitigation Measure HAZ-1. As such, the Project would have a less than significant impact to water quality degradation and water and groundwater quality standards.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure HAZ-1, Mitigation Measure GEO-1, Mitigation Measure BIO-8, Mitigation Measure BIO-9

Impact HYD-2	**Potential to substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin.**

Impact HYD-2 Analysis

Construction and Operation

The Project consists of a pipeline replacement, with the addition of a pump station and minor additional appurtenances. These additional areas would only slightly increase the amount of impervious surfaces in the region. Additionally, because the Sierra Nevada foothill region is not considered to have an identified aquifer and due to the highly variable nature of groundwater in the fractured bedrock of the region, the

Project site is not considered a favorable location for groundwater recharge. No groundwater wells would be used for operation of the Project and the promotion of groundwater infiltration would be incorporated into the design in order to limit any potential impacts to groundwater recharge. During construction at creek crossings, dewatering activities would be used on-site or for construction purposes, but these activities are not anticipated to deplete groundwater supplies since dewatering would be temporary and flows would be bypassed and returned into the creek below the construction zone and there would ultimately be no net deficit. Therefore, the impact on groundwater supplies and recharge from the Project would be considered less than significant.

Level of Significance: Less than Significant

Mitigation Required: None Required

Impact HYD-3	**Potential to 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:** **● Result in substantial erosion or siltation on- or off-site;** **● Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;** **● Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or** **● Impede or redirect flood flows.**

Impact HYD-3 Analysis

Construction

Construction activities associated with the Project such as trenching, excavation, or earthwork, would disturb the ground surface and potentially alter drainage patterns if not stabilized properly post-construction. Trenching, excavation, and earthwork would be required for the placement of the pipeline, pump station, and associated appurtenances. These activities would occur throughout the Project area, which could cause adverse effects to drainages and flood flows and result in potentially significant impacts. Creek crossing locations for the Project are discussed in Section 2.5, Proposed Project; however, these crossings are not anticipated to be significantly impacted, because the Project would utilize dewatering construction techniques and construction activities would be timed during periods of low flows. Additionally, pipeline installation work, temporary pipe placement, or equipment storage may occur in roadside ditches; however, such activities would likely occur in the dry, construction season. Project activities would not alter or impede flows and the areas would be restored to pre-existing contours.

As discussed under Impact HYD-1 above, Mitigation Measure GEO-1 would be required to prepare and implement a SWPPP, which would control erosion and stabilize disturbed soils. As described above, a SWPPP is required for all construction activities that would disturb greater than 1 acre of ground surface and would include year-round BMPs to prevent erosion and sedimentation from occurring. The SWPPP will also specify criteria for meeting post-construction site stabilization objectives, which would prevent

redirecting of flood flows and long-term erosion within the Project area. Therefore, temporary impacts related to the alteration of drainages or the addition of impervious surfaces that would impede or redirect flood flows or otherwise contribute to runoff within the Project area would be less than significant with mitigation incorporated.

Operation

Once constructed, the majority of Project components would be located underground and would not substantially add to the impervious surfaces in the area. Above-ground Project components, such as the pump station and associated appurtenances, would be located on relatively small footprints (i.e., less than 1,600 square feet for the pump station) and would be sited and designed to not substantially impede or redirect flood flows. The new pump station would be graded to allow for runoff into the local site drainages in the area and would not result in substantial erosion, substantially increase the rate or amount of runoff, or impede or redirect flood flows in the area. Therefore, impacts related to the alteration of drainage patterns, the addition of impervious surfaces, or creating or contributing substantially to surface runoff as a result of operations would be less than significant.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure GEO-1

Impact HYD-4 Potential to be located in flood hazard, tsunami, or seiche zones to risk release of pollutants due to Project inundation.

Impact HYD-4 Analysis

Construction and Operation

As discussed under Section 3.10.3.2, Local Setting above, the Project is not located within a flood hazard or inundation zone (FEMA 2008; El Dorado County 2004, as amended). There would be no impact related to release of pollution or Project inundation due to a flood hazard, tsunami, or seiche zone. Additionally, the Project would convey drinking water, and would not increase the amount of pollutants in the area. Therefore, there would be no impact.

Level of Significance: No Impact

Mitigation Required: None Required

Impact HYD-5 Potential to conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Impact HYD-5 Analysis

Construction and Operation

As discussed above in Section 3.10.2, Regulatory Framework, the Project is under the jurisdiction of the Central Valley RWQCB Basin Plan (Central Valley RWQCB 2019). This Basin Plan contains objectives necessary for the reasonable protection of beneficial uses and for the prevention of nuisance. The focus of these identified objectives is on protection of water quality in surface waters and for groundwater sources. As identified in Impact HYD-1 above, the Project would not violate any water quality standards or substantially degrade surface or groundwater quality with Mitigation Measure GEO-1, Mitigation Measure BIO-8, and Mitigation Measure BIO-9 incorporated to ensure that disturbed soils during construction activities are properly stored and managed throughout the duration of construction activities and riparian areas and waters are adequately protected, thus preventing erosion and protecting water quality. Application of BMPs during construction and operation of the Project would prevent polluted runoff from leaving the Project site, stabilize the Project site, and prevent short- and long-term erosion on the Project site. Therefore, the Project would not result in substantial impacts to water quality and as such, would not conflict with the Basin Plan, or any of the objectives identified in the Basin Plan with Mitigation Measure GEO-1, Mitigation Measure BIO-8, and Mitigation Measure BIO-9 incorporated.

The SGMA requires local public agencies and groundwater sustainability agencies in high- and medium-priority basins to develop and implement groundwater sustainability plans or prepare an alternative to a groundwater sustainability plan (see Section 3.10.2.2 above). According to the DWR SGMA Basin Prioritization Dashboard, the Project is not underlain by a groundwater basin (DWR 2020). Thus, the Project is not anticipated to conflict with or obstruct implementation of a sustainable groundwater management plan and no impact would occur.

Therefore, the overall potential for the Project to conflict with or obstruct implementation of water quality control plans or sustainable groundwater management plans would be less than significant with mitigation incorporated.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure GEO-1, Mitigation Measure BIO-8, Mitigation Measure BIO-9

3.14.5 HYDROLOGY AND WATER QUALITY MITIGATION

3.14.5.1 Mitigation Measure GEO-1: Prepare and Implement a Stormwater Pollution Prevention Plan (SWPPP)

See Section 3.7, Geology and Soils.

3.14.5.2 Mitigation Measure HAZ-1: Prepare and Implement a Hazardous Materials Release Prevention Plan

See Section 3.9, Hazards and Hazardous Materials.

3.14.5.3 Mitigation Measure BIO-8: Avoid and Minimize Impacts to Riparian Habitat

See Section 3.4, Biological Resources.

3.14.5.4 Mitigation Measure BIO-9: Avoid and Minimize Impacts to Waters of the United States and Waters of the State

See Section 3.4, Biological Resources.

3.15 Land Use and Planning

3.15.1 BASIS FOR ANALYSIS

The CEQA Guidelines' Appendix G Environmental Checklist was assessed during the NOP scoping process to identify the Project components that have the potential to cause a significant impact to land use and planning. The following thresholds of significance were used to determine if further evaluation was warranted to ascertain whether the Project may:

- Physically divide an established community.
- 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.

3.15.2 REGULATORY FRAMEWORK

3.15.2.1 Federal and State

There are no federal or State requirements related to land use and planning that are applicable to the proposed Project.

3.15.2.2 Local

El Dorado County General Plan

Pursuant to Government Code sections 53091(D) and (E), many of the District's activities are not subject to local zoning or land use requirements, as stated below.

> *Building and zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, or for the production or generation of electrical energy, facilities that are subject to Section 12808.5 of the Public Utilities Code.*

As a special district with equal authority, the District is exempt from following goals and policies within the County's General Plan and Zoning Ordinance. However, the District aims to comply with those goals and policies and use them as a metric for formulating an impact analysis (El Dorado County 2004, as amended).

> ***Goal 2.1:*** *Land Use. Protection and conservation of existing communities and rural centers; creation of new sustainable communities; curtailment of urban/suburban sprawl; location and intensity of future development consistent with the availability of adequate infrastructure; and mixed and balanced uses that promote use of alternate transportation systems.*

3.15.3 ENVIRONMENTAL SETTING

The Project area is located within the larger Sierra Nevada foothill region of California. Pollock Pines and the Sly Park Hills are the closest communities to the Project. Zoning designations within the Project area include residential, rural land, open space, commercial community, and residential estate. Land use designations within the Project area include public facilities, commercial, rural residential, low density residential, and open space (El Dorado County 2004, as amended).

3.15.4 ENVIRONMENTAL IMPACTS

This section analyzes the Project's potential to result in significant impacts to land use and planning.

3.15.4.1 Project Impact Analysis

Impact LAND-1 Potential to physically divide an established community.

Impact LAND-1 Analysis

Construction and Operation

The Project involves the replacement of an existing pipeline, a new pump station, and associated appurtenances that would be constructed and operated within existing District-owned parcels and parcels administered by USFS, within public road ROWs, private property, and within previously disturbed areas. Once constructed, the new pipeline would be located underground for the most part in the same location as the existing pipeline, and the pump station and associated appurtenances would be located within the disturbed area associated with District-owned property. The Project would not involve any division of existing established communities. There would be no impact.

Level of Significance: No Impact

Mitigation Required: None Required

Impact LAND-2	**Potential to 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.**

Impact LAND-2 Analysis

Construction and Operation

As stated above, the Project involves the replacement of an existing pipeline, a new pump station, and associated appurtenances that would be constructed and operated within existing District-owned parcels and parcels administered by the USFS, within public road ROWs, private property, and within previously disturbed areas. Construction of the Project would involve temporary disruptions to traffic in the area; however, these disruptions would be intermittent and temporary. Once construction is complete, the disruption would cease. Once operational, the new pipeline would be located underground, and the pump station and associated appurtenances would be located within a District facility on previously disturbed areas. Operational activities associated with the Project would be similar to existing conditions and would not substantially hinder or otherwise impact surrounding land uses. Therefore, the Project would not conflict with any applicable land-use plan, policy, or regulation of an agency with jurisdiction over the Project and would not contradict the planned uses of the land in which the Project is set to occur. There would be no impact.

Level of Significance: No Impact

Mitigation Required: None Required

3.15.5 LAND USE AND PLANNING MITIGATION

The level of significance of potential impacts to land use and planning resources is either no impact or less than significant impact; therefore, no mitigation is required.

3.16 Mineral Resources

3.16.1 BASIS FOR ANALYSIS

The CEQA Guidelines' Appendix G Environmental Checklist was assessed during the NOP scoping process to identify the Project components that have the potential to cause a significant impact related to mineral resources. The following thresholds of significance were used to determine if further evaluation was warranted to ascertain whether the Project may:

- Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the Sate; or
- 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.

3.16.2 REGULATORY FRAMEWORK

3.16.2.1 Federal

Surface Mining Control and Reclamation Act

The Surface Mining Control and Reclamation Act (SMCRA) of 1977 regulates the environmental effects of coal mining within the U.S. The SMCRA established two programs for regulation. The first program, known as Title IV of the SMCRA, established the Abandoned Mine Land Program and addresses the hazards and environmental degradation posed by legacy mine sites. The second program, known as Title V of the SMCRA, establishes requirements to ensure that active coal mining operations are conducted in an environmentally responsible manner and that the land is adequately reclaimed during and following the mining process.

3.16.2.2 State

Surface Mining and Reclamation Act

The Surface Mining and Reclamation Act (SMARA) (PRC Sections 2710-2796) of 1975 regulates surface mining operations to ensure that adverse environmental impacts are minimized and mined lands are reclaimed to a usable condition. SMARA Chapter 9, Division 2 of the PRC requires the State Mining and Geology Board to adopt State policy for the reclamation of these mined lands and the conservation of mineral resources.

3.16.2.3 Local

El Dorado County General Plan

Pursuant to Government Code sections 53091(D) and (E), many of the District's activities are not subject to local zoning or land use requirements, as stated below.

> *Building and zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, or for the production or generation of electrical energy, facilities that are subject to Section 12808.5 of the Public Utilities Code.*

As a special district with equal authority, the District is exempt from following goals and policies within the County's General Plan and Zoning Ordinance. However, the District aims to comply with those goals and policies and use them as a metric for formulating an impact analysis (El Dorado County 2004, as amended).

> ***Goal 7.2: Mineral Resources.*** *Conservation of the County's significant mineral deposits.*
>
> ***Objective 7.2.1: Identify Mineral Sources.*** *Identification of the County's important mineral resources.*

Policy 7.2.1.2. *Areas designated as Mineral Source (-MR) overlay on the General Plan Land Use Map shall be identified by the Mineral Resource (-MR) combining zone districts on the zoning maps when the likely extraction of the resource through surface mining methods will be compatible with adjacent land uses as determined by Policy 7.2.2.2.*

Policy 7.2.1.3. *The County shall utilize the most recent State Department of Conservation assessment of the location and value of non-metallic mineral materials. The County shall zone them and the surroundings to allow for mineral resource management.*

Objective 7.2.2: Protection from Development. *Protection of important mineral resources from incompatible development.*

Policy 7.2.2.1. *The minimum parcel size within, or adjacent to, areas subject to the -MR overlay shall be twenty (20) acres unless the applicant can demonstrate to the approving authority that there are no economically significant mineral deposits on or adjacent to the project site and that the proposed project will have no adverse effect on existing or potential mining operations. The minimum parcel size adjacent to active mining operations which are outside of the -MR overlay shall also be twenty (20) acres.*

Policy 7.2.2.2. *The General Plan designations, as shown on the General Plan land use maps, which are considered potentially compatible with surface mining shall include:*

- *Natural Resource (NR)*
- *Agricultural Land (AL)*
- *Open Space (OS)*
- *Industrial (I)*
- *Public Facilities (PF)*
- *Rural Residential (RR)*
- *Commercial (C)*
- *Low-Density Residential (LDR)*

All other General Plan designations are determined to be incompatible for surface mining. Industrial uses shall be limited to those compatible with mineral exploration.

Policy 7.2.2.3*. The County shall require that new non-mining land uses adjacent to existing mining operations be designed to provide a buffer sufficient to protect the mining operation between the new development and the mining operation(s).*

Objective 7.2.3: Environmental/Land Use Compatibility. *Regulation of extraction of mineral resources to ensure that environmental and land use compatibility issues are considered.*

> ***Policy 7.2.3.1.*** *The extraction of mineral resources within the County shall only be allowed following the approval of a special use permit and a reclamation plan conforming to the California Surface Mining and Reclamation Act (SMARA).*

3.16.3 ENVIRONMENTAL SETTING

Mineral resources mined or produced within the County include gold, chromite, copper, lead, manganese, mercury, tungsten, limestone, slate, soapstone, and gravel (El Dorado County 2023). Known mineral resource zones (MRZ) within the County include areas extending north and south of Placerville, California. Mining operations within the State are subject to SMARA and General Plan policies. Based on review of the Department of Conservation and General Plan maps, the Project area is within MRZ 4, which is known as an area where available geologic information is inadequate (California Department of Conservation 2018; El Dorado County 2003).

3.16.4 ENVIRONMENTAL IMPACTS

This section analyzes the Project's potential to result in significant impacts to minerals.

3.16.4.1 Project Impact Analysis

Impact MIN-1	**Potential to 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.**

Impact MIN-1 Analysis

Construction and Operation

The Project would replace an existing pipeline and construct a new pump station. The Project area has not historically been used for mineral resource extraction and is not currently used for mineral recovery. Additionally, the Department of Conservation designated the site as MRZ 4, which is known as an area where available geologic information is inadequate (California Department of Conservation 2018). As such, there are no known mineral resources within the Project area and there would be no impact.

Level of Significance: No Impact

Mitigation Required: None Required

Impact MIN-2	**Potential to 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.**

Impact MIN-2 Analysis

Construction and Operation

Review of the County General Plan demonstrates that there are no known mineral resources within the Project area. As such, there would be no loss of availability of a locally important mineral resource recovery site (El Dorado County 2003) and no impact would occur.

Level of Significance: No Impact

Mitigation Required: None Required

3.16.5 MINERAL RESOURCES MITIGATION

The level of significance of potential impacts to mineral resources is either no impact or less than significant impact; therefore, no mitigation is required.

3.17 Noise and Vibration

3.17.1 BASIS FOR ANALYSIS

The CEQA Guidelines' Appendix G Environmental Checklist was assessed during the NOP scoping process to identify the Project components that have the potential to cause a significant impact related to noise and vibration. The following thresholds of significance were used to determine if further evaluation was warranted to ascertain whether the Project may:

- Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards or other agencies.
- Generate excessive groundborne vibration or groundborne noise levels.
- 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 2 miles of a public airport or public use airport, expose people residing or working in the Project area to excessive noise levels.

3.17.2 REGULATORY FRAMEWORK

3.17.2.1 Federal

Federal Transit Authority Vibration Standards

The Federal Transit Authority (FTA) has adopted vibration standards that are used to evaluate potential building damage impacts related to construction activities. The vibration damage criteria adopted by the FTA are shown in Table 3.13-1.

Table 3.13-1. Construction Vibration Damage Criteria

Building Category	Peak Particle Velocity (inches/second)
Reinforced concrete, steel or timber (no plaster)	0.5
Engineered concrete and masonry (no plaster)	0.3
Non-engineered timber and masonry buildings	0.2
Buildings extremely susceptible to vibration damage	0.12

Source: FTA 2018

The FTA has also adopted standards associated with human annoyance for groundborne vibration impacts for three land use categories: (1) High Sensitivity; (2) Residential; and (3) Institutional. Table 3.13-2 describes these three categories as well the associated vibration thresholds associated with human annoyance for these categories.

Table 3.13-2. Groundborne Vibration Impact Criteria for General Assessment

Land Use Category	Frequent Events[1]	Occasional Events[2]	Infrequent Events[3]
Category 1: Buildings where vibration would interfere with interior operations.	65 VdB	65 VdB	65 VdB
Category 2: Residences and buildings where people normally sleep.	72 VdB	75 VdB	80 VdB
Category 3: Institutional land uses with primarily daytime use.	75 VdB	78 VdB	83 VdB

Source: FTA 2018
Notes:
[1] More than 70 events per day
[2] 30-70 events per day
[3] Fewer than 30 events per day
Key:
VdB = Vibration decibels

3.17.2.2 State

The State government sets noise standards for transportation noise sources, such as automobiles, light trucks, and motorcycles. Noise sources associated with industrial, commercial, and construction activities

are generally subject to local control through noise ordinances and general plan policies. Local general plans identify general principles intended to guide and influence development plans.

The State of California General Plan Guidelines (Governor's Office of Planning and Research [OPR] 2017) establishes guidelines for the preparation of local general plan noise elements, including a sound level/land use compatibility chart that categorizes, by land use, outdoor day/night noise level (Ldn) ranges in four categories (normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable). For many land uses, there are overlapping Ldn ranges for two or more compatibility categories. Table 3.13-3 lists the normally acceptable range and conditionally acceptable range of Ldn values in decibels (dB) for various types of land uses.

Table 3.13-3. State of California General Plan Acceptable Noise Range Guidelines

Land Use	General Plan Acceptable Noise Range	
	Normally Acceptable Range	Conditionally Acceptable Range
Low-Density Residential	less than 60 dB	60–75 dB
High-Density Residential	less than 65 dB	65–75 dB
Educational and Medical Facilities	less than 60 dB	60–75 dB
Office and Commercial	less than 70 dB	70–80 dB

Source: Governor's OPR 2017

Key:
dB = decibels

When noise levels are in the conditionally acceptable range, new construction should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation requirements are included in the design. These overlapping Ldn ranges are intended to indicate that local conditions (existing sound levels and community attitudes toward dominant sound sources) should be considered in evaluating land use compatibility at specific locations.

California Department of Transportation

Caltrans' Transportation and Construction Vibration Guidance Manual does not contain official Caltrans standards for vibration. However, this manual provides guidelines that can be used as screening tools for assessing the potential for adverse vibration effects related to structural damage and human annoyance. This is meant to provide practical guidance to Caltrans engineers, planners, and consultants who must address vibration issues associated with the construction, operation, and maintenance of Caltrans projects. The vibration criteria established by Caltrans for assessing human annoyance and structural damage are shown in Tables 3.13-4 and 3.13-5, respectively.

Table 3.13-4. Vibration Annoyance Potential Criteria Guidelines

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

Source: Caltrans 2020
Notes:
Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.
Key:
in/sec = inches per second
PPV = peak particle velocity

Table 3.13-5. Vibration Damage Potential Criteria Guidelines

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

Source: Caltrans 2020
Notes:
Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.
Key:
in/sec = inches per second
PPV = peak particle velocity

3.17.2.3 Local

El Dorado County General Plan

Pursuant to Government Code sections 53091(D) and (E), many of the District's activities are not subject to local zoning or land use requirements, as stated below.

> *Building and zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, or for the production or generation of electrical energy, facilities that are subject to Section 12808.5 of the Public Utilities Code.*

As a special district with equal authority, the District is exempt from following goals and policies within the County's General Plan and Zoning Ordinance. However, the District aims to comply with those goals and policies and use them as a metric for formulating an impact analysis (El Dorado County 2004, as amended).

> ***Goal 6.5:*** *Acceptable Noise Levels. Ensure that County residents are not subjected to noise beyond acceptable levels.*

The County has established maximum allowable noise exposure for non-transportation sources in rural regions as outlined in Table 3.13-6 below. However, the El Dorado County Municipal Code Chapter 130.70 - Noise Standards states that "noise sources associated with work performed by public or private utilities in the maintenance or modification of its facilities" are considered exempt from the Noise Standard (El Dorado County 2023). Additionally, the Municipal Code also states that "construction (e.g., construction, alteration or repair activities) during daylight hours (i.e., 7 a.m. to 7 p.m. on weekdays and 8 a.m. to 5 p.m. on weekends) provided that all construction equipment shall be fitted with factory installed muffling devices and maintained in good working order" are also exempt from the Noise Standards (El Dorado County 2023).

Table 3.13-6. Maximum Allowable Noise Exposure for Non-Construction Noise Sources in Rural Regions

Land Use Designation	Time Period	Noise Level, dB	
		Leq	Lmax
All Residential	7 am – 7 pm 7 pm – 10 pm 10 pm – 7 am	50 45 40	60 55 50
Commercial, Recreation, and Public Facilities	7 am – 7 pm 7pm – 7 am	65 60	75 70
Rural Land, Natural Resources, Open Space and Agricultural Lands	7 am – 7 pm 7pm – 7 am	65 60	75 70

> ***Policy 6.5.1.11:*** *The standards outlined in [Table 3.13-6] shall not apply to those activities with actual construction of a project as long as such construction occurs between the hours of 7 am and 7 pm, Monday through Friday, and 8 am and 5 pm on weekends and federally recognized holidays. Further the standards outlined in [Table 3.13-6] shall not apply to public projects to alleviate traffic congestion and safety standards.*

As stated above, the District is exempt from the County's noise ordinance as a jurisdiction with equal authority. However, the District has incorporated these standards to help define the CEQA significance criteria and establish what would constitute a significant increase in ambient noise levels.

3.17.3 ENVIRONMENTAL SETTING

3.17.3.1 Noise Baseline and Terminology

See Table 3.13-7 for terminology and definitions used throughout this section.

Table 3.13-7. Definition of Acoustical Terms

Term	Definition
dB, Decibel	Unit of measurement of sound level.
dBA, decibel A-Weighted	A unit of measurement of sound level corrected to the A–weighted scale, as defined in ANSI S1.4–1971 (R1976), using a reference level of 20 micropascals (0.00002 Newtons per square meter).
A – Weighted Scale	A sound measurement scale, which corrects the pressures of individual frequencies according to human sensitivities. The scale is based upon the fact that the region of highest sensitivity for the average ear is between 2,000 and 4,000 Hz. Sound levels are measured on a logarithmic scale in decibels, dB. The universal measure for environmental sound is the A–weighted sound level, dBA.
Hz, Hertz	Unit of measurement of frequency, numerically equal to cycles per second.
Loudness	A listener's perception of sound pressure incident in his or her ear.
L_{01}, L_{10}, L_{50}, L_{90}	The A–weighted noise levels that are exceeded 1 percent, 10 percent, 50 percent, and 90 percent of the time during the measurement period.
Leq, Equivalent Noise Level	Also, called the equivalent continuous noise level. It is the continuous sound level that is equivalent, in terms of noise energy content, to the actual fluctuating noise existing at the location over a given period, usually one hour. Leq is usually measured in hourly intervals over long periods in order to develop 24–hour noise levels.
CNEL, Community Noise Equivalent Level	The CNEL is a measure of the cumulative noise exposure in the community, with greater weights applied to evening and night time periods. This noise descriptor is the equivalent noise level over a 24–hour period mathematically weighted during the evening and night when residents are more sensitive to intrusive noise. The daytime period is from 7:00 a.m. to 7:00 p.m.; evening from 7:00 p.m. to 10:00 p.m.; and nighttime from 10:00 p.m. to 7:00 a.m. A weighting factor of 1 dB is added to the measured day levels defined as 7 a.m. to 7 p.m., evening levels (7 p.m. to 10 p.m.) have a weighting factor of three and 10 dB to the night time levels (10 p.m. to 7 a.m.). The weighted levels over a 24–hour period are then averaged to produce the single number CNEL rating.
Ldn, Day/Night Noise Level	The same as CNEL except that the evening time period is not considered separately, but instead it is included as part of the daytime period. Measurements of both CNEL and Ldn in the same residential environments reveal that CNEL is usually slightly higher (by less than 1 dB) than Ldn due to the evening factor weighting.
Lmin, Lmax	The minimum and maximum A–weighted noise level during the measurement period.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

The existing noise environment in a project area is characterized by the area's general level of development, because the level of development and ambient noise levels tend to be closely correlated. Areas that are not urbanized are relatively quiet, while areas that are more urbanized are noisier because of roadway traffic, industrial activities, and other human activities.

The measurement of any sound level requires language used specifically for the measurement of acoustical conditions. Decibel or dB is the preferred unit used to measure sound levels using logarithmic scale to account for the large range in audible sound intensities. A general rule for dB scale is that a 10-dB increase in sound is perceived as a doubling of loudness by the human ear (FHWA 2023a). For example, a 55-dB sound level would sound twice as loud as a 45-dB sound level. The average healthy person cannot detect

differences of 1 dB, whereas a 5-dB change is clearly noticeable. Several sound measurement descriptors are used to assess the effects of sound on the human environment. These include the equivalent sound level, which is the level of a constant sound that has the same sound energy as the actual fluctuating sound. It is similar to the average sound level. The Ldn is similar to the 24-hour equivalent noise level (Leq); except that a 10-dB penalty is added to sound levels between 10 p.m. and 7 a.m. to account for the greater sensitivity of people to sound at night. The Community Noise Equivalent Level (CNEL) also places a weighted factor on sound events occurring in the evening hours. The L90 value is the sound level (L) that is exceeded 90 percent of the time and is often used to describe the background or residual sound level.

Existing ambient noise sources within the Project area include vehicular traffic along local roadways as well as sporadic agricultural and outdoor sources from yard work and other activities at residences.

3.17.3.2 Vibration

Operation of heavy construction equipment, particularly pile driving and other impact devices such as pavement breakers, create seismic waves that radiate along the surface of the earth and downward into the earth. These surface waves can be felt as ground vibration. Vibration from operation of this equipment can result in effects ranging from annoyance of people to damage of structures. Varying geology and distance would result in different vibration levels containing different frequencies and displacements. In all cases, vibration amplitudes would decrease with increasing distance.

Perceptible groundborne vibration is generally limited to areas within a few hundred feet of construction activities. As seismic waves travel outward from a vibration source, they excite the particles of rock and soil through which they pass and cause them to oscillate. The actual distance that these particles move is usually only a few ten-thousandths to a few thousandths of an inch. The rate or velocity (in inches per second) at which these particles move is the commonly accepted descriptor of the vibration amplitude, referred to as the peak particle velocity. Tables 3.13-4 and 3.13-5 in Section 3.13.2, Regulatory Setting above, summarize guidelines vibration annoyance potential criteria suggested by Caltrans.

Existing groundborne vibration levels within the Project area are limited to heavy duty vehicular traffic on local roadways, especially on HWY 50.

3.17.3.3 Noise and Vibration Receptors

There are numerous residences that occur at various distances from the Project pipeline alignment. Generally, residential units range from 25 feet to 500 feet from the Project alignment. Since residential units are stationary, these receptors are considered to have the highest degree of sensitivity to construction noise and vibration. Additionally, there are some commercial businesses in the northern portion of the Project area near HWY 50 (see Figure 2.2-1[a-d]) along Pony Express Trail that would be within 50 feet of construction activities. Additionally, the Sly Park Environmental Education Center is located at 5600 Sly Park Road in Pollock Pines, which is directly within the southern end of the project alignment. However, this education center operates on a more sporadic basis than a typical school and hosts outdoor science and education events periodically throughout the summer. Therefore, sensitive receptors in this area are limited.

3.17.4 ENVIRONMENTAL IMPACTS

This section analyzes the Project's potential to result in significant impacts to noise and vibration.

3.17.4.1 Project Impact Analysis

Impact NOS-1	**Potential to generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards or other agencies.**

Impact NOS-1 Analysis

Construction

Construction of the Project would occur over approximately 18 months and would include trenching and excavation, pipeline and pump station construction, and site restoration and clean up. Groundborne noise and other types of construction-related noise impacts would occur throughout the construction phase and would create an increase in noise levels beyond ambient conditions. Construction noise is difficult to quantify because of the many variables involved, including the specific equipment types, size of equipment used, percentage of time that each piece is in operation, condition of each piece of equipment, and number of pieces that would operate on the site. Construction equipment produce maximum noise levels when equipment is operating under full power conditions (i.e., the equipment engine at maximum speed). However, equipment used on construction sites typically operates under less than full power conditions, or partial power. To characterize construction-period noise levels more accurately, the Leq associated with each construction stage is calculated based on the quantity, type, and usage factors for each type of equipment that would be used during each construction stage. These noise levels are typically associated with multiple pieces of equipment simultaneously operating on partial power.

Excavation, trenching, pipeline and pump station installation, and site cleanup and restoration activities would use typical construction equipment, such as graders, excavators, rollers, mobile cranes, concrete trucks, compactors, and tractors/loaders/backhoes (see Section 2.6.2, Construction Equipment for a complete list of equipment). The maximum construction sound level from the typical construction equipment would vary from approximately 82 A-weighted decibels (dBA) to 89.7 dBA at a distance of 25 feet (i.e., the approximate distance from the nearest sensitive receptor) (FHWA 2023b).

Pursuant to the El Dorado County Municipal Code Chapter 130.70 - Noise Standards, construction activities performed by public or private utilities in the maintenance or modification of its facilities are considered exempt from the Noise Standard (El Dorado County 2023). Additionally, the Municipal Code also states that construction during daylight hours (i.e., 7 a.m. to 7 p.m. on weekdays and 8 a.m. to 5 p.m. on weekends) is also exempt from the noise standards, provided that all construction equipment is fitted with factory-installed muffling devices and maintained in good working order. Construction of the Project would generally fall within the identified construction hours, except in certain circumstances (e.g., when creek crossing activities need to be completed to maintain stability of the temporary stream diversions, for tie-ins to existing facilities, for in road work). These exceptions would be limited in duration, likely lasting one or two evenings, and would occur largely within the existing ROWs and further than 25 feet from any given sensitive receptor.

Construction of the Project pipeline would occur in a linear nature, with an expected rate of up to 160 feet of pipeline being installed per day. This means that residences within 25 to 100 feet of construction activities would likely only be impacted by increased noise levels from construction equipment for approximately 2-5 days depending on the local terrain and construction progression. Noise levels would progressively subside and not impact any single residence for more than approximately 6-7 days.

Given the linear nature of Project construction and the implementation of time limits specified in the County's Municipal Code, except in certain circumstances noted above, short-term construction noise impacts would be less than significant.

Operation

During operation, the Project would not introduce substantial new noise to the area. The new pump station would be equipped with a backup generator which would run periodically during power outages. Additionally, a new electrical service drop would be installed from an existing utility pole, routed underground, and connected to the new pump station transformer adjacent to the backup power generator. The nearest residence to this new pump station and backup generator would be approximately 450 feet. The pump station and generator would be enclosed in sound attenuating housings. The average decibels for a Level 2 sound attenuated enclosure at 60Hz full load is 75 dBA at a distance of approximately 22 feet and 60 dBA at approximately 450 feet. The noise from this pump station and generator would be consistent with the noise sources from the existing area. Therefore, operational impacts associated with generation of noise in excess of local standards would be less than significant.

Level of Significance: Less than Significant

Mitigation Required: None Required

Impact NOS-2 Potential to generate excessive groundborne vibration or groundborne noise levels.

Impact NOS-2 Analysis

Vibration refers to groundborne noise and perceptible motion. Typical sources of groundborne vibration are construction activities (e.g., blasting, pile driving, and operating heavy-duty earth-moving equipment), steel-wheeled trains, and occasional traffic on rough roads. The FTA provides guidelines for maximum-acceptable vibration criteria for different types of land uses. These guidelines allow 80 vibration decibels for residential uses and buildings where people normally sleep (FTA 2018). Construction activity can result in varying degrees of groundborne vibration depending on the equipment and methods used, distance to the affected structures, and soil type. Construction equipment such as air compressors, light trucks, and hydraulic loaders generate little or no ground vibration. Occasionally large, loaded trucks can cause perceptible vibration levels at close proximity. The FTA guidelines of 80 vibration decibels for sensitive land uses provide the basis for determining the relative significance of potential Project-related vibration impacts. The Project does not include components to generate excessive vibration. Project construction would not include activities such as blasting or pile driving that would cause excessive ground borne vibration. Therefore, there would be a less than significant impact related to excessive groundborne vibration.

Level of Significance: Less than Significant

Mitigation Required: None Required

Impact NOS-3	**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 2 miles of a public airport or public use airport, expose people residing or working in the Project area to excessive noise levels.**

Impact NOS-3 Analysis

The nearest private airports are the Placerville Airport which is approximately 7.5 miles east of Ridgeway Drive and the Perryman Airport – 7CL9 located approximately 8.5 miles east of the Project area. Therefore, there would be no impact related to exposure of people residing or working in the Project area to excessive noise levels from an airstrip or airport.

Level of Significance: No Impact

Mitigation Required: None Required

3.17.5 NOISE AND VIBRATION MITIGATION

The level of significance of potential impacts to noise and vibration resources is either no impact or less than significant impact; therefore, no mitigation is required.

3.18 Population and Housing

3.18.1 Basis for Analysis

The CEQA Guidelines' Appendix G Environmental Checklist was assessed during the NOP scoping process to identify the Project components that have the potential to cause a significant impact to population and housing. The following thresholds of significance were used to determine if further evaluation was warranted to ascertain whether the Project may:

- 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); or
- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

3.18.2 REGULATORY FRAMEWORK

3.18.2.1 Federal and State

There are no federal or State laws pertaining to population and housing that are applicable to the Project.

3.18.2.2 Local

El Dorado County General Plan

Pursuant to Government Code sections 53091(D) and (E), many of the District's activities are not subject to local zoning or land use requirements, as stated below.

> *Building and zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, or for the production or generation of electrical energy, facilities that are subject to Section 12808.5 of the Public Utilities Code.*

As a special district with equal authority, the District is exempt from the goals and policies within the County's General Plan and Zoning Ordinance. However, the District aims to comply with those goals and policies and use them as a metric for formulating an impact analysis (El Dorado County 2004, as amended).

There are no population and housing goals, objectives, or policies that are applicable to the Project.

3.18.3 ENVIRONMENTAL SETTING

According to the U.S. Census Bureau, the current County population is 192,646 (USCB 2022). The area surrounding the Project area is largely comprised of sprawling rural residential properties, with commercial development and denser housing closer to HWY 50 in the northern region of the Project area (see Figure 2.2-1[a-d]). Existing communities near the Project area include Pollock Pines and the Sly Park Hills community.

3.18.4 ENVIRONMENTAL IMPACTS

This section analyzes the Project's potential to result in significant impacts to population and housing.

3.18.4.1 Project Impact Analysis

Impact POP-1	**Potential to 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).**

Impact POP-1 Analysis

Construction and Operation

The Project would not directly or indirectly result in the construction of new homes or businesses. Construction personnel are anticipated to come from the local area or only be in the area temporarily for the duration of construction, with no impacts occurring on population growth. Operation of the Project would involve improved reliability and redundancy to enhance the District's existing drinking water system by connecting two water treatment plants. The Project involves the replacement of a pipeline without service connections and does not involve increases in capacity that could indirectly induce unplanned population

growth beyond what is included in the General Plan. Therefore, the Project would result in a less than significant impact related to directly or indirectly inducing substantial unplanned population growth in the area.

Level of Significance: Less than Significant

Mitigation Required: None Required

Impact POP-2 Potential to displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

Impact POP-2 Analysis

The Project would not displace any existing housing, necessitating the construction of replacement housing elsewhere. No existing residents in the area would be displaced as a result of the construction or operation of the pipeline, new pump station, and associated appurtenances. Therefore, there would be no impact.

Level of Significance: No Impact

Mitigation Required: None Required

3.18.5 POPULATION AND HOUSING MITIGATION

The level of significance of potential impacts to population and housing resources is either no impact or less than significant impact; therefore, no mitigation is required.

3.19 Public Services

3.19.1 BASIS FOR ANALYSIS

The CEQA Guidelines' Appendix G Environmental Checklist was assessed during the NOP scoping process to identify the Project components that have the potential to cause a significant impact to public services. The following thresholds of significance were used to determine if further evaluation was warranted to ascertain whether the Project may:

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

- Fire protection;
- Police protection;
- Schools;

- Parks; or
- Other public facilities.

3.19.2 REGULATORY FRAMEWORK

3.19.2.1 Federal

There are no specific federal regulations that govern the provision of local public services that are relevant to the Project.

3.19.2.2 State

Fire Protection

California fire safety regulations apply to SRAs during the time of year designated as having hazardous fire conditions. CAL FIRE has developed a fire hazard severity scale that considers vegetation, climate, and slope to evaluate the level of wildfire hazard in all SRAs. An SRA is defined as the part of the State where CAL FIRE is primarily responsible for providing basic wildland fire protection assistance. CAL FIRE has primary responsibility for fire protection within SRAs. Areas under the jurisdiction of other fire protection services are considered to be Local Responsibility Areas or on Federal lands are considered Federal Responsibility Areas.

During the fire hazard season, these regulations: (1) restrict the use of equipment that may produce a spark, flame, or fire; (2) require the use of spark arrestors on any equipment that has internal combustion engine; (3) specify requirements for the safe use of gasoline-powered tools in fire hazards areas; and (4) specify fire suppression equipment that must be provided on-site for various types of work in fire-prone areas.

3.19.2.3 Local

El Dorado County General Plan

Pursuant to Government Code sections 53091(D) and (E), many of the District's activities are not subject to local zoning or land use requirements, as stated below.

> *Building and zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, or for the production or generation of electrical energy, facilities that are subject to Section 12808.5 of the Public Utilities Code.*

As a special district with equal authority, the District is exempt from following goals and policies within the County's General Plan and Zoning Ordinance. However, the District aims to comply with those goals and policies and use them as a metric for formulating an impact analysis (El Dorado County 2004, as amended).

> ***Goal 5.1: Provision of Public Services.*** *Provide and maintain a system of safe, adequate, and cost-effective public utilities and services; maintain an adequate level of service to*

existing development while allowing for additional growth in an efficient manner; and, ensure a safe and adequate water supply, wastewater disposal, and appropriate public services for rural areas.

***Objective 5.1.1: Planning**. Ensure that public infrastructure needs are anticipated and planned for in an orderly and cost-effective manner.*

***Policy 5.1.2.2.** Provision of public services to new discretionary development shall not result in a reduction of service below minimum established standards to current users, pursuant to [Table 3.15-1].*

The following Levels of Service shall apply to the review of discretionary projects:

Table 3.15-1. Minimum Levels of Service

	Community Region	Rural Center and Rural Region
Public water source	As determined by purveyor	As determined by purveyor, when applicable
Private wells	Environmental Management	Environmental Management
Public water treatment capacity	As determined by purveyor	As determined by purveyor
Public sewer treatment capacity	As determined by purveyor	As determined by purveyor
On-site sewage disposal	Environmental Management	Environmental Management
Storm drainage	Department of Transportation	Department of Transportation
Solid waste	Environmental Management	Environmental Management
County and State road circulation system	E[1]	D[2]
Schools	As determined appropriate by the school districts	As determined appropriate by the school districts
Parks	Specific plan for new communities or Quimby Fee/dedication program for tentative maps	Quimby Fee/dedication program for tentative maps
Fire district response	8-minute response to 80 percent of the population	15 to 45-minute response
Sheriff	8-minute response to 80 percent of the population	No standard
Ambulance	10-minute response to 80 percent of the population	20-minute response in Rural Regions and “as quickly as possible” in wilderness areas*

Note:
*In accordance with State standards.
[1] Roadway capacity LOS E represents operating conditions at or near capacity. Speeds are reduced to a low but relatively uniform value. Freedom to maneuver is difficult with users experiencing frustration and poor comfort and convenience. Unstable operation is frequent, and minor disturbances in traffic flow can cause breakdown conditions.
[2] Roadway capacity LOS D represents high-density, but stable flow. Users experience severe restriction in speed and freedom to maneuver, with poor levels of comfort and convenience.

***Policy 5.1.2.4.** Service standards for public services and emergency services in Rural Centers and Rural Regions are different that in Community Regions based on lower intensity and density of land use.*

Goal 5.7: Emergency Services. *Adequate and comprehensive emergency services, including fire protection, law enforcement, and emergency medical services.*

Objective 5.7.1: Fire Protection (Community Regions). *Ensure sufficient emergency water supply, storage, and conveyance facilities are available, and that adequate access is provided for, concurrent with development.*

Policy 5.7.1.1. *Prior to approval of new development, the applicant will be required to demonstrate that adequate emergency water supply, storage, conveyance facilities, and access for fire protection either are or will be provided concurrent with development.*

Objective 5.7.2: Fire Protection (Rural Regions and Rural Centers). *Sufficient emergency water supply, storage, and conveyance facilities for fire protection, together with adequate access are available, or are provided for, concurrent with development.*

Policy 5.7.2.1. *Prior to approval of new development, the responsible fire protection district shall be requested to review all applications to determine the ability of the district to provide protection services. The ability to provide fire protection to existing development shall not be reduced below acceptable levels as a consequence of new development. Recommendations such as the need for additional equipment, facilities, and adequate access may be incorporated as conditions of approval.*

Objective 5.7.3: Law Enforcement. *An adequate, comprehensive, coordinated law enforcement system consistent with the needs of the community.*

3.19.3 ENVIRONMENTAL SETTING

The Project is located within the community of Pollock Pines that extends south to Sly Park.

3.19.3.1 Schools

The Project site is located within the boundaries of the Pollock Pines Elementary School District and the El Dorado Union High School District (El Dorado County 2004, as amended). The Pollock Pines Elementary School District operates one elementary school (Kindergarten through fourth grade), and one middle school (fifth through eighth grade). The El Dorado Union High School District operates four high schools. The nearest school to the Project site is the Pinewood Elementary School, located at 6181 Pine Street in Pollock Pines, California. Pinewood Elementary School is located approximately 1.8 miles east of the Project site. Pinewood Elementary school has 310 students from transitional Kindergarten to fourth grade (Pinewood Elementary School 2022). Additionally, the Sly Park Environmental Education Center is located at 5600 Sly Park Road in Pollock Pines, which is directly within the southern end of the project alignment. However, this education center operates on a more sporadic basis than a typical school and hosts outdoor science and education events periodically throughout the summer.

3.19.3.2 Police Protection

Police protection services for the community of Pollock Pines and the Project site are provided by the El Dorado County Sheriff. The El Dorado County Sheriff Office is located at 200 Industrial Drive in Placerville, California. Patrols cover approximately 1,800 square miles of El Dorado County. According to the 2021 El Dorado County Sheriff's Office Annual Report, the Sheriff's Office received approximately 36,000 emergency calls in 2021 (El Dorado County Sheriff's Office 2021).

3.19.3.3 Fire Protection

According to the Fire Districts in El Dorado County Map, Figure PS-3 of the General Plan, the El Dorado County Fire Protection District provides fire protection services to the community of Pollock Pines (El Dorado County 2004, as amended). The El Dorado County Fire Protection District has 72 uniformed personnel and three support staff that operate five staffed and seven unstaffed fire houses (El Dorado County Fire Protection District 2023a). The Project site would be served by Station 17 of the El Dorado County Protection District (El Dorado County Fire Protection District 2023b). Station 17 is located at 6430 Pony Express Trail in the community of Pollock Pines. Station 17 is staffed 24 hours a day, seven days a week by an Engine Company and a Medic Unit. The southern portion of the Project site is also located near Station 18 at 5785 Sly Park Road, which serves the communities of Sierra Springs and Sly Park Hills. However, Station 18 is unstaffed and, as a result, would not serve the site (El Dorado County Fire Protection District 2023b).

According to the El Dorado County 2004 General Plan (El Dorado County 2004, as amended), the El Dorado County Fire Protection District has adopted an eight-minute response to 80 percent of the population for Community Regions, and a 15- to 45- minute response time to Rural Centers and Rural Regions.

3.19.3.4 Parks and Recreation

According to the El Dorado County Parks and Trails Master Plan, the park areas around the Project site are largely federal lands. The County General Plan provides guidelines for how many acres of park land should be acquired and developed based on the population. Generally, the guidance recommends 5 acres of park land for every 1,000 people divided between regional, community, and neighborhood parks. As such, per the General Plan, 107 acres of developed parkland would be required to serve the existing population. Within El Dorado County there are 57 acres of developed regional parks and an additional 115 acres of undeveloped regional park land. To meet General Plan guidelines, an additional 50 acres of parkland would need to be developed (El Dorado County 2012).

3.19.4 ENVIRONMENTAL IMPACTS

This section analyzes the Project's potential to result in significant impacts to public services.

3.19.4.1 Project Impact Analysis

Impact PUB-1 **Potential to result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:**

- **Fire protection;**
- **Police protection;**
- **Schools;**
- **Parks; or**
- **Other public facilities.**

Impact PUB-1 Analysis

Fire Protection

The Project does not include residential uses and no people would reside on the Project site. During Project construction, approximately 15 construction workers per day would be on the Project site. The slight increase in people within the Project area would incrementally increase the potential need for fire, or medical response services. However, the increased need would be temporary and only occur during Project construction; therefore, no new or physically altered fire protection facilities would be required.

The Project proposes to replace an existing pipeline and construct a new pump station. The Project features would be non-flammable and constructed of metal, concrete, and/or plastic material. Moreover, the pipeline portion would be largely covered with compacted soil fill material.

In the event of an emergency, El Dorado County Fire Protection District Station 17 is the nearest manned fire station and would serve the Project site. Station 17 ranges from approximately 2.1 miles to 2.9 miles from the Project site. The El Dorado County Fire Protection District has an average response time goal of 8 minutes for 80 percent of the County. Project construction may impact emergency response times due to construction traffic or temporary road closures. As such, Mitigation Measure TRA-1, Prepare and Implement a Traffic Control Plan, would be implemented throughout Project construction to ensure clear emergency ingress and egress throughout construction.

Therefore, impacts to fire protection services and emergency response times would be less than significant with Mitigation Measure TRA-1 during construction. Project operations would not change from existing conditions and, as such, would have no impact on fire protection services and emergency response times following construction.

Police Protection

The Project does not include residential uses and no people would reside on the Project site. During Project construction, approximately 15 construction workers per day would be on the Project site. The slight increase in people within the Project area would incrementally increase the potential need for emergency

law enforcement calls. However, the increased need would be temporary and only occur during Project construction. Because the increased need would very limited and temporary, no new or physically altered police protection facilities would be required beyond the 78 current deputies assigned to patrol the El Dorado County area (El Dorado County Sheriff's Office 2021). Consequently, the Project would not introduce new needs for police services that would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts.

In the event of an emergency, El Dorado County Sheriff's Office would serve the Project site. The El Dorado County General Plan Draft EIR identifies the level of service standards for sheriff deputies to maintain a minimum of one deputy per 1,000 residents. The Project would not alter the acceptable service ratios, response times or other performance objectives for police protection, since police services would be maintained, and the Project would not introduce new residential or commercial uses where people gather that could potentially require additional police services (El Dorado County 2003). With the conservative assumption that emergency vehicles travel at the average speed limit, the El Dorado County Sheriff would arrive at the Project site within 15 to 20 minutes. Additionally, any potential increased need for police protection services would be temporary and would only occur during Project construction activities. Furthermore, Mitigation Measure TRA-1, Prepare and Implement a Traffic Control Plan, would be implemented throughout Project construction which would ensure clear emergency ingress and egress during construction.

Therefore, potential impacts associated with police protection services would be less than significant with mitigation incorporated during the construction of the Project. Project operations would not change from existing conditions and, as such, would have no impact on police services and emergency response times following construction.

Schools

The Project would not include residential uses and no people would reside on the Project site; therefore, the Project would not result in an increase in population that would generate new student enrollment in local schools. As such, the Project would not result in the construction of new or the expansion of existing school facilities. Access to local schools or the local education center would not be directly affected by the Project; however, school bus routes to pick-up and drop off students could be temporarily affected during construction. Throughout Project construction, Mitigation Measure TRA-1 would be implemented to ensure adequate traffic flow through and around the construction area. Therefore, impacts associated with school facilities would be less than significant with mitigation during the construction. Project operations would not change from existing conditions and, as such, would have no impact on school facilities following construction.

Parks

The Project would not include residential uses and no people would reside on the Project site; therefore, the Project would not result in an increase in population that would require additional park services within the County. As such, the Project would not result in the construction of new or the expansion of existing

parks. Therefore, impacts associated with parks would be less than significant during construction and operation of the Project.

Other Facilities

The Project would not include residential uses and no people would reside on the Project site; therefore, the Project would not result in an increase in population that would require additional public services within the County. As such, the Project would not result in the construction of new or the expansion of existing public facilities. Therefore, impacts associated with other public facilities would be less than significant during construction and during operation of the Project.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure TRA-1

3.19.5 PUBLIC SERVICES MITIGATION

3.19.5.1 Mitigation Measure TRA-1: Prepare and Implement a Traffic Control Plan

See Mitigation Measure TRA-1, Section 3.17.

3.20 Recreation

3.20.1 BASIS FOR ANALYSIS

The CEQA Guidelines' Appendix G Environmental Checklist was assessed during the NOP scoping process to identify the Project components that have the potential to cause a significant impact to recreation resources. The following thresholds of significance were used to determine if further evaluation was warranted to ascertain whether the Project may:

- 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; or
- Include recreational facilities or require the construction or expansion of recreational facilities which might have adverse physical effect on the environment.

3.20.2 REGULATORY FRAMEWORK

3.20.2.1 Federal

There are no federal regulations that apply to this Project pertaining to recreation and recreational facilities.

3.20.2.2 State

California Government Code Section 65560(b)

California Government Code Section 65560(b) defines “open space land” as any parcel or area of land or water that is unimproved and devoted to an open space use. State law requires that the local general plans include an Open Space element to promote the retention of open space for recreational purposes.

3.20.2.3 Local

El Dorado County General Plan

Pursuant to Government Code sections 53091(D) and (E), many of the District’s activities are not subject to local zoning or land use requirements, as stated below.

> *Building and zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, or for the production or generation of electrical energy, facilities that are subject to Section 12808.5 of the Public Utilities Code.*

As a special district with equal authority, the District is exempt from following goals and policies within the County’s General Plan and Zoning Ordinance. However, the District aims to comply with those goals and policies and use them as a metric for formulating an impact analysis (El Dorado County 2004, as amended).

> ***Goal 9.1:*** *Parks and Recreation Facilities: Provide adequate recreation opportunities and facilities including developed regional and community parks, trails, and resource-based recreation areas for the health and welfare of all residents and visitors of El Dorado County.*
>
> ***Policy 9.1.1.7:*** *Encourage and support efforts of independent recreation districts to provide parks and recreation facilities. The joint efforts of Community Services Districts, independent recreation districts, school districts, cities, and the County to provide parks and recreation facilities shall also be encouraged.*
>
> ***Policy 9.1.2.8:*** *Integrate and link, where possible, existing and proposed National, State, regional, County, city and local hiking, bicycle, and equestrian trails for public use.*
>
> ***Objective 9.1.3****: Incorporation of Parks and Trails: Incorporate parks and non-motorized trails into urban and rural areas to promote the scenic, economic, and social importance of recreation and open space areas.*
>
> ***Policy 9.1.3.3:*** Coordinate with Federal, State, other agencies, and private landholders to provide public access to recreational resources, including rivers, lakes, and public lands.

El Dorado County Parks and Trails Master Plan

The El Dorado County Parks and Trails Master Plan (El Dorado County 2012) relevant goals and policies are as follows:

> ***Goal 1:*** *Health and Wellness: El Dorado County residents will have reasonable access to a variety of park and trail facilities to enhance their opportunities for physical, mental, and social health, and well-being.*
>
> ***Objective 1.1:*** *Park and Trail Locations: Park and trails facilities shall be located taking into consideration the potential to provide recreational opportunities to underserved populations and to expand the diversity of recreational experiences available to County residents.*
>
> ***Policy 1.1.2:*** *Some trails should be located to provide connections to neighborhoods or public places such as schools, parks, and civic areas to encourage residents to incorporate walking and cycling as a regular activity.*

3.20.3 ENVIRONMENTAL SETTING

The Project area is located within rural El Dorado County which encompasses numerous recreational areas and activities such as camping, hiking, fishing, and boating. Many of the recreational resources located in the County have been developed by State and federal public agencies on public lands, such as the Eldorado National Forest. Recreational areas near the Project include Jenkinson Lake, which is surrounded by campsites, trails, and other recreational facilities. Additional campsites and trails are located to the south of the Project.

3.20.4 ENVIRONMENTAL IMPACTS

This section analyzes the Project's potential to result in significant impacts to recreation.

3.20.4.1 Project Impact Analysis

Impact REC-1	**Potential to 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.**

Impact REC-1 Analysis

Construction and Operation

The Project would not increase the use of existing neighborhood and regional parks or other recreational facilities to the extent that substantial physical deterioration of the facility would occur or be accelerated. No population growth would be generated that would increase the use and deterioration of existing recreational facilities, nor does the Project include any recreational facility components. Jenkinson Lake, which includes boating, fishing, camping, and hiking areas, is located approximately 1.2 miles east of the Project area and would not be impacted by Project construction or operations. Therefore, there would be no impact to existing neighborhood and regional parks or other recreational facilities to the extent that substantial physical deterioration of the facility would occur or be accelerated.

Level of Significance: No Impact

Mitigation Required: None Required

Impact REC-2	**Potential to include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.**

Impact REC-2 Analysis

Construction and Operation

Similar to Impact REC-1, the Project would not include recreational facilities or require the construction or expansion of existing recreational facilities. The Project consists of a pipeline replacement, with the addition of a new pump station and associated appurtenances. No existing recreational facilities would be impacted as a result of Project construction or operation. Therefore, there would be no impact.

Level of Significance: No Impact

Mitigation Required: None Required

3.20.5 RECREATION MITIGATION

The level of significance of potential impacts to recreation resources is either no impact or less than significant impact; therefore, no mitigation is required.

3.21 Transportation

3.21.1 BASIS FOR ANALYSIS

The CEQA Guidelines' Appendix G Environmental Checklist was assessed during the NOP scoping process to identify the Project components that have the potential to cause a significant impact to transportation resources. The following thresholds of significance were used to determine if further evaluation was warranted to ascertain whether the Project may:

- Conflict with a plan, ordinance, or policy addressing the circulation systems, including transit, roadway, bicycle and pedestrian facilities;
- Conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b);
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersection(s) or incompatible uses [e.g., farm equipment]); and
- Result in inadequate emergency access.

3.21.2 REGULATORY FRAMEWORK

3.21.2.1 Federal

No federal plans, policies, regulations, or laws related to transportation apply to the Project.

3.21.2.2 State

Updated CEQA Guidelines and Transportation Impact Evaluations

In December 2018, the California Natural Resources Agency certified and adopted the CEQA Guidelines update package, including the Guidelines section implementing Senate Bill 743. CEQA Guidelines Section 15064.3 states, "This section describes specific considerations for evaluating a project's transportation impacts. Generally, vehicle miles traveled is the most appropriate measure of transportation impacts. For the purposes of this section, vehicle miles traveled (VMT) refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Except as provided in subdivision (b)(2) (regarding roadway capacity), a project's effect on automobile delay shall not constitute a significant environmental impact."

Section 15064.3(b) of the CEQA Guidelines sets forth criteria for determining the significance of transportation impacts, stating the following:

> ***Land Use Projects.*** *Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. … Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.*
>
> ***Transportation Projects.*** *Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, such as in a regional transportation plan EIR, a lead agency may tier from that analysis as provided in Section 15152.*
>
> ***Qualitative Analysis****. If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate.*
>
> ***Methodology.*** *A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled and may revise those estimates to*

> *reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section.*

From these updated CEQA Guidelines, the OPR developed a Technical Advisory on Evaluating Transportation Impacts in CEQA, which contains OPR's technical recommendations regarding assessment of VMT, thresholds of significance, and mitigation measures (OPR 2018). This Technical Advisory includes a screening threshold of small projects, which states that, "projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact" (OPR 2018).

California Department of Transportation

Caltrans manages interregional transportation, including the management and construction of the California highway system. In addition, Caltrans is responsible for the permitting and regulation of State roadways and requires that permits be obtained for transportation of oversized loads and transportation of certain materials, and for construction-related traffic disturbance.

HWY 50 is the main traffic artery in the Project vicinity and would serve as the primary regional access route for construction traffic to and from the Project area. This roadway is managed by Caltrans, and Caltrans has completed a transportation or route concept report which identifies long-range improvements for the HWY 50 corridor and establishes the "concept," or desired, level of service (LOS) for specific corridor segments. The report also identifies long-range improvements needed to bring the existing facility up to expected standards needed to adequately serve 20-year traffic forecasts. Additionally, the report identifies the ultimate design concept for conditions beyond the immediate 20-year design period (El Dorado 2004, as amended).

3.21.2.3 Local

El Dorado County General Plan

Pursuant to Government Code sections 53091(D) and (E), many of the District's activities are not subject to local zoning or land use requirements, as stated below.

> *Building and zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, or for the production or generation of electrical energy, facilities that are subject to Section 12808.5 of the Public Utilities Code.*

As a special district with equal authority, the District is exempt from following goals and policies within the County's General Plan and Zoning Ordinance. However, the District aims to comply with those goals and policies and use them as a metric for formulating an impact analysis (El Dorado County 2004, as amended).

> ***Goal TC-1:*** *To plan for and provide a unified, coordinated, and cost-efficient countywide road and highway system that ensures the safe, orderly, and efficient movement of people and goods.*

> ***Policy TC-1q:*** *The County shall utilize road construction methods that seek to reduce air, water, and noise pollution associated with road and highway development.*
>
> ***Goal TC-2:*** *To promote a safe and efficient transit system that provides service to all residents, including senior citizens, youths, the disabled, and those without access to automobiles that also helps to reduce congestion, and improves the environment.*
>
> ***Goal TC-4:*** *To provide a safe, continuous, and easily accessible non-motorized transportation system that facilitates the use of the viable alternative transportation modes.*

Sacramento Area Council of Governments

The Sacramento Area Council of Governments (SACOG) is a cooperative organization representing the six counties comprising the Greater Sacramento metropolitan region (Sacramento, Yolo, El Dorado, Placer, Sutter, and Yuba Counties), that works to provide planning and funding for transportation within the region. This organization has been granted the responsibility of developing the federal- and State-mandated metropolitan transportation plan every four years. The Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) is the mandated transportation plan that includes the regional planning for roadway improvements and is crucial for receiving federal transportation funding (SACOG 2016). The adopted MTP/SCS also utilizes county-wide planning developed by the El Dorado County Transportation Commission (SACOG 2016).

El Dorado County Regional Transportation Plan

Regional transportation planning is conducted by several agencies at all levels of government in the County and the City of Placerville. The plans and programs related to the Regional Transportation Plan (RTP) include: local general plans, the short- and long-range transit plan, non-motorized and bicycle facilities plans, other agencies' RTPs, the SACOG MTP/SCS, the Regional Transportation Improvement Program, the State Transportation Improvement Program, the California Transportation Plan, the California Interregional Strategic Plan, the regional clean air plan, and Caltrans concept reports. The County RTP is designed to be consistent with the adopted plans and programs.

El Dorado County Code or Ordinances

Title 12 – Streets, Sidewalks and Public Places

Section 12.08.080. - Excavations

> *A. It is unlawful for any person to make any excavation on any portion of the right-of-way of any County highway without having first obtained an encroachment permit therefor, or in violation of any of the provisions or conditions of the permit or of the chapter.*
>
> *B. A permit shall not be issued for the extraction, taking, conversion or recovery of gold, silver or other natural elements by means of, but not limited to, digging, dredging, sluicing, planning or electronic detection methods, from any portion of a County right-of-way, whether such right-of-way is created by an instrument of record or by prescription.*

Section 12.08.090. - Obstructions

It is unlawful for any person to place or maintain any obstruction on any portion of the right-of-way of any County highway without having first obtained an encroachment permit therefor, or in violation of any of the provisions or conditions of the permit or of this chapter.

Section 12.08.180. - Issuance [of Encroachment Permit]

After receipt of an application, accompanied by the required documents, payment of the required fees, and posting of the required deposit, the County Director of Transportation may issue an encroachment permit therefor upon standard forms prepared by the County Director of Transportation, provided all of the requirements of this chapter have been met.

3.21.3 ENVIRONMENTAL SETTING

3.21.3.1 Roadways

Roadway Classifications

The following describes the road classifications of roads in the County roadway system based on the definitions from the County General Plan Transportation and Circulation Element. Roads administered by Caltrans are not classified here because they are not controlled or managed by the County (El Dorado County 2004, as amended). The majority of the roads in the Project area are classified as four-lane divided, major two-lane roads, and local roadways.

Six-Lane Divided Road: The Six-Lane Divided Road typically has an ROW width of 130 feet and a roadway width from curb to curb, including a 16-foot median, of 108 feet. Six-Lane Divided Roads carry large volumes of regional through traffic not handled by the freeway system. Six-Lane Divided Roads have fully controlled access with restricted private property access and public road approaches.

Four-Lane Divided Road: A Four-Lane Divided Road typically has a ROW width of 100 feet and a roadway width from curb to curb, including a 16-foot median, of 84 feet. The function of a Four-Lane Divided Road is similar to that of a Six-Lane Divided Road, with the principal difference being capacity. Four-Lane Divided Roads have fully controlled access with limited private property access and public road approaches.

Four-Lane Undivided Road – Community Regions: A Four-Lane Undivided Road in the Community Regions is a four-lane roadway with a typical ROW width of 80 feet and a roadway width from curb to curb of 64 feet. If needed for capacity or safety, it may include additional ROW and roadway width for raised medians, painted medians, or two-way, left-turn medians. A Four-Lane Undivided Road functions similarly to a Four-Lane Divided Road, with the principal difference being capacity. Community Region Four-Lane Undivided Roads have fully controlled access with limited private property access and public road approaches.

Four-Lane Undivided Road – Rural Centers and Rural Regions: A Four-Lane Undivided Road located outside the Community Regions (i.e., in Rural Centers and Rural Regions) typically has a ROW width of 80 feet and a roadway width of 64 feet. If needed for capacity or safety, it may include additional ROW and

roadway width for raised medians, painted medians, or two-way, left-turn medians. Four-Lane Undivided Roads outside the Community Regions have fully controlled access but may have private access points for single and multifamily residential, commercial, office, and industrial developments, in addition to public road approaches.

Major Two-Lane Road – Community Regions: A Major Two-Lane Road in the Community Regions is typically undivided and has a ROW width of 60 feet and a roadway width from curb to curb of 40 feet. If needed for capacity or safety, it may include additional ROW and roadway width for raised medians, painted medians, or two-way, left-turn medians. Community Region Major Two-Lane Roads have fully controlled access with limited private property access and public road approaches.

Major Two-Lane Road – Rural Centers and Rural Regions: A Major Two-Lane Road outside the Community Regions is typically undivided and has a ROW width of 60 feet and a roadway width of 40 feet. If needed for capacity or safety, they may include additional ROW and roadway width for raised medians, painted medians, or two-way, left-turn medians.

Local Roads: Local roads primarily provide service to adjacent land uses. The access requirements for local roads must provide for the safety of the public by proper location of access points. Access points must be developed in accordance with the County Department of Transportation's encroachment permit policies and regulations.

Roadway Capacity and Level of Service

LOS is a general measure of traffic operating conditions whereby a letter grade, from A (the best) to F (the worst), is assigned. These grades represent the perspective of drivers and are an indication of the comfort and convenience associated with driving. The LOS grades are generally defined as follows (El Dorado County 2004, as amended):

- LOS A represents free-flow travel with an excellent level of comfort and convenience and the freedom to maneuver.
- LOS B has stable operating conditions, but the presence of other road users causes a noticeable, though slight, reduction in comfort, convenience, and maneuvering freedom.
- LOS C has stable operating conditions, but the operation of individual users is significantly affected by the interaction with others in the traffic stream.
- LOS D represents high-density, but stable flow. Users experience severe restriction in speed and freedom to maneuver, with poor levels of comfort and convenience.
- LOS E represents operating conditions at or near capacity. Speeds are reduced to a low but relatively uniform value. Freedom to maneuver is difficult with users experiencing frustration and poor comfort and convenience. Unstable operation is frequent, and minor disturbances in traffic flow can cause breakdown conditions.

- LOS F is used to define forced or breakdown conditions. This condition exists wherever the volume of traffic exceeds the capacity of the roadway. Long queues can form behind these bottleneck points with queued traffic traveling in a stop-and-go fashion.

Local Roadways

HWY 50 is the primary transportation corridor extending through the County from west to east connecting Sacramento County and the State of Nevada and serves all of the County's major population centers, including El Dorado Hills, Cameron Park, Diamond Springs, Placerville, Camino, Pollock Pines, and South Lake Tahoe. HWY 50 is also the major commute route to employment locations in the greater Sacramento area and the major shipping route for goods movement by truck. HWY 50 is a conventional four-lane highway through the City of Placerville with traffic signals at three major intersections. East of the City of Placerville and extending into the Lake Tahoe Basin, HWY 50 is an expressway with unsignalized intersections east to Ice House Road near Riverton, where the highway narrows to two lanes with passing opportunities limited mostly to locations with passing lanes and turnouts. Other state highways, county arterials, and a network of local roads constitute the remainder of the roadway system.

Access to the Project would occur either directly from a fronting arterial road or from local roads, many of which are narrow and unpaved. Project access roads would include HWY 50, Pony Express Trail, Ridgeway Drive, Neilsen Road, Lynx Trail, Slalom Lane, Starkes Grade Road, and Pine Tree Drive.

3.21.3.2 Bicycle and Pedestrian System

Bikeways are classified as Class I, Class II, and Class III (bike paths, bike lanes, and bike routes respectively). Often bike paths are also used as pedestrian walkways. There are no Class I, II, or III bike routes or lanes in or near to the Project area. However, Starkes Grade Road and a path along Clear Creek are identified as rural cycling routes, both of which are in Project area (El Dorado County 2023).

3.21.3.3 Public Transit

The County public transit services are provided by the El Dorado County Transit Authority. There are several bus stops along Pony Express Trail (EDT348 and EDT388) being closest to the Project area, adjacent to Gilmore Road (EDCTA 2022). Additionally, student bussing services throughout the Project area are provided by the Pollock Pines Elementary School District, El Dorado Union High School District, and El Dorado County Office of Education.

3.21.4 ENVIRONMENTAL IMPACTS

This section analyzes the Project's potential to result in significant impacts to transportation.

3.21.4.1 Project Impact Analysis

Impact TRA-1 Potential to conflict with a plan, ordinance, or policy addressing the circulation systems, including transit, roadways, bicycle and pedestrian facilities.

Impact TRA-1 Analysis

Construction

The County General Plan, as well as the SACOG MTP/SCS, account for regional movement and development throughout their respective planning areas. These plans designate LOS standards and requirements relating to transportation operation and safety. During construction, the Project is expected to generate a light amount of construction traffic and disruption to the local circulation system, including worker and material hauling trips, with a maximum peak of 30 truck trips daily over 18 months. These materials and equipment hauling trips would be intermittent, with trips mainly focused on construction startup and shutdown and would not conflict with any local or regional transportation plan, ordinance, or policy. Although traffic levels would slightly increase during the construction of the Project, the additional construction traffic would not significantly alter the existing traffic flows or LOS of the access roads or interfere substantially with the rural bicycle routes in the vicinity of the Project. Construction of the Project would remain within the District's easement or public utility right-of-way and secured temporary construction easements and would not involve permanent changes to nearby roadways. Construction of the pipeline in the roadways would require a County encroachment permit, which would be obtained as necessary by the District or its contractor. Therefore, construction of the Project would result in a less than significant impact related to confliction with a program, ordinance, or policy addressing the circulation system.

Operation

Operation of the Project would not impact the circulation system or the plans, policies, and ordinances facilitating future planning of the circulation system. The Project would not generate additional trips during operations of the Project. It is assumed that maintenance vehicles would access the pipeline periodically, equivalent to current maintenance activities. Therefore, the Project would result in no operational impact related to confliction with a program, ordinance, or policy addressing the circulation system.

Level of Significance: Less than Significant

Mitigation Required: None Required

Impact TRA-2 Potential to conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).

Impact TRA-2 Analysis

Construction

Construction of the Project would result in temporary increase in material haul trips and worker trips to the Project area throughout the construction activities. These truck trips would be limited in duration and daily

quantity, with a maximum of approximately 30 truck trips per day over 18 months during short-duration peak construction periods, and would be sporadic over the duration of construction, with more truck trips during material delivery and fewer truck trips during installation of Project features. These additional truck trips would not result in a substantial increase in VMT and, therefore, construction of the Project would also be consistent with the CEQA Guidelines Section 15064.3(b). The construction impact would be less than significant.

Operation

A project that would reduce or have no impact on VMT should be presumed to have a less than significant impact (pursuant to Section 15064.3[b] of the CEQA Guidelines). The Project would not result in additional truck trips during operations beyond what exists under current conditions and therefore would be consistent with the CEQA Guidelines Section 15064.3(b). Operation of the Project would not result in additional VMT. It is assumed that maintenance vehicles would access the pipeline periodically, equivalent to current maintenance activities. Therefore, the Project would result in no operational impact.

Level of Significance: Less than Significant

Mitigation Required: None Required

Impact TRA-3	**Potential to substantially increase hazards due to a geometric design feature (e.g. sharp curves or dangerous intersection(s) or incompatible uses [e.g. farm equipment]).**

Impact TRA-3 Analysis

Construction

The movement of construction vehicles, equipment, and materials to and from the Project site has the potential to temporarily increase the risk of slow-moving vehicles or traffic hazards on the roads with access to the Project site. Risk would be the highest when construction vehicles and equipment have to interact with general purpose vehicles, such as when entering public ROW while entering or exiting the Project site. Therefore, Mitigation Measure TRA-1, Prepare and Implement a Traffic Control Plan, would be required to minimize any potential hazards by requiring that a site-specific traffic control plan be prepared by the District and/or its contractor, approved by the County Department of Transportation, Caltrans, the California Highway Patrol, and local fire district, and implemented for the Project. Mitigation Measure TRA-1 requires measures to minimize the risk from incompatible uses. The traffic control plan would ensure clear emergency ingress and egress is feasible during construction and it would also specify allowances for residential driveway access. Additionally, the Project would not permanently alter public road conditions. Therefore, with implementation of Mitigation Measure TRA-1 and compliance with standard regulatory requirements to reduce hazards caused by incompatible roadways uses during construction, impacts would be less than significant.

Operation

The Project would not involve significant roadway alterations beyond placement of pipe and replacement of affected pavement, and thus would not increase hazards due to a design feature, such as a sharp curve or dangerous intersection. While the pipeline would be placed within existing ROWs and easements, no change to the exiting design or functionality of the roadways would occur as a result of the Project. Any disturbed roadways would be repaved back to existing conditions or better and would not result in a long-term change or hazards. Additionally, the pump station would be located on District-owned property, not intended for public access, and would not result in any hazards to the local roadways in the area.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure TRA-1

Impact TRA-4 Potential to result in inadequate emergency access.

Impact TRA-4 Analysis

Construction

Project access roads would include HWY 50, Pony Express Trail, Ridgeway Drive, Neilsen Road, Lynx Trail, Slalom Lane, Starkes Grade Road, and Pine Tree Drive. Emergency access could be hindered by a significant increase in traffic congestion or temporary road closures along these roadways. Temporary construction-related road closures would likely occur along portions of the Project alignment, and would entail single lane closures or detours, where necessary. These temporary road closures could have the potential to delay emergency vehicle response times and result in a potentially significant impact. As such, Mitigation Measure TRA-1 would require the preparation and implementation of a traffic control plan that would allow for adequate ingress and egress of traffic, including for emergency personnel, as well as provide proper noticing to emergency response agencies of any detours required during construction activities. Adherence to this mitigation measure would reduce any potential impacts from construction of the Project related to emergency services to a less than significant level.

Operation

Once operational, the Project would largely be located underground, and any above ground appurtenances and the pump station would be located within District easements and property owned by the District. There would be no change to emergency access as a result of operation of the Project.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure TRA-1

3.21.5 TRANSPORTATION MITIGATION

3.21.5.1 Mitigation Measure TRA-1: Prepare and Implement a Traffic Control Plan

The construction contractor and/or the District shall prepare and implement a traffic control plan. The traffic control plan shall contain detailed measures approved by the County in order to ensure acceptable levels of traffic flow, emergency response notification and response times, and public and school bus transit coordination and detours. The plan shall include at a minimum: discussion of expected construction schedule and locations, traffic control measures, residential access procedures, and coordination with and notification of residents, emergency response agencies, and school districts affected by lane and road closures to ensure delays are minimized, detours are noticed, and that emergency access remains possible at all times.

Mitigation Measure TRA-1 Implementation

Responsible Party: The District shall ensure the selected contractor appropriately prepares and implements the traffic control plan in accordance with all applicable guidelines and the requirements of this mitigation measure through approval by County Department of Transportation. This mitigation measure shall be referenced in the contract documents for the Project.

Timing: Prior to and during construction.

Monitoring and Reporting Program: The District shall monitor and coordinate with the contractor during weekly construction meetings to ensure that the traffic control plan is implemented successfully as documented in inspection logs, and the traffic control plan shall remain on file at the District.

Standards for Success: Traffic flow remains at acceptable levels, emergency access remains reasonably possible at all times, school bus routes in the area and residents are appropriately apprised of road closures, delays, and lane restrictions, and the Project area remains in compliance with all applicable transportation goals, policies, and requirements.

3.22 Tribal Cultural Resources

3.22.1 BASIS FOR ANALYSIS

The CEQA Guidelines' Appendix G Environmental Checklist was assessed during the NOP scoping process to identify the Project components that have the potential to cause a significant impact to tribal cultural resources. The following thresholds of significance were used to determine if further evaluation was warranted to ascertain whether the Project may:

- Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size, or object with cultural value to the California Native American tribe, and that is (1) listed or eligible for listing in the CRHR, or in a local register of historic resources as defined in PRC Section 5020.1(k); or (2) 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 PRC Section 5024.1.

3.22.2 REGULATORY FRAMEWORK

3.22.2.1 Federal

Native American Graves Protection and Repatriation Act of 1990

The Native American Graves Protection and Repatriation Act of 1990 sets provisions for the inadvertent discovery and/or intentional removal of human remains and other cultural items from federal and tribal lands. It clarifies the ownership of human remains and sets forth a process for repatriation of human remains and associated funerary objects and sacred religious objects to the Native American groups claiming to be lineal descendants or culturally affiliated with the remains or objects. It requires any federally funded institution housing Native American remains or artifacts to compile an inventory of all cultural items within the museum or with its agency and to provide a summary to any Native American tribe claiming affiliation.

American Indian Religious Freedom Act

The American Indian Religious Freedom Act of 1978 was enacted to protect and preserve the traditional religious rights and cultural practices of Native Americans. These rights include, but are not limited to, access of sacred sites, freedom to worship through ceremonial and traditional rights and use, and possession of objects considered sacred. The act requires that federal agencies evaluate their actions and policies to determine if changes are needed to ensure that Native American religious rights and practices are not disrupted by agency practices. Such evaluations are made in consultation with native traditional religious leaders.

3.22.2.2 State

Assembly Bill 52 (PRC Section 21084.2)

AB 52 changed sections of the PRC (Section 5097.94) to add consideration of Native American culture within CEQA (Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3). The goal of AB 52 is to promote the involvement of California Native American Tribes in the decision-making process when it comes to identifying and developing mitigation for impacts to resources of importance to their culture. To reach this goal, the bill establishes a formal role for tribes in the CEQA process. CEQA lead agencies are required to consult with tribes about potential Tribal Cultural Resources in the project area, the potential significance of project impacts, the development of project alternatives, and the type of environmental document that should be prepared. AB 52 specifically states that a project that may cause a substantial adverse change in the significance of a tribal cultural resource (TCR) is a project that may have a significant effect on the environment.

AB 52 applies to all CEQA projects which have a Notice of Preparation (NOP) filed on or after July 1, 2015. Native American outreach was conducted as described in Section 3.18.2.4 below.

Native American Heritage Commission

Section 5097.91 of the PRC established the NAHC, whose duties include the inventory of places of religious or social significance to Native Americans and the identification of known graves and cemeteries of Native Americans on private lands. Under Section 5097.9 of the PRC, a State policy of noninterference with the free expression or exercise of Native American religion was articulated along with a prohibition of severe or irreparable damage to Native American sanctified cemeteries, places of worship, religious or ceremonial sites, or sacred shrines located on public property. Section 5097.98 of the PRC specifies a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from a county coroner.

Discovery of Human Remains

Section 7050.5 of the California Health and Safety Code (CHSC) states the following regarding the discovery of human remains:

a. Every person who knowingly mutilates or disinters, wantonly disturbs, or willfully removes any human remains in or from any location other than a dedicated cemetery without authority of law is guilty of a misdemeanor, except as provided in Section 5097.99 of the [PRC]. The provisions of this subdivision shall not apply to any person carrying out an agreement developed pursuant to subdivision (l) of Section 5097.94 of the [PRC] or to any person authorized to implement Section 5097.98 of the [PRC].

b. In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the California Government Code [CGC], that the remains are not subject to the provisions of Section 27491 of the CGC or any other related provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the PRC. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains.

c. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission (NAHC) (CHSC Section 7050.5).

Of particular note to cultural and tribal resources is subsection (c), which requires the coroner to contact the NAHC within 24 hours if discovered human remains are determined to be Native American in origin. After notification, NAHC will follow the procedures outlined in PRC Section 5097.98, which include

notification of most likely descendants (MLDs), if possible, and recommendations for treatment of the remains. The MLD will have 24 hours after notification by the NAHC to make their recommendation (PRC Section 5097.98). In addition, knowing or willful possession of Native American human remains or artifacts taken from a grave or cairn is a felony under State law (PRC Section 5097.99).

3.22.2.3 Local

El Dorado County General Plan

Tribal Cultural Resources are not discussed in the El Dorado County General Plan.

3.22.2.4 Native American Outreach

On May 26, 2022, HELIX requested that the NAHC conduct a search of their Sacred Lands File for the presence of Native American sacred sites or human remains in the vicinity of the proposed Project area. A written response received from the NAHC on July 14, 2022, stated that the Sacred Lands File failed to indicate the presence of Native American cultural resources in the immediate area. The response included a list of Native American contacts that were recommended by the NAHC as potential sources of information related to cultural resources in the vicinity of the Project area. On August 14, 2023, the District sent letters requesting information regarding the presence of Native American sacred sites or human remains in the vicinity of the Project area to the tribes and individuals identified by the NAHC that were not included as part of the AB 52 consultation notification. None of the Native American Tribes or individuals contacted responded to the request for information.

The District sent AB 52 consultation letters to 8 local culturally affiliated tribes and individuals on February 3, 2023. A representative from the United Auburn Indian Community (UAIC) responded to the AB 52 letter and requested to consult on the Project. The District provided the UAIC with current and prior cultural resource reports, site records, and maps associated with the Project area. The UAIC provided the District with TCR mitigation measures and discussion recommendations for the Project's TCR analysis. The District utilized the UAIC recommendations to develop the Project's TCR discussion and mitigation measures.

A representative from Shingle Springs Band of Miwok Indians responded outside the 30-day consultation request window on April 4, 2023. The District provided the Tribal representative with the Project's cultural reports as requested and did not receive additional communications.

No TCRs are known to be present within the Project area based on the negative results of the Sacred Lands File database search; the lack of previously identified TCRs in the project area; and the absence of Native American archaeological sites, human remains, or other Native American cultural resources revealed during the background investigation, pedestrian survey, and AB 52 consultation. However, it is possible that further consultation with culturally affiliated tribes could identify previously unidentified TCRs.

3.22.3 ENVIRONMENTAL IMPACTS

This section analyzes the Project's potential to result in significant impacts to tribal cultural resources.

3.22.3.1 Project Impact Analysis

Impact TRIB-1	**Potential to cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of size, or object with cultural value to a California Native American tribe, and that is (1) listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in PRC Section 5020.1(k); or (2) 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 PRC Section 5024.1.**

Impact TRIB-1 Analysis

Based on the results of the Sacred Lands File search, no TCRs are known to be present within the Project area. Though unlikely, the possibility remains that a TCR may be revealed through further consultation with culturally affiliated Tribes. If this were to occur, then this impact would be potentially significant. Implementation of the Mitigation Measures TRIB-1, TRIB-2, and TRIB-3 would reduce impacts to a less than significant level through implementation of best management practices, implementation of a tribal cultural resources awareness training, and proper handling of any inadvertent discoveries. Therefore, impacts would be less than significant with mitigation.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure TRIB-1, Mitigation Measure TRIB-2, Mitigation Measure TRIB-3

3.22.4 TRIBAL CULTURAL RESOURCES MITIGATION

3.22.4.1 Mitigation Measure TRIB-1: Implement Best Management Practices to Reduce or Avoid Impacts on Tribal Cultural Resources

The District shall implement the following measure to reduce or avoid impacts on TCRs. If interested Native American tribe(s) provide information demonstrating the significance of the Project site and specific evidence supporting the determination that the site is sensitive for TCRs, the District will conduct a site visit with tribal representatives to evaluate the potential for TCRs at the Project site. If tribal representatives and the District determine the site is sensitive for TCRs and that the proposed Project may have a significant impact on TCRs, the District, in consultation with tribal representatives, will develop and implement best management practices (BMPs) to reduce or avoid impacts on TCRs. BMPs may include but are not limited to: 1) modify the proposed Project to preserve the TCRs in place, 2) establish exclusion zones and/or minimize work activities in proximity to TCRs, or (3) implement other recommendations developed in consultation with tribal representatives to minimize potential impacts to TCRs.

Responsible Party: The District and contractor. This mitigation measure shall be referenced in the contract documents for the Project.

Timing: Prior to and during implementation of ground disturbing Project activities.

Monitoring and Reporting Program: If subsurface TCRs resources are uncovered during Project ground disturbing activities, the District's contractor shall complete the above activities.

Standards for Success: Protection of TCRs.

3.22.4.2 Mitigation Measure TRIB-2: Tribal Cultural Resource Awareness Training

The District shall provide TCR awareness training for workers prior to beginning Project construction activities. The District shall utilize information provided by culturally affiliated tribal representatives to develop the training materials (i.e., printed handouts) that provide information on the following topics:

- How to recognize TCRs
- What to do if TCRs are suspected or encountered in the Project area
- Information on avoidance and other measures relevant to TCRs
- Confidentiality and culturally appropriate treatment of TCRs
- Information on regulations and applicable civil and criminal penalties for violations

The training materials will be shared with tribal representatives and tribal representatives will be invited to participate in the training. The training shall be presented to Project personnel at the Project kickoff. Printed handouts shall be distributed and used for future reference by Project personnel. A roster of trained Project personnel shall be maintained in the Project construction office and made available for review by regulatory agencies and culturally affiliated tribal representatives if needed. This training may be conducted in coordination with the biological resources awareness training (MM BIO-2), cultural resources awareness training (MM CUL-2), and paleontological resources training (MM GEO-2).

Responsible Party: The District and contractor. This mitigation measure shall be referenced in the contract documents for the Project.

Timing: Training shall be conducted before work begins, and new personnel shall be trained before initiating on-site work.

Monitoring and Reporting Program: The training shall be conducted by trained personnel and documented (by sign-in sheet or other method) by the District's contractor for the dates the training occurred, and the staff trained. Retention of the training reference pamphlets shall also be kept on the construction site and within District files.

Standards for Success: Construction personnel are trained in the key characteristics for identifying and avoiding impacts to TCRs.

3.22.4.3 Mitigation Measure TRIB-3: Proper Handling of Inadvertent Discovery of Tribal Cultural Resources

The District shall implement the following measure to reduce or avoid impacts and address the evaluation and treatment of inadvertent discoveries of potential TCRs during Project activities. If any suspected TCRs are discovered during Project construction activities, all work shall cease within 100-feet of the discovery. The District shall invite a tribal representative from culturally affiliated tribes to visit the site and examine the discovery to determine whether or not the discovery represents a TCR (PRC §21074). Tribal representatives shall have 48 hours to respond to the District's notification and schedule a site visit. If the discovery represents a TCR, the District will work with tribal representatives to develop recommendations for culturally appropriate treatment. Recommendations may include but are not limited to: (1) modifying the Project to preserve the TCR in place, (2) establishing exclusion zones and/or minimizing work activities in proximity to the TCR, or (3) implementing other recommendations developed in consultation with tribal representatives to minimize potential impacts to the TCR. Work at the discovery location will not resume until the agreed upon treatment has been implemented to the satisfaction of the District. See MM CUL-1 for an inadvertent discovery that qualifies as a historical or a unique archaeological resource.

Responsible Party: The District; the contractor. This mitigation measure shall be referenced in the contract documents for the Project.

Timing: Prior to and during implementation of ground disturbing Project activities.

Monitoring and Reporting Program: If TCRs are encountered during Project ground disturbing activities, the District's contractor shall complete the above activities.

Standards for Success: Protection of TCRs.

3.23 Utilities and Service Systems

3.23.1 BASIS FOR ANALYSIS

The CEQA Guidelines' Appendix G Environmental Checklist was assessed during the NOP scoping process to identify the Project components that have the potential to cause a significant impact to utilities and service systems. The following thresholds of significance were used to determine if further evaluation was warranted to ascertain whether the Project may:

- Require or result in the relocation or construction of new or expanded water, wastewater, or stormwater drainage, electrical power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects.
- Have sufficient water supply available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years.
- Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments.

- 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.
- Comply with federal, State, and local management and reduction statutes and regulations related to solid waste.

3.23.2 REGULATORY FRAMEWORK

3.23.2.1 Federal

Clean Water Act

The Federal Water Pollution Control Act (33 USC 1251 et seq.), otherwise known as the CWA, sets forth national goals that waters shall be “fishable, swimmable” waters (CWA Section 101 [a][2]). To enforce the goals of the CWA, the USEPA established the NPDES program. NPDES is a national program for regulating and administering permits for discharges to receiving waters, including non-point sources. Under Section 1251 (b) of the CWA, the U.S. Congress and the USEPA must recognize and preserve the primary responsibilities and rights of states concerning the reduction of pollution in water resources.

Safe Drinking Water Act (1974)

The Safe Drinking Water Act was established in 1974 to protect the quality of drinking water in the U.S. This law focuses on all waters actually or potentially designed for drinking use, whether from surface or underground sources. The State has expanded the federal requirements through passage of an Antidegradation Policy – State Water Board Resolution 68-16 ("Statement of Policy with Respect to Maintaining High Quality Waters in California"). Resolution 68-16 has been approved by the USEPA to be consistent with the federal antidegradation policy.

3.23.2.2 State

3.23.2.3 Porter-Cologne Water Quality Control Act

The SWRCB oversees the nine RWQCBs through the Porter-Cologne Act, as discussed in Section 3.4. Through the enforcement of the Porter-Cologne Act, the SWRCB determines the beneficial uses of the waters (surface and groundwater) of the State, establishes narrative and numerical water quality standards, and initiates policies relating to water quality. The SWRCB, and more specifically, the RWQCB, is authorized to prescribe Waste Discharge Requirements for the discharge of waste, which may impact waters of the State. Furthermore, the development of water quality control plans, or Basin Plans, are required by the Porter-Cologne Act to protect water quality. The SWRCB issues both general construction permits and individual permits under the auspices of the federal NPDES program.

California Integrated Waste Management Act

To minimize the amount of solid waste that must be disposed of by transformation (i.e., recycling) and land disposal, the State Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties are required to divert 25 percent of all

solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000. Solid waste plans are required to explain how each city's AB 939 plan will be integrated within the respective county's plan. They must promote (in order of priority) source reduction, recycling and composting, and environmentally safe transformation, and land disposal. Cities and counties that do not meet this mandate are subject to $10,000-per-day fines.

California Constitution, Article X

Article X (10), Section 2, of the California Constitution recognizes the need to put the State's water resources to maximum beneficial use:

> *It is hereby declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare.*

Urban Water Management Planning Act (California Water Code Division 6, Part 2.6, Sections 10610 through 10657)

One of the purposes of the Urban Water Management Planning Act (UWMP Act), enacted in the California Water Code as Division 6, Part 2.6, Sections 10610 through 10657, is to ensure the efficient use of available water supplies. The UWMP Act became part of the California Water Code with the passage of AB 797 during the 1983-1984 regular session of the California Legislature. Subsequently, ABs between 1990 and 2003 amended the UWMP Act. The UWMP Act was amended in November 2009 with the adoption of Senate Bill 7X-7. The most significant revision is the requirement for establishing per capita water use targets and an option to delay Urban Water Management Plan (UWMP) adoption to July 1, 2011. The California Department of Water Resources (DWR) issues guidelines for the preparation of UWMP Act updates.

The UWMP Act requires every urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually to adopt and submit an UMMP every five years to the DWR. According to DWR, the UWMP Act states that these urban water suppliers should make every effort to assure the appropriate level of reliability in its water service is sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. The UWMP Act describes the contents of the UWMP as well as how urban water suppliers should adopt and implement the UWMP.

Protection of Underground Infrastructure

California Government Code Sections 4216−4216.9, "Protection of Underground Infrastructure" requires an excavator to contact a regional notification center (e.g., Underground Services Alert or Dig Alert) at least two days prior to excavation of any subsurface installations. Anyone seeking to begin a project that could damage underground infrastructure can call Underground Service Alert, the regional notification center for

Northern California. Underground Service Alert will notify the utilities that may have buried lines within 1,000 feet of the project components. Representatives of the utilities are then notified and are required to mark the specific location of their facilities within the work area prior to the start of project construction activities in the area.

3.23.2.4 Local

El Dorado County General Plan

Pursuant to Government Code sections 53091(D) and (E), many of the District's activities are not subject to local zoning or land use requirements, as stated below.

> *Building and zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, or for the production or generation of electrical energy, facilities that are subject to Section 12808.5 of the Public Utilities Code.*

As a special district with equal authority, the District is exempt from following goals and policies within the County's General Plan and Zoning Ordinance. However, the District aims to comply with those goals and policies and use them as a metric for formulating an impact analysis (El Dorado County 2004, as amended).

> ***Goal 5.1:*** *Provision of Public Services: Provide and maintain a system of safe, adequate, and cost-effective public utilities and services; maintain an adequate level of service to existing development while allowing for additional growth in an efficient manner; and ensure a safe and adequate water supply, wastewater disposal, and appropriate public services for rural areas.*
>
> ***Goal 5.2:*** *Water Supply: The development or acquisition of an adequate water supply consistent with the geographical distribution or location of future land uses and planned developments.*
>
> ***Policy 5.2.1.10:*** *The County shall support water conservation and recycling programs and projects that can reduce future water demand consistent with the policies of this General Plan. The County will develop and implement a water use efficiency program for existing and new residential, commercial/industrial, and agricultural uses. The County will also work with each of the County's water purveyors to develop a list of the type of uses that must utilize reclaimed water if feasible. The feasibility of using reclaimed water will be defined with specific criteria developed with public input and with the assistance of the District and will be coordinated with their ongoing reclaimed water (also referred to as recycled water) planning and implementation process. The County shall encourage all water purveyors to implement the water conservation-related Best Management Practices already implemented by the District and in compliance with the related criteria established by U.S. Bureau of Reclamation.*

> ***Policy 5.2.1.13:*** *The County shall encourage water purveyors to design water supply and infrastructure projects in a manner that avoids or reduces significant environmental effects to the maximum extent feasible in light of the water supply objectives of a given project.*

3.23.3 ENVIRONMENTAL SETTING

3.23.3.1 Wastewater

Wastewater in the County is treated by two types of treatment systems: (1) the District's wastewater treatment plants connected to the District's wastewater collection system of pipelines and lift stations, and (2) on-site wastewater treatment systems, such as septic tanks. Septic tanks are either connected to individual residences and nonresidential buildings in areas not served by the District's collection system, or are small, community collection and disposal systems that also rely upon septic tanks and on-site, underground disposal using leach fields and other types of soil absorption systems (El Dorado County 2003).

3.23.3.2 Water

Spanning a service area of over 220 miles in El Dorado and Sacramento Counties, the District provides wide-ranging services for water, wastewater, and recycled water systems, as well as hydropower and parks and recreation for nearly 125,000 residents. The District is the drinking water service provider for the majority of the Pollock Pines community, with the balance served by individual wells. The existing consumptive water rights for the District include entitlements for storage and direct diversion that include pre-1914 and post-1914 rights as well as licensed and permitted rights. The District's current water supply includes four water supply sources, which include natural runoff, carryover storage, contract water, and recycled water (District 2023).

3.23.3.3 Solid Waste

In the unincorporated portions of the County, most of the solid waste is generated by residential land uses. The County is divided into two waste management regions: the Tahoe Basin and the western slope. The County has franchise agreements with solid waste companies to provide solid waste collection services, as well as recycling and disposal services, for the unincorporated portion of the County, as well as the cities of South Lake Tahoe and Placerville. Most residents and businesses in the western slope of the County are served by Waste Management, Inc. for waste collection services (El Dorado County 2003).

There are no solid waste disposal sites in the County. Solid waste generated on the western slope, and within the Project area, is taken to the Material Recovery Facility/transfer station at Diamond Springs. From there, unrecyclable solid waste is taken to Lockwood Landfill in Nevada for disposal. The Lockwood Landfill has a permitted capacity of 302.5 million cubic yards and accepts approximately 5,000 tons of waste daily (NDEP 2023).

3.23.3.4 Power and Natural Gas

PG&E provides power to the Project area, as well as much of the County. Additional energy service is provided by Pioneer Community Energy. PG&E produces some of its own power and purchases some of its electricity through the Independent System Operator, which in turn obtains electricity from a number of companies that operate power plants throughout the Western Grid. Additionally, the Sacramento Municipal Utility District owns and maintains power lines in the County, but does not provide electricity service to users in the County (El Dorado County 2003).

Natural gas is supplied to the El Dorado Hills Community by transmission lines and individual propane services are provided to the rest of the County. These individual propane services are provided by a variety of commercial companies.

3.23.4 ENVIRONMENTAL IMPACTS

This section analyzes the Project's potential to result in significant impacts to utilities.

3.23.4.1 Project Impact Analysis

Impact UTLS-1	**Potential to require or result in the relocation or construction of new or expanded water, wastewater, or stormwater drainage, electrical power, natural gas, or telecommunications facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.**

Impact UTLS-1 Analysis

The Project would not require the construction of new water facilities, wastewater treatment facilities, stormwater drainage, natural gas, or telecommunications, or the expansion of existing facilities, which could cause significant environmental effects. A new pump station would be constructed, requiring new PG&E electrical service; however, this pump station would be built within the existing Reservoir A water treatment plant facility. Wastewater would not be generated as a result of Project implementation, nor would any substantial increases in water or electrical use be needed as a result of the Project. The Project itself would improve the existing water supply reliability by reestablishing the connection between the District's two largest drinking water treatment plant facilities. The Project would not result in the potential to require or result in the relocation or construction of new or expanded water, wastewater, or stormwater drainage, electrical power, natural gas, or telecommunications facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. Therefore, there would be a less than significant impact.

Level of Significance: Less than Significant

Mitigation Required: None Required

Impact UTLS-2 Potential to have sufficient water supply to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.

Impact UTLS-2 Analysis

The Project is intended to provide increased efficiency and reliability to the District's existing water system. No additional or expanded water supplies are necessary for construction or operation of the Project. Therefore, there would be no impact.

Level of Significance: No Impact

Mitigation Required: None Required

Impact UTLS-3 Potential to result in a determination by the wastewater treatment provider which serves or may serve the Project's projected demand in addition to the provider's existing commitments.

Impact UTLS-3 Analysis

The Project would not result in any increases or generation of wastewater during construction or operation. All water used on-site during construction (e.g., for dust control) would be tested and treated, if necessary, and may be reused for other construction activities. Therefore, there would be no impact.

Level of Significance: No Impact

Mitigation Required: None Required

Impact UTLS-4 Potential to generate 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.

Impact UTLS-4 Analysis

Soils excavated during construction would be reused on-site, with a minor amount of unusable material hauled off-site. Additional construction debris could include vegetation from clearing of brush, 4.5 miles of existing retired pipe and appurtenances, asphalt, and other miscellaneous materials. This solid waste generated from construction of the Project would not be expected to exceed the daily maximum capacity of the Lockwood Landfill of 5,000 tons per day (NDEP 2023). Furthermore, once construction has been completed, no additional solid waste would be generated by the Project, because there would be no new employees or activities associated with the new pipeline, pump station, or associated appurtenances. Therefore, there would be a less than significant impact.

Level of Significance: Less than Significant

Mitigation Required: None Required

Impact UTLS-5 Potential to comply with federal, State, and local management and reduction statutes and regulations related to solid waste.

Impact UTLS-5 Analysis

As discussed above under Impact UTLS-4, the Project would not result in substantial amounts of solid waste during construction or operation that would exceed the daily maximum capacity of the Lockwood Landfill. Project construction activities would be in compliance with both State and local regulations regarding waste from construction. Construction waste is expected to be limited and temporary in nature and would not conflict with any of the applicable goals and regulations. Therefore, there would be a less than significant impact.

Level of Significance: Less than Significant

Mitigation Required: None Required

3.23.5 UTILITIES AND SERVICE SYSTEMS MITIGATION

The level of significance of potential impacts to utilities and service systems is either no impact or less than significant impact; therefore, no mitigation is required.

3.24 Wildfires

3.24.1 BASIS FOR ANALYSIS

The CEQA Guidelines' Appendix G Environmental Checklist was assessed during the NOP scoping process to identify the Project components that have the potential to cause a significant impact related to wildfires. The following thresholds of significance were used to determine if further evaluation was warranted to ascertain whether the Project may:

- If located in or near an SRA or lands classified as very high fire hazard severity zones:
- Would the Project impair an adopted emergency response plan or emergency evacuation plan?
- Would the Project 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?
- Would the Project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?
- Would the Project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

3.24.2 REGULATORY FRAMEWORK

3.24.2.1 Federal

CFR Title 36, Chapter II, Part 261 discusses actions that are prohibited and could result in fire damages to federal lands. These include (a) carelessly or negligently throwing or placing any ignited substance or other substance that may cause a fire, (b) firing any tracer bullet or incendiary ammunition; (c) causing timber, trees, slash, brush, or grass to burn except as authorized by permit; (d) leaving fire without completely extinguishing it; (e) causing and failing to maintain control of a fire that is not a prescribed fire that damages forest lands; (f) building, attending, maintaining, or using a campfire without removing all flammable material from around the campfire adequate to prevent its escape; and (g) negligently failing to maintain control of a prescribed fire on federal lands that damages the land.

Executive Oder 13855

Executive Order 13855 promotes active management of U.S.'s forests, rangelands, and other federal lands to improve conditions and reduce wildfire risk. The Executive Order emphasizes that federal agencies must collaborate with state and local institutions and incorporate active management principles into all land management planning efforts in order to address the challenges of wildland fire.

Secretary Order 3374 – Implementation of the John D. Dingell, Jr. Conservation, Management, and Recreation Act

Secretarial Order 3374 established a Department of the Interior task force to facilitate the implementation of the Dingell Act, which was established on March 12, 2019. The Dingell Act lays out provisions for various programs and activities affecting the management and conservation of natural resources on federal lands, to include wildland fire operations.

3.24.2.2 State

Fire Protection

California fire safety regulations apply to SRAs during the time of year designated as having hazardous fire conditions. CAL FIRE has developed a fire hazard severity scale that considers vegetation, climate, and slope to evaluate the level of wildfire hazard in all SRAs. An SRA is defined as the part of the state where CAL FIRE is primarily responsible for providing basic wildland fire protection assistance. Areas under the jurisdiction of other fire protection services are considered to be Local Responsibility Areas or on Federal lands are considered Federal Responsibility Areas.

During the fire hazard season, these regulations include: (1) restricting the use of equipment that may produce a spark, flame, or fire; (2) requiring the use of spark arrestors on any equipment that has an internal combustion engine; (3) specifying requirements for the safe use of gasoline-powered tools in fire hazard areas; and (4) specifying fire suppression equipment that must be provided on-site for various types of work in fire-prone areas. CAL FIRE has primary responsibility for fire protection within SRAs.

California Code of Regulations

The CCR Title 14, Division 1.5, Chapter 7, Subchapter 2 includes SRA fire safe regulations. These regulations establish minimum wildfire protection standards in conjunction with building, construction, and development within an SRA. These regulations provide for emergency access, signing and building numbering, private water supply reserves for emergency fire use, and vegetation modification. Because the Project is located within an SRA, the CCR SRA fire safe regulations apply to the Project (State of California 2016).

3.24.2.3 Local

El Dorado County General Plan

Pursuant to Government Code sections 53091(D) and (E), many of the District's activities are not subject to local zoning or land use requirements, as stated below.

> *Building and zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, or for the production or generation of electrical energy, facilities that are subject to Section 12808.5 of the Public Utilities Code.*

As a special district with equal authority, the District is exempt from following goals and policies within the County's General Plan and Zoning Ordinance. However, the District aims to comply with those goals and policies and use them as a metric for formulating an impact analysis (El Dorado County 2004, as amended).

> ***Objective 6.1.1:*** *El Dorado County Multi-Jurisdictional Local Hazard Mitigation Plan. The El Dorado County Multi-Jurisdictional Local Hazard Mitigation Plan shall serve as the implementation program for this Goal.*
>
> ***Policy 6.1.1.1:*** *The El Dorado County Multi-jurisdictional Local Hazard Mitigation Plan (LHMP) shall serve as the implementation program for the coordination of hazard planning and disaster response efforts within the County and is incorporated by reference to this Element. The County will ensure that the LHMP is updated on a regular basis to keep pace with the growing population.*
>
> ***Goal 6.2:*** *Fire Hazards. Minimize fire hazards and risks in both wildland and developed areas.*
>
> ***Objective 6.2.1:*** *Defensible Space. All new development and structures shall meet "defensible space" requirements and adhere to fire code building requirements to minimize wildland fire hazards.*
>
> ***Objective 6.2.2:*** *Limitations to Development. Regulate development in areas of high and very high fire hazard as designated by the California Department of Forestry and Fire Prevention Fire Hazard Severity Zone Maps.*

Policy 6.2.2.1: *Fire Hazard Severity Zone Maps shall be consulted in the review of all projects so that standards and mitigation measures appropriate to each hazard classification can be applied. Land use densities and intensities shall be determined by mitigation measures in areas designated as high or very high fire hazard.*

Policy 6.2.2.2: *The County shall preclude development in areas of high and very high wildland fire hazard or in areas identified as wildland-urban interface (WUI) communities within the vicinity of Federal lands that are a high risk for wildfire, as listed in the Federal Register Executive Order 13728 of May 18, 2016, unless such development can be adequately protected from wildland fire hazard, as demonstrated in a WUI Fire Safe Plan prepared by a qualified professional as approved by the El Dorado County Fire Prevention Officers Association. The WUI Fire Safe Plan shall be approved by the local Fire Protection District having jurisdiction and/or California Department of Forestry and Fire Protection (Resolution 124-2019, August 6, 2019).*

Objective 6.2.3: *Adequate Fire Protection. Application of uniform fire protection standards to development projects by fire districts.*

Policy 6.2.3.1: *As a requirement for approving new development, the County must find, based on information provided by the applicant and the responsible fire protection district that, concurrent with development, adequate emergency water flow, fire access, and firefighting personnel and equipment will be available in accordance with applicable State and local fire district standards.*

Policy 6.2.3.4: *All new development and public works projects shall be consistent with applicable State Wildland Fire Standards and other relevant State and federal fire requirements.*

Objective 6.2.4: *Area-Wide Fuel Management Program. Reduce fire hazard through cooperative fuel management activities.*

Policy 6.2.4.1: *Discretionary development within high and very high fire hazard areas shall be conditioned to designate fuel break zones that comply with fire safe requirements to benefit the new and, where possible, existing development.*

Policy 6.2.4.2: *The County shall cooperate with the California Department of Forestry and Fire Protection and local fire protection districts to identify opportunities for fuel breaks in zones of high and very high fire hazard either prior to or as a component of project review.*

Community Wildfire Protection Plan

The El Dorado County Fire Safe Council has developed a CWPP based on the requirements of the Healthy Forest Restoration Act of 2003, which identifies measures that protect and restore forest land, and the 2010 Federal Land Assistance Management and Enhancement Act, which led to the development of a cohesive strategy of interagency cooperation to address wildfire problems. The CWPP coordinates with the LHMP on wildfire issues. The CWPP provides educational opportunities for the public to understand the complex

issues of fire and fuels and to engage in the decision-making process for community safety. The February 15, 2022, Western El Dorado County CWPP is the latest CWPP for the area (El Dorado Fire Safe Council 2022).

3.24.3 ENVIRONMENTAL SETTING

The severity of wildland fires is influenced by vegetation, topography, and weather (temperature, humidity, and wind). The CAL FIRE severity scale defined in the Regulatory Framework above considers vegetation, climate, and slope to evaluate the level of wildfire hazard in a SRA. CAL FIRE designated three levels of Fire Hazard Severity Zones (Moderate, High, and Very High) to indicate the severity of fire hazard in a particular geographic or SRA.

The Project is located largely within the SRA that is protected by the Amador-El Dorado CAL FIRE unit and is considered to have a Very High fire hazard severity rating (CAL FIRE 2022). However, there are portions of the Project that are located within a Federal Responsibility Area (FRA) (CAL FIRE 2023). As the Project is in both an SRA and FRA, both the State and USFS are responsible for fire prevention and suppression. Fire hazard zoning is used to indicate both the likelihood for a fire (e.g., prevalence of fuels) and the potential for damage (e.g., proximity to residences).

3.24.4 ENVIRONMENTAL IMPACTS

This section analyzes the Project's potential to result in significant impacts to wildfires.

3.24.4.1 Project Impact Analysis

Impact WILD-1 Potential to impair an adopted emergency response plan or emergency evacuation plan.

Impact WILD-1 Analysis

Construction

The Project is located within a wildland-urban interface, with rural residential development surrounding the northern portion of the Project and Jenkinson Lake and campgrounds and private land with rural residences in the southern portion of the Project. The Project is located in an area with a Very High fire hazard severity rating (CAL FIRE 2022), which indicates that the Project has the potential to increase fire risk due to construction activity and, therefore, the potential to impair an adopted emergency response plan or emergency evacuation plan.

Some construction activities would occur within existing paved ROWs, existing disturbed areas and built-up areas with concrete, and paved areas (e.g., pump station construction) where groundcover vegetation is minimal and less prone to flammability, thereby limiting the potential for Project construction to impair emergency response plans or evacuation plans. However, some construction activities in overland segments of the alignment could occur adjacent to dry brush, undisturbed areas, grasses, or other flammable woody vegetation that are on steep slopes. Moreover, construction of the Project would involve

the use of equipment that could cause the unintentional release of sparks or heat into nearby flammable material, such as brush or grasses, which then could impair emergency response plans or evacuation plans. As such, Mitigation Measure WILD-1 would be required to reduce potential impacts on emergency response plans or evacuation plans to a less than significant level.

Mitigation Measure WILD-1 would require the preparation of a Fire Safety Plan prior to construction activities and the implementation of that plan during all vegetation removal and construction activities. The Fire Safety Plan would describe preventative measures for fire protection, procedures for evaluating weather conditions during which fire risk is elevated, conditions under which activities would cease due to elevated fire conditions, and equipment used to prevent fire and respond to a fire immediately. The plan also would define personnel responsibilities and assignments to implement the Fire Safety Plan and other measures to reduce fire risk during construction.

In addition to Mitigation Measure WILD-1, all Project construction activities would be completed in compliance with all applicable local, State, and federal requirements, including the California Fire Code (State of California 2016), which limits the potential for construction equipment to spark a wildland fire by requiring the implementation of fire protection systems, means of adequate ingress and egress of construction equipment and personnel, and use of fire-resistive construction equipment.

Given the above, with implementation of Mitigation Measure WILD-1 and compliance with applicable local, State, and federal regulations, construction of the Project would have a less than significant impact related to the potential to impair an adopted emergency response plan or emergency evacuation plan.

Operation

Once operational, the Project would be located largely underground, and the new pump station site would be located adjacent to the existing developed areas, which would not result in any potential impacts related to impairment of emergency response plans or evacuation plans. Ongoing maintenance of the pipeline alignment would continue under the District's Right-of-Way Reinforcement Program. In the event of a wildfire, mandatory evacuations would be put in place and firefighting operations would be handled by CAL FIRE, thereby substantially reducing the potential for the Project to further expose people or structures to the risks associated with wildfires beyond which are already present within the densely forested area. Therefore, operational impacts from the Project would be less than significant.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure WILD-1

Impact WILD-2 Potential to exacerbate wildfire risks, and thereby expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

Impact WILD-2 Analysis

Construction

As noted above, the Project is located within an area having a Very High fire hazard severity rating (CAL FIRE 2022), indicating that the Project has the potential to increase fire risk due to construction activity and, therefore, the potential to expose people to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Project construction in overland segments where the use of equipment could cause the unintentional release of sparks or heat into nearby flammable material could exacerbate wildfire risks. However, implementation of Mitigation Measure WILD-1 and compliance with all applicable local, State, and federal requirements would reduce construction impacts to less than significant levels.

Operation

Once operational, the Project would be located largely underground, and the new pump station site would be located adjacent to the existing developed areas, which would not result in any potential impacts related to exacerbation of potential wildfire risk. Ongoing maintenance of the pipeline alignment would continue under the District's Right-of-Way Reinforcement Program. In the event of a wildfire, mandatory evacuations would be put in place and firefighting operations would be handled by CAL FIRE, which would substantially reduce any potential for the Project to further expose people to the risks associated with wildfires beyond which are already present within the densely forested area. Therefore, impacts resulting from Project operation would be less than significant.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure WILD-1

Impact WILD-3 Potential to 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.

Impact WILD-3 Analysis

Construction

The Project would upgrade existing pipeline with cement, mortar-lined pipeline and would construct a new pump station, electrical service, and backup power supply generator at Reservoir A. The pipeline replacement would involve open-cut trenching to access and remove the existing pipeline and installing the new pipeline within the existing alignment, to the extent feasible. The construction corridor width would be 25 feet on either side of the current alignment, except at drainage and creek crossings, where the corridor would be narrowed to approximately 15 feet on either side of the current alignment. Construction of the

pump station would involve grading and site preparation, followed by excavation. Once the area is excavated, the construction crew would install a structural concrete foundation to accommodate the pump station, generator, and electrical service transformer. Power to the pump station would be provided through a new underground electrical service to minimize the possibility of damage during fires.

Other than the infrastructure associated with the Project as described above, the Project would not require the installation or maintenance of infrastructure such as roads, fuel breaks, emergency water sources, power lines, or other utilities that could exacerbate the risk of fire. Notwithstanding, fire risk associated with construction of the Project would be reduced to less than significant levels with the implementation of Mitigation Measure WILD-1 and compliance with local, State, and federal regulations.

Operation

Once operational, the Project would be located largely underground, and the new pump station site would be located adjacent to the existing developed areas, which would not result in any potential impacts related to exacerbation of potential wildfire risk. As noted above, power to the pump station would be provided through a new underground electrical service to minimize the possibility of damage during fires. Ongoing maintenance of the pipeline alignment would continue under the District's Right-of-Way Reinforcement Program. Therefore, impacts resulting from Project operation would be less than significant.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure WILD-1

Impact WILD-4 Potential to expose people or structures to significant risks, including downslope downstream flooding or landslides, as a result of, runoff, post-fire slope stability, or drainage change.

Impact WILD-4 Analysis

Construction

The Project is located in an area with a Very High fire hazard severity rating (CAL FIRE 2022), which indicates that the Project has the potential to increase fire risk and, therefore, the potential for post-fire runoff, slope stability, or drainage changes along the Project alignment. As noted earlier, some construction activities would occur within existing paved ROWs and within existing disturbed areas and built-up areas with concrete and paved areas where groundcover vegetation is minimal and less prone to flammability, thereby limiting fire risk during Project construction. The use of construction equipment could cause the unintentional release of sparks or heat into nearby flammable material along overland segments of the alignment. Therefore, in addition to compliance with local, State, and federal regulations, the implementation of Mitigation Measure WILD-1 would be required to reduce potential impacts of post-fire downslope flooding or landslides to a less than significant level.

Operation

Once operational, the Project would be located largely underground, and the new pump station site would be located adjacent to existing developed areas, which would not result in any potential impacts related to flooding or landslides. Ongoing maintenance of the pipeline alignment would continue under the District's Right-of-Way Reinforcement Program. In the event of a wildfire, mandatory evacuations would be put in place and firefighting operations would be handled by CAL FIRE, thereby substantially reducing the potential for the Project to further expose people or structures to the risks associated with wildfires beyond which are already present within the densely forested area. Therefore, operational impacts from the Project would be less than significant.

Level of Significance: Less than Significant with Mitigation

Mitigation Required: Mitigation Measure WILD-1

3.24.5 WILDFIRE MITIGATION

3.24.5.1 Mitigation Measure WILD-1: Prepare and Implement a Fire Safety Plan

The District shall require the Project contractor to prepare a Fire Safety Plan prior to construction activities and to implement the Fire Safety Plan during all vegetation removal and construction activities. The plan shall describe preventative measures for fire protection; procedures for evaluating weather conditions during which fire risk is elevated (conditions under which activities would cease due to elevated fire conditions); equipment used to prevent fire and respond to a fire immediately; personnel responsibilities and assignments to implement the Fire Safety Plan; and other measures to reduce fire risk during construction.

Responsible Party: The District shall ensure the selected contractor appropriately prepares and implements the Fire Safety Plan in accordance with all applicable guidelines and the requirements of this mitigation measure. This mitigation measure shall be referenced in the contract documents for the Project.

Timing: Prior to and during construction.

Monitoring and Reporting Program: The District shall monitor and coordinate with the contractor during weekly construction meetings to ensure that the Fire Safety Plan is implemented successfully as documented in inspection logs, and the Fire Safety Plan shall remain on file at the District.

Standards for Success: Fire prevention through adherence to plan conditions and fire prevention practices.

4.0 Alternatives

According to the CEQA Guidelines (14 California Code of Regulations [CCR] Section 15126.6(a)), the discussion of alternatives, "shall describe a range of reasonable alternatives to a project, or its location, that would feasibly obtain most or all of the basic objectives of the project but would avoid or substantially lessening the significant effects of the project." It is the responsibility of the Lead Agency to select and publicly disclose the reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason. Although an EIR must contain a discussion of "potentially feasible" alternatives, the ultimate determination whether an alternative is feasible or infeasible is made by the Lead Agency's decision-making body (Public Resources Code [PRC] Section 21081[a][3]).

The CEQA Guidelines indicate that the range of alternatives included in this discussion should be sufficient to allow decision-makers a reasoned choice between alternatives and the preferred proposed project. In determining what alternatives should be considered in the EIR, it is necessary to acknowledge the goals and objectives of a project, the project's significant effects, and unique project considerations, as well as the feasibility of the alternatives. This section outlines the alternative identification selection process and evaluates feasible alternatives following the CEQA Guidelines requirements.

4.1 Reasonable Alternatives Feasibility

As required by CEQA, the term "feasible" is defined as, "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors" (14 CCR Section 15364). CEQA does not require that an EIR determine the ultimate feasibility of a selected alternative, but rather that an alternative be potentially feasible. Accordingly, no studies have been prepared regarding the economic feasibility of the selected alternatives.

The District's development of feasible alternatives and the range of feasible alternatives considered for this EIR are discussed in the following section in a manner to foster meaningful public participation and informed decision-making. Pursuant to the CEQA Guidelines, factors taken into consideration for assessing feasibility of alternatives include the following:

> *Site suitability, economic viability, availability of infrastructure, General Plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). No one of these factors establishes a fixed limit on the scope of reasonable alternatives.*

4.1.1 INFEASIBLE ALTERNATIVES

The following alternatives have been identified, however were found to be infeasible pursuant to 14 CCR Section 15364

4.1.1.1 Infeasible Alternative 1 – Alternative Within Existing Roadway ROW

This alternative would utilize an alternative route within the existing right-of-way (ROW), along Sly Park Road (see Figure 4.1-1).

Reasons for Infeasibility

- An alternative route within the existing ROW would not benefit from gravity flow operations, such as the preferred proposed Project does. Rather, this alternative would require the construction of new pump stations at both Reservoir 1 and Reservoir A, which would incur significant costs (upwards of $10 million). Additionally, there would be a net increase in energy use, due to the necessity of pump station operations at both reservoirs.
- Utilizing Sly Park Road as an alternative route nearly doubles the pipeline alignment length and thus, would require a longer construction period. With a longer period of construction, it is anticipated that there would be a more significant impact on traffic due to the alignment occurring within the roadway, as well as an increase in greenhouse gas emissions.
- Under this alternative there is a greater risk to unearthing previously unknown utilities and in any areas that have been previously undisturbed, cultural and tribal artifacts. Furthermore, this scenario would necessitate the re-paving of approximately seven miles of roads increasing construction duration.

4.1.1.2 Infeasible Alternative 2 – Alternative Stream Crossings

This alternative would have the same alignment as the preferred proposed Project, however, instead of open cut trenching for stream crossings, the jack and bore, or horizontal directional drilling (HDD) construction method would be used for each of the stream crossings (see Figure 4.1-1).

Reasons for Infeasibility

- The jack and bore or HDD construction methods would introduce a larger project footprint by requiring additional area to safely implement and place the drilling equipment. Additionally, there are existing terrain limitations, such as the creek bed being bordered by steep slopes, which makes these construction methods difficult and impractical to implement. In addition, the geology is such that sub-surface conditions are unknown (e.g., coarse, impenetrable materials), and could lead to project setbacks such as, increasing construction duration, project footprint, and cost. Therefore, the use of jack and bore is considered technically infeasible. Additionally, the use of HDD construction methods increases the probability of an inadvertent release of bentonite into the stream zone, and therefore this alternative does not necessarily reduce the biological resource impacts and thus is not considered further in this alternatives analysis.
- This alternative would still require digging/trenching within the creek bed to remove the existing retired pipeline, which has the right geological conditions (i.e., alluvium) for digging. Thus, this alternative would still have an impact on aquatic habitat.

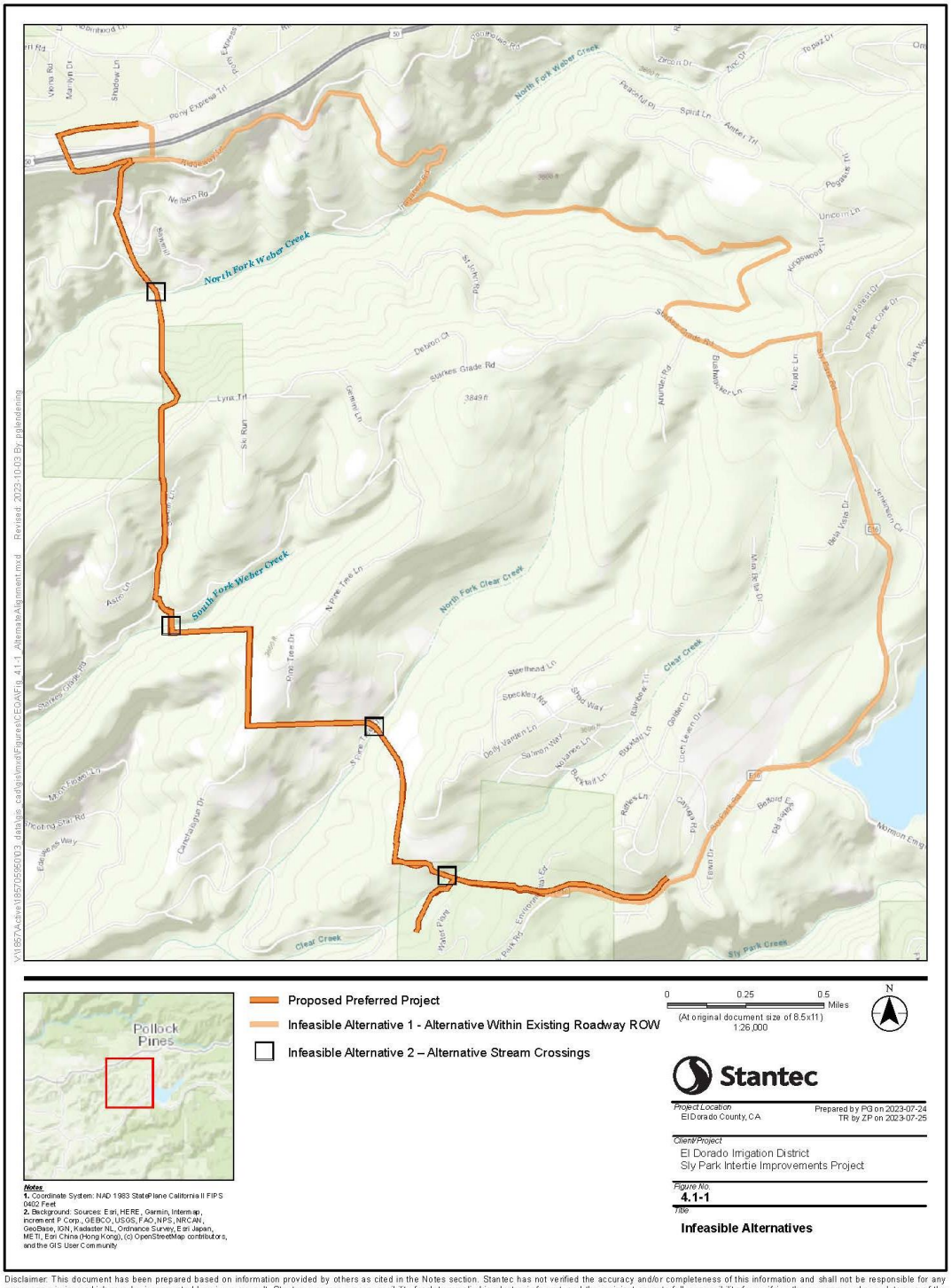


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Figure 4.1-1. Infeasible Alternatives

4.1.2 FEASIBLE ALTERNATIVES

The following alternatives have been found to be feasible and are carried throughout the remainder of the alternatives analysis:

4.1.2.1 No Project Alternative

CEQA Guidelines Section 15126.6(e)(1) requires that the No Project Alternative be described and analyzed, "to allow decision makers to compare the impacts of approving the project with the impacts of not approving the project." The No Project Alternative analysis is required to discuss "the existing conditions at the time the notice of preparation is published… as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services" (Section 15126.6(e)(2)).

As directed by the CEQA Guidelines [Section 15126.6(e)(3)(B)], when a project consists of development on identifiable property, the "no project" alternative is the circumstance under which the project does not proceed. If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, the "no project" consequence should be discussed.

The No Project Alternative assumes that the SPI Improvements Project would not be implemented, and the drinking water system would remain operating under existing conditions. It also means that the connection between the District's two largest drinking water treatment plant facilities that, together, provide two-thirds of the District's water supply would continue to operate under existing conditions, which do not allow for extended shut down periods for maintenance purposes. Although none of the environmental impacts identified in Chapter 3.0 would occur, conveyance of drinking water between Jenkinson Lake and the South Fork American River watershed to areas throughout the District's service area would continue to be limited, inflexible during emergencies including drought, and incapable of offline maintenance. Furthermore, implementation of the No Project Alternative would not meet any of the Project objectives (See Table 4.1-1 below).

4.1.2.2 Alternative 1 – Replacement Within Existing SPI Alignment

This alternative would utilize the existing SPI pipeline alignment and would not deviate from the existing alignment (See Figure 4.1-2). This includes routing the pipeline in a portion of U.S. Highway 50, whereas the preferred proposed Project routes the pipeline under U.S. Highway 50 within an existing underpass from Pony Express Trail to Ridgeway Drive. This alternative would require no new areas of disturbance since it would follow the existing pipeline alignment, and thus potentially reduce impacts related to new excavation, such as unearthing previously unknown utilities or inadvertent discoveries of cultural resources or impacts to biological resources. Although these impacts would be reduced, mitigation would still be required for biological and cultural resources, and thus would ultimately have a similar impact as the preferred proposed Project. However, this alternative would have a greater impact on traffic at U.S. Highway 50, and would necessitate a longer construction window, require additional costs, and substantial coordination with Caltrans which would take additional time. Similar to the preferred proposed Project, this alternative would include installation of a new pump station and associated appurtenances, therefore impacts to these areas would likely remain the same as the preferred proposed Project.

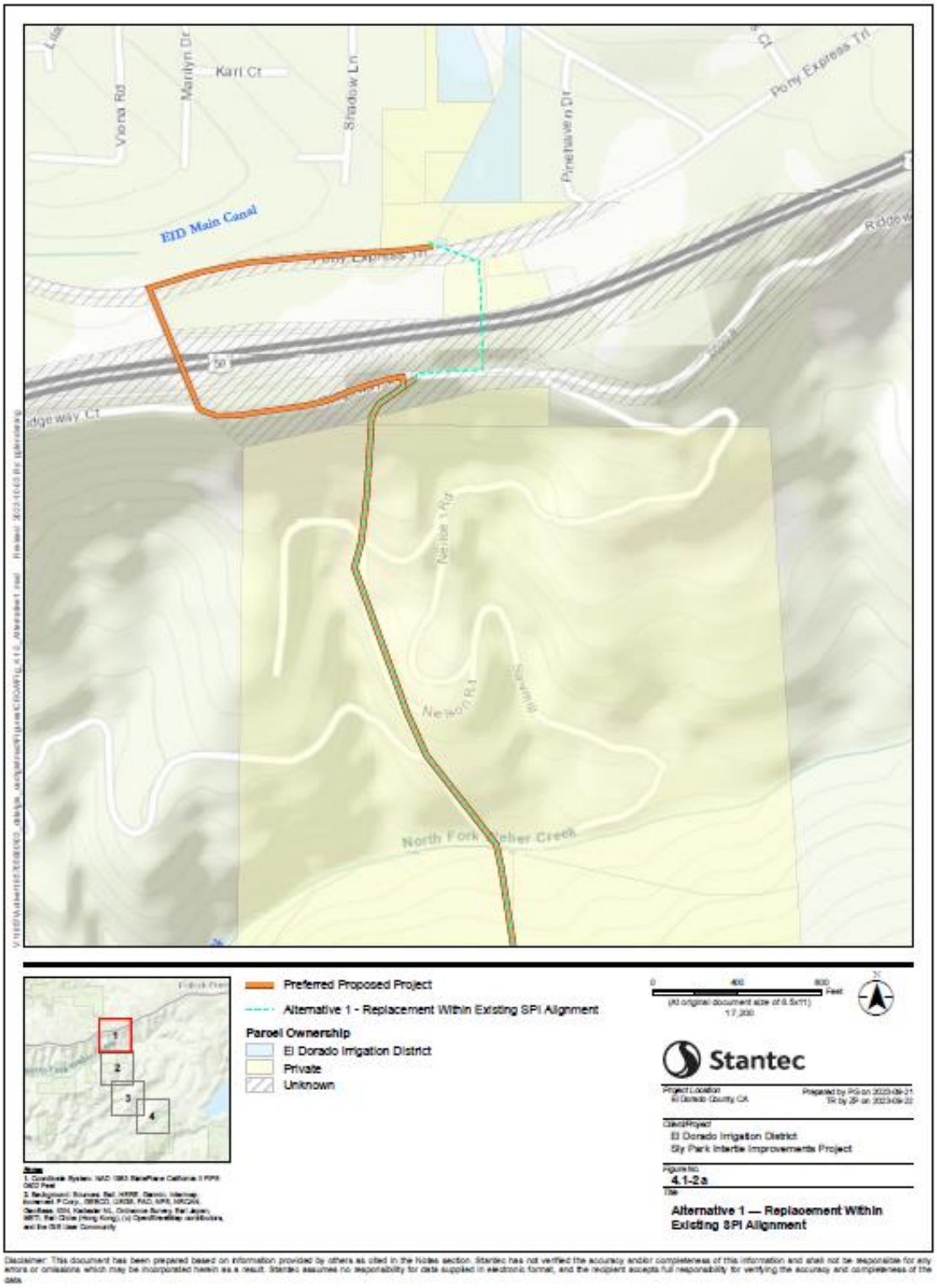

Figure 4.1-2a. Alternative 1 – Replacement Within Existing ROW

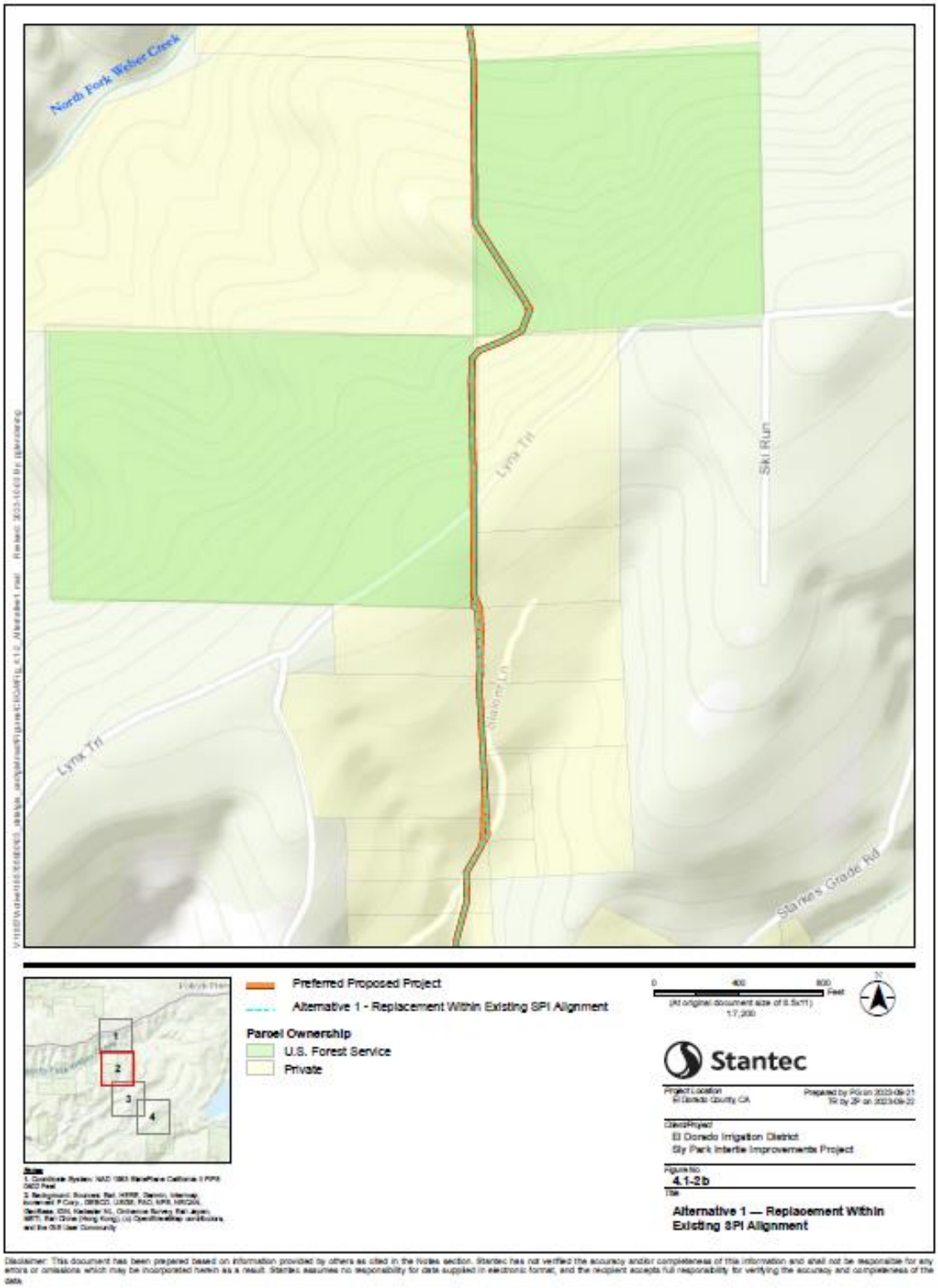

Figure 4-1-2b. Alternative 1 – Replacement Within Existing ROW

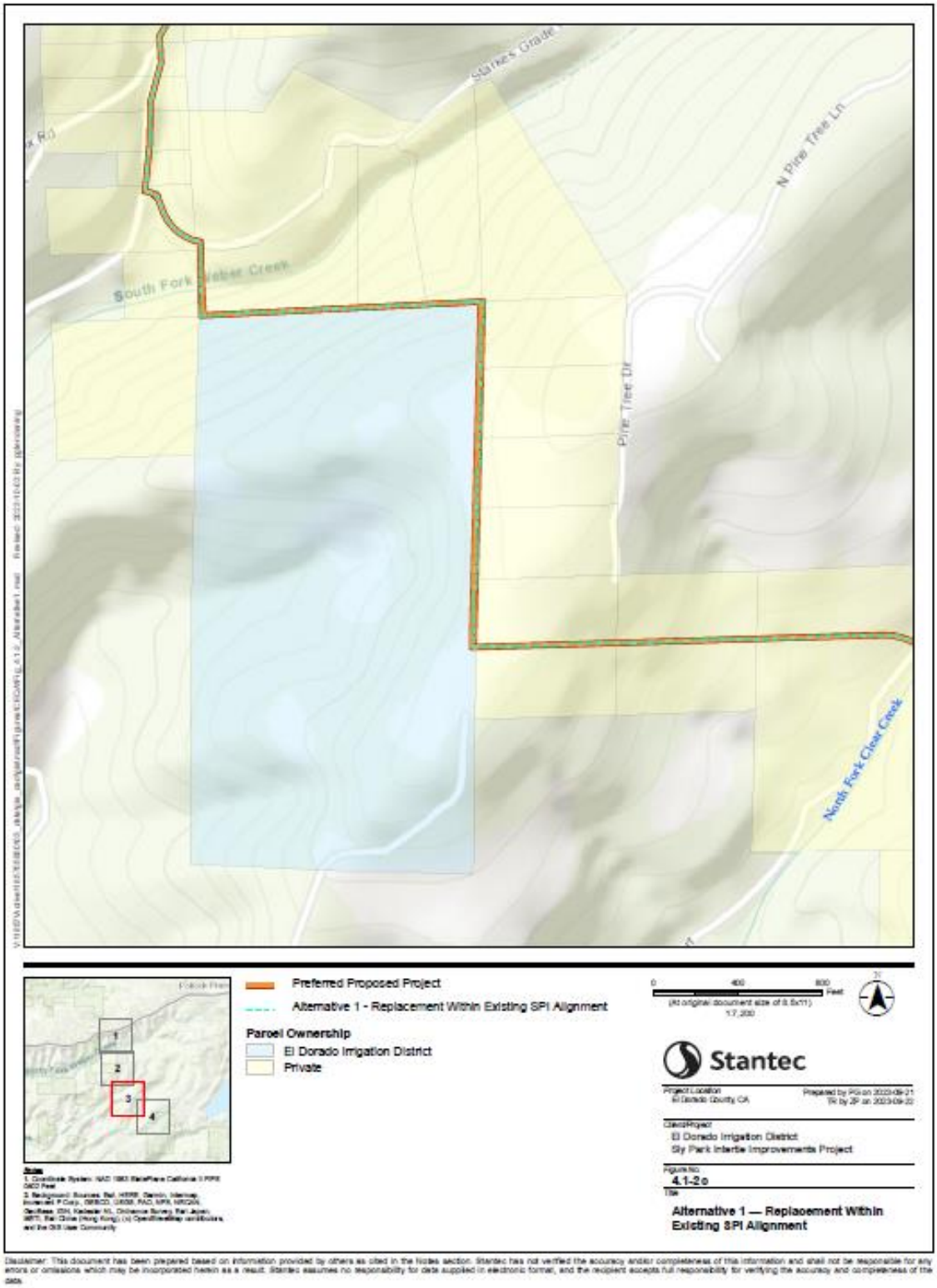

Figure 4.1-2c. Alternative 1 – Replacement Within Existing ROW

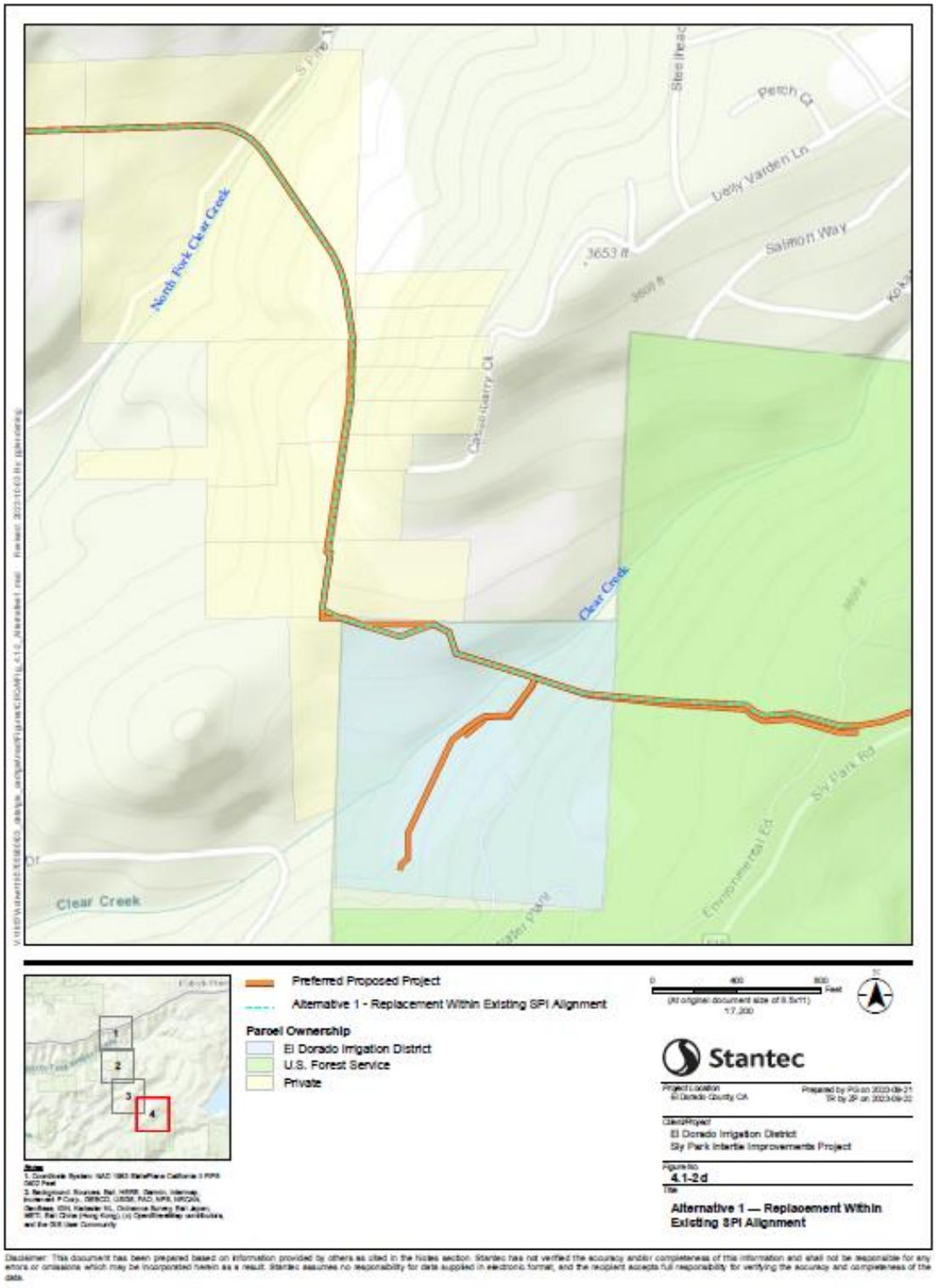

Figure 4.1-2d. Alternative 1 – Replacement Within Existing ROW

4.1.3 ABILITY TO MEET BASIC PROJECT OBJECTIVES

As required by CEQA, to be considered as a viable alternative to the preferred proposed Project, an alternative must meet all or most of the following Project objectives (as described in Section 2.0). The Project objectives were developed based on engineering requirements, District planning needs, and stakeholder and public input during the Notice of Preparation (NOP) public review period. Table 4.1-1 presents an analysis of the identified alternative's ability to meet the Project objectives.

Table 4.1-1. Alternatives Ability to Meet Project Objectives

Project Objective	No Project Alternative	Alternative 1 – Replacement Within Existing SPI Alignment
1. Improve drinking water supply reliability by replacing the existing SPI with a bi-directional pipeline capable of conveying treated drinking water between Reservoir 1, Reservoir A, and the Sly Park Hills Tank.	**No** – existing non-operable pipeline would remain in place and would not improve the reliability of the drinking water supply.	**Yes** – similar to the preferred proposed Project, this alternative would result in improvements to the existing SPI and would utilize the existing SPI alignment to replace the pipe.
2. Facilitate uninterrupted drinking water supply during extended shutdowns of either the Reservoir 1 or Reservoir A treatment plants, enabling the inspection and future repairs or rehabilitation of Reservoir 1, Reservoir A, and the raw water supply tunnel/pipeline from Jenkinson Lake.	**No** - existing non-operable pipeline would remain in place and would not facilitate uninterrupted supplies of drinking water during extended shutdowns.	**Yes** – similar to the preferred proposed Project, this alternative would improve the drinking water infrastructure by replacing the existing SPI pipeline.
3. Reduce energy use by maximizing system gravity flows and utilizing new high efficiency pumps when pumping is required.	**No** – no changes to the drinking water system would occur and no new efficiencies would be established.	**Yes** – gravity flows would be utilized for this alternative, similar to the existing SPI pipeline and the preferred proposed Project. A new pump station would also be constructed for this alternative.
4. Improve system water quality and reduce the scale and cost of water quality treatments.	**No** – no changes to the drinking water system would occur.	**Yes** – the existing SPI pipeline would be improved, and a new pump station would be added, thus improving the systems overall water quality and reducing the scale and cost of water treatment.
Total Number of Objectives Met	**0/4**	**4/4**

4.1.4 ALTERNATIVES ABILITY TO LESSEN ONE OR MORE ENVIRONMENTAL IMPACTS

The CEQA Guidelines further require that the alternatives be limited to those that would avoid or substantially lessen any of the significant effects of the preferred proposed Project (CEQA Guidelines Section 15126.6(f)). The CEQA Guidelines require that potential impacts of the alternatives be compared to the preferred proposed Project's environmental impacts and that the "no project" alternative be

considered (CEQA Guidelines Section 15126.6(d)[e]). Finally, Section 15126.6(b) of the CEQA Guidelines defines requirements of the alternatives analysis as follows:

> *Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code [PRC] Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.*

Pursuant to the CEQA Guidelines, potentially significant effects include both those that are significant and unavoidable and those that are less than significant with mitigation. The alternatives considered within this section aim to provide a means of reducing the level of impact that would otherwise result from implementation of the preferred proposed Project even though no significant impacts were identified.

The alternatives were reviewed for their ability to reduce one or more significant effects of the preferred proposed Project. Table 4.1-2 includes that assessment.

Table 4.1-2. Alternatives Impact Comparison

Environmental Resource Area	Preferred Proposed Project	No Project Alternative	Alternative 1 – Replacement Within Existing SPI Alignment
Aesthetics and Visual Resources	LTS/M	• **Lesser impact** – no construction activities would occur, therefore, there would be no impacts to aesthetics or visual resources.	• **Greater impact** – construction methods and equipment would be similar to the preferred proposed Project for this alternative; however, this alternative would require work directly within U.S. Highway 50 which is an "Officially Designated" State Scenic Highway (See Section 3.1, Aesthetics and Visual Resources). Therefore, this alternative would have a greater impact upon visual resources than the preferred proposed Project. If permits from Caltrans could be obtained, mitigation measures described for the preferred proposed Project plus measures such as temporary visual impact screening, if recommended by Caltrans, would also be required for this alternative. Additionally, if there were needs for maintenance during the life of the project, then the construction disruptions would repeat.
Agricultural and Forestry Resources	LTS	• **Lesser impact** – no construction activities would occur, therefore there would be no impacts related to agriculture or forestry resources.	• **Similar impact** – this alternative would require tree removal, similar to the preferred proposed Project, however less trees would require removal under this alternative. Although less tree removal would be required, the impact would remain less than significant.
Air Quality	LTS/M	• **Lesser impact** – no construction activities would occur, therefore, there would be no impacts to air quality.	• **Greater Impact** – construction methods and equipment would be very similar to the preferred proposed Project under this alternative. Additionally, the construction period would be similar but slightly longer for this alternative relative to the preferred proposed Project, given the need to construct through/under HWY 50. The slow construction in that area will also expose users within the highway corridor to additional dust and emissions during construction. While the air quality impacts would be less than significant with mitigation under this alternative, relative to the preferred proposed Project, the impact would be slightly greater. Mitigation measures described for the preferred proposed Project would also be required for this alternative.

Environmental Resource Area	Preferred Proposed Project	No Project Alternative	Alternative 1 – Replacement Within Existing SPI Alignment
Biological Resources	LTS/M	• **Lesser impact** – no construction activities would occur, therefore there would be no impacts to biological resources.	• **Similar Impact –** This alternative would follow the existing SPI alignment, and therefore would not result in disturbance of new areas or removal of new vegetation beyond what exists along the SPI pipeline alignment. However, the areas where the preferred proposed Project leaves the existing SPI alignment are either in roadways or manzanita scrub habitat which do not include additional drainage crossings or special status species impacts. The key areas for potential biological impacts (i.e., drainage crossings, tree removal, and riparian impacts) are common among the preferred proposed Project and this alternative. The only way to reduce those impacts is to go in the roadway the entire route, which was determined infeasible given the energy requirements and impacts, among other fiscal constraints. The biological impacts for alternative 1 would be similar to the preferred proposed Project.
Cultural Resources	LTS/M	• **Lesser impact** – no ground disturbing activities would occur, therefore there would be no impacts to cultural resources.	• **Similar impact –** this alternative would follow the existing SPI alignment and would not result in additional ground disturbing impacts that could impact previously undiscovered cultural resources. Therefore, the potential impacts would be similar to the preferred proposed Project given, the preferred proposed Project deviations from this alternative alignment are in roadways and manzanita habitat not anticipated to have a high probability of cultural resources occurrences.
Energy Resources	LTS	• **Greater impact –** the continued use of the existing conveyance system (i.e., the existing pipeline and treatment plant) would result in increased impacts related to consumption of energy resources over time.	• **Similar impact** –construction and operation of this alternative would not substantially change from that described for the preferred proposed Project. No additional construction or operational energy consumption would be anticipated for this alternative beyond those described for the preferred proposed Project.
Geology and Soils	LTS/M	• **Lesser impact** – no change to geology and soils.	• **Similar impact** –construction and operation of this alternative would not substantially change from that described for the preferred proposed Project. No additional geology or soils impacts would be anticipated for this alternative beyond those described for the preferred proposed Project. Mitigation measures described for the preferred proposed Project would also be required for this alternative.

Environmental Resource Area	Preferred Proposed Project	No Project Alternative	Alternative 1 – Replacement Within Existing SPI Alignment
Greenhouse Gases	LTS	• **Greater impact –** the continued use of the existing conveyance system (i.e., the existing pipeline and treatment plant) would result in ongoing maintenance activities to keep the system running. This could require additional truck trips, unplanned outages, materials, and workers which could increase the overall construction emissions for this alternative.	• **Similar impact** –construction and operation of this alternative would not substantially change from that described for the preferred proposed Project. No additional construction or operational emissions would be anticipated for this alternative beyond those described for the preferred proposed Project.
Hazards and Hazardous Materials	LTS/M	• **Lesser impact** – no construction activities would occur, therefore there would be no impacts related to hazards and hazardous materials.	• **Similar impact** - construction and operation of this alternative would not substantially increase the use or transport of hazardous materials beyond those analyzed under the preferred proposed Project. This alternative would not result in any increases in hazards to the public or the environment, nor is this alternative located within 0.25 mile of existing or proposed schools, within a Cortese listed site, within 2 miles of an airport, or within an evacuation plan or area. Therefore, impacts would be similar to that described for the Project. Mitigation measures described for the preferred proposed Project would also be required for this alternative.
Hydrology and Water Quality	LTS/M	• **Lesser impact** – no construction activities would occur; therefore, these would be no impacts related to hydrology.	• **Similar impact** – Potential impacts related to water quality, groundwater resources, flooding, and drainage from this alternative would not substantially change from those described for the preferred proposed Project because this alternative would remain within the existing pipeline alignment and would be constructed in similar a manner as the Project. Mitigation measures described for the preferred proposed Project would also be required for this alternative.
Land Use and Planning	NI	• **Similar impact** – similar to the preferred proposed Project, no change to land use and planning would occur.	• **Greater impact** – this alternative would require additional coordination with Caltrans for the portion of the pipeline that would cross HWY 50.
Minerals	NI	• **Similar impact** – no ground disturbing activities would occur, therefore there would be no change to mineral resources.	• **Similar impact** – similar to the preferred proposed Project, no change to mineral resources would occur under this alternative

Environmental Resource Area	Preferred Proposed Project	No Project Alternative	Alternative 1 – Replacement Within Existing SPI Alignment
Noise	LTS	• **Lesser impact** – no construction activities would occur and therefore there would be no noise impacts.	• **Similar impact** - construction methods and equipment would be very similar to the preferred proposed Project under this alternative, and therefore construction impacts related to noise would be similar to that analyzed for the preferred proposed Project. Therefore, impacts would remain less than significant under this alternative.
Population and Housing	LTS	• **Lesser impact** – no changes would occur to population and housing.	• **Similar impact** – this alternative would not result in additional direct or indirect impacts related to population and housing beyond those analyzed under the preferred proposed Project.
Public Services	LTS/M	• **Lesser impact** – no changes would occur to public services.	• **Similar impact** - this alternative would not result in additional impacts to public services beyond those analyzed under the preferred proposed Project. Mitigation measures described for the preferred proposed Project would also be required for this alternative.
Recreation	NI	• **Similar impact** – similar to the Project, no changes would occur to recreation resources in the area. Therefore, there would be no impact to recreation resources.	• **Similar impact** – similar to the preferred proposed Project, no changes would occur to recreation resources in the area. This alternative would follow the existing SPI alignment which does not intersect any major recreation resources. Therefore, there would be no impact to recreation resources under this alternative.
Transportation	LTS/M	• **Lesser impact** – no construction activities would occur, therefore there would be no impacts to transportation.	• **Greater impact** – this alternative would require construction directly within U.S. Highway 50 which is a major thoroughfare. This could cause delays in regional transportation, and thus would likely require additional coordination with Caltrans and mitigation to ensure the level of service of U.S. Highway 50 is maintained. Therefore, impacts would be greater than the preferred proposed Project.
Tribal Resources	LTS/M	• **Lesser impact** – no construction activities, or associated ground disturbance, would occur, therefore no impacts to tribal resources would occur.	• **Similar impact –** this alternative would follow the existing SPI alignment and would not result in additional ground disturbing impacts that could impact previously undiscovered tribal cultural resources. However, the areas where the preferred proposed Project deviate from this alignment are in roadways and manzanita habitat and were not identified as possible areas of concern by the Native American Tribes consulted in compliance with AB 52. Therefore, the potential impacts from this Alternative to tribal cultural resources is considered similar to the preferred proposed Project.

Environmental Resource Area	Preferred Proposed Project	No Project Alternative	Alternative 1 – Replacement Within Existing SPI Alignment
Utilities and Service Systems	LTS	• **Greater impact** – no change to utilities and service systems would occur, however, inaction could result in the need for additional infrastructure to be constructed to allow for extended shutdowns of Reservoir A and Reservoir 1 during repairs.	• **Similar impact** – no additional impacts related to utilities and service systems are anticipated beyond those described for the preferred proposed Project.
Wildfires	LTS	• **Lesser impact** – no construction impacts would occur, therefore there would be no impacts related to wildfires.	• **Similar impact -** no additional impacts related to wildfires are anticipated beyond those described for the preferred proposed Project.

Key:
LTS = Less Than Significant
LTS/M = Less Than Significant with Mitigation
N= No Impact

4.2 Environmentally Superior Alternative

CEQA Guidelines Section 15126.6(e)(2) requires an EIR to identify an "environmentally superior alternative." If the No Project alternative is the environmentally superior alternative, the EIR must also identify an environmentally superior alternative from among the other alternatives.

The qualitative environmental effects of the No Project Alternative and Alternative 1 in relation to the preferred proposed Project are included in Table 4.2-1. Table 4.2-1 provides a comparison of these qualitative results.

Table 4.2-1. Environmentally Superior Alternative Comparison Summary

	Preferred Proposed Project	No Project Alternative	Alternative 1 - Replacement Within Existing SPI Alignment
Ability to Meet Project Objectives (Table 4.1-1)	4	0	4
Environmental Impact (Table 4.1-2)			
Aesthetics and Visual Resources	LTS/M	L	G
Agricultural and Forestry Resources	LTS	L	S
Air Quality	LTS/M	L	S
Biological Resources	LTS/M	L	S
Cultural Resources	LTS/M	L	S
Energy Resources	LTS	G	S
Geology and Soils	LTS/M	L	S
Greenhouse Gases	LTS	G	S
Hazards and Hazardous Materials	LTS/M	L	S
Hydrology and Water Quality	LTS/M	L	S
Land Use and Planning	NI	S	G
Minerals	NI	S	S
Noise	LTS	L	S
Population and Housing	LTS	L	S
Public Services	LTS/M	L	S
Recreation	NI	L	S
Transportation	LTS/M	L	G
Tribal Resources	LTS/M	L	S
Utilities and Service Systems	LTS	G	S

	Preferred Proposed Project	No Project Alternative	Alternative 1 - Replacement Within Existing SPI Alignment
Wildfires	LTS	L	S

Key:
G = greater impacts
L = Less impacts
LTS = Less Than Significant
LTS/M = Less Than Significant with Mitigation
NI = No Impact
S = similar impacts

Since the Project would not result in any significant and unavoidable impacts, the environmentally superior alternative is selected based on the environmental impacts summarized in Table 4.2-1, which includes a comparison of whether the alternative would result in a lesser or greater impact than the Project. Accordingly, the alternative with the fewest number of impacts is the environmentally superior alternative. Based on a comparison of the Project alternatives, environmental impacts associated with most resource categories would be fewer under the No Project Alternative, and thus would be the environmentally superior alternative. However, if the No Project alternative is the environmentally superior alternative, the EIR must also identify an environmentally superior alternative from among the other alternatives.

As shown in Table 4.2-1 above, when comparing the impacts associated with the Project to Alternative 1, the overall impacts would be similar. Alternative 1 was reviewed to evaluate whether staying in the original, disturbed SPI alignment with no deviations would reduce some impacts; however, when assessed in detail, Alternative 1 is not the environmentally superior alternative. This is because, while there may be a slight potential reduction in the possibility of inadvertent finds of cultural resources under Alternative 1, the preferred proposed Project in areas where it deviates from Alternative 1 has extremely low potential of such finds already, and that low potential is even further reduced with mitigation measures. In contrast, Alternative 1 would result in greater impacts to U.S. Highway 50, and thus Aesthetics, Land Use and Planning, and Transportation resources. Therefore, the preferred proposed Project is the environmentally superior alternative when compared to Alternative 1.

5.0 Other CEQA Considerations

This section describes required topics including growth inducing impacts, significant and unavoidable impacts, and significant irreversible environmental changes relative to the Project. It also provides an assessment of potential cumulative impacts resulting from the Project in conjunction with recent past, current, and reasonably foreseeable future projects.

5.1 Growth Inducing Impacts

CEQA Guidelines Section 15126.2(e) requires that an EIR evaluate the growth-inducing impact of a proposed action. The Guidelines describe the required growth inducement analysis as follows:

> *Discuss the ways in which the [Project] could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this definition are public works projects which would remove obstacles to population growth, would tax community service facilities, or encourage or facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or little significance to the environment.*

Direct growth inducement would result if the Project involved construction of new housing which would facilitate new population in an area. Indirect growth inducement or secondary growth-inducement potential would be present if the Project would establish substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises), remove a barrier to direct growth inducement, or if it would involve a substantial construction effort with substantial long-term employment opportunities which could indirectly stimulate the need for additional housing and services to support the new employment demand.

Generally, environmental impacts from community population growth and community development are addressed through local and community planning/management documents that allow for strategic planning and smart growth. Current planning documents applicable to the Project include the District's 2020 UWMP (District 2021), the District's 2013 Integrated Water Resources Master Plan, and the County General Plan. Any future growth that would utilize water supplied by the Project's restored pipeline would be required to comply and be developed in a manner consistent with these plans, and the impacts of such development have been evaluated in connection with the adoption of those plans.

The SPI would replace approximately 4.5 miles of an existing water supply pipeline to provide operational flexibility to the District's system, help alleviate the impacts of water outages and drought conditions and allow for treatment plant maintenance. This would ultimately provide more reliability of water sources for existing customers.

Construction of the Project would require construction crews working on the Project for an 18- month duration from 2024 to 2025. However, these workers would not contribute to a significant population increase; based on the available workforce within commuting distance of the Project area, it is assumed

that Project construction workers would either already live in the Project area or commute daily from outside the Project area and would not permanently relocate to the area nor reside in the area during any breaks in construction. Even if some construction workers were to relocate to the Project area to work on the Project, the small size of the construction crew would not constitute a significant increase in population. The Project would not require an increase in permanent employees during normal operation. Therefore, the Project would not directly foster significant population growth or housing demands in the area through direct employment demand.

The Project would replace the connection between the District's two largest drinking water treatment plant facilities that, together, provide two-thirds of the District's water supply. The Project would enable the District to efficiently convey drinking water sourced from its existing water supplies at Jenkinson Lake and the South Fork American River watershed to areas throughout the District's service area. As a result, because the Project would replace an existing pipeline, the Project would not provide water for new growth nor remove an existing obstacle to growth beyond what was analyzed and accounted for in the General Plan.

Additionally, the Project would not provide individual treated water connections, treatment capacity, or sewer service, nor would it result in improved roads or access to the area. Potable water supplies are already provided to the area, and the Project would allow the District to continue to serve the demand within its authorized service area while increasing the District's water reliability. Lands directly adjacent to the Project area are generally rural. No aspect of the Project would either directly or indirectly add to the development of this area. Therefore, the Project would not remove key obstacles to population growth in the area.

5.2 Significant and Unavoidable Impacts

CEQA Guidelines Section 15126(b) requires an EIR to "describe any significant impacts, including those which can be mitigated but not reduced to a level of insignificance. Where there are impacts that cannot be alleviated without imposing an alternative design, their implications, and the reasons why the project is being proposed, notwithstanding their effect, should be described."

No significant and unavoidable impacts were identified to be associated with the Project. Based on the evaluation in Chapter 3.0, Environmental Analysis, 29 potentially significant impacts were identified; however, all of these impacts are mitigated to less than significant levels by implementation of the mitigation measures prescribed. Therefore, the Project would not have significant and unavoidable impacts.

5.3 Significant and Irreversible Environmental Changes

CEQA Guidelines Section 15126.2(d) describes irreversible environmental changes as follows:

> *Uses of nonrenewable resources during the initial and continued phases of a project may be irreversible if it requires a large commitment of such resources or makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from*

> *environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.*

The CEQA Guidelines refer to the need to evaluate and justify the consumption of nonrenewable resources and the extent to which the project commits future generations to similar uses of nonrenewable resources. In addition, CEQA requires that irreversible damage that could result from an environmental accident associated with the Project be evaluated.

Construction of the Project would result in the commitment of nonrenewable natural resources used in the construction process and during operation, including gravel, petroleum products, steel, and other materials. As discussed in Section 3.19, Utilities and Service Systems, and Section 3.9, Hazards and Hazardous Materials, the Project would not generate large amounts of construction waste.

Construction and operation of the Project would also result in commitment of energy resources such as fossil fuels and electricity, as discussed in Section 3.8, Greenhouse Gases and Section 3.6, Energy Resources. Direct energy use during construction and operation would involve using petroleum products and electricity to operate equipment, and indirect energy use would involve consuming energy to extract raw materials, manufacture items, and transport the goods and people necessary for construction activities. Construction-related energy consumption would be temporary and would be confined to the construction period. Nevertheless, construction and operation activities would, as with any construction project, cause irreversible and irretrievable commitments of finite nonrenewable energy resources, such as gasoline and diesel fuel.

The Project would include all feasible control measures to improve equipment efficiency and reduce energy use as required by the El Dorado AQMD. These measures include a Construction Emission and Fugitive Dust Control Plan that would reduce unnecessary equipment idling and other policies that would help reduce energy use and are consistent with state and local legislation, and policies to conserve energy would be followed. In addition, the Project would comply with applicable federal, State, and local policies and regulations pertaining to energy standards and would ensure that natural resources are conserved to the maximum extent possible. Therefore, due to the rate and amount of energy consumed, the Project would not result in the unnecessary, inefficient, or wasteful use of resources and energy use would be accomplished in a manner consistent with applicable laws and regulations.

Finally, construction and operation of the Project has the potential to result in accidental release of hazardous materials, which may lead to irreversible damage. However, as stated in Section 3.9, Hazards and Hazardous Materials, hazardous materials used during construction would be typical of common construction activities. They would be handled by the contractor in accordance with applicable federal, state, and local regulations for hazardous substances. Additionally, the amount of these materials needed for on-site equipment maintenance would not be sufficient to cause a significant hazard to the public or any nearby schools if released since the quantity of these hazardous materials on-site at any one time would amount to a refueling truck and construction equipment.

5.4 Cumulative Impacts

CEQA requires an EIR to include a discussion of cumulative effects of a project when the project's incremental effect is "cumulatively considerable." An effect is cumulatively considerable when it is significant viewed in connection with the effects of past projects, other current projects, and future projects (CEQA Guidelines Section 15065[a][3]).

A "cumulative impact" is an impact that is created as a result of the combination of a project together with other projects causing related impacts. Therefore, the first step in the cumulative analysis is to identify each impact of the project, and in each case, consider whether there are other projects (past, current, or future) that could have related impacts, and then determine whether the project's contribution to the overall impact is "cumulatively considerable."

For example, a project that constructs and operates a retail center would generate a substantial number of vehicle trips once the center is completed and opened for operation, which would affect road operations and conditions in the vicinity of the project site. A lead agency would be required to not only consider the effects of trips generated by the project, but also those trips in combination with other projects that might contribute vehicle trips to the same roadway system. Thus, CEQA seeks to avoid situations in which a series of small projects with relatively minor effects eventually result in far larger effects as their effects are combined.

The CEQA Guidelines also state that the cumulative impacts discussion does not need to provide as much detail as is provided in the analysis of project-only impacts and should be guided by the standards of practicality and reasonableness.

In addition, Section 15130 of the CEQA Guidelines identifies that one of the following two options may be used to complete an adequate cumulative analysis:

1. **List Method** – A list of past, present, and reasonable anticipated future projects producing related or cumulative impacts, including those projects outside the control of the lead agency (i.e., the list approach), Section 15130(a).

2. **General Plan Method** – A summary of projections contained in an adopted General Plan or related planning document designed to evaluate regional or area-wide conditions. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency (i.e., the plan approach) Section 15130(b).

The above-mentioned CEQA Guidelines provide that cumulative context may be described through either the list approach or the plan/projections approach. The list approach involves identifying and listing the past, present, and reasonably foreseeable probable future projects that contribute to a given significant cumulative impact. The plan/projections approach relies on an adopted plan or reliable projection that describes the significant cumulative impact. Section 5.4.1 discusses cumulative impacts to resources in relation to their geographic scope and Table 5.4-1 identifies which method of evaluation is appropriate for each resource. This cumulative impact analysis incorporates the adopted County General Plan as identified in the Chapter 3.0 resource sections by reference.

5.4.1 GEOGRAPHIC SCOPE

The geographic area that is analyzed for cumulative impacts depends on the resource being analyzed. The geographic area associated with a proposed project's different environmental impacts defines the boundaries of the area used for compiling the list of past, present, and probable future projects considered in the cumulative impact analysis. The geographic area that could be affected by implementation of the Project in combination with other projects varies depending on the type of environmental resource being considered. The general geographic area associated with different types of environmental effects of the Project defines the scope of the area considered in the cumulative impact analysis (see Table 5.4-1).

Table 5.4-1. Geographic Scope of Cumulative Impact

Resource Topic	Geographic Area
Aesthetics	Immediate Project Vicinity
Agriculture and Forestry Resources	Immediate Project Vicinity
Air Quality	Immediate Project Vicinity Air Basin (Construction Related and Mobile Sources)
Biological Resources	Immediate Project Vicinity Region
Cultural Resources	Immediate Project Vicinity
Energy Resources	Statewide
Geology and Soils	Immediate Project Vicinity
Greenhouse Gases	Global
Hazards and Hazardous Materials	Immediate Project Vicinity
Hydrology and Water Quality	Immediate Project Vicinity Watershed
Land Use and Planning	Immediate Project Vicinity
Mineral Resources	Immediate Project Vicinity
Noise	Immediate Project Vicinity
Population and Housing	Immediate Project Vicinity
Public Services	Immediate Project Vicinity
Recreation	Immediate Project Vicinity
Transportation	Immediate Project Vicinity Regional roadway network
Tribal Resources	Immediate Project Vicinity
Utilities and Service Systems	Immediate Project Vicinity
Wildfires	Immediate Project Vicinity

5.4.2 LIST OF RELATED PLANS AND PROJECTS

A list of past, current, and reasonably foreseeable future projects was compiled using information from the County Transportation Department, the County, and the District. The past, present and reasonably foreseeable future projects proposed by these agencies within or directly adjacent to the Project area or in the vicinity of the community of Pollock Pines, consist of water utility projects and a transportation project.

All agencies and development projects that could result in a cumulative impact were searched; however, transportation and water are the only two resource areas that are relevant to the cumulative impacts discussion. For the purposes of this discussion, these projects that may have a cumulative effect on the resources of the Project area are often referred to as the "collective projects." These projects are described in Table 5.4-2.

Table 5.4-2. List of Collective Past, Present, and Reasonably Anticipated Future Projects in the Region

Lead Agency	Project Name	Date of Construction	Project Description	Potential Cumulative Impacts
El Dorado Irrigation District	Multiple – Capital Improvement Plan Projects	2023 – 2027	The El Dorado Irrigation District Capital Improvement Plan (CIP) contains multiple planned infrastructure improvement projects through 2027 to optimize the District's water rights, facilities, operations and finances. This CIP takes into consideration a host of trends for land and water use as well as existing and upcoming mandated regulations affecting the District's operations. Modernization and optimization of the District's system will allow for water conservation and reduction in operational water losses.	Facilitate cumulative construction related impacts if construction were to occur concurrently with the Project.
El Dorado County Department of Transportation	Pony Express Trail Class II Bicycle Route and Pedestrian Improvements	2022	The Pony Express Trail Class II Bicycle Route and Pedestrian Improvements from Sly Park Road to Sanders Drive will construct approximately 1.7 miles of Class II bike lanes on both sides of Pony Express Trail. It will include Americans with Disabilities Act improvements, crosswalks, and signage with flashing beacons.	Facilitate cumulative construction related impacts if construction were to occur concurrently with the Project.
El Dorado County Department of Transportation	Pony Express Trail Recessed Edge-Lines Project	2023	The Pony Express Trail Recessed Edge-Lines Project would include installation of 65,000 linear feet of recessed edge-lines along various segments of Sly Park Road and Pony Express Trail.	Facilitate cumulative construction related impacts if construction were to occur concurrently with the Project.

Sources: El Dorado Irrigation District 2022; El Dorado County 2023

5.4.3 METHODS

The analysis below examines the cumulative impacts of the Project for each of the resource topics analyzed in Chapter 3.0, Environmental Analysis. The cumulative impacts are assessed by adequacy of the El Dorado County General Plan EIR and looking at the short-term (construction) and long-term (operational)

impacts of the Project combined with the impacts of the past and planned projects listed in Table 5.4-2 (collectively referred to as projects).

The following objectives were set forth to analyze the short-term construction and long-term operational cumulative impacts:

1. Identify if the combined impacts of the Project and the projects in Table 5.4-2 are significant. If so,
2. Determine whether the Project's incremental contribution to that significant impact is cumulatively considerable. If so,
3. Determine if mitigation is feasible.

> "**'Cumulatively considerable'** means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." (CEQA Guidelines Section 15064(h)(1))

Note: it is possible that even when the cumulative impacts of multiple projects are significant, the incremental contribution of the impact for the Project may itself not be cumulatively considerable. Furthermore, a project's contribution is less than cumulatively considerable if the project implements mitigation measures designed to alleviate the cumulative impact (CEQA Guidelines Section 15130 [a][3]). In this case, the Project's impact would not be cumulatively considerable.

5.4.4 RESOURCE-SPECIFIC CUMULATIVE ANALYSIS

5.4.4.1 Aesthetics and Visual Resources

The El Dorado County General Plan EIR found the cumulative impact to aesthetic resources within the HWY 50 corridor to be a significant and unavoidable impact. For the Project, the geographic scope for potential cumulative impacts to aesthetics and visual resources include foreground views immediately surrounding the Project components, as well as the long-distance views of the Project area. As described in Section 3.1, Aesthetics and Visual Resources, the Project requires very few above-ground elements added to the built environment in the area and was found to be less than significant with mitigation incorporated. When considered with the projects in the cumulative list (Table 5.4-2) there is a slight potential to affect key views and sensitive aesthetic resources within the Project area. As stated in the El Dorado County General Plan EIR, the continued urbanization of the HWY 50 corridor through Sacramento County, the city of Folsom, and into western El Dorado County would have a significant cumulative effect on the visual resources of that region, because of a change in landscape from one with a more rural, pastoral character to one of urban and suburban development. However, the Project would not contribute to this significant and unavoidable impact because the majority of the Project would be located underground, and the above ground appurtenances and pump station would not be visible from HWY 50. Thus, the combined visual effects would not be cumulatively significant, and no mitigation would be necessary.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.2 Agriculture and Forestry Resources

The El Dorado County General Plan EIR found that the cumulative impact to agricultural resources from ongoing urbanization of HWY 50 would be cumulatively significant and unavoidable and that new and incremental development in conformance with the El Dorado County General Plan would contribute to these cumulatively significant impacts. For the Project, the geographic scope for potential cumulative impacts to agriculture and forestry resources would include the areas where Project components would be constructed and operated. As discussed in Section 3.2, Agriculture and Forestry Resources, implementation of the Project would occur within existing ROWs on various private property, lands owned by the District, and lands administered by the USFS and would not convert or conflict with existing or proposed farmlands. All Project components would be consistent with existing agricultural uses and would not result in substantial conversion of agricultural lands. When the new development projects described in Table 5.4-2 occur in combination with the Project, as described in the El Dorado County General Plan EIR, there would be a significant cumulative effect.

When Project activities are considered for their contribution to the cumulative impact, it is not considered significant because the Project's contribution would be within existing road ROWs and ROWs within various private property, lands owned by the District, and lands administered by the USFS and would not result in any substantial conversions of agricultural land or designated forest land. Therefore, when considered in addition to the anticipated impacts of other projects in the cumulative scenario, the Project's incremental contribution to agricultural and forestry impacts would not be cumulatively considerable.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.3 Air Quality

The El Dorado County General Plan EIR found the cumulative impact to air quality resources would be cumulatively significant and unavoidable. When the Project's contribution to this impact is considered, the short-term construction-related, and long-term operation-related (regional) emissions of ROGs , NO_x, PM_{10}, and $PM_{2.5}$ all factor into the Project's potential contribution to the cumulative impact. As described in Section 3.3, Air Quality, ozone and PM_{10} have the potential for cumulative concentrations that could result in significant and unavoidable cumulative impacts.

For the evaluation of cumulative impacts, project-level significance standards are used to determine whether a project's construction or operational emissions of criteria pollutants would have a cumulatively considerable contribution to a significant cumulative impact. Based on this methodology and described in Section 3.3, Air Quality, the Project-level impact of construction emissions associated with construction and operation of the Project would not be cumulatively considerable after implementation of the dust reduction and ozone precursor limiting mitigation incorporated.

Other projects in the cumulative list (Table 5.4-2) would be required to analyze construction emissions in a similar manner and if determined emissions are below the thresholds, would also not be cumulatively considerable. If emissions are above the thresholds, then mitigation would be required to reduce potential

cumulative impacts from construction emissions to a less than significant level and would be able to incorporate the El Dorado County General Plan EIR's significant and unavoidable cumulative impact into their project. So, while, land use development in the Project area and the overall air basin would result in a significant and unavoidable impacts, the Project's contribution would not be significant itself and would not result in a cumulatively considerable incremental increase to a cumulative impact related to air quality.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.4 Biological Resources

The El Dorado County General Plan EIR found the cumulative impact to biological resources would be cumulatively significant and unavoidable. The projects in Table 5.4-2, would have the potential to effect special-status species within the Project area that find habitat within the existing habitats, rural areas, and agricultural uses. As found in the El Dorado County General Plan EIR, compliance with General Plan policies and standards as well as agency-mandated surveys and project-level mitigation measures would reduce the habitat and special-status species effects to the extent feasible. However, the cumulative impact of habitat loss and fragmentation remains significant and unavoidable.

As described in Section 3.4, Biological Resources, the Project would avoid or mitigate impacts to sensitive biological resources through its placement in existing and proposed disturbed areas such as road ROWs, and District-owned property, as well as with implementation of mitigation measures. Additionally, the avoidance and mitigation of potential impacts to special-status species would not result in a significant contribution to any potential cumulative effect. Therefore, when combined, these projects would not result in a substantial cumulative impact to biological resources. Therefore, the Project would not substantially contribute to an incremental cumulative impact related to biological resources.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.5 Cultural Resources

The El Dorado County General Plan EIR found there was no cumulative impact to cultural resources. The projects in the cumulative list (Table 5.4-2) would have the potential to result in potentially significant impacts to cultural resources if any of the projects listed in Table 5.4-2 would substantially disrupt or change the significance or importance of any cultural resources. The projects listed in Table 5.4-2 would be located within fixed locations and would require environmental review and related identification of known cultural resources within their individual footprints. All of these sites would either be located in areas that do not contain significant cultural resources or would require mitigation to avoid any known resources. Additionally, as part of the stipulations of the permits required for these projects and provided through state and local requirements, any unknown cultural resources discovered on-site during construction of these projects would require evaluation and subsequent analysis if deemed necessary by an archaeologist, thus preventing any significant impacts to cultural resources.

As discussed in Section 3.5, Cultural Resources, impacts from the Project would be less than significant with mitigation incorporated. Consistent with the El Dorado County General Plan EIR, the Project and other projects within the Project area would comply with federal, state, and local laws and regulations protecting cultural resources, including historical resources, and as such, the Project's incremental effect to the combined cumulative effect would not be substantial. Therefore, the Project's incremental contribution to cumulative impacts to cultural resources would not be cumulatively considerable.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.6 Energy Resources

The El Dorado County General Plan EIR found the cumulative impact to energy resources would be cumulatively significant and unavoidable. Relevant to the Project, energy resources are global and in their very nature cumulative. As discussed in Section 3.6, Energy Resources, Project impacts would result in a less than significant impact. Although the Project would involve the use of increased electricity and fuel during construction and operation, it is intended to improve and replace the existing pipeline and associated infrastructure with newer, more efficient machinery that would provide reliable future water conveyance infrastructure. The Project's incremental contribution to cumulative energy impacts would not be cumulatively considerable.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.7 Geology and Soils

The El Dorado County General Plan EIR found there to be no cumulative impact to geology and soil resources. For the Project, as described in Section 3.7, Geology and Soils, construction would involve excavation and grading that would disturb soils and potentially expose them to erosion or topsoil loss.

When combined, projects in the cumulative list (Table 5.4-2) have the potential to result in cumulative impacts to geologic, soil, and seismic conditions if substantial erosion and overall lack of stability of soils occurs from combined actions. In particular, the projects listed in Table 5.4-2 consist of infrastructure projects within and immediately adjacent to the Project area. Based on comparison of the project locations, none of the projects listed in Table 5.4-2 would be located in geologic hazard zones or liquefaction or landslide zones. As such, consistent with the El Dorado County General Plan EIR, impacts associated with geology, soils and seismicity for related projects would not combine to create a greater impact.

The Project's incremental effect to the combined cumulative scenario is not substantial because the Project, along with other projects implemented under the El Dorado County General Plan EIR and the projects in Table 5.4-2, would meet the policies of the General Plan along with compliance with federal, state, and local regulations addressing building construction, engineering regulations, and permitting conditions that would restrict the Project's contribution to cumulative significance. These impacts would be site-specific, and when considered together with related projects, would not combine to create greater cumulative

impacts due to geology, soils, seismicity, or paleontological resources. Therefore, the Project's incremental effect to cumulative geology and soils impacts would not be cumulatively considerable.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.8 Greenhouse Gasses

Cumulative effects of greenhouse gases (GHG) were not analyzed in the El Dorado County General Plan EIR. However, GHGs in their very nature are a cumulative impact and were analyzed as such in Section 3.8, Greenhouse Gases. As discussed in Section 3.8, Greenhouse Gases, impacts would result in a less than significant impact. Although the Project would involve the use of increased fuel during construction and operation, it would not exceed GHG thresholds of significance and would be in compliance with applicable plans, policies, and regulations related to reduction in emissions of GHGs. Further, the Project would improve and replace the existing water conveyance infrastructure with newer, more efficient machinery that would provide reliable future water infrastructure necessary to meet the projected growth of the County. For the full analysis of cumulative impacts related to GHGs from the Project, see Section 3.8. The Project's incremental contribution to cumulative GHG and energy impacts would not be cumulatively considerable.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.9 Hazards and Hazardous Materials

The El Dorado County General Plan EIR found the cumulative impact to hazards and hazardous material resources to be less than significant. As the El Dorado County General Plan EIR evaluated, local, region, state, and federal regulations and policies of the General Plan would limit the potential cumulative impacts by limiting the risk of exposure to hazardous materials, wastes, safety hazards near airports and airstrips, and wildland fires. When combined, projects in Table 5.4-2 have the potential to generate hazards and hazardous materials or place people at risk from them. As identified in Section 3.9, Hazards and Hazardous Materials, this temporary risk of increase in short-duration hazards transport would be in compliance with governing laws and regulations and mitigation measures, and therefore the combined impacts to hazards and hazardous materials within the geographic scope would not be cumulatively significant.

The Project's incremental effect to the combined cumulative impact is also not substantial because the Project would not result in substantial impacts and would not contribute to the worsening of impacts caused overall because of the implementation of the Project mitigation and compliance with regulations incorporated. Therefore, when considered in addition to the anticipated impacts of other projects and evaluation of cumulative impacts in the El Dorado County General Plan EIR, the Project's incremental contribution to cumulative hazards and hazardous material impacts would not be cumulatively considerable.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.10 Hydrology and Water Quality

The El Dorado County General Plan EIR found the cumulative impact to hydrology and water quality resources would be cumulatively significant and unavoidable. When combined, projects listed in Table 5.4-2 have the potential to affect surface and groundwater hydrology and water quality within the watershed and groundwater basin. Construction and operation of these projects could introduce sediment and other pollutants to surface waters or groundwater and could impact water quality or disrupt the existing drainage and flood patterns, causing damage to structures or people. These projects, along with projects under the El Dorado County General Plan, would be required to comply with local and state regulations, such as the Stormwater Pollution Prevention Plan (SWPPP) and best management practices (BMP) to regulate water quality and drainage patterns such that receiving water bodies are not impaired. As a result of adherence to these regulations, the combined effects from the construction and operation related to water quality and surface water drainage would not be considered cumulatively significant.

The Project's incremental effect to these combined effects is not substantial because the Project would also implement mitigation that would reduce any potential project or cumulative effect to a less than significant level. Additionally, compliance with applicable federal, state, and local regulations described in Section 3.10, Hydrology and Water Quality, would reduce the likelihood of impacts to water quality, drainage, and groundwater management. Therefore, the Project's incremental effect to cumulative hydrology and water quality impacts would not be cumulatively considerable.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.11 Land Use and Planning

The El Dorado County General Plan EIR found that impacts related to land use would be cumulatively significant and unavoidable due to the ongoing urbanization of the HWY 50 corridor. For the Project, impacts involving land use plans or policies and zoning generally would not combine to result in cumulative impacts. The determination of significance for impacts related to these issues as considered in Appendix G of the CEQA Guidelines is whether a project would conflict with any applicable land use plan or policy adopted for the purpose of reducing or avoiding environmental impacts. Such a conflict is site-specific and is addressed on a project-by-project basis. As described in Section 3.11, Land Use and Planning, implementing the Project would be consistent with the existing land use designation and zoning, and land use plans and policies, and would not result in a significant impact. The Project is also consistent with the El Dorado County General Plan, and components under the Project would be developed, consistent with approved land use plans, policies, and zoning. Therefore, the Project would not contribute to any incremental cumulative impacts regarding land use and planning.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.12 Mineral Resources

The El Dorado County General Plan EIR found there would be no cumulative impact to mineral resources. The Project would not involve construction or operation activities that would impact mineral resources in the County. Consistent with the El Dorado County General Plan EIR, the Project would not result in any impacts to mineral resources. Therefore, the Project would not contribute to any incremental cumulative effects related to mineral resources.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.13 Noise and Vibration

The El Dorado County General Plan EIR found the cumulative impact to noise resources adjacent to HWY 50 to be cumulatively significant and unavoidable. When combined, projects listed in Table 5.4-2 have the potential to result in substantial increases in noise or vibration levels beyond acceptable levels, as defined by the El Dorado County General Plan and El Dorado County Noise Ordinance, if multiple noise sources were occurring at the same time. The County would have discretion with approvals of projects that could cumulatively generate noise and the El Dorado County General Plan Noise Element has several specific development policies and standards to minimize and mitigate noise impacts. Specifically, the projects listed in Table 5.4-2 would result in increases in operational noise or vibration, which could result in a cumulatively considerable effect if appropriate design measures and construction noise reduction measures are not taken. Prior to issuance of any building permits for these projects, environmental reviews would be required to determine construction and operational noise levels for nearby sensitive receptors. Permanent or temporary noise and vibration measures (e.g., sound barriers) could be required. All of the projects would be required to show compliance with the El Dorado County General Plan policies and to ensure compatibility with surrounding land uses.

The Project's incremental effect to the combined cumulative scenario is not substantial because the Project construction activities would adhere to the existing policies and noise regulations. Further, as described in Section 3.13, Noise and Vibration, because construction of the Project includes largely linear activities and activities away from receptors, no single sensitive receptor would be substantially affected by construction noise for extended periods of time. It is unlikely that noise impacts as a result of Project construction activities would occur. Therefore, the Project would not contribute to substantial incremental cumulative impacts related to construction noise or vibration.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.14 Population and Housing

The El Dorado County General Plan EIR found that impacts related to population and housing would be cumulatively significant and unavoidable due to the ongoing urbanization of the HWY 50 corridor. The El Dorado County General Plan sets forth policies that control and direct growth in a well-planned manner,

which would improve jobs and housing opportunities and as a result would not have the potential to result in a significant cumulative impact. As discussed in Section 3.14, the Project would not involve construction or operation of any new residential or commercial uses that would increase population or necessitate the need for housing. Therefore, the Project would not contribute to any incremental cumulative effects related to population and housing.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.15 Public Services

The El Dorado County General Plan EIR found the cumulative impact to public services would be cumulatively significant and unavoidable. As discussed in Section 3.15, the Project would not involve construction or operation of any new residential or commercial uses that would require increased fire or police protection, new parks or schools, or increased demand for wastewater, water, or other public services or utilities. Therefore, the Project would not contribute to any incremental cumulative effects related to public services.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.16 Recreation

The El Dorado County General Plan EIR did not analyze cumulative impacts related to recreation. However, as discussed in Section 3.16, the Project would not involve the construction or operation of any new parks, or demolition or removal of any existing parks. Therefore, the Project would not contribute to any incremental cumulative effects related to recreation.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.17 Transportation

The El Dorado County General Plan EIR found there would be a cumulatively significant and unavoidable impact to transportation. As discussed in Section 3.17, Transportation, construction of the Project would result in a temporary increase of vehicle trips, however these trips are short in duration and temporary in nature. The projects identified in Table 5.4-2 likely have the potential to contribute to the cumulatively considerable impacts identified in the El Dorado County General Plan; however, the Project's contribution to this impact is not considerable because transportation impacts related to the Project are primarily limited to construction activities, which are temporary and apply project-based mitigation measures as well as comply with local regulations and the El Dorado County General Plan Transportation and Circulation element.

Future development in the area would be subject to additional environmental review and determination by the County for potential cumulative impacts related to transportation. Therefore, when considered in addition to the anticipated impacts of other projects in the cumulative scenario, the Project's incremental contribution to traffic and transportation would not be cumulatively considerable.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.18 Tribal Cultural Resources

The El Dorado County General Plan EIR found there was no cumulative impact to tribal cultural resources. The projects listed in Table 5.4-2 would have the potential to result in potentially significant impacts to tribal cultural resources if any of the projects listed in Table 5.4-2 would substantially disrupt or change the significance or importance of any tribal cultural resources. The projects listed in Table 5.4-2 would be located within fixed locations and would require environmental review and related identification of known tribal cultural resources within their individual footprints. All of these sites would either be located in areas that do not contain significant tribal cultural resources or would require mitigation to avoid any known resources. Additionally, as part of the stipulations of the permits required for these projects and provided through state and local requirements, any unknown tribal cultural resources discovered on-site during construction would require evaluation and subsequent analysis if deemed necessary by an archaeologist and a Tribal representative, thus preventing any significant impacts to tribal cultural resources.

As discussed in Section 3.18, Tribal Cultural Resources, impacts from the Project would be less than significant with mitigation incorporated. Consistent with the El Dorado County General Plan EIR, the Project and other projects within the Project area would comply with federal, state, and local laws and regulations protecting tribal cultural resources, and as such, the Project's incremental effect to the combined cumulative effect would not be substantial. Therefore, the Project's incremental contribution to cumulative impacts would not be cumulatively considerable.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.19 Utilities and Service Systems

The El Dorado County General Plan EIR found impacts related to utilities would be cumulatively significant and unavoidable. As discussed in Section 3.19, the Project would not involve construction or operation of any new residential or commercial uses that would require increased capacity or use of utilities or service systems. Therefore, the Project would not contribute to any incremental cumulative effects related to utilities or service systems.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

5.4.4.20 Wildfires

The El Dorado County General Plan EIR found the cumulative impact to wildfires to be less than significant, and the El Dorado County General Plan would not contribute to a significant cumulative impact. As discussed in Section 3.20, the Project would not involve construction or operation of any new residential or commercial uses that would include use for human habitation, and thus an increased risk from wildfires. Additionally, construction of the Project would comply with all State and local regulations related to fire protection, and therefore would not result in a substantial increase in wildfire risks. Therefore, the Project would not contribute to any incremental cumulative effects related to wildfires.

Cumulative Mitigation Measures: None Required

Cumulatively Considerable Impact? No

6.0 Report Preparers

As required by the California Environmental Quality Act (CEQA), this chapter identifies the preparers of this Environmental Impact Report (EIR).

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SLY PARK INTERTIE IMPROVEMENTS PROJECT DRAFT ENVIRONMENTAL IMPACT REPORT

Report Preparers
January 2024

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7.0 References

1.0 Introduction

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4.0 ALTERNATIVES

N/A

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APPENDIX A

Notice of Preparation and Comments Received

El Dorado Irrigation District

NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT AND NOTICE OF PUBLIC SCOPING MEETING FOR THE SLY PARK INTERTIE REPLACEMENT PROJECT (PN# 21079)

In accordance with the provisions of the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq., and the State CEQA Guidelines, California Code of Regulations, Title 15, Section 15000 et seq., the El Dorado Irrigation District (District) will be preparing a Draft Environmental Impact Report (EIR) for its proposed Sly Park Intertie Replacement Project (proposed project). The purpose of this Notice of Preparation (NOP) is to provide an opportunity for the public, interested parties, and public agencies to comment on the scope and proposed content of the Draft EIR. If you are a Responsible or Trustee Agency with jurisdiction by law over natural resources held in public trust, the District needs to know what environmental information germane to your statutory responsibilities should be included in the Draft EIR.

The proposed project involves the replacement of approximately 4.5 miles of existing 22 to 30-inch diameter steel pipeline with 12 to 30-inch diameter concrete mortar steel pipeline constructed with a protective exterior coating and cathodic protection system. The new pipeline would be installed in the existing Sly Park Intertie pipeline alignment and the delivery system would be upgraded from a raw water to a treated potable water supply system. A new pump station would be constructed to allow for bidirectional flow between the District's Reservoir 1 and Reservoir A drinking water treatment plants. A complete description of the proposed project and a listing of probable environmental effects of the proposed project are provided in the NOP.

The District has determined that the proposed project may result in potentially significant environmental effects and, consequently, an EIR is required; therefore, an Initial Study has not been prepared. The Draft EIR will address the full range of potentially significant environmental effects of the proposed project and feasible alternatives to the proposed project that meet CEQA requirements.

Document Review and Availability: The 30-day public review period begins on February 3, 2023 and ends on March 6, 2023. A copy of the NOP is available for public review at 2890 Mosquito Road, Placerville, CA 95667, or online at www.eid.org/ceqa.

Public Scoping Meeting: The District is conducting a public scoping meeting to inform interested parties about the proposed project and to provide agencies and the public with an opportunity to provide comments on the scope and content of the Draft EIR. These

comments will assist the District with identifying the range of potential alternatives, mitigation measures, and any potentially significant effects associated with the proposed project. Meeting attendants will be given the opportunity to speak and ask questions regarding the proposed project. The public scoping meeting will be held at:

Pollock Pines-Camino Community Center
2675 Sanders Drive, Pollock Pines, CA 95726
February 15, 2023 at 5:00 p.m.

Provide Comments on the Notice of Preparation: Written and email comments must be received by **5:00 p.m. on March 6, 2023**. If you wish to comment on the contents of the proposed project's Draft EIR, please send your comments (including, if applicable, the name of a contact person in your agency) to:

El Dorado Irrigation District
ATTN: Doug Venable, Environmental Review Analyst
2890 Mosquito Road
Placerville, CA 95667

Phone: (530) 642-4187

E-mail: SlyParkIntertieNOP@eid.org Comments provided by email should include the name and mailing address of the commenter in the body of the email and include "NOP Sly Park Intertie Project" in the subject line.

In accordance with the Americans with Disabilities Act (ADA) and California law, it is the policy of the El Dorado Irrigation District (EID) to offer its public programs, services and meetings in a manner that is readily accessible to everyone, including individuals with disabilities. If you are a person with a disability and require information or materials in an appropriate alternative format; or if you require any other accommodation for this meeting, please contact the EID ADA coordinator at 530-642-4045 or e-mail at adacoordinator@eid.org at least 72 hours prior to the meeting. Advance notification within this guideline will enable the District to make reasonable accommodations to ensure accessibility.

El Dorado Irrigation District

PROJECT DESCRIPTION AND PROBABLE ENVIRONMENTAL EFFECTS TO BE ADDRESSED IN THE DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE **SLY PARK INTERTIE REPLACEMENT PROJECT**

This Notice of Preparation (NOP) is intended to provide sufficient information to the public, interested parties, and public agencies to enable them to make a meaningful response regarding the scope of issues which should be addressed in the Draft Environmental Impact Report (EIR), consistent with the California Environmental Quality Act (CEQA) Guidelines Section 15082(a)(1). It contains background information about the process leading up to the proposed project, a project description and location description, and the identification of probable environmental effects of the proposed Sly Park Intertie Replacement Project.

1 INTRODUCTION

The El Dorado Irrigation District (District) is proposing to implement the Sly Park Intertie Replacement Project (Project) to reestablish the connection between the District's two largest drinking water treatment plant facilities that together provide two-thirds of the District's water supply. The Project would enable the District to efficiently convey drinking water sourced from its existing water supplies at Jenkinson Lake and the South Fork American River watershed to areas throughout the District's service area.

The Sly Park Intertie (SPI) is an existing 22 to 30-inch diameter steel pipeline, approximately 4.5 miles in length, that extends between the District's Reservoir 1 Water Treatment Plant (Reservoir 1) and Reservoir A Water Treatment Plant (Reservoir A) and continues to the Sly Park Hills storage tank. The pipeline was originally constructed in 1978 to help alleviate severe water shortages resulting from the 1976-1977 regional drought. The original design of the pipeline conveyed raw water by gravity from Reservoir 1 to Jenkinson Lake. In 1992, the Cleveland Fire destroyed portions the Project 184 Canal system that supplies water to Reservoir 1. As a result, water could not be delivered to Reservoir 1 during the lengthy repair and reconstruction of the Canal system. In response to this emergency, a raw water pump station was constructed at Reservoir A to enable the SPI to pump raw water from Jenkinson Lake to Reservoir 1. The original SPI pipeline was installed without a protective interior coating or a cathodic protection system. Multiple pipeline assessments have determined that advanced corrosion has compromised the integrity and functionality of the pipeline. As a result, the District ceased using the SPI in 2013 due to ongoing leaks and increased maintenance costs.

The SPI and pump station remain critical assets for the District because they have the potential to provide operational flexibility and help alleviate impacts of water outages, drought conditions, and allow for treatment plant maintenance.

2 PROJECT BACKGROUND

Project Location

The Project is located approximately 1.5 miles southwest of the Pollock Pines community and 10 miles east of the city of Placerville, California within the Pollock Pines and Sly Park, California U.S. Geological Survey 7.5-minute topographic quadrangles. The northern segment of the Project area includes Reservoir 1 and is located on the north side of U.S. Highway 50 (HWY 50). The Project area continues approximately 4.5 miles south-southeast before terminating at the Sly Park Hills Tank located off Mackinaw Street approximately 0.5 miles from Reservoir A (Figure 1). The Project area elevations range between approximately 3,000 and 3,730 feet (914−1,140 meters) above mean sea level and traverses through various private property, lands owned by the District, and lands administered by the Eldorado National Forest (U.S. Forest Service).

Project Overview

The District is proposing to replace approximately 4.5 miles of the existing 22-inch and 30-inch diameter steel SPI pipeline with a concrete mortar steel pipeline ranging from 12 to 30-inches in diameter and constructed with a protective exterior coating and cathodic protection system. The Project would upgrade the existing SPI primarily raw water system to a treated potable water conveyance system. Drinking water would be conveyed by gravity from Reservoir 1 to Reservoir A and a new pump station with a backup power supply generator would be constructed at the Reservoir A facility to convey drinking water in the reverse direction from Reservoir A to Reservoir 1. The SPI would extend approximately 0.5 miles from Reservoir A to the east and connect to the Sly Park Hills Tank to supply water to the Sly Park Hills community.

The Project would enable bidirectional potable water conveyance and allow the District to suspend operation at either water treatment plant for emergency or maintenance purposes and maintain supply throughout the distribution system. In the current configuration, Reservoir A cannot be taken off-line because there is no backup water system capable of supplying all customers served by Reservoir A.

Replacing the SPI would involve open-cut trenching to access and remove the existing pipeline and the installation of a new pipe within the existing alignment. The pipeline alignment is primarily cross-country traversing steep and varying terrain with dense vegetation and tree coverage. The alignment also traverses roads, established District

facilities, multiple ridges, creeks, and drainages with a cumulative elevation change of approximately 3,250 feet.

Project Objectives

- Improve drinking water supply reliability by replacing the existing SPI pipeline with a bi-directional pipeline capable of conveying treated drinking water between Reservoir 1, Reservoir A, and the Sly Park Hills Tank.
- Facilitate uninterrupted drinking water supply during extended shutdowns of either the Reservoir 1 or Reservoir A treatment plants, enabling the inspection and future repairs or rehabilitation of Reservoir 1, Reservoir A, and the raw water supply tunnel/pipeline from Jenkinson Lake.
- Reduce energy use by maximizing system gravity flows and utilizing new high efficiency pumps when pumping is required.
- Improve system water quality and reduce the scale and cost of water quality treatments.

3 PROJECT DESCRIPTION

The Project involves the replacement of approximately 4.5 miles of 22 to 30-inch pipeline with an upgraded 12 to 30-inch cement mortar lined pipeline that will be installed with standard interior and exterior protective coatings and cathodic protection system. Replacing the SPI would involve open-cut trenching to access and remove the existing pipeline and install the new pipeline within the existing alignment. The construction corridor width would be approximately 50 feet (25 feet on either side of the current alignment). The construction corridor would be narrowed to approximately 30 feet (15 feet on either side of the current alignment) at drainage and creek crossings. A new pump station with a backup power supply generator would be constructed at Reservoir A to facilitate conveyance of drinking water from Reservoir A to Reservoir 1.

The Project includes eight proposed staging areas (totaling approximately 8.5 acres) for equipment and supplies and approximately 13 access points along existing roads for vehicles to access remote sections of the pipeline. The proposed staging areas and access points may be modified as the Project design develops and in coordination with adjacent property owners. Additional staging and access areas may be identified as the Project design is finalized. The total footprint for the Project occupies approximately 33 acres.

Typical construction would progress with vegetation clearing, excavation and removal of the existing pipeline, placement of bedding materials as required, placement of the new

sections of piping (typically 20-40 foot sections), backfilling and compaction of the trench, and restoration of the disturbed area.

The proposed pipeline replacement alignment is divided into four segments based on the equipment access and construction methods (Figure 2):

- Segment 1: Approximately 0.5 miles primarily along paved roadways from Reservoir 1 along Pony Express Trail, under HWY 50, and along Ridgeway Drive.
- Segment 2: Approximately 3 miles cross-country traversing four drainages from Ridgeway Drive to Reservoir A.
- Segment 3: Approximately 0.5 miles within the Reservoir A facility including the construction of an approximately 1,600 square foot, two-story pump station.
- Segment 4: Approximately 0.5 miles cross-country from Reservoir A to the Sly Park Hills Tank.

Segment 1

This segment starts at the Reservoir 1 facility at approximately 3,730 feet above mean sea level. Connecting to the finished water supply of the treatment plant, the pipeline progresses southeast to the Sportsman Hall Pump Station, then extends approximately 1,200 feet along Pony Express Trail, 600 feet under HWY 50, and 1,000 feet along Ridgeway Drive. It is estimated that 2 trees will be removed in this segment. Work within this segment will require traffic control authorization from the El Dorado County Department of Transportation and Caltrans. Typical open cut construction includes 7-foot deep trenching with minimum 3.5-foot cover material with roadway pavement restoration.

Segment 2

This segment starts at Ridgeway Drive at approximately 3,584 feet above mean sea level and extends approximately 3 miles cross-country, traversing through various private property, lands owned by the District, and lands administered by the U.S. Forest Service.

Construction sequencing in this segment would progress with initial vegetation removal followed by potholing to verify the location of the existing pipeline. The existing pipeline would be excavated and transported to a staging area for off-site removal. The excavated soil would be screened and utilized for pipeline bedding and trench backfill with additional backfill material imported as needed. New 24-inch pipeline would be transported from staging areas and placed in the open trench. The new pipeline trench would be backfilled and compacted. Minor adjustments to the existing pipeline alignment may be required to avoid localized unstable soil conditions.

Vegetation removal would include shrubs and trees within the construction alignment and staging areas. It is estimated that approximately 575 trees will be removed in this

segment. The majority of the trees within the alignment range from 6-inches to 20-inches in diameter at breast height (DBH). Additional tree removal may be required to accommodate equipment access and/or to ensure safety of construction personnel and equipment.

This segment contains four drainage crossings including the North Fork Weber Creek, South Fork Weber Creek, North Fork Clear Creek, and Clear Creek. The construction corridor width would be reduced from 50 feet to approximately 30 feet at these crossings and construction activities would be timed during periods of low flows. Creek flows, if present, would be bypassed during construction. Based on current available information, the District anticipates the Project would require permits from the U.S. Army Corps of Engineers, Central Valley Regional Water Quality Control Board, and the CA Department of Fish and Wildlife.

Typical open cut construction in this segment includes 6-foot deep trenching with minimum 3.5-foot cover material with appropriate best management practices (BMPs), erosion control measures, and/or hydroseeding applications.

Additionally, this segment includes a paved rural road section approximately 1,300 feet in length. This section would be replaced similar to methods described in Segment 1 with typical open cut construction including 7-foot deep trenching with minimum 3.5-foot cover material with roadway pavement restoration.

Segment 3

This segment is located within the Reservoir A facility at an elevation of approximately 3,290 feet above mean sea level. The new pipeline would connect to the treatment plant's finished water supply, looped within the facility, connect to the new pump station, and continue to the Sly Park Hills Tank supply line. The pipeline alignment within the Reservoir A facility would be designed to avoid existing pipelines and other treatment plant facilities. Typical open cut construction includes 6-foot deep trenching with minimum 3.5-foot cover material with roadway pavement or gravel restoration.

A new two story, approximately 1,600 square foot pump station would be constructed on the west side of Reservoir A. The pump station would house three vertical turbine pumps to convey drinking water from Reservoir A to Reservoir 1 and the Sly Park Hills Tank. The building would be equipped with sound dampening features and contain a heating, ventilation, and air conditioning system. The pumps would be mounted on a concrete slab with fiberglass reinforced plastic sound enclosures mounted over each individual motor for additional sound attenuation. A backup power generator would be installed to provide system operation during power outages. The new pump station construction supplies and equipment would be staged within the Reservoir A facility.

Segment 4

This segment starts at the Reservoir A facility at approximately 3,290 feet above mean sea level and extends cross-country approximately 0.5 miles to the Sly Park Hills Tank at approximately 3,680 feet above mean sea level. The District proposes to utilize a sliplining construction method in this segment and install a 12-inch pipeline inserted (slipped) inside the existing 22-inch pipeline. Sliplining is anticipated to reduce overall ground disturbance and Project costs. Final design will define what extent of the existing 22-inch SPI could be practically sliplined, and will determine which areas and bends in the existing pipeline will need to be excavated and removed to accommodate the new pipeline. Vegetation removal would be required in the areas that are utilized as entry pits for sliplining. It is estimated that approximately 40 trees will be removed in this segment. The majority of the trees within the alignment range from 6-inches to 18-inches DBH. Typical open cut construction excavation would be utilized at sliplining entry pits and bends in the pipeline that cannot accommodate sliplining. Typical open cut construction includes 6-foot deep trenching with minimum 3.5-foot cover material with BMPs, erosion control measures, and/or hydroseeding applications.

Construction Equipment

The Project would require the use of construction equipment typically associated with pipeline replacement and pump station construction. Construction equipment utilized for Project would depend on the selected contractor's planned operations, but may include the following:

- Excavators
- Scrapers
- Bulldozers
- Graders
- Rollers
- Concrete trucks
- Asphalt trucks
- Pickup trucks
- Air compressors
- Welding equipment
- Pumps and piping
- Generators
- Back-up lighting systems
- Communications and safety equipment
- Compactors
- Conveyors
- Water trucks
- Concrete pumper
- Vehicle maintenance truck
- Erosion control materials
- Front-end loaders
- Highway trucks
- Cranes
- Miscellaneous equipment customary to the mechanical and electrical crafts, and vehicles used to deliver equipment and materials

Operations and Maintenance

Ongoing operations and maintenance (O&M) of both the replaced pipeline and new pump station would be required. Typical operations would not involve ground disturbance. Maintenance may include occasional flushing of the system through the water treatment plants and pipeline blowoffs, system inspection, repairing pipeline integrity issues, and vegetation management

along the rights-of-way. The frequency of O&M activities would depend largely on the water quality and to maintain desirable pumping efficiencies. Operational access to the new pipeline would occur within the public rights-of-way, along the permanent pipeline easement, and from existing access points. Vegetation management along the pipeline rights-of-way would consist of the removal of any woody vegetation that may conflict with pipeline integrity and access.

Construction Schedule

Construction is planned to begin in 2024 and be completed in 2025.

4 PROJECT ENVIRONMENTAL EFFECTS

Preparation of Draft EIR

Pursuant to Section 15064 of the State CEQA Guidelines, the District has determined that the Project may have a significant effect on the environment and will prepare a Draft EIR. The purpose of the Draft EIR is to disclose and discuss the potential impacts of the Project on the environment. The Draft EIR will describe existing conditions, evaluate the potential environmental effects, and consider a range of reasonable alternatives, including the no-project alternative. The Draft EIR will address direct, indirect, and cumulative effects of the Project. The Draft EIR will also discuss potential growth-inducing impacts and summarize any significant and unavoidable environmental effects. The Draft EIR will identify and discuss feasible mitigation measures to reduce potentially significant Project impacts.

Probable Environmental Effects Discussed in the Draft EIR

Pursuant to Section 15082(a)(1)(C) of the State CEQA Guidelines, this NOP describes the probable environmental effects of the Project. For each environmental factor, a summary of environmental conditions and a brief description of the Draft EIR analysis is described.

The Draft EIR will address all environmental factors and questions that are relevant to the Project's environmental effects in Appendix G of the CEQA Guidelines, as listed below.

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

- Hydrology and Water Quality
- Land Use and Planning
- Mandatory Findings of Significance

Aesthetics

The Project is located in the unincorporated area of El Dorado County within the community of Pollock Pines in an area with a range of landscapes from developed landscapes to rugged forested drainages. The Project area is within view of HWY 50, a designated scenic highway. Construction activities within the temporary construction easement would remove vegetation up to 25 feet on each side of the pipeline alignment and within the designated staging and access areas. Upon Project completion, the permanent right-of-way would be maintained by the District's ongoing right-of-way vegetation management program for the access, maintenance, and repair of the SPI and associated facilities. The Draft EIR analysis will characterize the visual setting and evaluate potential direct and indirect impacts to the surrounding aesthetic of the existing land uses, development, and natural setting. Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following questions:

a) Have a substantial adverse effect on a scenic vista?
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?
c) In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? 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?

Agriculture and Forestry Resources

The Project traverses through various private property, lands owned by the District, and lands administered by the Eldorado National Forest (U.S. Forest Service). There are no known active agriculture operations or farmlands within the SPI construction corridor, staging areas, or access points. The Draft EIR analysis will determine if the Project impacts active agriculture farmland, forest land, or conflicts with current El Dorado County zoning restrictions. Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following questions:

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?

Air Quality

The Project is located within the Mountain Counties Air Basin (MCAB). The elevation of MCAB generally increases from west to east in the northern Sierra Nevada. El Dorado County has hilly and mountainous terrain that affects airflow patterns throughout the county. Because of their proximity to the Sacramento Valley, the MCAB and El Dorado County are prone to receiving pollutants transported from more populated and traffic-heavy areas. Project construction traffic would produce short-term local emissions. The long-term operation of the Project is likely to reduce overall emissions compared to the current configuration and operations to convey drinking water. The Draft EIR analysis will evaluate the Project impacts to the MCAB air quality plan, sensitive receptors, and other air quality factors. Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following questions:

1) Conflict with or obstruct implementation of the applicable air quality plan?
2) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?
3) Expose sensitive receptors to substantial pollutant concentrations?
4) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Biological Resources

Sierran mixed conifer is the dominant vegetation community within the Project area. This community includes Ponderosa pine (*Pinus ponderosa*), Incense Cedar (*Calocedrus decurrens*), and Douglas fir (*Pseudotsuga menziesii*), canyon live oak (*Quercus chrysolepis*), and black oak (*Quercus kelloggii*). Mixed montane chaparral occurs in areas primarily within the southern portion of the Project area on south-facing slopes along the edges of Sierran mixed conifer forest. Mixed montane chaparral is dominated by mountain whitethorn (*Ceanothus cordulatus*) and also includes coyote brush (*Baccharis pilularis*), California yerba santa (*Eriodictyon californicum*), whiteleaf manzanita (*Arctostaphylos viscida*), and golden fleece (*Ericameria arborescens*). Interspersed among the Sierra mixed conifer and mixed montane chaparral habitats are openings of non-native annual grassland dominated by wild oat (*Avena fatua*), soft chess (*Bromus hordeaceus)*, blue wildrye (*Elymus glaucus*), a native perennial grass, and numerous native and nonnative forbs such as clover species (*Trifolium spp.*) and common mustard (*Brassica rapa*). There are also areas covered with dense stands of non-native invasive species, particularly

Himalayan blackberry, scotch broom, and yellow star thistle. Non-native annual grasslands can be found throughout the extent of the Project area.

Two special status plant species, Sierra clarkia (*Clarkia virgata*) and yellow bur navarretia (*Navarretia prolifera*) have been observed within the Project area and the Pleasant Valley mariposa lily has a moderate potential to occur in the Project area.

A portion of the Project area is located within the designated critical habitat for the federally listed California Red-legged Frog (CRLF). Additionally, there is a known population of CRLF approximately 0.75 miles to the east of the North Fork Weber Creek crossing. The State listed and federal proposed listed Foothill Yellow-legged Frog has a moderate potential to occur near the Project as well.

The Project crosses four drainages that include the North Fork Weber Creek and South Fork Weber Creek in the South Fork American River watershed and the North Fork Clear Creek and Clear Creek in the North Fork Cosumnes River watershed. Two of these streams are intermittent (South Fork Weber Creek and Clear Creek), and two streams are perennial (North Fork Weber Creek and North Fork Clear Creek). Based on current available information, the District anticipates the Project would require permits from the U.S. Army Corps of Engineers (Section 404 of the Clean Water Act), the Central Valley Regional Water Quality Control Board (Section 401 of the Clean Water Act), and the CA Department of Fish and Wildlife (Section 1602 of the California Fish and Game Code).

The Draft EIR will evaluate impacts to special status wildlife and botanical species with potential to occur within the Project area, as well as potential impacts to habitat and aquatic resources. Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following questions:

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

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

Cultural Resources

The ground disturbing activities of the Project will primarily occur within the previously disturbed existing alignment of the SPI. Additional ground disturbing activities may occur at the proposed access roads and staging areas and these Project activities could impact cultural and historical resources. The Draft EIR will evaluate the Project area for impacts to cultural and historical resources. Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following questions:

a) Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines §15064.5?
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?
c) Disturb any human remains, including those interred outside of dedicated cemeteries?

Energy

Pacific Gas and Electric provides power to both the Reservoir 1 and Reservoir A facilities. The upgraded design of the SPI will enable the District to supply drinking water more efficiently from both water treatment plants. The installation of the new pump station equipped with a backup power supply generator at the Reservoir A facility may require an updated power supply service. Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following questions:

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?

Geology and Soils

The Project transverses approximately 4.5 miles through several geologic formations and soil types that are not considered seismically active. There are no known active erosional or land slide features in the Project area. The SPI passes through a private property location that is the site of a shuttered sawmill that operated in the 1950s and 1960s. During the sawmill operations, sawdust and other wood by-products were deposited adjacent to the SPI alignment. The soils and slope stability of this area would be analyzed before construction activities. The existing SPI alignment would be altered if geotechnical testing indicate an excessive potential of landslide in this area. The Draft EIR will analyze the geologic hazards and soil profiles to determine the potential impacts. Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following questions:

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
    i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.
    ii. Strong seismic ground shaking?
    iii. Seismic-related ground failure, including liquefaction?
    iv. Landslides?
b) Result in substantial soil erosion or the loss of topsoil?
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Greenhouse Gases

Project construction activities and equipment would temporarily generate greenhouse gas emissions. The Draft EIR will analyze the potential impacts to greenhouse gas emissions and compliance with all applicable regulations, plans, or policies. Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following questions:

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?

Hazards and Hazardous Materials

Initial review of the Cortese List, including the Department of Toxic Substances Control EnviroStor database and the State Water Resources Control Board GeoTracker database indicated that the Project area is not within an area designated to contain hazardous materials. Construction activities would include the use and transport of hazardous materials such as fuel and lubricants. The Draft EIR will analyze the Project location and activities for impacts with respect to hazards and hazardous materials. Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following questions:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §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?

Hydrology and Water Quality

The Project area traverses four drainages that include the North Fork Weber Creek and South Fork Weber Creek in the South Fork American River watershed and the North Fork Clear Creek and Clear Creek in the North Fork Cosumnes River watershed. The Project involves open-cut trenching across these drainages for installation of the new pipeline. Bypass systems would be utilized to dewater the construction area if water is present during the time of construction. Based on current available information, the District anticipates the Project would require permits from the U.S. Army Corps of Engineers (Section 404 of the Clean Water Act), the Central Valley Regional Water Quality Control Board (Section 401 of the Clean Water Act), and the CA Department of Fish and Wildlife (Section 1602 of the California Fish and Game Code). Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following questions:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
    i. result in a substantial erosion or siltation on- or off-site;

ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;
iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
iv. impede or redirect flood flows?

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Land Use and Planning

The Project traverses through various private property, lands owned by the District, and lands administered by the Eldorado National Forest (U.S. Forest Service). The Project activities are not anticipated to impact the current land use of the El Dorado County General Plan, Placerville General Plan, or the Eldorado National Forest Land Management Plan. The Draft EIR analysis will determine if the Project would impact the existing land use, planning regulations, or policies. Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following questions:

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?

Mineral Resources

The Project would excavate the existing SPI and replace the pipeline primarily in the same location. Excavated native materials would be screened and utilized for bedding and backfill material when permissible. Trench bedding and backfill materials may be imported from local suppliers as required. The Draft EIR will analyze the potential impacts to known mineral resources in the Project area. Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following questions:

a) Result in the loss of availability of a known mineral resource that would be a 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?

Noise

The Project would utilize various pieces of construction equipment that would generate localized noise and vibration. The Draft EIR will analyze the Project activities for compliance with all applicable noise ordinances and thresholds. Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following questions:

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?

Population and Housing

The Project would replace the existing pipeline and install a new pump station to accommodate bidirectional water supply between the Reservoir 1 and the Reservoir A water treatment facilities. The Project would not alter the water treatment capacity of Reservoir 1 or Reservoir A. Additionally, construction activities are not anticipated to encroach on housing localities adjacent to the SPI alignment. The Draft EIR will analyze the potential impacts to population growth and housing. Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following questions:

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?

Public Services

The Project would restore the pipeline connecting the Reservoir 1 and Reservoir A facilities, allowing for increased drinking water reliability to District customers. The Draft EIR analysis will determine the impacts of the Project to public services. Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following question:

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

Recreation

The Project alignment passes through public lands administered by the Eldorado National Forest (U.S. Forest Service) that could be utilized for recreational activities. The District has an existing special use permit issued by the U.S. Forest Service for the maintenance and repair of the SPI and would consult with the U.S. Forest Service to determine if additional authorization is required

for construction activities associated with the Project. The Draft EIR analysis will evaluate the potential impacts of the Project on public lands and recreation facilities. Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following questions:

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Transportation

The Project would replace the SPI pipeline within several roadways, temporarily impacting localized traffic flows and would require a traffic control system and encroachment permits from El Dorado County and Caltrans. Project activities would not alter roadway alignments and roadways will be repaired to preexisting conditions. Additionally, the Project would generate temporary construction traffic on local public roads. The Draft EIR analysis will determine the impacts of the Project on transportation and traffic. Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following questions:

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?
b) Conflict or be inconsistent with CEQA Guidelines §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?

Tribal Cultural Resources

The ground disturbing activities of the Project would occur primarily within the existing alignment of the SPI, access roads, and staging areas. The District will notify local and regional California Native American tribes and engage in consultation to help identify potential impacts to tribal cultural resources associated with the Project. The Draft EIR will evaluate the potential for the Project to affect tribal cultural resources. Mitigation measures would be coordinated with tribal representatives and imposed if the Project is determined to have significant impacts considering the following questions:

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code §21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
    i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code

section 5020.1(k), or ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code §5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code §5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Utilities and Service Systems

The Project would restore the pipeline connecting the Reservoir 1 and Reservoir A facilities, allowing for improved drinking water supply reliability to District customers. Project activities would generate solid waste that would be disposed of in accordance with applicable regulations. The Draft EIR analysis will evaluate the potential impacts of the Project to utilities and water supply systems. Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following questions:

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 waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Wildfire

The Project would remove vegetation along the SPI alignment corridor before the excavation of the SPI pipeline. After completion of the Project, the District would implement routine vegetation management activities along the SPI right-of-way to maintain access, perform maintenance and repairs, and provide facility protection. The District would implement a fire and emergency response plan during Project construction activities. The Draft EIR will evaluate the potential impacts of the Project to wildfire factors. Mitigation measures would be imposed if the Project is determined to have significant impacts considering the following questions:

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?

Mandatory Findings of Significance

The Project would replace an existing water conveyance facility and upgrade the SPI functionality to allow for bidirectional flow of drinking water from Reservoir 1 and Reservoir A facilities. The Draft EIR will evaluate the Project activities to determine if the Project would substantially degrade or impact the environment, humans, fish, wildlife, or plant species. Mitigation measures and permitting conditions would be imposed if the Project is determined to have significant impacts considering the following questions:

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

5 OTHER INFORMATION INCLUDED IN THE DRAFT EIR

In addition to the potential significant environmental impacts of the Project and feasible mitigation measures to address those impacts, the Draft EIR will include other information required by CEQA and other applicable regulations.

Significant and Irreversible Environmental Changes

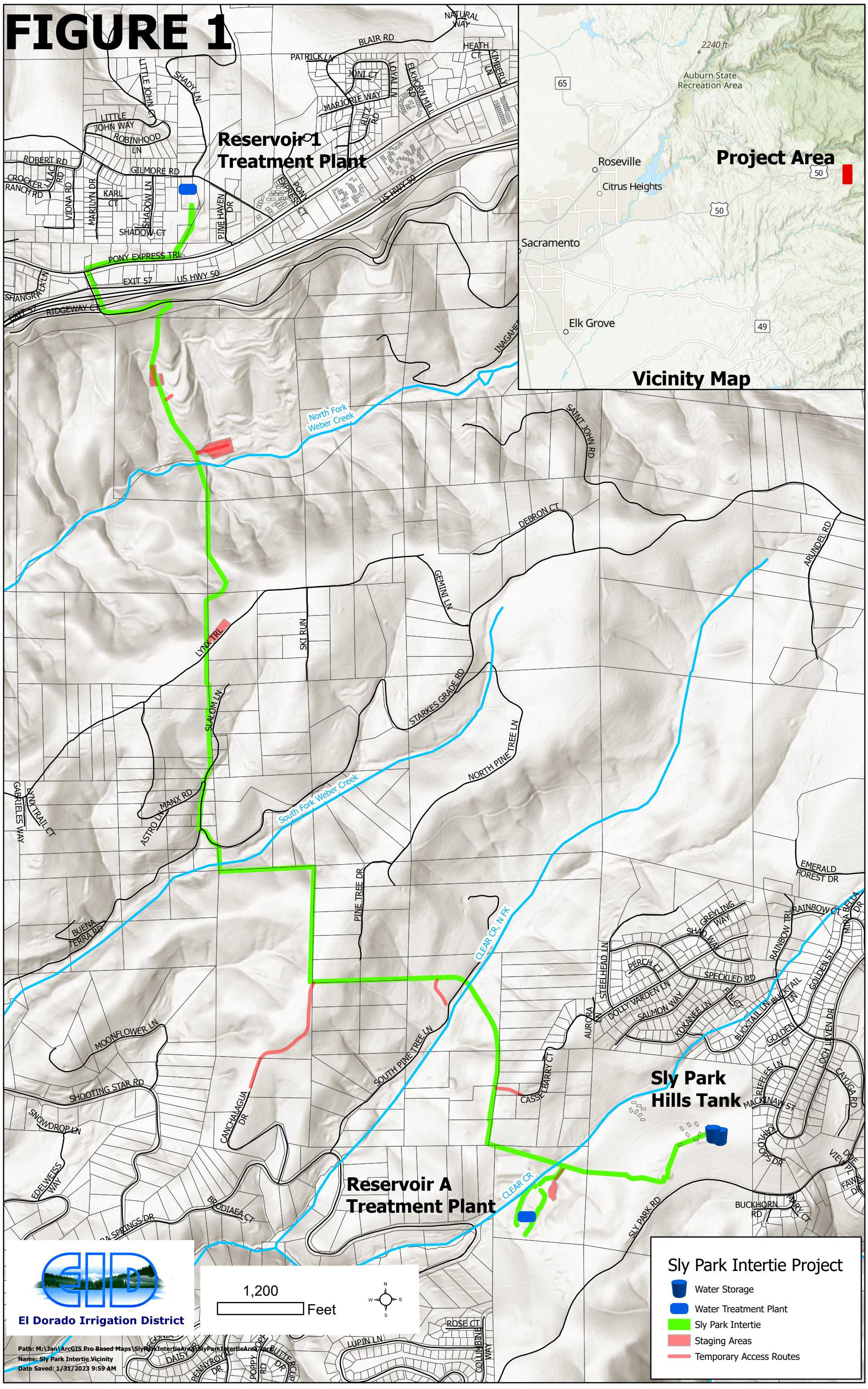
Pursuant to CEQA Guidelines Section 15126.(a), the Draft EIR will identify any significant irreversible environmental changes that would be caused by the Project, giving due consideration to both the short-term and long-term effects.

Effects from Growth
As required by CEQA Guidelines Section 15126.(d), the Draft EIR will evaluate any growth-inducing impacts of the Project.

Alternatives Analysis
As required by CEQA Guidelines Section 15126.(f), the Draft EIR will evaluate a reasonable range of alternatives to the Project that would feasibly attain most of the Project objectives and would avoid or substantially reduce a significant impact of the Project, including the no project alternative.

Effects Found Not to be Significant
Pursuant to CEQA Guidelines Section 15128, the Draft EIR will identify environmental impacts found not to be significant and not addressed in detail in the document. Reasons why each effect is not significant will be briefly discussed.

FIGURE 1


Reservoir 1
Treatment Plant
Reservoir A
Treatment Plant
Sly Park
Hills Tank
Project Area
Vicinity Map
Roseville
Citrus Heights
Sacramento
Elk Grove
Auburn State
Recreation Area
2240 ft
65
50
49
US HWY 50
EXIT 57
PONY EXPRESS TRL
BLAIR RD
NATURAL WAY
PATRICK LN
JONI CT
LOYAL LN
ELKHORN MILL RD
MARJORIE WAY
RITZY RD
HEATH CT
KIMBERLY LN
LITTLE JOHN CT
SHADY LN
LITTLE JOHN WAY
ROBINHOOD LN
ROBERT RD
GILMORE RD
CROCKER RANCH RD
VIONA RD
MARILYN DR
KARL CT
SHADOW LN
SHADOW CT
PINE HAVEN DR
PONY EXPRESS CT
SHANGRI LA LN
RIDGEWAY CT
INAGAHE
North Fork
Weber Creek
SAINT JOHN RD
DEBRON CT
ARUNDEL RD
GEMINI LN
LYNX TRL
SKI RUN
SLALOM LN
STARKES GRADE RD
NORTH PINE TREE LN
ASTRO LN
MANX RD
LYNX TRAIL CT
GABRIELES WAY
South Fork Weber Creek
PINE TREE DR
EMERALD
FOREST DR
BUENA
TERRA RD
MOONFLOWER LN
SHOOTING STAR RD
SNOWDROP LN
EDELWEISS
WAY
CANCHALAGUA
DR
SOUTH PINE TREE LN
CLEAR CR, N FK
CLEAR CR
CASSEL BARRY CT
AURORA
STEELHEAD LN
DOLLY VARDEN LN
SALMON WAY
KOKANEE LN
PERCH CT
SPECKLED RD
GREYLING
WAY
SHAD WAY
RAINBOW TRL
RAINBOW CT
MINA BELLA
DR
GOLDEN ST
LOCH LEVEN DR
BUCKTAIL LN
GOLDEN
CT
MACKINAW ST
CAYUGA RD
CAMLOOPS DR
DOE
VIEW PL
FAWN
DR
BUCKHORN
RD
SLY PARK RD
ROSE CT
LUPIN LN
COLUMBINE
WAY
DAISY DR
BUTTERCUP
DR
POPPY
RD
PENNYROYAL
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1,200
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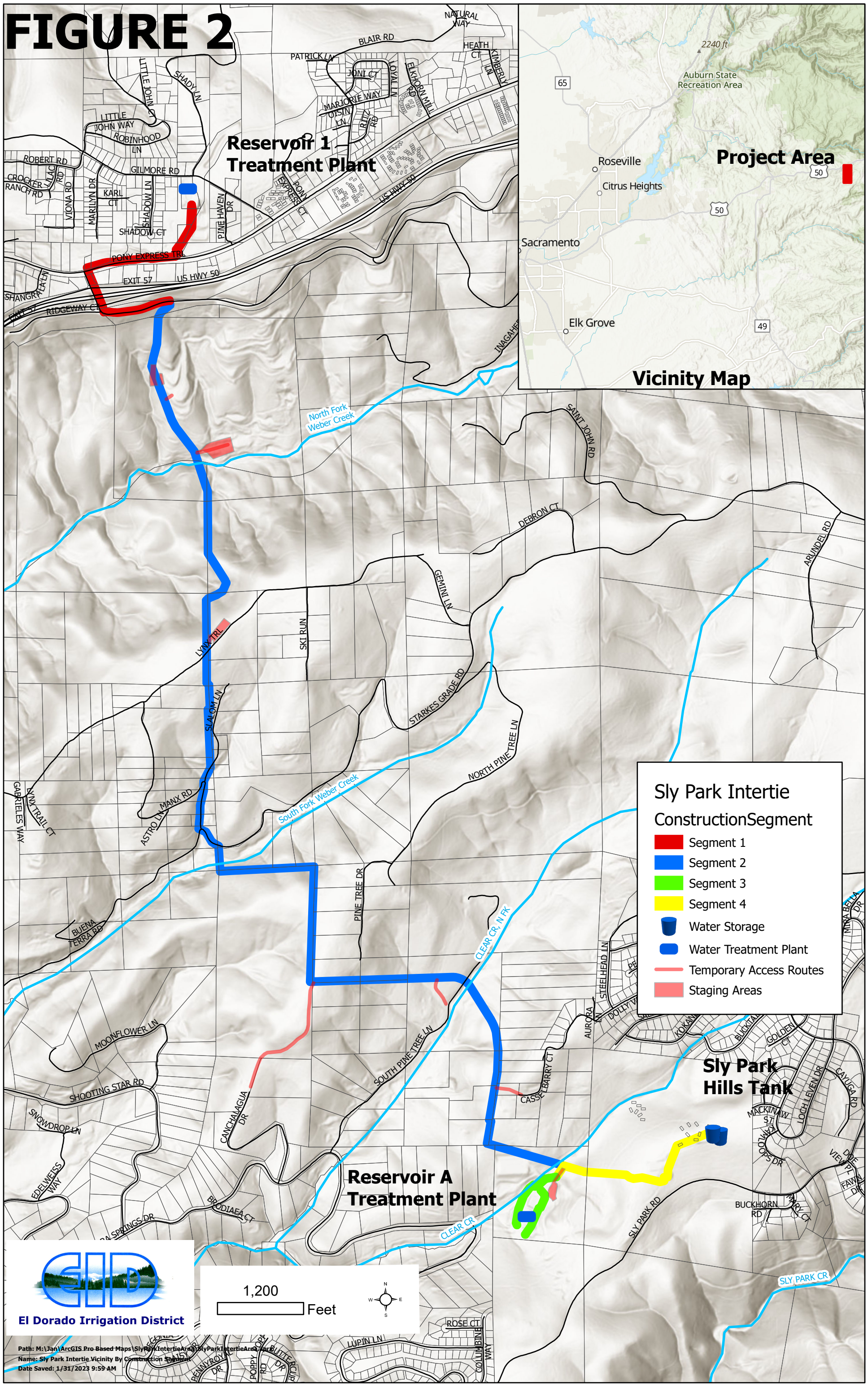
S
El Dorado Irrigation District
Sly Park Intertie Project
Water Storage
Water Treatment Plant
Sly Park Intertie
Staging Areas
Temporary Access Routes
Path: M:\Jan\ArcGIS Pro Based Maps\SlyParkIntertieArea3\SlyParkIntertieArea3.aprx
Name: Sly Park Intertie Vicinity
Date Saved: 1/31/2023 9:59 AM

FIGURE 2



Path: M:\Jan\ArcGIS Pro Based Maps\SlyParkIntertieArea3\SlyParkIntertieArea3.aprx
Name: Sly Park Intertie Vicinity By Construction Segment
Date Saved: 1/31/2023 9:59 AM

El Dorado Irrigation District

COMMENT FORM

Received by EID 2/15/2023 @ Public Scoping Mtg.

Notice of Preparation (NOP) of a
Draft Environmental Impact Report (DEIR)
Sly Park Intertie Replacement (PN21079)

Please write legibly so that your comment or questions can be included and addressed in the DEIR, thank you.
See below for ways to submit.

Name: RICHARD PETROVSKY Organization: LYNX TRAL Z.O.B, or ☒ Resident

Address: 5845 LYNX TRAIL POLLOCK PINES CA 95726

Comment: THERE IS A FIRE HYDRANT AT THE INTERSECTION OF STARKS GRADE AND MANX. THIS HYDRANT MUST BE TIED INTO THE WATER PIPE TO BE REPLACED. AFTER A LOOK AT THE CALDOR FIRE, WOULD IT NOT ONLY BE PRUDENT TO RETAIN THAT FIRE HYDRANT AND ADD A HYDRANT WHERE THE VENT AND PUMP ARE LOCATED WHERE THE LINE CROSSES LYNX TRAIL? THE COST TO EID WOULD BE NOMINAL IN THE BIGGER SCOPE OF THIS PROJECT.

THANK YOU

Mail comments to Sly Park Intertie Replacement NOP Comments, El Dorado Irrigation District, 2890 Mosquito Road, Placerville, CA 95667, email SlyParkIntertieNOP@EID.org., or hand it to an EID representative at the public scoping meeting scheduled for February 15, 2023 @ 5:00 PM at the Pollock Pines-Camino Community Center located at 2675 Sanders Way in Pollock Pines.

Project webpage: www.EID.org/SlyParkIntertie

Comments must be received by 5:00 p.m., Monday, March 6, 2023.

El Dorado Irrigation District

COMMENT FORM

Sly Park Intertie Replacement (PN21079)
Draft Environmental Impact Report (DEIR)

Please write legibly so that your comment or questions can be included and addressed in the DEIR, thank you.
See below for ways to submit.

Name:_____ Organization:_____, or ☐ Resident

Address: _____

Comment: _____

_____

_____

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_____

Mail comments to Sly Park Intertie Replacement DEIR, El Dorado Irrigation District, 2890 Mosquito Road, Placerville, CA 95667, email SlyParkIntertieNOP@EID.org., or hand it to an EID representative at the public scoping meeting scheduled for February 15, 2023 @ 5:00 PM at the Pollock Pines-Camino Community Center located at 2675 Sanders Way in Pollock Pines.

Project webpage: www.EID.org/SlyParkIntertie

Comments must be received by 5:00 p.m., Monday, March 6, 2023.

STATE OF CALIFORNIA Gavin Newsom, Governor

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Laura Miranda
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[Vacant]

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[Vacant]

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Raymond C. Hitchcock
Miwok/Nisenan

NAHC HEADQUARTERS
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(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

February 8, 2023

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

Re: 2023020081, Sly Park Intertie Replacement Project, El Dorado County

Dear Mr. Venable:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

a. A brief description of the project.

b. The lead agency contact information.

c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).

d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

a. Alternatives to the project.

b. Recommended mitigation measures.

c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

a. Type of environmental review necessary.

b. Significance of the tribal cultural resources.

c. Significance of the project's impacts on tribal cultural resources.

d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

a. Whether the proposed project has a significant impact on an identified tribal cultural resource.

b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or

b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:

i. Planning and construction to avoid the resources and protect the cultural and natural context.

ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

i. Protecting the cultural character and integrity of the resource.

ii. Protecting the traditional use of the resource.

iii. Protecting the confidentiality of the resource.

c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).

e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).

f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.

b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (https://ohp.parks.ca.gov/?page_id=30331) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
    b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
   a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
   b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
   a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
   b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
   c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Pricilla.Torres-Fuentes@nahc.ca.gov.

Sincerely,

Pricilla Torres-Fuentes

Pricilla Torres-Fuentes
Cultural Resources Analyst

cc: State Clearinghouse

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT
1325 J STREET
SACRAMENTO CA 95814-2922

February 27, 2023

Regulatory Division (SPK-2023-00145)

El Dorado Irrigation District
Attn: Mr. Doug Venable
2890 Mosquito Road
Placerville, California 95667-5761
SlyParkIntertieNOP@eid.org

Dear Mr. Venable:

We are responding to your February 15, 2023, request for comments on EID project number 21079, the Sly Park Intertie Replacement project. The U.S. Army Corps of Engineers project identification number is SPK-2023-00145. The approximately 33.0-acre project site is located near Latitude 38.7244°, Longitude -120.6073°, El Dorado County, California.

The Corps of Engineers' jurisdiction within the study area is under the authority of Section 404 of the Clean Water Act for the discharge of dredged or fill material into waters of the United States. Waters of the United States may include, but are not limited to, rivers, perennial or intermittent streams, lakes, ponds, wetlands, vernal pools, marshes, wet meadows, some canals, and seeps. Project features that result in the discharge of dredged or fill material into waters of the United States will require Department of the Army authorization prior to starting work.

To ascertain the extent of waters on the project site, the applicant should prepare an aquatic resources delineation, in accordance with the "Minimum Standards for Acceptance of Aquatic Resource Delineation Reports" and "Updated Map and Drawing Standards for the South Pacific Division Regulatory Program" under "Jurisdiction" on our website at the address below and submit it to this office for verification. A list of consultants that prepare aquatic resources delineations and permit application documents is also available on our website at the same location.

The range of alternatives considered for this project should include alternatives that avoid impacts to wetlands or other waters of the United States. Every effort should be made to avoid project features which require the discharge of dredged or fill material into waters of the United States. In the event it can be clearly demonstrated there are no practicable alternatives to filling waters of the United States, mitigation plans should be developed to compensate for the unavoidable losses resulting from project implementation.

If waters of the United States are going to be impacted, cultural resource sites within the defined federal permit area, will need to be evaluated according to the standards of the National Environmental Policy Act. All eligible or potentially eligible cultural resource sites in the permit area will be subject to Section 106 of the National Historic Preservation Act, 1966, as amended. The Corps of Engineers must also comply with the terms and conditions of the Federal Endangered Species Act with regards to our permitting process. The applicant may be required to create reports on these subjects for our office to review in order for us to process a permit application request.

Please refer to identification number SPK-2023-00145 in any correspondence concerning this project. If you have any questions, please contact Ms. Lauren Skube at 1325 J Street, Room 1350, Sacramento, California, 95814-2922 by email at Lauren.M.Skube@usace.army.mil, or telephone at (916) 557-7982. For more information regarding our program, please visit our website at www.spk.usace.army.mil/Missions/Regulatory.aspx.

Sincerely,

for Kathy Norton
Sr. Project Manager
California South Section

Central Valley Regional Water Quality Control Board

3 March 2023

Doug Venable
El Dorado Irrigation District
2890 Mosquito Road
Placerville, CA 95667
dvenable@eid.org

COMMENTS TO REQUEST FOR REVIEW FOR THE NOTICE OF PREPARATION FOR THE DRAFT ENVIRONMENTAL IMPACT REPORT, SLY PARK INTERTIE REPLACEMENT PROJECT, SCH#2023020081, EL DORADO COUNTY

Pursuant to the State Clearinghouse's 3 February 2023 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Notice of Preparation for the Draft Environmental Impact Report* for the Sly Park Intertie Replacement Project, located in El Dorado County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore, our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources Control Board (State Water Board), Office of

Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues. For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:
http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Implementation Policy is available on page 74 at:
https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf

In part it states:

Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.

This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), Construction General Permit Order No. 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). For more information on the Construction General Permit, visit the State Water Resources Control Board website at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACE). If a Section 404 permit is required by the USACE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements. If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications. For more information on the Water Quality Certification, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/

Waste Discharge Requirements – Discharges to Waters of the State

If USACE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation. For more information on the Waste Discharges to Surface Water NPDES Program and WDR processes, visit the Central Valley Water Board website at:https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/

Projects involving excavation or fill activities impacting less than 0.2 acre or 400 linear feet of non-jurisdictional waters of the state and projects involving dredging activities impacting less than 50 cubic yards of non-jurisdictional waters of the state may be eligible for coverage under the State Water Resources Control Board Water Quality Order No. 2004-0004-DWQ (General Order 2004-0004). For more information on the General Order 2004-0004, visit the State Water Resources Control Board website at: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2004/wqo/wqo2004-0004.pdf

Dewatering Permit

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Threat General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Threat Waiver) R5-2018-0085. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at: http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Threat Waiver and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2018-0085.pdf

Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Limited Threat Discharges to Surface Water* (Limited Threat General Order). A complete Notice of Intent must be submitted to the Central Valley Water Board to obtain coverage under the Limited Threat General Order. For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf

NPDES Permit

If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit. For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/help/permit/

If you have questions regarding these comments, please contact me at (916) 464-4684 or Peter.Minkel2@waterboards.ca.gov.

Peter Minkel

Peter Minkel
Engineering Geologist

cc: State Clearinghouse unit, Governor's Office of Planning and Research, Sacramento

From: Deason, Brian
To: Venable, Doug; Baron, Michael
Subject: FW: Sly park inertie project
Date: Thursday, April 6, 2023 4:28:14 PM

Doug – FYI. Although this was sent to the ROWR email and references the April 24 hearing, I believe they are commenting more on the SPI. Let's all three discuss tomorrow.

Thanks,

Brian Deason
Environmental Resources Supervisor
El Dorado Irrigation District
2890 Mosquito Road
Placerville, CA 95667
530-642-4064
bdeason@eid.org

From: nicole perrin <ncpcsre01@gmail.com>
Sent: Thursday, April 6, 2023 4:22 PM
To: DL_ROWRProgramMND <ROWRProgramMND@eid.org>
Subject: Sly park inertie project

I am writing due to my concerns regarding the sly park inertia project. Our property is one of the affected parcels along the pipeline replacement , and I have many concerns regarding vegetation clearing, the actual scope of the project and the misleading terminology used to describe it, as well as the lack of genuine biological and environmental research performed along the actual pipeline easement and surrounding areas. I have opinions regarding use of already cleared easement roadway as opposed to clearing established trees and removing the old pipeline, whereas instead I feel that old pipeline can remain in place and new pipeline could possibly be placed along cleared easement, thus saving time, effort, cost, workload, etc, if such obstacles such as granite outcroppings, etc, permit.

We have been present during the initial survey, as well as when the so called biological and environmental team walked through, which consisted of a group of young adults walking through our property conversing amongst themselves, with no apparent regard or care for the environment around them, as per the job they were there to perform.

I'm concerned that the flora and fauna will be put through undue hardships with the removal of more than 500 tree, min, and many acres of chaparral forest to be decimated to clear these right of ways, especially after caldor fire, and all the mastication already done in the name of fire prevention. The zones of habitation are getting bleaker by the day for wildlife in general, and this project will absolutely contribute to this.

In addition to those concerns, I am disturbed by the description of the project as

being 4.5 miles in length, as I have done my own research using topographical mapping applications to determine that even if pipeline was to take a straight and direct path from point A to point B, in regards to distance, it would be more than 5 miles. Therefore, pipeline will in all actuality be much longer than even that length would be due to the route it actually traverses, the terrain it goes through, the depth of which it is placed, and the many turns and directional changes it takes along the way, leading to my conclusion of a much larger project scope than described in any of the reports, therefore having a greater environmental impact.

I understand the need for this project and am not trying to undermine it in any way, however I'm very passionate in regards to environmental impacts we as a species are having worldwide, and the effects we as a species have had in decimating wildlife, both flora and fauna alike, on a large scale. There has to be a way to minimize the loss of life in general during this project as I feel the impact of losing another 500+ trees will have detrimental impacts, especially after the loss of life associated with recent wildfire activity especially caldor, and the supposed fire prevention techniques used to further such destruction.

I will be in attendance at the April 24 court hearing to express my concerns, as well as reaching out to local native councils to seek assistance for conservation and support of wildlife in general. Thank you for your time, and hoping for best possible resolution to this in its entirety.

Thank you again for your time. Contact information as follows:

•Nicole Perrin (530)391-7205
•Joshua Graham (530)391-5194
6000 Slalom Lane, Pollock Pines,Ca, 95726

Parcels:
076-310-004-000
076-310-003-000

APPENDIX B

CalEEMod Results

Sly Park Intertie Project - Pipeline Only Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Sly Park Intertie Project - Pipeline Only
Construction Start Date	3/1/2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.30
Precipitation (days)	55.8
Location	Pollock Pines, CA 95726, USA
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	423
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.13

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
User Defined Linear	4.50	Mile	33.0	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.78	3.18	32.0	25.8	0.09	1.14	32.8	34.0	1.05	4.46	5.51	—	9,424	9,424	0.29	0.50	5.22	9,584
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.77	3.17	32.3	25.6	0.09	1.14	32.8	34.0	1.05	4.46	5.51	—	9,408	9,408	0.29	0.50	0.14	9,563
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.53	1.28	12.3	10.2	0.04	0.40	18.0	18.4	0.36	1.94	2.30	—	4,317	4,317	0.12	0.28	1.33	4,407
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.28	0.23	2.25	1.86	0.01	0.07	3.28	3.35	0.07	0.35	0.42	—	715	715	0.02	0.05	0.22	730

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2024	3.78	3.18	32.0	25.8	0.09	1.14	32.8	34.0	1.05	4.46	5.51	—	9,424	9,424	0.29	0.50	5.22	9,584
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	3.77	3.17	32.3	25.6	0.09	1.14	32.8	34.0	1.05	4.46	5.51	—	9,408	9,408	0.29	0.50	0.14	9,563
2025	0.62	0.52	8.50	6.15	0.03	0.20	29.9	30.1	0.19	3.10	3.29	—	3,607	3,607	0.05	0.44	0.13	3,739
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.53	1.28	12.3	10.2	0.04	0.40	18.0	18.4	0.36	1.94	2.30	—	4,317	4,317	0.12	0.28	1.33	4,407
2025	0.06	0.05	0.81	0.59	< 0.005	0.02	2.86	2.88	0.02	0.30	0.32	—	346	346	< 0.005	0.04	0.21	359
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.28	0.23	2.25	1.86	0.01	0.07	3.28	3.35	0.07	0.35	0.42	—	715	715	0.02	0.05	0.22	730
2025	0.01	0.01	0.15	0.11	< 0.005	< 0.005	0.52	0.53	< 0.005	0.05	0.06	—	57.3	57.3	< 0.005	0.01	0.03	59.4

3. Construction Emissions Details

3.1. Linear, Grubbing & Land Clearing (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.61	3.04	27.2	24.4	0.06	1.11	—	1.11	1.02	—	1.02	—	6,513	6,513	0.26	0.05	—	6,535
Dust From Material Movement	—	—	—	—	—	—	2.97	2.97	—	1.36	1.36	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.61	3.04	27.2	24.4	0.06	1.11	—	1.11	1.02	—	1.02	—	6,513	6,513	0.26	0.05	—	6,535
Dust From Material Movement	—	—	—	—	—	—	2.97	2.97	—	1.36	1.36	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.21	1.86	1.67	< 0.005	0.08	—	0.08	0.07	—	0.07	—	446	446	0.02	< 0.005	—	448
Dust From Material Movement	—	—	—	—	—	—	0.20	0.20	—	0.09	0.09	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.34	0.31	< 0.005	0.01	—	0.01	0.01	—	0.01	—	73.9	73.9	< 0.005	< 0.005	—	74.1
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.05	0.92	0.00	0.00	6.98	6.98	0.00	0.72	0.72	—	152	152	0.01	0.01	0.62	154

Vendor	< 0.005	< 0.005	0.10	0.02	< 0.005	< 0.005	0.65	0.65	< 0.005	0.07	0.07	—	63.4	63.4	< 0.005	0.01	0.15	66.3
Hauling	0.08	0.07	4.62	0.47	0.03	0.03	22.2	22.3	0.03	2.32	2.35	—	2,695	2,695	0.02	0.43	4.45	2,828
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.07	0.73	0.00	0.00	6.98	6.98	0.00	0.72	0.72	—	137	137	0.01	0.01	0.02	138
Vendor	< 0.005	< 0.005	0.11	0.02	< 0.005	< 0.005	0.65	0.65	< 0.005	0.07	0.07	—	63.3	63.3	< 0.005	0.01	< 0.005	66.2
Hauling	0.08	0.07	4.90	0.48	0.03	0.03	22.2	22.3	0.03	2.32	2.35	—	2,695	2,695	0.02	0.43	0.12	2,823
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.48	0.48	0.00	0.05	0.05	—	9.56	9.56	< 0.005	< 0.005	0.02	9.70
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	< 0.005	—	4.34	4.34	< 0.005	< 0.005	< 0.005	4.54
Hauling	0.01	< 0.005	0.33	0.03	< 0.005	< 0.005	1.52	1.52	< 0.005	0.16	0.16	—	185	185	< 0.005	0.03	0.13	194
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.09	0.09	0.00	0.01	0.01	—	1.58	1.58	< 0.005	< 0.005	< 0.005	1.61
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	0.72	0.72	< 0.005	< 0.005	< 0.005	0.75
Hauling	< 0.005	< 0.005	0.06	0.01	< 0.005	< 0.005	0.28	0.28	< 0.005	0.03	0.03	—	30.6	30.6	< 0.005	< 0.005	0.02	32.0

3.3. Linear, Grading & Excavation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.06	1.73	13.3	14.5	0.04	0.54	—	0.54	0.50	—	0.50	—	3,904	3,904	0.16	0.03	—	3,917

Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.64	0.54	4.11	4.48	0.01	0.17	—	0.17	0.15	—	0.15	—	1,209	1,209	0.05	0.01	—	1,213
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.75	0.82	< 0.005	0.03	—	0.03	0.03	—	0.03	—	200	200	0.01	< 0.005	—	201
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.05	0.92	0.00	0.00	6.98	6.98	0.00	0.72	0.72	—	152	152	0.01	0.01	0.62	154
Vendor	< 0.005	< 0.005	0.10	0.02	< 0.005	< 0.005	0.65	0.65	< 0.005	0.07	0.07	—	63.4	63.4	< 0.005	0.01	0.15	66.3
Hauling	0.08	0.07	4.62	0.47	0.03	0.03	22.2	22.3	0.03	2.32	2.35	—	2,695	2,695	0.02	0.43	4.45	2,828

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.23	0.00	0.00	2.16	2.16	0.00	0.22	0.22	—	43.2	43.2	< 0.005	< 0.005	0.08	43.9
Vendor	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.20	0.20	< 0.005	0.02	0.02	—	19.6	19.6	< 0.005	< 0.005	0.02	20.5
Hauling	0.03	0.02	1.50	0.15	0.01	0.01	6.88	6.89	0.01	0.72	0.73	—	834	834	< 0.005	0.13	0.59	875
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.39	0.39	0.00	0.04	0.04	—	7.15	7.15	< 0.005	< 0.005	0.01	7.26
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	< 0.005	—	3.25	3.25	< 0.005	< 0.005	< 0.005	3.40
Hauling	< 0.005	< 0.005	0.27	0.03	< 0.005	< 0.005	1.26	1.26	< 0.005	0.13	0.13	—	138	138	< 0.005	0.02	0.10	145

3.5. Linear, Drainage, Utilities, & Sub-Grade (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.65	2.22	16.3	15.9	0.04	0.65	—	0.65	0.59	—	0.59	—	4,554	4,554	0.18	0.04	—	4,570
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	2.65	2.22	16.3	15.9	0.04	0.65	—	0.65	0.59	—	0.59	—	4,554	4,554	0.18	0.04	—	4,570
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	0.46	3.35	3.26	0.01	0.13	—	0.13	0.12	—	0.12	—	936	936	0.04	0.01	—	939
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.08	0.61	0.60	< 0.005	0.02	—	0.02	0.02	—	0.02	—	155	155	0.01	< 0.005	—	155
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.05	0.92	0.00	0.00	6.98	6.98	0.00	0.72	0.72	—	152	152	0.01	0.01	0.62	154
Vendor	< 0.005	< 0.005	0.10	0.02	< 0.005	< 0.005	0.65	0.65	< 0.005	0.07	0.07	—	63.4	63.4	< 0.005	0.01	0.15	66.3
Hauling	0.08	0.07	4.62	0.47	0.03	0.03	22.2	22.3	0.03	2.32	2.35	—	2,695	2,695	0.02	0.43	4.45	2,828

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.07	0.73	0.00	0.00	6.98	6.98	0.00	0.72	0.72	—	137	137	0.01	0.01	0.02	138
Vendor	< 0.005	< 0.005	0.11	0.02	< 0.005	< 0.005	0.65	0.65	< 0.005	0.07	0.07	—	63.3	63.3	< 0.005	0.01	< 0.005	66.2
Hauling	0.08	0.07	4.90	0.48	0.03	0.03	22.2	22.3	0.03	2.32	2.35	—	2,695	2,695	0.02	0.43	0.12	2,823
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.15	0.00	0.00	1.43	1.43	0.00	0.15	0.15	—	28.7	28.7	< 0.005	< 0.005	0.06	29.1
Vendor	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	0.13	0.13	< 0.005	0.01	0.01	—	13.0	13.0	< 0.005	< 0.005	0.01	13.6
Hauling	0.02	0.01	1.00	0.10	0.01	0.01	4.57	4.57	0.01	0.48	0.48	—	554	554	< 0.005	0.09	0.39	581
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.26	0.26	0.00	0.03	0.03	—	4.75	4.75	< 0.005	< 0.005	0.01	4.82
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	2.16	2.16	< 0.005	< 0.005	< 0.005	2.25
Hauling	< 0.005	< 0.005	0.18	0.02	< 0.005	< 0.005	0.83	0.83	< 0.005	0.09	0.09	—	91.7	91.7	< 0.005	0.01	0.06	96.1

3.7. Linear, Paving (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51	0.43	3.91	5.01	0.01	0.19	—	0.19	0.18	—	0.18	—	756	756	0.03	0.01	—	758
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.40	7.40	< 0.005	< 0.005	—	7.42
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.22	1.22	< 0.005	< 0.005	—	1.23
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.07	0.73	0.00	0.00	6.98	6.98	0.00	0.72	0.72	—	137	137	0.01	0.01	0.02	138
Vendor	< 0.005	< 0.005	0.11	0.02	< 0.005	< 0.005	0.65	0.65	< 0.005	0.07	0.07	—	63.3	63.3	< 0.005	0.01	< 0.005	66.2
Hauling	0.08	0.07	4.90	0.48	0.03	0.03	22.2	22.3	0.03	2.32	2.35	—	2,695	2,695	0.02	0.43	0.12	2,823
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.07	0.07	0.00	0.01	0.01	—	1.37	1.37	< 0.005	< 0.005	< 0.005	1.39
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	0.62	0.62	< 0.005	< 0.005	< 0.005	0.65
Hauling	< 0.005	< 0.005	0.05	< 0.005	< 0.005	< 0.005	0.22	0.22	< 0.005	0.02	0.02	—	26.4	26.4	< 0.005	< 0.005	0.02	27.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	0.23	0.23	< 0.005	< 0.005	< 0.005	0.23
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.10	0.10	< 0.005	< 0.005	< 0.005	0.11
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	< 0.005	—	4.37	4.37	< 0.005	< 0.005	< 0.005	4.58

3.9. Linear, Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.48	0.40	3.73	4.99	0.01	0.17	—	0.17	0.16	—	0.16	—	756	756	0.03	0.01	—	758
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.36	0.48	< 0.005	0.02	—	0.02	0.02	—	0.02	—	72.5	72.5	< 0.005	< 0.005	—	72.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.0	12.0	< 0.005	< 0.005	—	12.0
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.07	0.06	0.06	0.68	0.00	0.00	6.98	6.98	0.00	0.72	0.72	—	134	134	< 0.005	0.01	0.01	136
Vendor	< 0.005	< 0.005	0.10	0.02	< 0.005	< 0.005	0.65	0.65	< 0.005	0.07	0.07	—	62.5	62.5	< 0.005	0.01	< 0.005	65.4
Hauling	0.07	0.05	4.62	0.46	0.03	0.03	22.2	22.3	0.03	2.32	2.35	—	2,655	2,655	0.02	0.42	0.11	2,779
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.67	0.67	0.00	0.07	0.07	—	13.1	13.1	< 0.005	< 0.005	0.02	13.3
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.06	0.06	< 0.005	0.01	0.01	—	6.00	6.00	< 0.005	< 0.005	0.01	6.27
Hauling	0.01	0.01	0.44	0.04	< 0.005	< 0.005	2.13	2.13	< 0.005	0.22	0.22	—	255	255	< 0.005	0.04	0.18	267
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.12	0.12	0.00	0.01	0.01	—	2.17	2.17	< 0.005	< 0.005	< 0.005	2.21
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	0.99	0.99	< 0.005	< 0.005	< 0.005	1.04
Hauling	< 0.005	< 0.005	0.08	0.01	< 0.005	< 0.005	0.39	0.39	< 0.005	0.04	0.04	—	42.1	42.1	< 0.005	0.01	0.03	44.2

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description

Linear, Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	3/1/2024	4/5/2024	5.00	25.0	—
Linear, Grading & Excavation	Linear, Grading & Excavation	4/6/2024	9/11/2024	5.00	113	—
Linear, Drainage, Utilities, & Sub-Grade	Linear, Drainage, Utilities, & Sub-Grade	9/12/2024	12/26/2024	5.00	75.0	—
Linear, Paving	Linear, Paving	12/27/2024	2/18/2025	5.00	38.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Linear, Grubbing & Land Clearing	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Grubbing & Land Clearing	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Linear, Grubbing & Land Clearing	Scrapers	Diesel	Average	1.00	8.00	423	0.48
Linear, Grubbing & Land Clearing	Off-Highway Trucks	Diesel	Average	2.00	8.00	376	0.38
Linear, Grading & Excavation	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Grading & Excavation	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Linear, Grading & Excavation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Linear, Grading & Excavation	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Linear, Grading & Excavation	Off-Highway Trucks	Diesel	Average	2.00	8.00	376	0.38
Linear, Drainage, Utilities, & Sub-Grade	Trenchers	Diesel	Average	2.00	8.00	40.0	0.50

Linear, Drainage, Utilities, & Sub-Grade	Cranes	Diesel	Average	1.00	8.00	367	0.29
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Off-Highway Trucks	Diesel	Average	2.00	8.00	376	0.38
Linear, Drainage, Utilities, & Sub-Grade	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Linear, Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Linear, Paving	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
Linear, Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	15.0	12.6	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	2.00	8.73	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	30.0	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	15.0	12.6	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	2.00	8.73	HHDT,MHDT
Linear, Grading & Excavation	Hauling	30.0	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—

Linear, Drainage, Utilities, & Sub-Grade	Worker	15.0	12.6	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	2.00	8.73	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	30.0	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	—	—	—	—
Linear, Paving	Worker	15.0	12.6	LDA,LDT1,LDT2
Linear, Paving	Vendor	2.00	8.73	HHDT,MHDT
Linear, Paving	Hauling	30.0	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Linear, Grubbing & Land Clearing	—	—	33.0	0.00	—
Linear, Grading & Excavation	—	—	33.0	0.00	—
Linear, Drainage, Utilities, & Sub-Grade	—	—	33.0	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Linear	33.0	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	204	0.03	< 0.005
2025	0.00	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	27.7	annual days of extreme heat
Extreme Precipitation	17.8	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	45.8	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A

Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	72.8
AQ-PM	5.61
AQ-DPM	6.12
Drinking Water	18.3
Lead Risk Housing	54.7
Pesticides	49.6
Toxic Releases	7.36
Traffic	14.6
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	0.00
Haz Waste Facilities/Generators	35.6
Impaired Water Bodies	12.5
Solid Waste	71.3
Sensitive Population	—
Asthma	55.1
Cardio-vascular	23.8
Low Birth Weights	29.7
Socioeconomic Factor Indicators	—
Education	32.2
Housing	87.5

Linguistic	0.00
Poverty	72.6
Unemployment	43.1

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	40.97266778
Employed	9.919158219
Median HI	16.7842936
Education	—
Bachelor's or higher	23.67509303
High school enrollment	100
Preschool enrollment	6.557166688
Transportation	—
Auto Access	50.17323239
Active commuting	20.96753497
Social	—
2-parent households	38.62440652
Voting	73.28371616
Neighborhood	—
Alcohol availability	69.65225202
Park access	26.17733864
Retail density	10.17579879
Supermarket access	26.2928269
Tree canopy	99.67919928

Housing	—
Homeownership	74.72090337
Housing habitability	34.27434877
Low-inc homeowner severe housing cost burden	13.06300526
Low-inc renter severe housing cost burden	1.283202874
Uncrowded housing	96.93314513
Health Outcomes	—
Insured adults	55.13922751
Arthritis	0.0
Asthma ER Admissions	67.0
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	11.2
Cognitively Disabled	6.4
Physically Disabled	2.8
Heart Attack ER Admissions	64.5
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	49.4
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—

Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	87.4
SLR Inundation Area	0.0
Children	77.6
Elderly	25.4
English Speaking	98.1
Foreign-born	0.4
Outdoor Workers	28.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.2
Traffic Density	8.5
Traffic Access	0.0
Other Indices	—
Hardship	51.5
Other Decision Support	—
2016 Voting	68.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	24.0
Healthy Places Index Score for Project Location (b)	35.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	demolition phase removed for the pump station
Construction: Off-Road Equipment	linear construction equipment types added based on standard assumptions for similar pipeline projects.
Construction: Trips and VMT	Assumed 15 employees for each phase, 2 water trucks per day, and, per PD, a maximum of 30 haul truck trips per day

Sly Park Intertie Project - Pump Station Only Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Sly Park Intertie Project - Pump Station Only
Construction Start Date	3/1/2024
Operational Year	2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.30
Precipitation (days)	55.8
Location	Pollock Pines, CA 95726, USA
County	El Dorado-Mountain County
City	Unincorporated
Air District	El Dorado County AQMD
Air Basin	Mountain Counties
TAZ	423
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.13

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

General Light Industry	1.60	1000sqft	0.04	1,600	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.73	7.56	5.61	7.02	0.01	0.26	9.22	9.43	0.23	0.95	1.14	—	1,321	1,321	0.05	0.01	0.82	1,326
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.57	2.17	17.7	17.4	0.04	0.76	8.66	9.42	0.70	1.68	2.37	—	4,502	4,502	0.18	0.04	0.02	4,518
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.21	0.28	1.72	2.14	< 0.005	0.08	0.30	0.38	0.07	0.04	0.11	—	405	405	0.02	< 0.005	0.01	406
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.04	0.05	0.31	0.39	< 0.005	0.01	0.06	0.07	0.01	0.01	0.02	—	67.0	67.0	< 0.005	< 0.005	< 0.005	67.2

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.73	7.56	5.61	7.02	0.01	0.26	9.22	9.43	0.23	0.95	1.14	—	1,321	1,321	0.05	0.01	0.82	1,326
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.57	2.17	17.7	17.4	0.04	0.76	8.66	9.42	0.70	1.68	2.37	—	4,502	4,502	0.18	0.04	0.02	4,518
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.21	0.28	1.72	2.14	< 0.005	0.08	0.30	0.38	0.07	0.04	0.11	—	405	405	0.02	< 0.005	0.01	406
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.04	0.05	0.31	0.39	< 0.005	0.01	0.06	0.07	0.01	0.01	0.02	—	67.0	67.0	< 0.005	< 0.005	< 0.005	67.2

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.76	2.56	11.2	6.46	0.01	0.37	0.00	0.37	0.37	0.00	0.37	1.78	1,311	1,313	0.23	0.01	0.42	1,322
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.75	2.55	11.2	6.39	0.01	0.37	0.00	0.37	0.37	0.00	0.37	1.78	1,311	1,312	0.23	0.01	0.42	1,322
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.38	0.39	1.55	0.92	< 0.005	0.05	0.00	0.05	0.05	0.00	0.05	1.78	207	208	0.19	< 0.005	0.42	214
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.07	0.07	0.28	0.17	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.29	34.2	34.5	0.03	< 0.005	0.07	35.5

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.01	0.06	< 0.005	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.29	0.29	< 0.005	< 0.005	—	0.29
Energy	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	30.5	30.5	< 0.005	< 0.005	—	30.6
Water	—	—	—	—	—	—	—	—	—	—	—	0.71	0.65	1.36	0.07	< 0.005	—	3.70
Waste	—	—	—	—	—	—	—	—	—	—	—	1.07	0.00	1.07	0.11	0.00	—	3.74
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42
Stationary	2.75	2.50	11.2	6.38	0.01	0.37	0.00	0.37	0.37	0.00	0.37	0.00	1,279	1,279	0.05	0.01	0.00	1,284
Total	2.76	2.56	11.2	6.46	0.01	0.37	0.00	0.37	0.37	0.00	0.37	1.78	1,311	1,313	0.23	0.01	0.42	1,322
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	30.5	30.5	< 0.005	< 0.005	—	30.6
Water	—	—	—	—	—	—	—	—	—	—	—	0.71	0.65	1.36	0.07	< 0.005	—	3.70
Waste	—	—	—	—	—	—	—	—	—	—	—	1.07	0.00	1.07	0.11	0.00	—	3.74
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42
Stationary	2.75	2.50	11.2	6.38	0.01	0.37	0.00	0.37	0.37	0.00	0.37	0.00	1,279	1,279	0.05	0.01	0.00	1,284
Total	2.75	2.55	11.2	6.39	0.01	0.37	0.00	0.37	0.37	0.00	0.37	1.78	1,311	1,312	0.23	0.01	0.42	1,322
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	0.01	0.05	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.14	0.14	< 0.005	< 0.005	—	0.14
Energy	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	30.5	30.5	< 0.005	< 0.005	—	30.6
Water	—	—	—	—	—	—	—	—	—	—	—	0.71	0.65	1.36	0.07	< 0.005	—	3.70
Waste	—	—	—	—	—	—	—	—	—	—	—	1.07	0.00	1.07	0.11	0.00	—	3.74
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42
Stationary	0.38	0.34	1.53	0.87	< 0.005	0.05	0.00	0.05	0.05	0.00	0.05	0.00	175	175	0.01	< 0.005	0.00	176
Total	0.38	0.39	1.55	0.92	< 0.005	0.05	0.00	0.05	0.05	0.00	0.05	1.78	207	208	0.19	< 0.005	0.42	214
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Area	< 0.005	0.01	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.02	0.02	< 0.005	< 0.005	—	0.02
Energy	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.05	5.05	< 0.005	< 0.005	—	5.07
Water	—	—	—	—	—	—	—	—	—	—	—	0.12	0.11	0.22	0.01	< 0.005	—	0.61
Waste	—	—	—	—	—	—	—	—	—	—	—	0.18	0.00	0.18	0.02	0.00	—	0.62
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Stationary	0.07	0.06	0.28	0.16	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	29.0	29.0	< 0.005	< 0.005	0.00	29.1
Total	0.07	0.07	0.28	0.17	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.29	34.2	34.5	0.03	< 0.005	0.07	35.5

3. Construction Emissions Details

3.1. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.60	0.50	4.60	5.56	0.01	0.24	—	0.24	0.22	—	0.22	—	858	858	0.03	0.01	—	861
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.35	2.35	< 0.005	< 0.005	—	2.36
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.39	0.39	< 0.005	< 0.005	—	0.39
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.26	0.00	0.00	2.64	2.64	0.00	0.27	0.27	—	51.4	51.4	< 0.005	< 0.005	0.01	52.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	0.14	0.14	< 0.005	< 0.005	< 0.005	0.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.02	0.02	< 0.005	< 0.005	< 0.005	0.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.51	2.11	17.6	16.7	0.04	0.76	—	0.76	0.70	—	0.70	—	4,373	4,373	0.18	0.04	—	4,388

Dust From Material Movement	—	—	—	—	—	—	2.07	2.07	—	1.00	1.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.10	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.0	24.0	< 0.005	< 0.005	—	24.0
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.97	3.97	< 0.005	< 0.005	—	3.98
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.06	0.66	0.00	0.00	6.59	6.59	0.00	0.68	0.68	—	129	129	0.01	0.01	0.02	130
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	0.04	0.04	0.00	< 0.005	< 0.005	—	0.72	0.72	< 0.005	< 0.005	< 0.005	0.73
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	0.12	0.12	< 0.005	< 0.005	< 0.005	0.12
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67	0.56	5.60	6.98	0.01	0.26	—	0.26	0.23	—	0.23	—	1,305	1,305	0.05	0.01	—	1,309
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67	0.56	5.60	6.98	0.01	0.26	—	0.26	0.23	—	0.23	—	1,305	1,305	0.05	0.01	—	1,309
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.18	0.15	1.53	1.91	< 0.005	0.07	—	0.07	0.06	—	0.06	—	357	357	0.01	< 0.005	—	359
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.28	0.35	< 0.005	0.01	—	0.01	0.01	—	0.01	—	59.2	59.2	< 0.005	< 0.005	—	59.4
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.35	0.35	0.00	0.04	0.04	—	7.68	7.68	< 0.005	< 0.005	0.03	7.80
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.09	0.09	< 0.005	0.01	0.01	—	8.37	8.37	< 0.005	< 0.005	0.02	8.77
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.35	0.35	0.00	0.04	0.04	—	6.91	6.91	< 0.005	< 0.005	< 0.005	7.00
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.09	0.09	< 0.005	0.01	0.01	—	8.37	8.37	< 0.005	< 0.005	< 0.005	8.75
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.10	0.10	0.00	0.01	0.01	—	1.93	1.93	< 0.005	< 0.005	< 0.005	1.96
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	—	2.29	2.29	< 0.005	< 0.005	< 0.005	2.40
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	0.32	0.32	< 0.005	< 0.005	< 0.005	0.33
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.38	0.38	< 0.005	< 0.005	< 0.005	0.40
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63	0.53	4.52	5.32	0.01	0.21	—	0.21	0.19	—	0.19	—	823	823	0.03	0.01	—	826
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.3	11.3	< 0.005	< 0.005	—	11.3
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.87	1.87	< 0.005	< 0.005	—	1.87
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.10	0.09	0.06	1.19	0.00	0.00	9.22	9.22	0.00	0.95	0.95	—	200	200	0.01	0.01	0.82	203
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.13	0.13	0.00	0.01	0.01	—	2.52	2.52	< 0.005	< 0.005	< 0.005	2.56
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	0.42	0.42	< 0.005	< 0.005	< 0.005	0.42
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Architectural Coating (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	0.91	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	7.42	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.83	1.83	< 0.005	< 0.005	—	1.84
Architectural Coatings	—	0.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.30	0.30	< 0.005	< 0.005	—	0.30
Architectural Coatings	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	0.07	0.07	0.00	0.01	0.01	—	1.54	1.54	< 0.005	< 0.005	0.01	1.56
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.02	0.02	< 0.005	< 0.005	< 0.005	0.02

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	9.24	9.24	< 0.005	< 0.005	—	9.33
Total	—	—	—	—	—	—	—	—	—	—	—	—	9.24	9.24	< 0.005	< 0.005	—	9.33
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	9.24	9.24	< 0.005	< 0.005	—	9.33
Total	—	—	—	—	—	—	—	—	—	—	—	—	9.24	9.24	< 0.005	< 0.005	—	9.33
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	1.53	1.53	< 0.005	< 0.005	—	1.54
Total	—	—	—	—	—	—	—	—	—	—	—	—	1.53	1.53	< 0.005	< 0.005	—	1.54

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.3	21.3	< 0.005	< 0.005	—	21.3
Total	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.3	21.3	< 0.005	< 0.005	—	21.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.3	21.3	< 0.005	< 0.005	—	21.3
Total	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.3	21.3	< 0.005	< 0.005	—	21.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.52	3.52	< 0.005	< 0.005	—	3.53
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.52	3.52	< 0.005	< 0.005	—	3.53

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	0.01	< 0.005	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.29	0.29	< 0.005	< 0.005	—	0.29
Total	0.01	0.06	< 0.005	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.29	0.29	< 0.005	< 0.005	—	0.29
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.02	0.02	< 0.005	< 0.005	—	0.02
Total	< 0.005	0.01	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.02	0.02	< 0.005	< 0.005	—	0.02

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.71	0.65	1.36	0.07	< 0.005	—	3.70
Total	—	—	—	—	—	—	—	—	—	—	—	0.71	0.65	1.36	0.07	< 0.005	—	3.70
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.71	0.65	1.36	0.07	< 0.005	—	3.70
Total	—	—	—	—	—	—	—	—	—	—	—	0.71	0.65	1.36	0.07	< 0.005	—	3.70
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.12	0.11	0.22	0.01	< 0.005	—	0.61
Total	—	—	—	—	—	—	—	—	—	—	—	0.12	0.11	0.22	0.01	< 0.005	—	0.61

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	1.07	0.00	1.07	0.11	0.00	—	3.74
Total	—	—	—	—	—	—	—	—	—	—	—	1.07	0.00	1.07	0.11	0.00	—	3.74
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	1.07	0.00	1.07	0.11	0.00	—	3.74
Total	—	—	—	—	—	—	—	—	—	—	—	1.07	0.00	1.07	0.11	0.00	—	3.74
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.18	0.00	0.18	0.02	0.00	—	0.62
Total	—	—	—	—	—	—	—	—	—	—	—	0.18	0.00	0.18	0.02	0.00	—	0.62

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.42	0.42
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	2.75	2.50	11.2	6.38	0.01	0.37	0.00	0.37	0.37	0.00	0.37	0.00	1,279	1,279	0.05	0.01	0.00	1,284
Total	2.75	2.50	11.2	6.38	0.01	0.37	0.00	0.37	0.37	0.00	0.37	0.00	1,279	1,279	0.05	0.01	0.00	1,284
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	2.75	2.50	11.2	6.38	0.01	0.37	0.00	0.37	0.37	0.00	0.37	0.00	1,279	1,279	0.05	0.01	0.00	1,284
Total	2.75	2.50	11.2	6.38	0.01	0.37	0.00	0.37	0.37	0.00	0.37	0.00	1,279	1,279	0.05	0.01	0.00	1,284
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Emergency Generato	0.07	0.06	0.28	0.16	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	29.0	29.0	< 0.005	< 0.005	0.00	29.1
Total	0.07	0.06	0.28	0.16	< 0.005	0.01	0.00	0.01	0.01	0.00	0.01	0.00	29.0	29.0	< 0.005	< 0.005	0.00	29.1

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	3/16/2024	3/17/2024	5.00	1.00	—
Grading	Grading	3/18/2024	3/20/2024	5.00	2.00	—
Building Construction	Building Construction	3/21/2024	8/8/2024	5.00	100	—
Paving	Paving	8/9/2024	8/16/2024	5.00	5.00	—
Architectural Coating	Architectural Coating	8/17/2024	8/24/2024	5.00	5.00	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Graders	Diesel	Average	1.00	6.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.00	84.0	0.37
Grading	Off-Highway Trucks	Diesel	Average	2.00	8.00	376	0.38
Building Construction	Cranes	Diesel	Average	1.00	4.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Paving	Pavers	Diesel	Average	1.00	7.00	81.0	0.42
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38

Paving	Cement and Mortar Mixers	Diesel	Average	4.00	6.00	10.0	0.56
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	5.00	14.3	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.80	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	12.5	14.3	LDA,LDT1,LDT2
Grading	Vendor	—	8.80	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	0.67	14.3	LDA,LDT1,LDT2
Building Construction	Vendor	0.26	8.80	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	17.5	14.3	LDA,LDT1,LDT2
Paving	Vendor	—	8.80	HHDT,MHDT

Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	0.13	14.3	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.80	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	2,400	800	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	0.50	0.00	—
Grading	—	—	1.50	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction

Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
General Light Industry	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	204	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	2,400	800	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
General Light Industry	16,528	204	0.0330	0.0040	66,334

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Light Industry	370,000	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Light Industry	1.98	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Light Industry	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
Emergency Generator	Diesel	1.00	2.00	100	762	0.73

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	27.7	annual days of extreme heat
Extreme Precipitation	17.8	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	45.8	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A

Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	72.8
AQ-PM	5.61
AQ-DPM	6.12
Drinking Water	18.3
Lead Risk Housing	54.7
Pesticides	49.6
Toxic Releases	7.36
Traffic	14.6
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	0.00
Haz Waste Facilities/Generators	35.6

Impaired Water Bodies	12.5
Solid Waste	71.3
Sensitive Population	—
Asthma	55.1
Cardio-vascular	23.8
Low Birth Weights	29.7
Socioeconomic Factor Indicators	—
Education	32.2
Housing	87.5
Linguistic	0.00
Poverty	72.6
Unemployment	43.1

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	40.97266778
Employed	9.919158219
Median HI	16.7842936
Education	—
Bachelor's or higher	23.67509303
High school enrollment	100
Preschool enrollment	6.557166688
Transportation	—
Auto Access	50.17323239
Active commuting	20.96753497

Social	—
2-parent households	38.62440652
Voting	73.28371616
Neighborhood	—
Alcohol availability	69.65225202
Park access	26.17733864
Retail density	10.17579879
Supermarket access	26.2928269
Tree canopy	99.67919928
Housing	—
Homeownership	74.72090337
Housing habitability	34.27434877
Low-inc homeowner severe housing cost burden	13.06300526
Low-inc renter severe housing cost burden	1.283202874
Uncrowded housing	96.93314513
Health Outcomes	—
Insured adults	55.13922751
Arthritis	0.0
Asthma ER Admissions	67.0
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	11.2
Cognitively Disabled	6.4

Physically Disabled	2.8
Heart Attack ER Admissions	64.5
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	49.4
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	87.4
SLR Inundation Area	0.0
Children	77.6
Elderly	25.4
English Speaking	98.1
Foreign-born	0.4
Outdoor Workers	28.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.2
Traffic Density	8.5
Traffic Access	0.0
Other Indices	—
Hardship	51.5
Other Decision Support	—

2016 Voting	68.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	24.0
Healthy Places Index Score for Project Location (b)	35.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	demolition phase removed for the pump station
Construction: Off-Road Equipment	linear construction equipment types added based on standard assumptions for similar pipeline projects.

Sly Park Intertie Project—Energy Consumption Summary

Date of Last Revision: May 26, 2023

Summary of Energy Use During Pump Station Construction (2024)		(Annually)
Construction vehicle fuel	124	gallons (gasoline, diesel)
Construction equipment fuel	2,232	gallons (diesel)
Summary of Energy Use During Pipeline Construction (2024-2025)		(Annually)
Construction vehicle fuel	31,155	gallons (gasoline, diesel)
Construction equipment fuel	17,055	gallons (diesel)
Summary of Energy Use During Proposed Operations (2025)		(Annually)
Operational backup generator fuel consumption	889	gallons (diesel)

Construction Vehicle Fuel Calculations (Page 1 of 2)

California Air Resource Board (CARB). 2023. EMFAC2021 Web Database. Website: https://arb.ca.gov/emfac/emissions-inventory/. Accessed May 26, 2023.

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: County
Region: El Dorado
Calendar Year: 2024
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

VMT = Vehicle Miles Traveled
FE = Fuel Economy

						Given			*Calculations*	
Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	VMT (mi/day)	Fuel Consumption (1000 gallons/day)	FE (mi/gallon)	VMT*FE
El Dorado	2024	HHDT	Aggregate	Aggregate	Gasoline	0.48988703	22.668181	0.006455301	3.51156039	79.60069
El Dorado	2024	HHDT	Aggregate	Aggregate	Diesel	563.356432	45770.07	8.781329555	5.2122027	238562.9
El Dorado	2024	LDA	Aggregate	Aggregate	Gasoline	43715.4146	1743911.9	58.86888783	29.6236605	51661055
El Dorado	2024	LDA	Aggregate	Aggregate	Diesel	281.546276	8660.9272	0.203032402	42.6578573	369456.6
El Dorado	2024	LDT1	Aggregate	Aggregate	Gasoline	8017.1986	242256.18	9.978819712	24.2770378	5881263
El Dorado	2024	LDT1	Aggregate	Aggregate	Diesel	4.6495185	30.771132	0.001246775	24.6805864	759.4496
El Dorado	2024	LDT2	Aggregate	Aggregate	Gasoline	33835.2227	1301308.9	55.02340707	23.6500961	30776080
El Dorado	2024	LDT2	Aggregate	Aggregate	Diesel	134.528907	5469.8682	0.1705214	32.0773123	175458.7
El Dorado	2024	LHDT1	Aggregate	Aggregate	Gasoline	3479.76757	115627.49	12.54696681	9.21557281	1065574
El Dorado	2024	LHDT1	Aggregate	Aggregate	Diesel	4427.65255	141558.5	8.835331609	16.021866	2268031
El Dorado	2024	LHDT2	Aggregate	Aggregate	Gasoline	268.925535	9613.7526	1.128191163	8.52138619	81922.5
El Dorado	2024	LHDT2	Aggregate	Aggregate	Diesel	1542.94294	54594.42	4.204339603	12.9852545	708922.4
El Dorado	2024	MDV	Aggregate	Aggregate	Gasoline	22266.4113	761126.96	39.30497187	19.3646484	14738956
El Dorado	2024	MDV	Aggregate	Aggregate	Diesel	541.675531	20525.322	0.836107527	24.5486633	503869.2
El Dorado	2024	MHDT	Aggregate	Aggregate	Gasoline	151.88077	6310.11	1.332317947	4.73618933	29885.88
El Dorado	2024	MHDT	Aggregate	Aggregate	Diesel	1748.84839	77352.522	9.184947826	8.42166154	651436.8

Worker

Sum of VMT*FE (Column BI)	**1.04E+08**
Total VMT	**4083291**
Weighted Average Fuel Economy	**25.49583**

Vendor

Sum of VMT*FE (Column BI)	**5044415**
Total VMT	**450849.5**
Weighted Average Fuel Economy	**11.18869**

Haul

Sum of VMT*FE (Column BI)	**238642.5**
Total VMT	**45792.74**
Weighted Average Fuel Economy	**5.211361**

Construction Vehicle Fuel Calculations (Page 2 of 2)

Construction Schedule

Source: CalEEMod Output

Sly Park Intertie Project - Pump Station

CalEEMod Phase Type	Phase Name	Start Date	End Date	Num Days Week	Num Days
Site Preparation	Site Preparation	3/16/2024	3/17/2024	5	1
Grading	Grading	3/18/2024	3/20/2024	5	2
Building Construction	Building Construction	3/21/2024	8/8/2024	5	100
Paving	Paving	8/9/2024	8/16/2024	5	5
Architectural Coating	Architectural Coating	8/17/2024	8/24/2024	5	5

Construction Trips and VMT

	Trips per Day		Total Trips	Construction Trip Length in Miles			Number of Days per Phase	Trips per Phase			VMT per Phase			Fuel Consumption (gallons)		
Phase Name	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length		Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trips	Vendor Trips	Hauling Trips	Worker Trips	Vendor Trips	Hauling Trips
Site Preparation	5	0	0	14.3	8.8	20	1	5	0	0	72	0	0	2.80	0.00	0.00
Grading	13	0	0	14.3	8.8	20	2	25	0	0	358	0	0	14.02	0.00	0.00
Building Construction	1	0	0	14.3	8.8	20	100	67	26	0	958	229	0	37.58	20.45	0.00
Paving	18	0	0	14.3	8.8	20	5	88	0	0	1,251	0	0	49.08	0.00	0.00
Architectural Coating	0	0	0	14.3	8.8	20	5	1	0	0	9	0	0	0.36	0.00	0.00
											2,648	229	0	104	20	0

*See Section 4.3.1 of AQ/GHG Impact Assessment. Project construction would generate 300 passenger car trips per day and 40 vendor+hauling trips per day.

*Vendor trips were assumed to include water trucks (6 per day) and on-site pickup trucks (10 per day)

Total Project Construction VMT (miles)

2,876

Total Project Fuel Consumption (gallons)

124

Construction Equipment Fuel Calculation (Page 1 of 2)

Source: CalEEMod Output
Sly Park Intertie Project - Pump Station
Construction Schedule

CalEEMod Phase Type	Phase Name	Start Date	End Date	Num Days/ Week	Num Days
Site Preparation	Site Preparation	3/16/2024	3/17/2024	5	1
Grading	Grading	3/18/2024	3/20/2024	5	2
Building Construction	Building Construction	3/21/2024	8/8/2024	5	100
Paving	Paving	8/9/2024	8/16/2024	5	5
Architectural Coating	Architectural Coating	8/17/2024	8/24/2024	5	5

Construction Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Number of Days	HP Hours	Fuel (gallons/HP-hour)	Diesel Fuel Usage
Site Preparation	Tractors/Loaders/Backhoes	1	8	84	0.37	1	248.64	0.01913387	4.76
Site Preparation	Graders	1	8	148	0.41	1	485.44	0.02123071	10.31
Grading	Graders	1	6	148	0.41	2	728.16	0.02123071	15.46
Grading	Rubber Tired Dozers	1	6	367	0.4	2	1,761.60	0.02061334	36.31
Grading	Tractors/Loaders/Backhoes	1	7	84	0.37	2	435.12	0.01913387	8.33
Grading	Off-Highway Trucks	2	8	376	0.38	2	4,572.16	0.01974844	90.29
Building Construction	Cranes	1	4	367	0.29	100	42,572.00	0.01489142	633.96
Building Construction	Forklifts	2	6	82	0.2	100	19,680.00	0.02081728	409.68
Building Construction	Tractors/Loaders/Backhoes	2	8	84	0.37	100	49,728.00	0.01913387	951.49
Paving	Pavers	1	7	81	0.42	5	1,190.70	0.02142251	25.51
Paving	Rollers	1	7	36	0.38	5	478.80	0.02157226	10.33
Paving	Cement and Mortar Mixers	4	6	10	0.56	5	672.00	0.00000000	0.00
Paving	Tractors/Loaders/Backhoes	1	7	84	0.37	5	1,087.80	0.01913387	20.81
Architectural Coating	Air Compressors	1	6	37	0.48	5	532.80	0.02758590	14.70

Total Construction Equipment Fuel Consumption (gallons) **2,231.93**

Notes:
Equipment assumptions are provided in the CalEEMod output files.
Source of usage estimates: California Air Resource Board (CARB). 2023. OFFROAD2021 (v1.0.4) Emissions Inventory
Website: https://arb.ca.gov/emfac/emissions-inventory/. Accessed May 26, 2023.

Construction Equipment Fuel Calculation (Page 2 of 2)

Model Output: OFFROAD2021 (v1.0.4) Emissions Inventory
Region Type: County
Region: El Dorado
Calendar Year: 2024
Scenario: All Adopted Rules - Exhaust
Vehicle Classification: OFFROAD2021 Equipment Types
Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsepower-hours/year for Horsepower-hours

Region	CalYr	Vehicle Class	Model Year	HP_Bin	Fuel	Fuel Consumption (gallons/year)	Horsepower Hours (HP-hours/year)	Fuel (gallons/HP-hour)
El Dorado	2024	Cranes	Aggregate	600	Diesel	22561.11383	1515040.946	0.014891422
El Dorado	2024	Graders	Aggregate	175	Diesel	23053.29059	1085846.63	0.021230706
El Dorado	2024	Cement And Mortar Mixers	Aggregate	15	Diesel	3.976325727	0	#DIV/0!
El Dorado	2024	Off-Highway Trucks	Aggregate	600	Diesel	115201.1439	5833430.128	0.01974844
El Dorado	2024	Pavers	Aggregate	100	Diesel	3231.858563	150862.7413	0.02142251
El Dorado	2024	Rollers	Aggregate	50	Diesel	7824.213066	362697.8457	0.021572262
El Dorado	2024	Forklifts	Aggregate	100	Diesel	31428.45343	1509728.987	0.020817282
El Dorado	2024	Rubber Tired Dozers	Aggregate	600	Diesel	17260.21035	837331.8955	0.020613344
El Dorado	2024	Tractors/Loaders/Backhoes	Aggregate	100	Diesel	187204.7695	9783945.725	0.019133872
El Dorado	2024	Air Compressors	Aggregate	50	Diesel	4504.1	163275.45	0.027585899

Construction Vehicle Fuel Calculations (Page 1 of 2)

California Air Resource Board (CARB). 2023. EMFAC2021 Web Database. Website: https://arb.ca.gov/emfac/emissions-inventory/. Accessed May 26, 2023.

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: County
Region: El Dorado
Calendar Year: 2024
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

VMT = Vehicle Miles Traveled
FE = Fuel Economy

						Given			*Calculations*	
Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	VMT (mi/day)	Fuel Consumption (1000 gallons/day)	FE (mi/gallon)	VMT*FE
El Dorado	2024	HHDT	Aggregate	Aggregate	Gasoline	0.48988703	22.668181	0.006455301	3.51156039	79.60069
El Dorado	2024	HHDT	Aggregate	Aggregate	Diesel	563.356432	45770.07	8.781329555	5.2122027	238562.9
El Dorado	2024	LDA	Aggregate	Aggregate	Gasoline	43715.4146	1743911.9	58.86888783	29.6236605	51661055
El Dorado	2024	LDA	Aggregate	Aggregate	Diesel	281.546276	8660.9272	0.203032402	42.6578573	369456.6
El Dorado	2024	LDT1	Aggregate	Aggregate	Gasoline	8017.1986	242256.18	9.978819712	24.2770378	5881263
El Dorado	2024	LDT1	Aggregate	Aggregate	Diesel	4.6495185	30.771132	0.001246775	24.6805864	759.4496
El Dorado	2024	LDT2	Aggregate	Aggregate	Gasoline	33835.2227	1301308.9	55.02340707	23.6500961	30776080
El Dorado	2024	LDT2	Aggregate	Aggregate	Diesel	134.528907	5469.8682	0.1705214	32.0773123	175458.7
El Dorado	2024	LHDT1	Aggregate	Aggregate	Gasoline	3479.76757	115627.49	12.54696681	9.21557281	1065574
El Dorado	2024	LHDT1	Aggregate	Aggregate	Diesel	4427.65255	141558.5	8.835331609	16.021866	2268031
El Dorado	2024	LHDT2	Aggregate	Aggregate	Gasoline	268.925535	9613.7526	1.128191163	8.52138619	81922.5
El Dorado	2024	LHDT2	Aggregate	Aggregate	Diesel	1542.94294	54594.42	4.204339603	12.9852545	708922.4
El Dorado	2024	MDV	Aggregate	Aggregate	Gasoline	22266.4113	761126.96	39.30497187	19.3646484	14738956
El Dorado	2024	MDV	Aggregate	Aggregate	Diesel	541.675531	20525.322	0.836107527	24.5486633	503869.2
El Dorado	2024	MHDT	Aggregate	Aggregate	Gasoline	151.88077	6310.11	1.332317947	4.73618933	29885.88
El Dorado	2024	MHDT	Aggregate	Aggregate	Diesel	1748.84839	77352.522	9.184947826	8.42166154	651436.8

Worker

Sum of VMT*FE (Column BI)	**1.04E+08**
Total VMT	**4083291**
Weighted Average Fuel Economy	**25.49583**

Vendor

Sum of VMT*FE (Column BI)	**5044415**
Total VMT	**450849.5**
Weighted Average Fuel Economy	**11.18869**

Haul

Sum of VMT*FE (Column BI)	**238642.5**
Total VMT	**45792.74**
Weighted Average Fuel Economy	**5.211361**

Construction Vehicle Fuel Calculations (Page 2 of 2)

Construction Schedule

Source: CalEEMod Output

Sly Park Intertie Project - Pipeline

CalEEMod Phase Type	Phase Name	Start Date	End Date	Num Days Week	Num Days
Linear, Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	3/1/2024	4/5/2024	5	25
Linear, Grading & Excavation	Linear, Grading & Excavation	4/6/2024	9/11/2024	5	113
Linear, Drainage, Utilities, & Sub-Grade	Linear, Drainage, Utilities, & Sub-Gr	9/12/2024	12/26/2024	5	75
Linear, Paving	Linear, Paving	12/27/2024	2/18/2025	5	38

Construction Trips and VMT

	Trips per Day			Construction Trip Length in Miles			Number of Days per Phase	Trips per Phase			VMT per Phase			Fuel Consumption (gallons)		
Phase Name	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length		Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trips	Vendor Trips	Hauling Trips	Worker Trips	Vendor Trips	Hauling Trips
Linear, Grubbing & Land Clearing	15	2	30	12.63	8.73	20	25	375	50	750	4,736	437	15,000	185.77	39.01	2,878.33
Linear, Grading & Excavation	15	2	30	12.63	8.73	20	113	1,695	226	3,390	21,408	1,973	67,800	839.66	176.34	13,010.04
Linear, Drainage, Utilities, & Sub-Grade	15	2	30	12.63	8.73	20	75	1,125	150	2,250	14,209	1,310	45,000	557.30	117.04	8,634.98
Linear, Paving	15	2	30	12.63	8.73	20	38	570	76	1,140	7,199	663	22,800	282.36	59.30	4,375.06
											47,552	4,382	150,600	1,865	392	28,898

Total Project Construction VMT (miles)

202,534

Total Project Fuel Consumption (gallons)

31,155

Construction Equipment Fuel Calculation (Page 1 of 2)

Source: CalEEMod Output
Sly Park Intertie Project
Construction Schedule

CalEEMod Phase Type	Phase Name	Start Date	End Date	Num Days Week	Num Days
Linear, Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	3/1/2024	4/5/2024	5	25
Linear, Grading & Excavation	Linear, Grading & Excavation	4/6/2024	9/11/2024	5	113
Linear, Drainage, Utilities, & Sub-Grade	Linear, Drainage, Utilities, & Sub-Grade	9/12/2024	12/26/2024	5	75
Linear, Paving	Linear, Paving	12/27/2024	2/18/2025	5	38

Construction Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Number of Days	HP Hours	Fuel (gallons/HP-hour)	Diesel Fuel Usage
Linear, Grubbing & Land Clearing	Tractors/Loaders/Backhoes	2	8	84	0.37	25	12,432.00	0.01913387	237.87
Linear, Grubbing & Land Clearing	Rubber Tired Dozers	1	8	367	0.4	25	29,360.00	0.02061334	605.21
Linear, Grubbing & Land Clearing	Scrapers	1	8	423	0.48	25	40,608.00	0.02500236	1,015.30
Linear, Grubbing & Land Clearing	Off-Highway Trucks	2	8	376	0.38	25	57,152.00	0.01974844	1,128.66
Linear, Grading & Excavation	Graders	1	8	148	0.41	113	54,854.72	0.02123071	1,164.60
Linear, Grading & Excavation	Excavators	1	8	36	0.38	113	12,366.72	0.02197690	271.78
Linear, Grading & Excavation	Tractors/Loaders/Backhoes	1	8	84	0.37	113	28,096.32	0.01913387	537.59
Linear, Grading & Excavation	Concrete/Industrial Saws	1	8	33	0.73	113	21,777.36	0.03931204	856.11
Linear, Grading & Excavation	Off-Highway Trucks	2	8	376	0.38	113	258,327.04	0.01974844	5,101.56
Linear, Drainage, Utilities, & Sub-Grade	Trenchers	2	8	40	0.5	75	24,000.00	0.02894586	694.70
Linear, Drainage, Utilities, & Sub-Grade	Cranes	1	8	367	0.29	75	63,858.00	0.01489142	950.94
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	1	8	14	0.74	75	6,216.00	0.00000000	0.00
Linear, Drainage, Utilities, & Sub-Grade	Off-Highway Trucks	2	8	376	0.38	75	171,456.00	0.01974844	3,385.99
Linear, Drainage, Utilities, & Sub-Grade	Welders	1	8	46	0.45	75	12,420.00	0.02582578	320.76
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	1	8	37	0.48	75	10,656.00	0.02758590	293.96
Linear, Paving	Paving Equipment	1	8	89	0.36	38	9,740.16	0.01837483	178.97
Linear, Paving	Rollers	1	8	36	0.38	38	4,158.72	0.02157226	89.71
Linear, Paving	Pavers	1	8	81	0.42	38	10,342.08	0.02142251	221.55

Total Construction Equipment Fuel Consumption (gallons) **17,055.26**

Notes:
Equipment assumptions are provided in the CalEEMod output files.
Source of usage estimates: California Air Resource Board (CARB). 2023. OFFROAD2021 (v1.0.4) Emissions Inventory
Website: https://arb.ca.gov/emfac/emissions-inventory/. Accessed May 25, 2023.

Construction Equipment Fuel Calculation (Page 2 of 2)

Model Output: OFFROAD2021 (v1.0.4) Emissions Inventory
Region Type: County
Region: El Dorado
Calendar Year: 2024
Scenario: All Adopted Rules - Exhaust
Vehicle Classification: OFFROAD2021 Equipment Types
Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsepower-hours/year for Horsepower-hours

Region	CalYr	Vehicle Class	Model Year	HP_Bin	Fuel	Fuel Consumption (gallons/year)	Horsepower Hours (HP-hours/year)	Fuel (gallons/HP-hour)
El Dorado	2024	Cranes	Aggregate	600	Diesel	22561.11383	1515040.946	0.014891422
El Dorado	2024	Graders	Aggregate	175	Diesel	23053.29059	1085846.63	0.021230706
El Dorado	2024	Off-Highway Trucks	Aggregate	600	Diesel	115201.1439	5833430.128	0.01974844
El Dorado	2024	Pavers	Aggregate	100	Diesel	3231.858563	150862.7413	0.02142251
El Dorado	2024	Rollers	Aggregate	50	Diesel	7824.213066	362697.8457	0.021572262
El Dorado	2024	Rubber Tired Dozers	Aggregate	600	Diesel	17260.21035	837331.8955	0.020613344
El Dorado	2024	Tractors/Loaders/Backhoes	Aggregate	100	Diesel	187204.7695	9783945.725	0.019133872
El Dorado	2024	Air Compressors	Aggregate	50	Diesel	4504.1	163275.45	0.027585899
El Dorado	2024	Excavators	Aggregate	50	Diesel	13912.70861	633060.5659	0.0219769
El Dorado	2024	Concrete/Industrial Saws	Aggregate	50	Diesel	175.2	4456.65	0.039312039
El Dorado	2024	Paving Equipment	Aggregate	100	Diesel	2000.387809	108865.6752	0.018374826
El Dorado	2024	Scrapers	Aggregate	600	Diesel	173638.8984	6944900.79	0.025002358
El Dorado	2024	Trenchers	Aggregate	50	Diesel	4142.621055	143116.1717	0.028945863
El Dorado	2024	Generator Sets	Aggregate	15	Diesel	5169.238275	0	#DIV/0!
El Dorado	2024	Welders	Aggregate	50	Diesel	20644.4	799371.9	0.025825776

Operations of Back-up Generator Fuel Calculation

Sly Park Intertie Project

Offroad Equipment Type	Amount	Annual Usage Hours	Horse Power	Load Factor	HP Hours	Fuel (gallons/HP-	Diesel Fuel Usage
Emergency Generator	1	100	762	0.73	55,626.00	0.01599027	889.47

Notes:
Equipment assumptions provided by applicant.
Source of usage estimates: California Air Resource Board (CARB). 2023. OFFROAD2021 (v1.0.4) Emissions Inventory
Website: https://arb.ca.gov/emfac/emissions-inventory/. Accessed May 26, 2023.

APPENDIX C

Biological Reports

BOTANICAL RESOURCES REPORT

September 2023

Prepared for:
El Dorado Irrigation District

Prepared by:
Stantec Consulting Services Inc.

Project Number: 185705950

The conclusions in the Report titled Botanical Resources Report are Stantec's professional opinion, as of the time of the Report, and concerning the scope described in the Report. The opinions in the document are based on conditions and information existing at the time the scope of work was conducted and do not take into account any subsequent changes. The Report relates solely to the specific project for which Stantec was retained and the stated purpose for which the Report was prepared. The Report is not to be used or relied on for any variation or extension of the project, or for any other project or purpose, and any unauthorized use or reliance is at the recipient's own risk.

Stantec has assumed all information received from El Dorado Irrigation District (the "Client") and third parties in the preparation of the Report to be correct. While Stantec has exercised a customary level of judgment or due diligence in the use of such information, Stantec assumes no responsibility for the consequences of any error or omission contained therein.

This Report is intended solely for use by the Client in accordance with Stantec's contract with the Client. While the Report may be provided to applicable authorities having jurisdiction and others for whom the Client is responsible, Stantec does not warrant the services to any third party. The report may not be relied upon by any other party without the express written consent of Stantec, which may be withheld at Stantec's discretion.

Prepared by: 

Signature

Meghan Oats, Botanist

Printed Name

Reviewed by: 

Signature

Bernadette Bezy, Principal Regulatory Specialist

Printed Name

Approved by: _____

Signature

_____

Printed Name

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LIST OF FIGURES

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Acronyms and Abbreviations

amsl	above mean sea level
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
ft^2	square feet
MCV	Manual of California Vegetation, Online Edition
O&M	Operations and Maintenance
Project	Sly Park Intertie Improvements Project
report	Botanical Resources Survey Report
SPI	Sly Park Intertie
Stantec	Stantec Consulting Services Inc.
WTP	Water Treatment Plant

1 Introduction

This Botanical Resources Survey Report (report) has been prepared to document the results of the botanical resource survey within the Project area for the El Dorado Irrigation District (EID) Sly Park Intertie Improvements Project (Project).

This report describes the methods and results of the botanical survey conducted in May 2022, July 2022, and June 2023. The report is intended to inform project design and support future permitting efforts for special status plant species and sensitive natural communities. For this evaluation, special status plant species meet one or more of the following criteria:

- Listed as threatened or endangered under the California Endangered Species Act or the federal Endangered Species Act
- Proposed for federal listing as threatened or endangered
- State or federal candidate species
- USFS R5 Forester's Sensitive Plant Species list for the Eldorado National Forest
- Designated as rare by the California Department of Fish and Wildlife (CDFW)
- Meet the criteria for listing, even if not currently included on any list as described in State California Environmental Quality Act (CEQA) Guidelines Section 15380[b], [c], and [d]); plants that may meet this definition include:
    - Plants ranked as “rare, threatened, or endangered in California” (California Rare Plant Rank [CRPR] 1B and 2B)
    - Plants that may warrant consideration on the basis of local significance or recent biological information (State CEQA Guidelines Section 15380[d]), that may include CRPR 3 (plants about which more information is needed to determine their status) and CRPR 4 (plants of limited distribution)
- Species designated by the Pacific Southwest Region of the USFS to be “sensitive” and that occur in the El Dorado National Forest

The CDFW lists sensitive natural communities and includes natural communities that are rare in the state or throughout its entire range. “Sensitive natural communities,” as defined by CDFW, are vegetation alliances and associations with a state rarity ranking of S1 (critically imperiled), S2 (imperiled), or S3 (vulnerable). Sensitive natural communities are not defined by the presence of special status plant species; they comprise several common, native species that together form an assemblage that is considered rare. CDFW has not yet provided state rarity rankings for all associations. Those associations not yet ranked but considered sensitive are included in the current CDFW Natural Communities List

(CDFW 2022a). Communities with a state ranking of S4 (apparently secure) or S5 (secure) are not considered sensitive.

2 Project Location

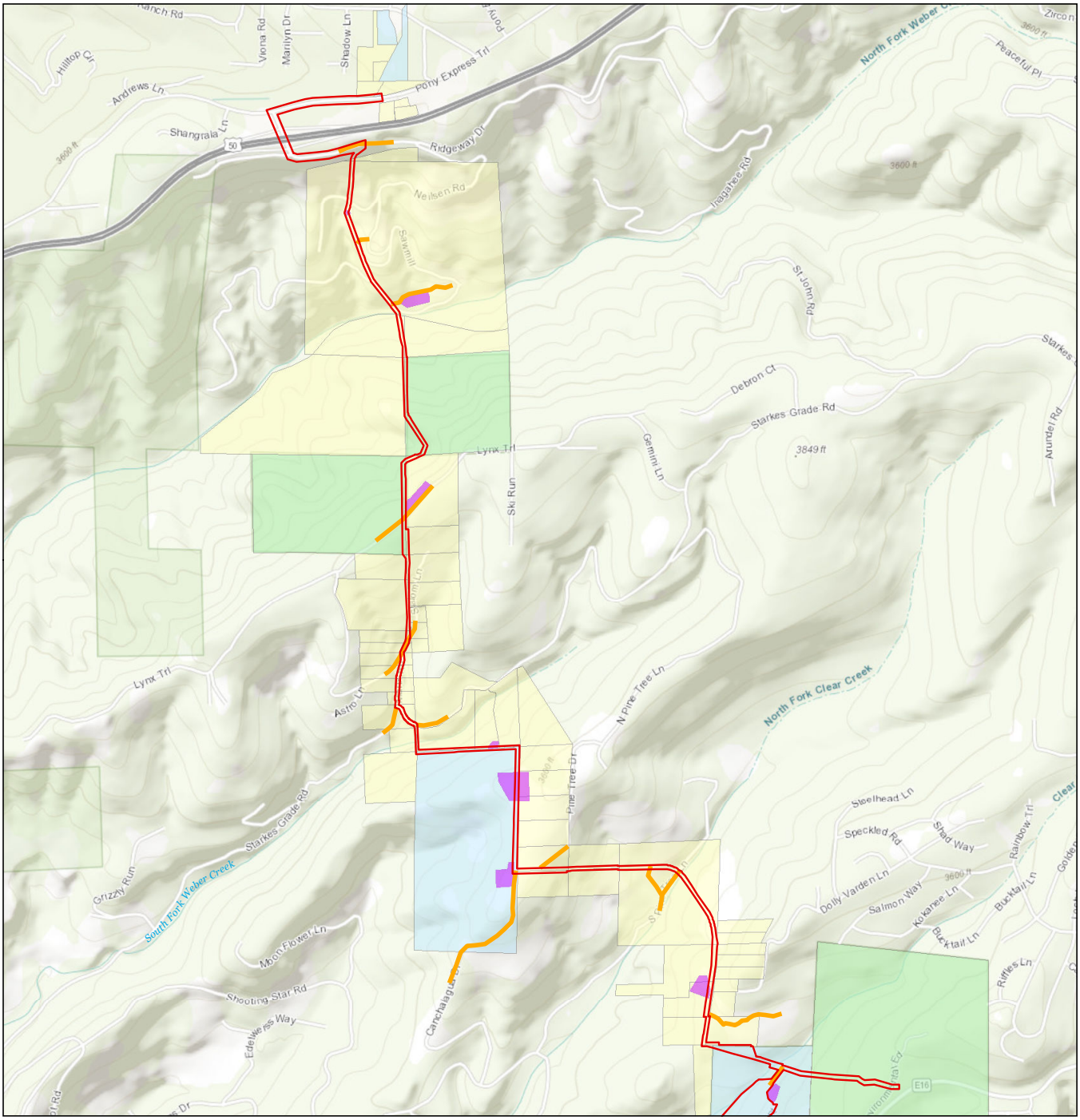
The Project is located approximately 1.5 miles southwest of the town of Pollock Pines and 10 miles east of the city of Placerville, California within the *Pollock Pines* and *Sly Park, California* U.S. Geological Survey (USGS) 7.5-minute topographic quadrangles. The Study Area lies in Township 10 North Range 12 East Sections 2, 11, 13, 14, and 35. The Study Area runs from 38.749976°, -120.613063° at the northern end to 38.714207°, -120.589582° at the southern end (North American Datum of 1983).

The northern end of the Study Area connects to the Reservoir 1 WTP on the north side of U.S. Highway 50. The Study Area continues approximately 4.5 miles south and southeast before ending at EID's Sly Park Hills Tank off Sly Park Road (Figure 1).

The Study Area lies at elevations ranging between approximately 3,000 and 3,740 feet (941−1,140 meters) above mean sea level and is on land owned by EID, the Eldorado National Forest (U.S. Forest Service), and various other private landowners in El Dorado County.

3 Project Description

The Project involves the replacement of approximately 4.5 miles of the SPI 22-inch pipeline that is currently out of service. The existing pipeline would be replaced with a pipeline up to 36 inches in diameter. Replacing the SPI would involve open-cut trenching to access the existing pipeline and to replace the old pipe with new pipe. The width of the impact footprint associated with replacing the SPI would be approximately 50 feet (25 feet on either side of the alignment). In addition to the pipeline alignment and a proposed pump station within the existing Reservoir A Water Treatment Plant (WTP) facility, the Project includes eight proposed staging areas (totaling approximately 8.4 acres) for equipment and supplies and approximately 13 access points along existing public and private roads for vehicles to access remote sections of the pipeline. Additional areas may be identified for potential staging or access as the Project design is finalized. The total footprint for the Project (which includes the work area and all staging/access, i.e., Study Area) occupies approximately 33.14 acres.



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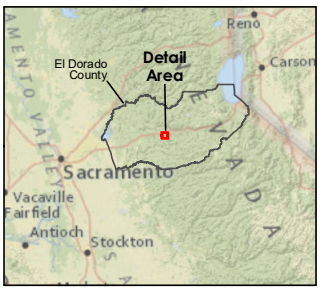

Notes

1. Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
2. Background: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community
National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

- Proposed Staging Area
- Proposed Access Route
- Action Area

Parcel Ownership

- El Dorado Irrigation District
- U.S.Forest Service
- Private

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Project Location
El Dorado County, CA

Prepared by PG on 2023-09-21
TR by MO on 2023-09-22

Client/Project
El Dorado Irrigation District
Sly Park Intertie Improvements Project

Figure No.
1

Title
Project Location and Vicinity

4 Project Setting

The Project area is located in the foothills of the northern Sierra Nevada region (Sawyer 2009) and the Central Sierra Mid-Montane Forests ecoregions (Griffith 2016). The climate in the Project area is characterized by warm, dry summers and cold, moist winters (Griffith 2016). Based on historical data from 2000-2020, the mean annual precipitation in the region is approximately 53 inches, falling mostly between October and April (NRCS 2022a).

The Project area crosses four creeks, North Fork Weber Creek, South Fork Weber Creek, North Fork Clear Creek, and Clear Creek. The northern section is within the North Fork Weber Creek and the southern section of the Project area is within the Lower North Fork Cosumnes River Hydrologic Units (EPA 2022).

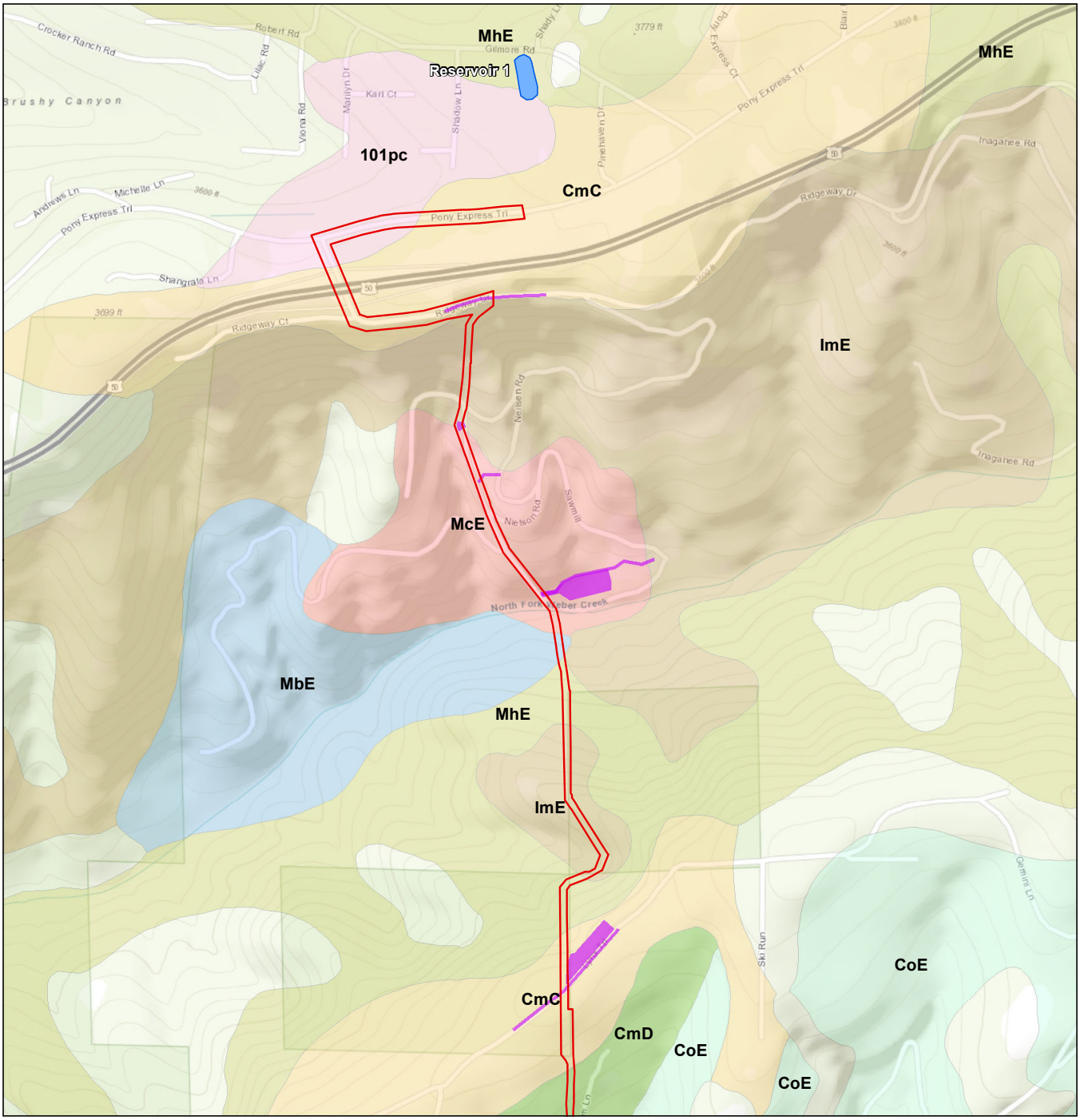
The Project area is variable in elevation with areas of steep terrain with occasional plateau areas that have relatively flat grades. Elevations range from approximately 3,000 feet at the lowest point (North Fork Weber Creek) to 3,740 feet at the highest point (Reservoir 1 WTP).

Eight soil map units occur in the Project area (NRCS 2022b) (Figure 2). A summary of the map units, including hydric status, is provided in Table 1. Soils vary based on landform, drainage class, and soil morphology. Upland soils are well-drained and tend to be of a coarser texture which is predominant throughout the Project area.

Table 1 Summary of Soil Map Units in the Project Area

Map Symbol Map Unit	Drainage Class	Landform	Typical Profile	Hydric Soil Rating
101pc - Aiken loam, 9 to 15% slopes, low precipitation	Well-drained	Ridges	Loam over clay loam over clay	None
CmC: Cohasset loam, shoulders, 3 to 20 percent slopes, dry	Well-drained	Ridges	Slightly decomposed plant material over loam to clay loam over cemented bedrock	None
CmD: Cohasset loam, backslopes, 10 to 30 percent slopes, dry	Well-drained	Ridges	Slightly decomposed plant material over loam to clay loam over cemented bedrock	None
CoE: Cohasset cobbly loam, 15 to 50 percent slopes	Well-drained	Ridges	Cobbly loam over weathered bedrock	None
ImE: Iron Mountain very rocky sandy laom, 3 to 50 percent slopes	Somewhat excessively drained	Ridges, mountain slopes	Cobbly sandy loam over unweathered bedrock	None

Map Symbol Map Unit	Drainage Class	Landform	Typical Profile	Hydric Soil Rating
MbE: Mariposa very rocky silt loam, 3 to 50 percent slopes	Well-drained	Mountains, hills	Gravelly silt loam over unweathered bedrock	None
McE: Mariposa-Josephine very rocky loams, 15 to 50 percent slopes	Well-drained	Mountains, hills	Gravelly loam over unweathered bedrock	None
MhE: McCarthy cobbly loam, 9 to 50 percents slopes	Well-drained	Ridges, hillslopes	Cobbly loam over unweathered bedrock	None
Source: Natural Resource Conservation Service 2022				



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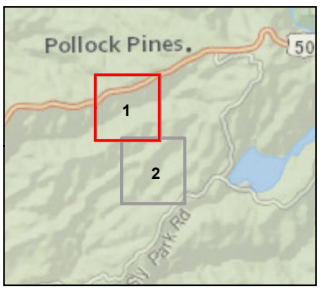

Notes
1. Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
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National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

- Project Area
- Existing Reservoir
- Potential Pump Station Location
- Proposed Staging and Access

SSURGO Soil Map Units in The Action Area

- 101pc: Aiken loam, 9 to 15 percent slopes, low precip
- CmC: Cohasset loam, shoulders, 3 to 20 percent slopes, dry
- CmD: Cohasset loam, backslopes, 10 to 30 percent slopes, dry
- CoE: Cohasset cobbly loam, 15 to 50 percent slopes
- ImE: Iron Mountain very rocky sandy loam, 3 to 50 percent slopes
- MbE: Mariposa very rocky silt loam, 3 to 50 percent slopes
- McE: Mariposa-Josephine very rocky loams, 15 to 50 percent slopes
- MhE: McCarthy cobbly loam, 9 to 50 percent slopes

Source: Natural Resources Conservation Service, United States Department of Agriculture. Soil Survey Geographic (SSURGO) Database.

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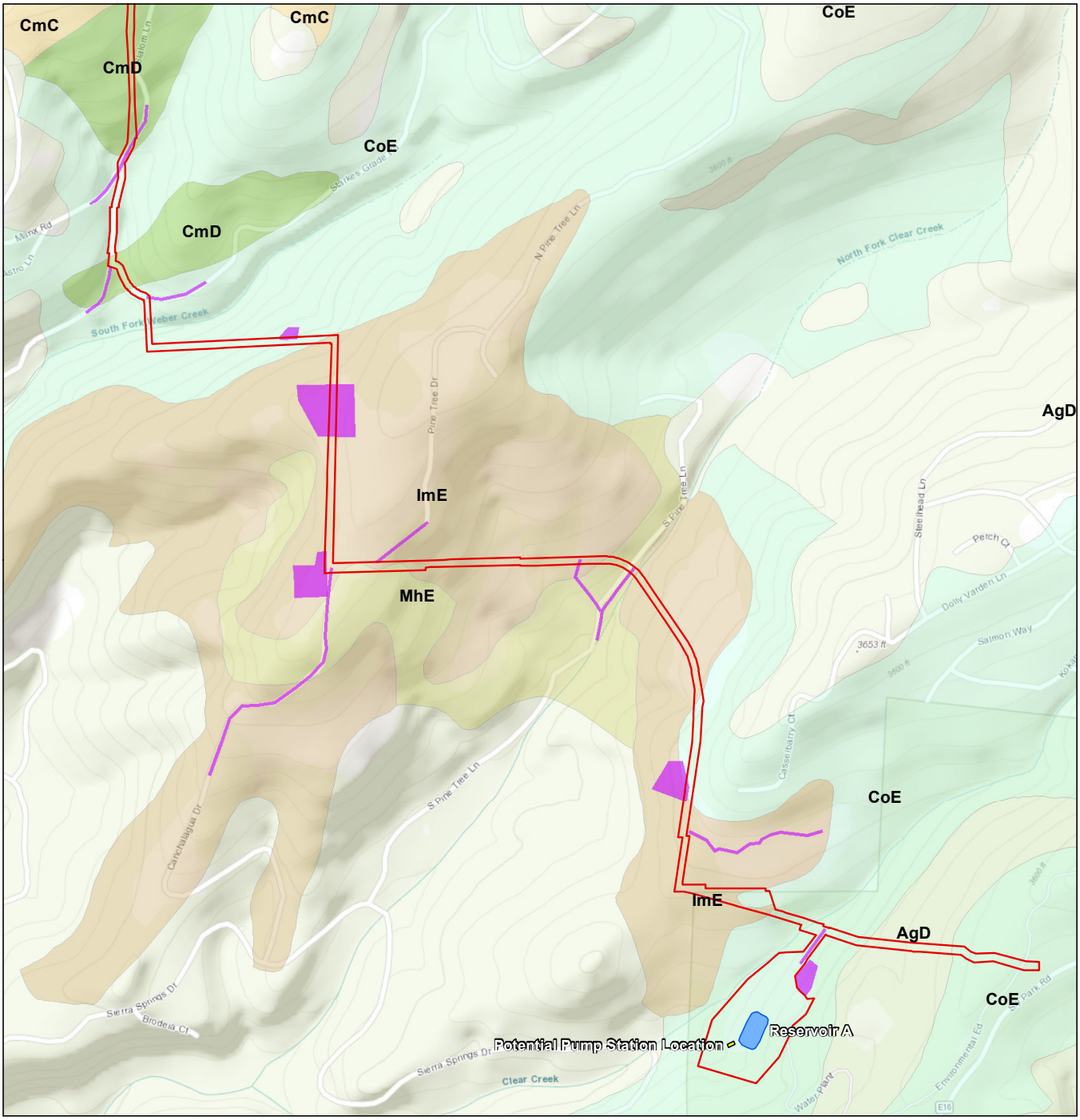
Project Location
El Dorado County, CA

Prepared by PG on 2023-09-21
TR by MO on 2023-09-22

Client/Project
El Dorado Irrigation District
Sly Park Intertie Improvements Project

Figure No.
2

Title
Soils



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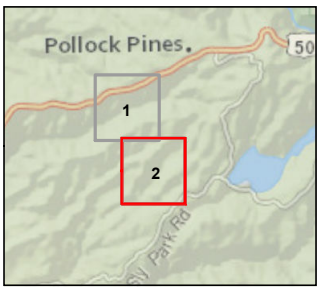

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- ImE: Iron Mountain very rocky sandy loam, 3 to 50 percent slopes
- MhE: McCarthy cobbly loam, 9 to 50 percent slopes

Source: Natural Resources Conservation Service, United States Department of Agriculture. Soil Survey Geographic (SSURGO) Database.

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Project Location
El Dorado County, CA

Prepared by PG on 2023-09-21
TR by MO on 2023-09-22

Client/Project
El Dorado Irrigation District
Sly Park Intertie Improvements Project

Figure No.
2

Title
Soils

5 Methodology

Botanical surveys are conducted in accordance with California Native Plant Society (CNPS) (2001), CDFW (2018), and United States Fish and Wildlife Service (USFWS) (1996) protocols. Complete botanical surveys include a desktop review and field component as described in the sections below.

5.1 Desktop Review

Prior to the field work, several resources were used to identify and classify vegetation communities within the Project area to create a preliminary vegetation map for use during the field surveys. These resources included the Manual of California Vegetation (MCV), Online Edition (CNPS 2022a), and Google Earth aerial imagery dating back to 1985.

A list of special status plant species that could occur in the Project area was developed using the following databases and lists:

- California Natural Diversity Database (CDFW 2022b) within a 5-mile radius of the Project area
- California Native Plant Society Inventory of Rare and Endangered Plants (CNPS 2022b)
- U.S. Fish and Wildlife database of federally protected species (USFWS 2022)
- California Department of Fish and Wildlife's Special Vascular Plants, Bryophytes, and Lichens List (CDFW 2022c)
- CDFW's State and Federally Listed Endangered, Threatened, and Rare Plants of California (CDFW 2022d)
- Species designated by the Pacific Southwest Region of the USFS to be "sensitive" and that occur in the El Dorado National Forest (USFS 2013).

Stantec biologists queried the California Natural Diversity Database (CNDDB) within a five-mile radius of the Project area for reported occurrences of special status plants. Stantec biologists also queried the CNPS online Inventory of Rare and Endangered Plants of California for all California Rare Plant Rank 1, 2, 3, and 4 plants occurring within the 7.5-minute U.S. Geological Survey topographic quadrangles in the Project area and those immediately adjacent. Nine quadrangles were included in the search: *Caldor, Stump Spring, Calif., Riverton, Slate Mtn., Aukum, Omo Ranch, Camino, Sly Park,* and *Pollock Pines, California.* Additionally, biologists reviewed the Trust Resources Report generated from the USFWS Information, Planning, and Conservation System database. Based on a review of existing information, species habitat requirements, and habitat characteristics present in the Project area, 34 special status plant species were determined to have potential to occur in the Project area (Table 2.0).

Table 2 Special Status Plant Species Assessed for Presence During Pre-Construction Bloom-Period Botanical Surveys Conducted Within the Project Area

Scientific Name	Common Name	General Habitat	Regulatory Status CNPS / State / Federal / U.S. Forest Service	Results
Allium sanbornii var. sanbornii	Sanborn's onion	Chaparral, Cismontane woodland, Lower montane coniferous forest	4.2 / - / - / -	**Not Observed.** This species was not detected during the surveys and is not likely to be present within the Project area.
Allium tribracteatum	three-bracted onion	Chaparral, Lower montane coniferous forest, Upper montane coniferous forest	1B.2 / - / - / S	**Absent.** This species was not detected during the surveys and is not likely to be present within the Project area.
Arctostaphylos nissenana	Nissenan manzanita	Chaparral, Closed-cone coniferous forest	1B.2 / - / - / S	**Absent.** This species was not detected during the surveys and is not likely to be present within the Project area.
Balsamorhiza macrolepis	big-scale balsamroot	Chaparral, Cismontane woodland, Valley and foothill grassland	1B.2 / - / - / S	**Not Observed.** This species was not detected during the surveys and is not likely to be present within the Project area.
Bolandra californica	Sierra bolandra	Lower montane coniferous forest, Upper montane coniferous forest	4.3 / - / - / -	**Not Observed.** This species was not detected during the surveys and is not likely to be present within the Project area.
Calochortus clavatus var. avius	Pleasant Valley mariposa-lily	Lower montane coniferous forest	1B.2 / - / - / S	**Not Observed.** This species was not detected during the surveys. It has a moderate potential to occur in the Project area.
Campylopodiella stenocarpa	flagella-like atractylocarpus	Cismontane woodland	2B.2 / - / - / -	**Not Observed.** This species was not detected during the surveys. It has a moderate potential to occur in the Project area.
Carex cyrtostachya	Sierra arching sedge	Lower montane coniferous forest, Marshes and swamps, Meadows and seeps, Riparian forest	1B.2 / - / - / -	**Not Observed.** This species was not detected during the surveys and is not likely to be present within the Project area.

Ceanothus fresnensis	Fresno ceanothus	Cismontane woodland, Lower montane coniferous forest	4.3 / - / - / -	**Not Observed.** This species was not detected during the surveys and is not likely to be present within the Project area.
Chlorogalum grandiflorum	Red Hills soaproot	Chaparral, Cismontane woodland, Lower montane coniferous forest	1B.2 / - / - / -	**Not Observed.** This species was not detected during the surveys and is not likely to be present within the Project area.
Clarkia biloba ssp. brandegeeae	Brandegee's clarkia	Chaparral, Cismontane woodland, Lower montane coniferous forest	4.2 / - / - / -	**Not Observed.** This species was not detected during the surveys and is not likely to be present within the Project area.
Clarkia virgata	Sierra clarkia	Cismontane woodland, Lower montane coniferous forest	4.3 / - / - / -	**Present.** This species was detected in one area adjacent to the Project area.
Claytonia palustris	marsh claytonia	Marshes and swamps, Meadows and seeps, Upper montane coniferous forest	4.3 / - / - / -	**Not Observed.** This species was not detected during the surveys and is not likely to be present within the Project area.
Claytonia parviflora ssp. grandiflora	streambank spring beauty	Cismontane woodland	4.2 / - / - / -	**Not Observed.** This species was not detected during the surveys and is not likely to be present within the Project area.
Cypripedium montanum	mountain lady's slipper	Broadleafed upland forest, cismontane woodland, lower montane coniferous forest, and north coast coniferous forest	4.2 / - / - / S	**Not Observed.** This species was not detected during the surveys and is not likely to be present within the Project area.
Diplacus pulchellus	yellow-lip pansy monkeyflower	Lower montane coniferous forest, Meadows and seeps	1B.2 / - / - / -	**Not Observed.** This species was not detected during the surveys and is not likely to be present within the Project area.
Erigeron petrophilus var. sierrensis	northern Sierra daisy	Cismontane woodland, Lower montane coniferous forest, Upper montane coniferous forest	4.3 / - / - / -	**Not Observed.** This species was not detected during the surveys and is not likely to be present within the Project area.
Eriogonum tripodum	tripod buckwheat	Chaparral, Cismontane woodland	4.2 / - / - / S	**Not Observed.** This species was not detected during the surveys and is not likely to be present within the Project area.
Horkelia parryi	Parry's horkelia	Chaparral, Cismontane woodland	1B.2 / - / - / S	**Not Observed.** This species was not detected during the surveys and is not likely to be present within the Project area.

Juncus digitatus	finger rush	Cismontane woodland, Lower montane coniferous forest, Vernal pools	1B.1 / - / - / -	**Not Observed.** This species was not detected during the surveys and is not likely to be present within the Project area.
Lewisia kelloggii ssp. hutchisonii	Hutchison's lewisia	Upper montane coniferous forest	3.2 / - / - / S	**Not Observed.** This species was not detected during the surveys and is not likely to be present within the Project area.
Lewisia serrata	saw-toothed lewisia	Broadleafed upland forest, Lower montane coniferous forest, riparian forest	1B.1 / - / - / S	**Not Observed.** This species was not detected during the surveys and is not likely to be present within the Project area.
Lilium humboldtii ssp. humboldtii	Humboldt lily	Chaparral, Cismontane woodland, Lower montane coniferous forest	4.2 / - / - / -	**Not Observed.** This species was not detected during the surveys and is not likely to be present within the Project area.
Monardella linoides ssp. *oblonga*	Tehachapi monardella	Lower montane coniferous forest, pinyon and juniper woodland, upper montane coniferous forest	1B.3 / - / - / S	**Not Observed.** This species was not detected during the surveys and is not likely to be present within the Project area.
Myrica hartwegii	Sierra sweet bay	Cismontane woodland, Lower montane coniferous forest, riparian forest	4.3 / - / - / -	**Not Observed.** This species was not detected during the surveys and is not likely to be present within the Project area.
Navarretia prolifera ssp. lutea	yellow bur navarretia	Chaparral, Cismontane woodland	4.3 / - / - / S	**Present.** This species was detected in three areas within the Project area and in one area adjacent to the Project area.
Ophioglossum pusillum	northern adder's-tongue	Marshes and swamps, Meadows and seeps	2B.2 / - / - / S	**Not Observed.** This species was not detected during the surveys and is not likely to be present within the Project area.
Peltigera gowardii	western waterfan lichen	Riparian forest	4.2 / - / - / S	**Not Observed.** This species was not detected during the surveys and is not likely to be present within the Project area.
Phacelia stebbinsii	Stebbins' phacelia	Cismontane woodland, Lower montane coniferous forest, Meadows and seeps	1B.2 / - / - / S	**Not Observed.** This species was not detected during the surveys and is not likely to be present within the Project area.
Poa sierrae	Sierra blue grass	Lower montane coniferous forest	1B.3 / - / - / S	**Not Observed.** This species was not detected during the surveys and is not likely to

				be present within the Project area.
Primula pauciflora	beautiful shooting star	Great Basin scrub, Meadows and seeps, Pinyon and juniper woodland	4.2 / - / - / -	**Not Observed.** This species was not detected during the surveys and is not likely to be present within the Project area.
Rhynchospora capitellata	brownish beaked-rush	Lower montane coniferous forest, Marshes and swamps, Meadows and seeps, Upper montane coniferous forest	2B.2 / - / - / -	**Not Observed.** This species was not detected during the surveys and is not likely to be present within the Project area.
Stellaria obtusa	obtuse starwort	Lower montane coniferous forest, Riparian woodland, Upper montane coniferous forest	4.3 / - / - / -	**Not Observed.** This species was not detected during the surveys and is not likely to be present within the Project area.
Streptanthus longisiliquus	long-fruit jewelflower	Cismontane woodland, Lower montane coniferous forest	4.3 / - / - / -	**Not Observed.** This species was not detected during the surveys and is not likely to be present within the Project area.

REGULATORY STATUS

1A = Plants presumed extirpated in CA and either rare or extinct elsewhere
1B = Plants rare, threatened, or endangered in California and elsewhere
2A = Plants presumed extirpated in CA but more common elsewhere
2B = Plants rare, threatened, or endangered in California but more common elsewhere
3 = Plants about which more information is needed − a review list
4 = Plants of limited distribution − a watch list
0.1 = Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
0.2 = Moderately threatened in California (20−80% occurrences threatened / moderate degree and immediacy of threat)
0.3 = Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

5.2 Field Surveys

Typical blooming (phenological) periods for all vegetation species, including those listed as special status within the Project area, are as follows: early-bloom (April−May), mid-bloom (June to mid-July), and late-bloom (mid-July to September). The combination of the mid- and late -bloom period surveys provided for full coverage but not during a single bloom period. Rather, during the combined mid- and late-bloom surveys, for the purpose of baseline data collection, a habitat assessment was conducted to determine the potential for special status botanical species to occur within the Project area.

The mid-bloom survey for the botanical resource assessment was conducted by a Stantec botanist on May 27 and 31, 2022, totaling approximately 20 person hours. The late-bloom survey was conducted by the same botanist on July 18, 2022, totaling 10 hours. Additionally, due to slight project area changes in the far northern end and far southern end of the Project area, a habitat assessment was completed on June 13, 2023 in the additional Project areas. Meghan Oats (task lead, botanist) has over 9 years of

experience in California as a botanist and holds a Bachelor of Science Degree in Environmental Science and Management from the University of California, Davis.

The Project area was surveyed on foot in meandering transects per CNPS (CNPS 2001) and CDFW guidelines (CDFW 2018). Areas that were developed or ornamental were checked to confirm dominant non-native vegetation species (where vegetation was present) but meandering transects were not used. Timing of the field survey coincided with the blooming periods for potentially occurring special status plants in the Project area and provides a comprehensive survey effort for the species identifiable during their bloom periods.

Each species observed was identified to the taxonomic level necessary to determine whether the plant was listed as a special status species. Plant taxonomy follows the Jepson Flora Project (Jepson Flora Project 2021). Vegetation mapping followed the technical approach and vegetation alliance classification system described in the MCV (CNPS 2022a). Each vegetation community identified during field mapping was checked for sensitivity against the California Natural Community List (CDFW 2021a). Stantec botanists mapped vegetation in the field by walking through the Project area and assessing vegetative cover within stands. Vegetation communities were classified to the level necessary (i.e., alliance or association) to determine sensitivity. Plant species composition, stand structure, regional occurrence, and other notable characteristics were collected. After completion of the survey, the preliminary vegetation map created during desktop review was updated with field observations.

Nearby reference populations of special status species were visited to help ensure that the project botanist had an accurate search image for a species and to determine whether the species was identifiable at the time of the survey. Reference site visits were made for plant occurrences near the Project area that were documented on Calflora (Calflora 2022) and/or the CNDDB (CDFW 2022b). Species identification was confirmed using the Jepson Flora Project (Jepson Flora Project 2022). Reference site visits were made on May 24, 27, and 31, 2022, and are detailed in Table 3.

Table 3 Reference Site Visits

Species	Location Source	Date of Visit	Species Located?	Location	Notes
Calochortus clavatus var. *avius* Pleasant Valley mariposa lily	California Natural Diversity Database (CNDDB); EID	5/24/2022	**Yes**	Upper slopes of the South Fork American River hanging over a small landslide area. Associates include *Acer macrophyllum*, *Eriophyllum lanatum*, *Lupinus* sp., and *Iris* sp., *Quercus chrysolepis*, etc.	Several dozen individuals in bud and just starting to flower. Associated with *Lupine* sp. and *Iris* sp. in the openings on the hillslope.
Clarkia virgata Sierra clarkia	Calflora	5/31/2022	**Yes**	North side of Pony Express Trail in roadside bank cut.	Approximately one dozen individuals in

					flower along the open roadside bank cut.
Navarretia prolifera ssp. *lutea* yellow bur navarretia	Calflora	5/27/2022	No	Open grassland habitat nearby Sly Park Reservoir.	Could not locate known location of specimen; however, this could be due to poor accuracy of specimen GPS.

6 Results

6.1 Habitat

The vegetative communities within the Project area are best described as Sierran mixed conifer forest, mixed montane chaparral, and montane riparian. There are also larger open areas described as non-native annual grassland, but they contain a mixture of nonnative annual and native perennial grasses.

The Sierran mixed conifer forest is the most dominant community across the project area and includes ponderosa pine (*Pinus ponderosa*), Douglas fir (*Pseudotsuga menziesii*), incense cedar (*Calocedrus decurrens*), black oak (*Quercus kelloggii*), and pacific madrone (*Arbutus menziesii*) canopy species. Dominant species that occur in the understory or in adjacent openings include whiteleaf manzanita (*Arctostaphylos viscida*), mountain whitethorn (*Ceanothus cordulatus*), Deer brush (*Ceanothus integerrimus*), mountain dogwood (*Cornus nuttallii*), tan-oak (*Lithocarpus densiflora*), golden fleece (*Ericameria arborescens*), poison oak (*Toxicodendron diversilobum*), mountain misery (*Chamaebatia foliolosa*), Himalayan blackberry (*Rubus armeniacus*), scotch broom (*Cytisus scoparius*), yellow star thistle (*Centaurea solstitialis*), blue wildrye (*Elymus glaucus*), and several nonnative annual grass species. Blue elderberry (*Sambucus nigra* ssp. *caerulea*) shrubs were documented in open areas adjacent to the Project area.

Mixed montane chaparral occurs in larger open areas on the southern half of the project area, mainly on south-facing slopes between or outside the edge of Sierran mixed conifer Forest. These areas are dominated by mountain whitethorn but also include coyote brush (*Baccharis pilularis*), California yerba santa (*Eriodictyon californicum*), whiteleaf manzanita, golden fleece, and nonnative annual grass species in openings. The staging area paralleling Lynx Trail is dominated by deer brush with scattered poison oak and tree saplings associated with the mixed conifer forest.

Montane riparian forest occurs as narrow strips, 20 to 40 feet wide, on the four streams crossed by the project. The streams are located in steeply sloped, v-shaped valleys. Characteristic species include big-leaf maple (*Acer macrophyllum*) and occasional white alder (*Alnus rhombifolia*), pacific willow (*Salix lasiandra*), and arroyo willow (*Salix lasiolepis*). Douglas fir, incense cedar, and black oak species are often present as well. The willow species did not occur on North Fork Clear Creek and Clear Creek due to dense riparian tree canopy cover, which included incense cedar and other conifers, but these streams had areas of sparse Himalayan blackberry and occasional clumps of perennial grass in the understory. Willow species were common along North Fork Weber Creek where the riparian tree canopy was open, and they grew farther up the banks with areas of dense Himalayan blackberry, scotch broom, and native

shrub and sapling trees. No wetland marsh or floating or submerged aquatic plants occurred on any of the streams we surveyed, but moss-covered rocks and fern species were observed growing within and/or adjacent to the channel.

Non-native annual grassland contains a mixture of nonnative annuals grasses, such as wild oats (*Avena fatua*) and soft chess (*Bromus hordeaceus*), blue wildrye (*Elymus glaucus*), which is a native perennial grass, and numerous native and nonnative forbs. There are also areas covered with dense stands of nonnative invasive species, notably Himalayan blackberry, scotch broom, and yellow star thistle.

6.2 Vegetation Communities

Vegetation communities mapped to the alliance or association level and other land cover types mapped in the Project area are listed in Table 4. Representative photographs are included in Appendix A. Six alliances were mapped within the Project area. Natural communities not considered sensitive are not described further.

Table 4 Manual of California Vegetation Communities within the Project area

Alliance	Sensitive	Estimated Acres
Forest and Woodland		
Acer macrophyllum Forest and Woodland Bigleaf maple forest and woodland	No	2
Pinus ponderosa – Calocedrus decurrens – Pseudotsuga menziesii Forest and Woodland Alliance Ponderosa pine – Incense Cedar – Douglas fir forest and woodland	No	9.5
	Subtotal	11.5
Shrubland		
Arctostaphylos viscida Shrubland Alliance Whiteleaf manzanita chaparral	No	12
Ceanothus cordulatus Shrubland Alliance Mountain white thorn chaparral	No	5
	Subtotal	17
Herbaceous		
Avena spp. – *Bromus* spp. Semi-Natural Alliance Wild oats and annual brome grasslands	No	4.54
Riverine	N/A	0.1
Total		**33.14**

6.3 Special status Plant Species

The desktop reference review identified 34 special status plant species with potential to occur in the Project and surrounding area. During field surveys a total of 82 different plant taxa were identified in the

Project area with two of those species considered special status. A complete list of plant species observed is provided in Appendix B.

The two special status plant species documented in the Project area during the survey efforts are as follows: yellow bur navarretia (*Navarretia prolifera* ssp. *lutea*) and Sierra clarkia (*Clarkia virgata*). These two special status plant species are described below. The locations and photographs of special status species identified in or adjacent to the Project area can be found Appendix C and Appendix D, respectively. In total, four populations of special status plant species were observed in the Project area during the May 27 and 31, 2022 botanical surveys. Populations of special status plant species were delineated where groupings of individuals were spatially disjunct from one another by more than approximately 0.25 mile in accordance with the CNDDB methodology. CNDDB forms documenting the locations of the special status plants and other information collected in the field (e.g., associated species, soils, etc.) are included in Appendix E. The number of individuals of each special status plant species were estimated by counting the individuals at each location. No special status species were found in the Project area during the late-season botanical survey conducted on July 18, 2022.

One CNDDB occurrence for saw-toothed lewisia appears to intersect the Project area, however the actual specimen identified was found on the northwest facing ledges in the South Fork American River canyon which is located approximately two miles northeast of the Project area. The species was not observed during the 2022 botanical survey.

6.3.1 YELLOW BUR NAVARRETIA

Yellow bur navarretia is a CRPR 4.3 species. Yellow bur navarretia is an annual herb within the phlox family (Polemoniaceae) that grows in chaparral and cismontane woodland. It occurs in California in El Dorado County. Yellow bur navarretia usually flowers from May to July and occurs at elevations between 2,800 and 4,600 feet amsl. This species was observed in open grassland areas among cismontane woodland, nearby homes south of Lynx Trail and west of Pine Tree Lane. In total three populations and approximately 60 individuals in total were observed of yellow bur navarretia were observed during the May 27 and 31, 2022 survey (Appendix C and D) on private property and EID property.

6.3.2 SIERRA CLARKIA

Sierra clarkia is a CRPR 4.3 species. The species is an annual herb in the evening primrose family (Onagraceae) that grows in cismontane woodland and lower montane coniferous forest vegetation communities. It occurs in California in the foothills of the central Sierra Nevada, in El Dorado, Calaveras, Tuolumne, and Mariposa Counties. Sierra clarkia generally flowers between May through August and occurs at elevations between 1,310 and 5,300 feet amsl. This species was observed in cismontane woodland habitat nearby live oak trees and on a grassland hillslope. In total, one population that is adjacent to the Project area and approximately 10 individuals of Sierra clarkia were observed during the May 27, 2022 survey (Appendix C and D) on private property.

6.4 Survey Limitations

The surveys were timed to increase the likelihood of detecting all plant species within the Project area (including special status species). However, there is still a possibility of not detecting all species present that could be identifiable in the early season. This possibility increases due to the drought California experienced during the winters of 2020-2022, which has the potential to impact phenology, especially in annual species. However, detection of several plants in reference locations is an indicator that the survey timing was conducive to detecting potential special status plant species, even in a drought year.

7 Conclusion and Recommendations

Two special status species, yellow bur navarretia and Sierra clarkia, were observed in the Project area during the May 27 and 31, 2022 protocol-level survey surveys; however, no additional special status species were observed during the late-season survey performed on July 18, 2022.

No suitable habitat was identified in the updated Project area during the habitat suitability assessment conducted on June 13, 2023.

A total of six vegetation communities (33.14 acres) were mapped; none of which are considered sensitive natural communities by CDFW.

Potential impacts to these species must be considered during CEQA review per the Native Plant Protection Act. The Native Plant Protection Act is administered by CDFW, California Fish and Game Code Section 1900 et seq. The Native Plant Protection Act prohibits “take” of endangered, threatened, or rare plant species native to California, with the exception of special criteria identified in the Fish and Game Code. If potential impacts are identified for a proposed project activity, consultation with CDFW, permitting, and/or other mitigation may be required.

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Appendix A Representative Site Photographs

Photo 1. *Arctostaphylos viscida* Shrubland Alliance (Whiteleaf manzanita chaparral) and open/ruderal areas. This is a common alliance within the Project area.

Photo 2. *Pinus ponderosa – Calocedrus decurrens – Pseudotsuga menziesii* Forest and Woodland Alliance (Ponderosa pine – Incense Cedar – Douglas fir forest and woodland). This is a common alliance within the Project area.

Photo 3. *Acer macrophyllum* Forest and Woodland (Bigleaf maple forest and woodland). This alliance is common nearby the waterways in the Project area.

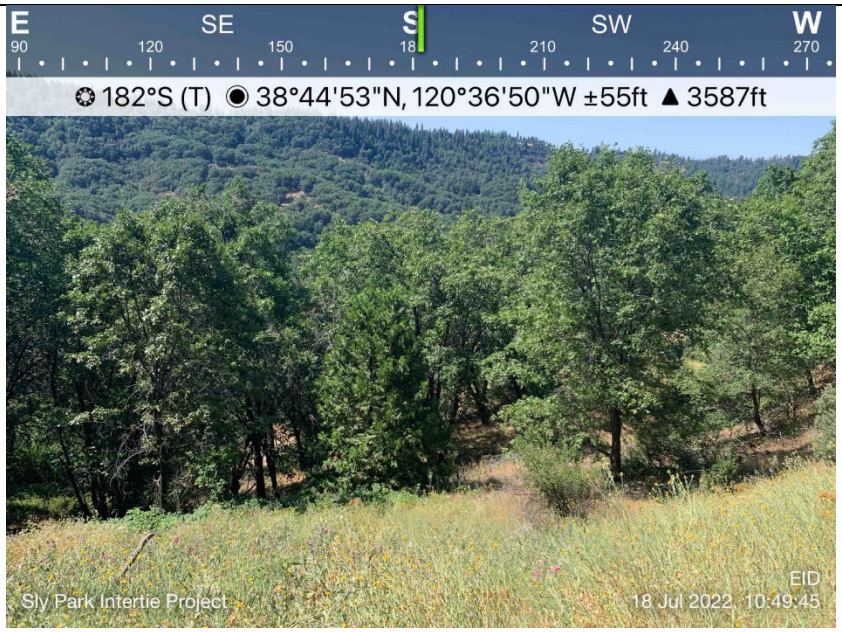

Photo 4. *Avena* spp. – *Bromus* spp. Semi-Natural Alliance (Wild oats and annual brome grasslands) with woodland in the background.

Photo 5. Grassland knoll in between Ponderosa pine – Incense Cedar – Douglas fir forest alliance.

Photo 6. *Ceanothus cordulatus* Shrubland Alliance (Mountain white thorn chaparral) and open/ruderal area.

Appendix B Plant Species Observed

Scientific Name	common name	Family	Origin
Abies concolor	white silver fir	Pinaceae	native
Acer macrophyllum	bigleaf maple	Sapindaceae	native
Achillea millefolium	yarrow	Asteraceae	native
Acmispon americanus var. *americanus*	Spanish lotus	Fabaceae	native
Adenocaulon bicolor	trail plant	Asteraceae	native
Agoseris heterophylla	mountain dandelion	Asteraceae	native
Allium amplectens	narrowleaf onion	Alliaceae	native
Alnus rhombifolia	white alder	Betilaceae	native
Arbutus menziesii	pacific madrone	Ericaceae	native
Arctostaphylos patula	green leaf manzanita	Ericaceae	native
Arctostaphylos viscida	whiteleaf manzanita	Ericaceae	native
Athyrium filix-femina	common ladyfern	Athyriaceae	native
Avena barbata	slender oat	Poaceae	non-native (invasive)
Avena fatua	wild oat	Poaceae	non-native (invasive)
Baccharis pilularis	coyote brush	Asteraceae	native
Briza minor	little rattlesnake grass	Poaceae	non-native
Brodiaea elegans	harvest brodiaea	Themidaceae	native
Bromus hordeaceus	soft brome	Poaceae	non-native (invasive)
Bromus racemosus	smooth brome	Poaceae	non-native
Bromus sterilis	sterile brome	Poaceae	non-native
Bromus tectorum	downy chess	Poaceae	non-native (invasive)
Calocedrus decurrens	incense cedar	Cupressaceae	native
Calochortus monophyllus	yellow star tulip	Liliaceae	native
Calochortus superbus	yellow mariposa lily	Liliaceae	native
Castilleja attenuata	narrow leaved owl's clover	Orobanchaceae	native
Ceanothus cordulatus	mountain white thorn	Rhamnaceae	native
Ceanothus integerrimus	deer brush	Rhamnaceae	native
Centaurea solstitialis	yellow star thistle	Asteraceae	native
Chamaebatia foliolosa	mountain misery	Rosaceae	native
Cirsium sp.	thistle	Asteraceae	--
Clarkia gracilis	farewell to spring	Onagraceae	native

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Scientific Name	common name	Family	Origin
Clarkia purpurea	purple clarkia	Onagraceae	native
Clarkia rhomboidea	diamond clarkia	Onagraceae	native
Clarkia williamsonii	Fort Miller clarkia	Onagraceae	native
Clarkia virgata	Sierra clarkia	Onagraceae	Native, rare
Claytonia perfoliata	miner's lettuce	Montiaceae	native
Cornus nuttallii	mountain dogwood	Cornaceae	native
Cynosurus echinatus	dogtail grass	Poaceae	non-native (invasive)
Cytisus scoparius	Scotch broom	Fabaceae	non-native (invasive)
Dactylis glomerata	orchardgrass	Poaceae	non-native (invasive)
Diplacus torreyi	Torrey's monkeyflower	Phrymaceae	native
Elymus elymoides	squirrel tail grass	Poaceae	native
Elymus glaucus	blue wildrye	Poaceae	native
Elymus repens	quack grass	Poaceae	non-native
Elymus sp.	-	Poaceae	-
Ericameria arborescens	golden fleece	Asteraceae	native
Eriodictyon californicum	yerba santa	Namaceae	native
Erodium cicutarium	coastal heron's bill	Geraniaceae	non-native (invasive)
Eschscholzia californica	California poppy	Papaveraceae	native
Festuca occidentalis	western fescue	Poaceae	native
Galium aparine	cleavers	Rubiaceae	native
Galium trifidum	three petaled bedstraw	Rubiaceae	native
Gilia capitata	blue field gilia	Polemoniaceae	native
Holcus lanatus	common velvetgrass	Poaceae	non-native (invasive)
Hypericum perforatum ssp. *perforatum*	Klamathweed	Hypericaceae	non-native
Lathyrus latifolius	sweet pea	Fabaceae	non-native (invasive)
Lilium sp.	-	Liliaceae	-
Lupinus bicolor	annual lupine	Fabaceae	native
Lychnis coronaria	rose campion	Caryophyllaceae	non-native
Lysimachia latifolia	pacific starflower	Myrsinaceae	native
Maianthemum racemosum	feathery false lily of the valley	Ruscaceae	native
Navarretia leptalea	Bridges' pincushionplant	Polemoniaceae	native
Navarretia prolifera ssp. *lutea*	yellow bur navarretia	Polemoniaceae	Native, rare
Navarretia squarrosa	skunkweed	Polemoniaceae	native

Botanical Resources Report
Plant Species Observed

Scientific Name	common name	Family	Origin
Nemophila heterophylla	white nemophila	Hydrophyllaceae	native
Notholithocarpus densiflorus	tanoak	Fagaceae	native
Penstemon heterophyllus	foothill penstemon	Plantaginaceae	native
Phacelia hastata	white leafed phacelia	Hydrophyllaceae	native
Pinus ponderosa	yellow pine	Pinaceae	native
Pseudotsuga menziesii	Douglas fir	Pinaceae	native
Quercus kelloggii	black oak	Fagaceae	native
Ranunculus californicus	California buttercup	Ranunculaceae	native
Ranunculus muricatus	spiny buttercup	Ranunculaceae	non-native
Rubus armeniacus	Himalayan blackberry	Rosaceae	non-native
Salix exigua	narrowleaf willow	Salicaceae	native
Salix lasiandra	pacific willow	Salicaceae	native
Salix lasiolepis	Arroyo willow	Salicaceae	native
Sambucus nigra ssp. *caerulea*	blue elderberry	Viburnaceae	native
Toxicodendron diversilobum	poison oak	Anacardiaceae	native
Trifolium sp.	clover	Fabaceae	--
Triteleia ixioides	pretty face	Themidaceae	native
Vicia villosa	hairy vetch	Fabaceae	non-native (invasive)

Appendix C Special status Plant Species Observed

Figure 3 Special status Plant Species Observed during May 27 & 31, 2022 Surveys

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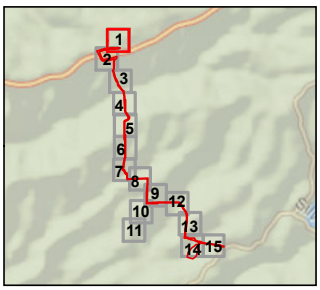

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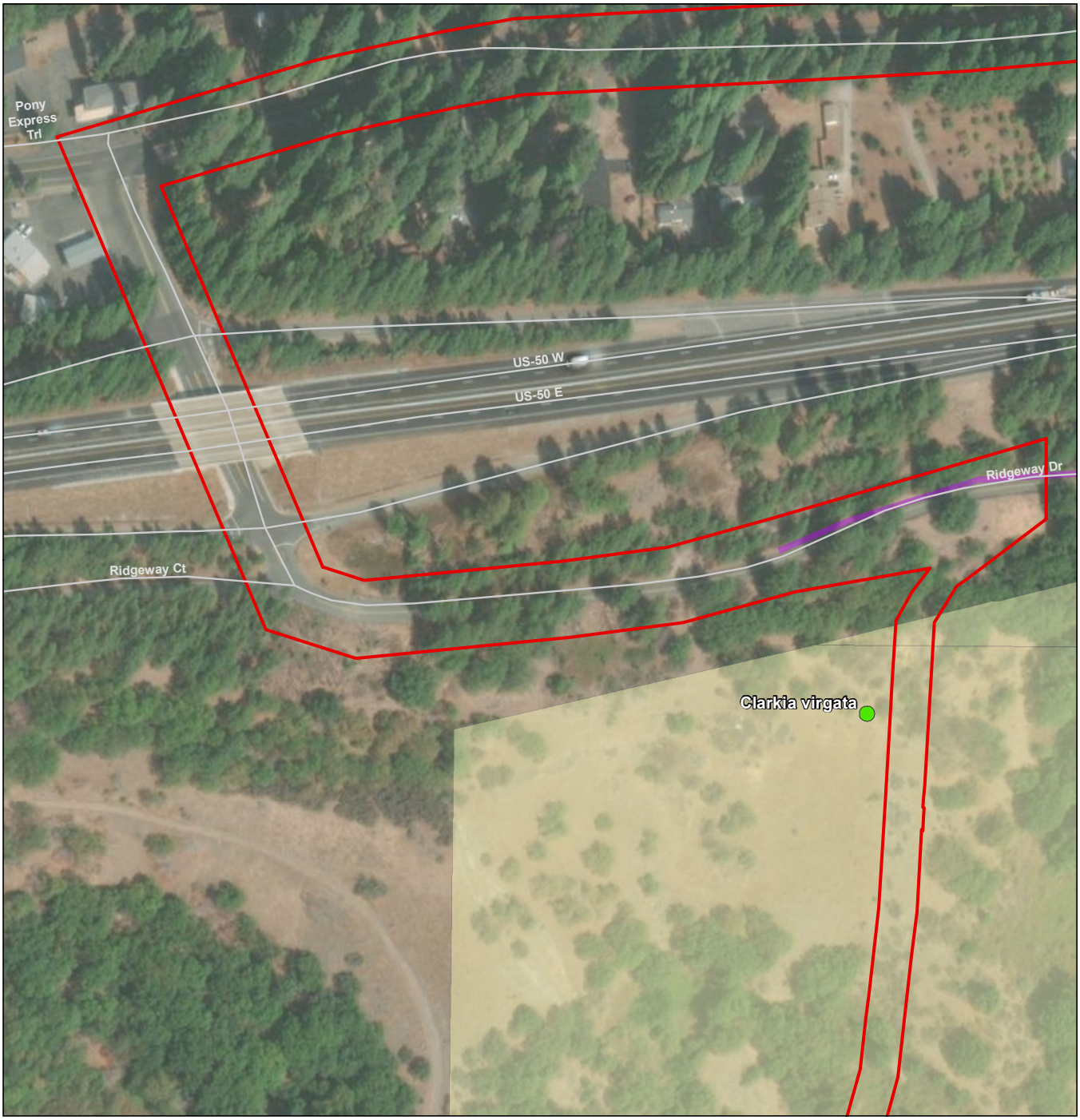

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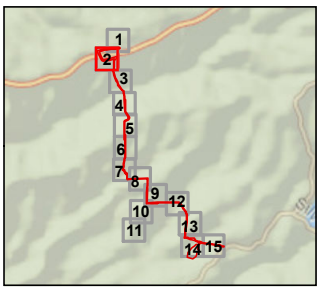

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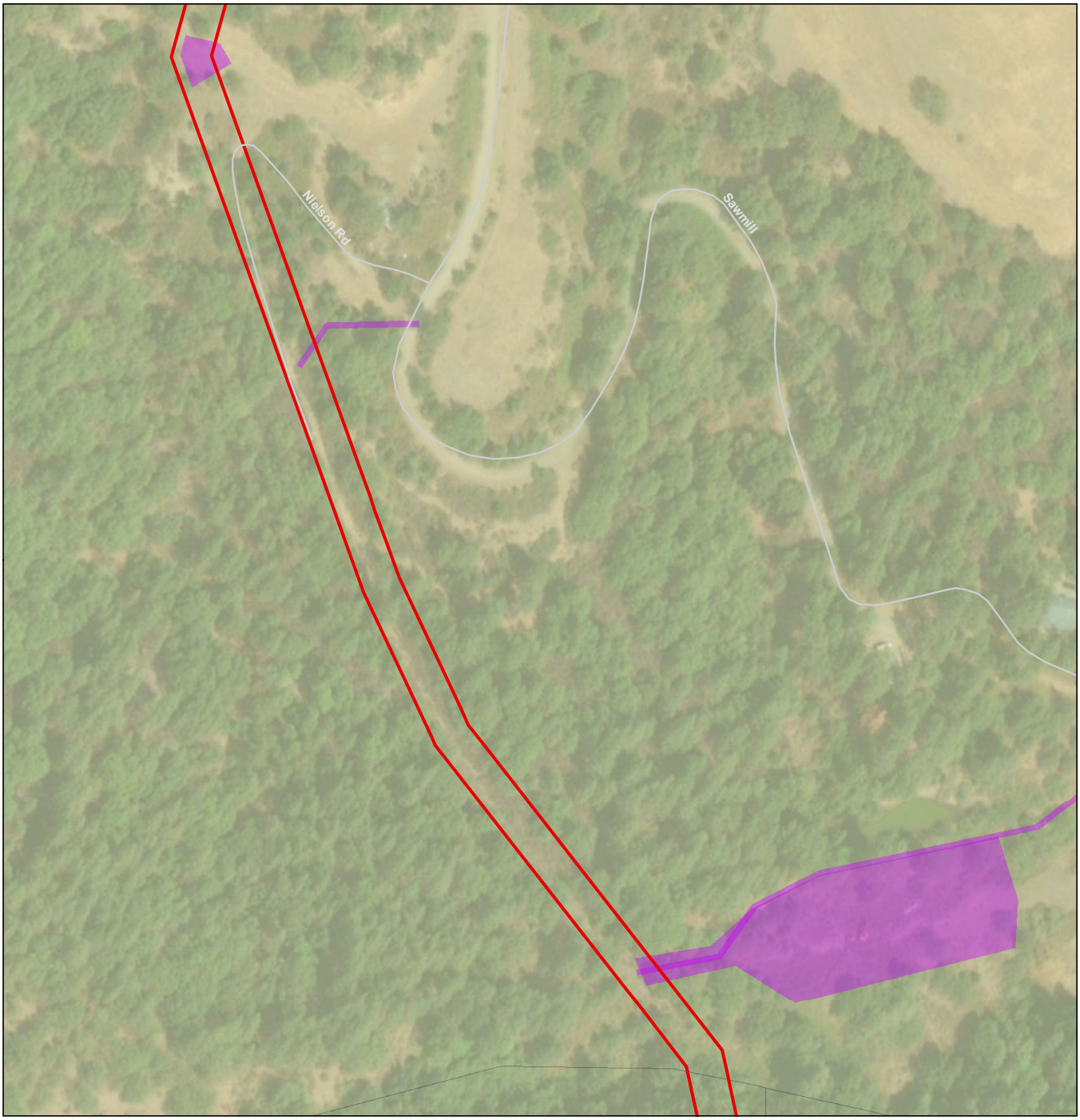

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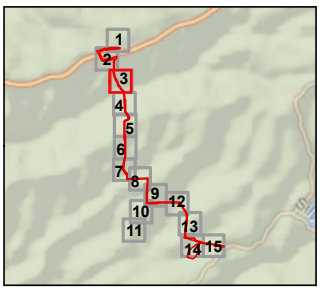

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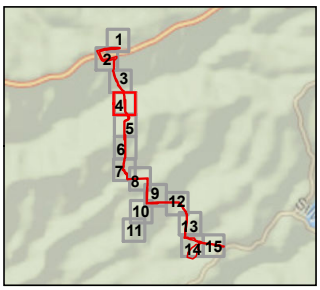

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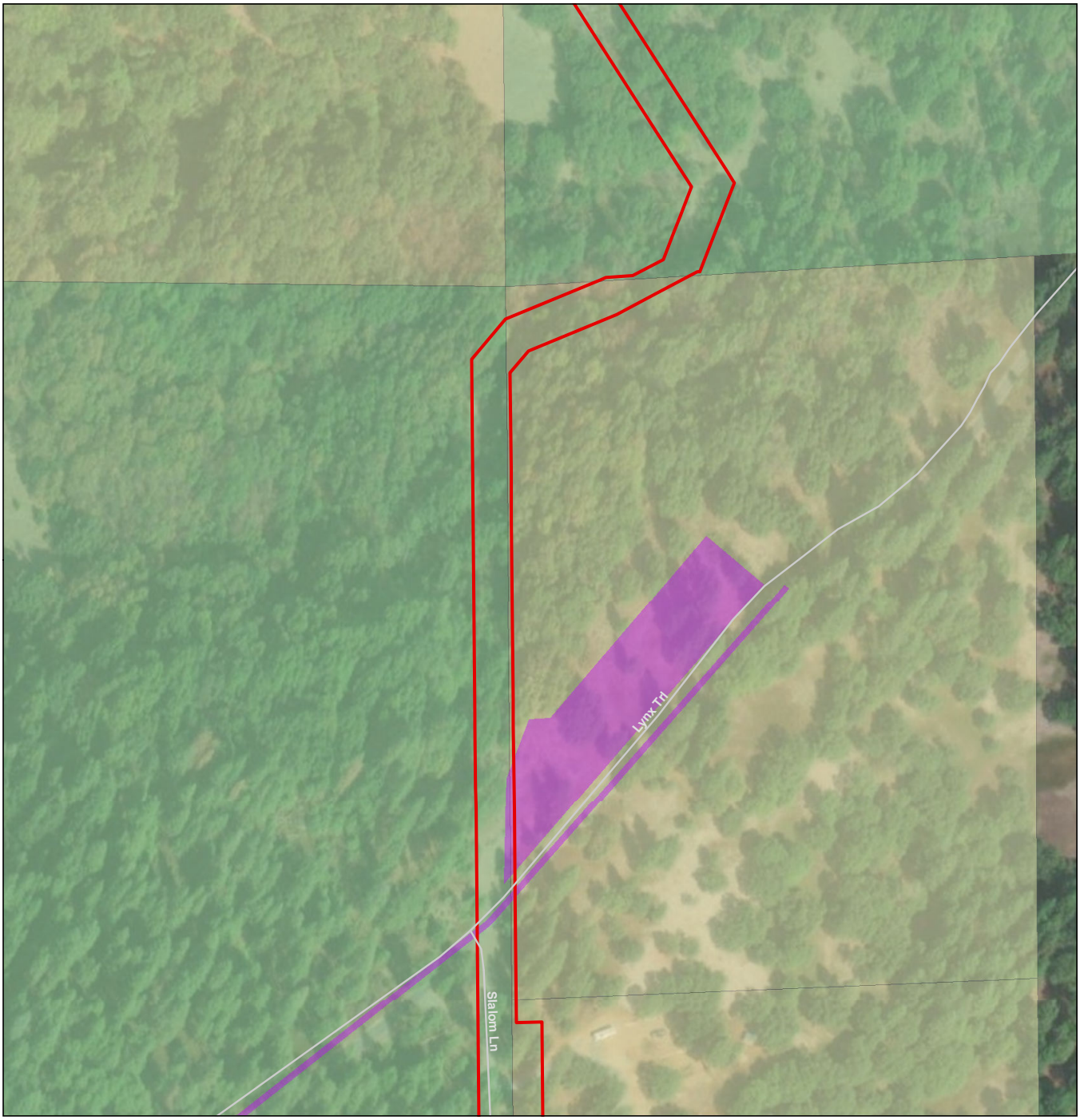

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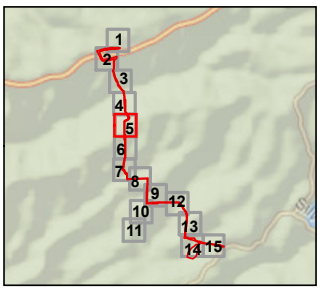

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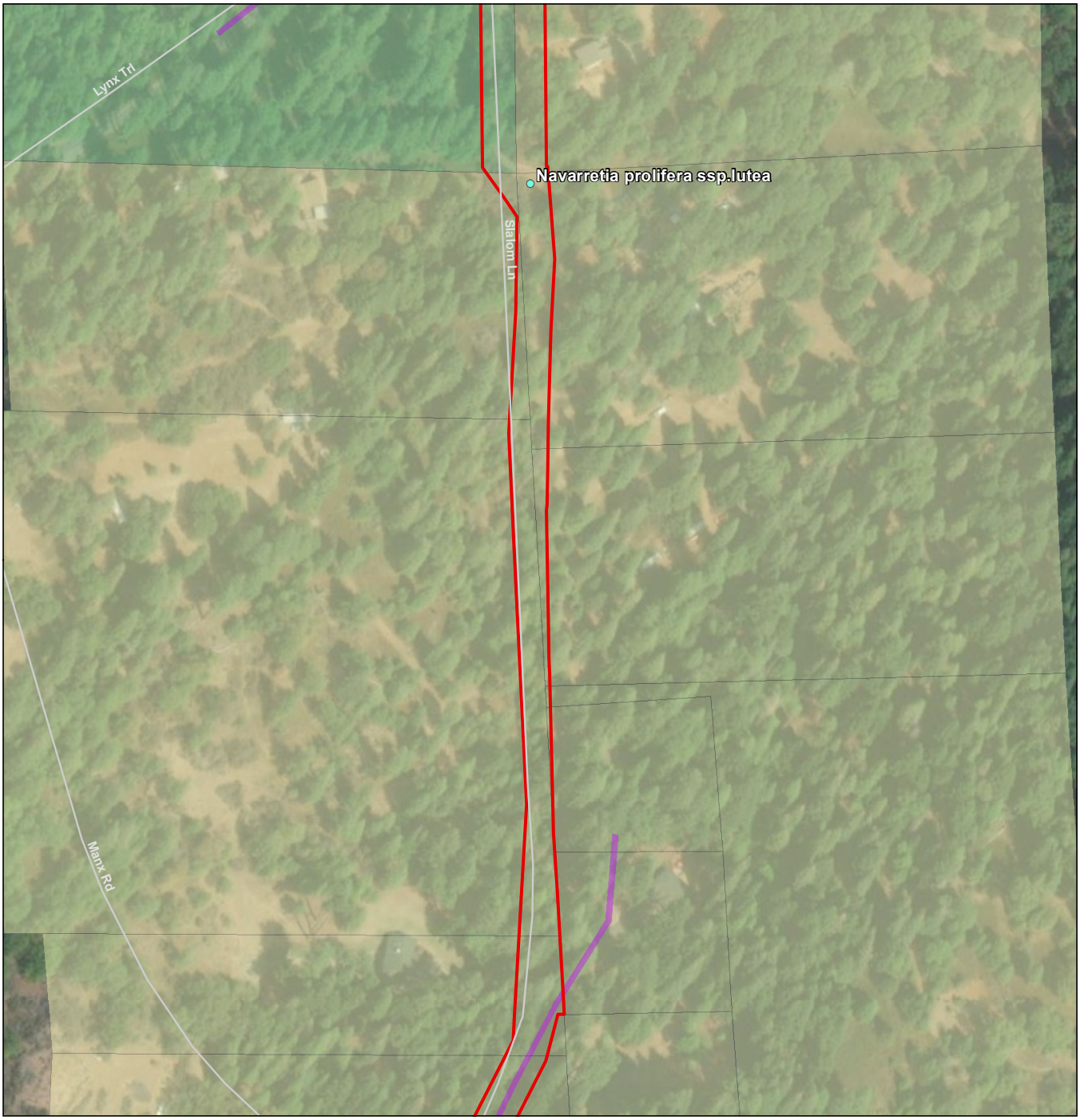

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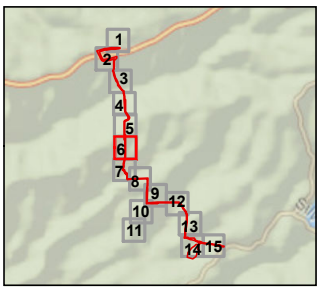

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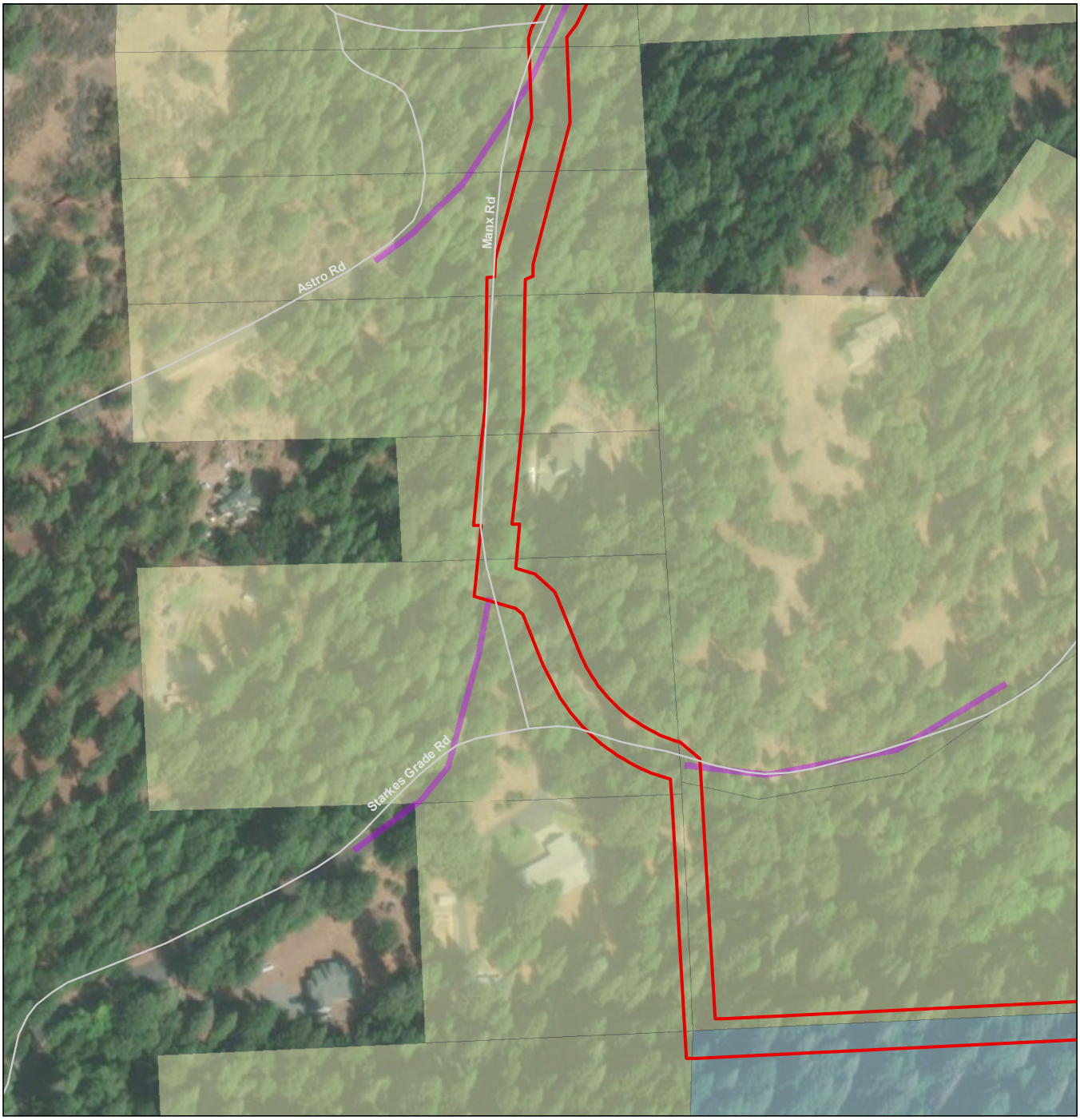

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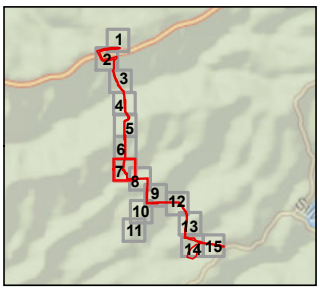

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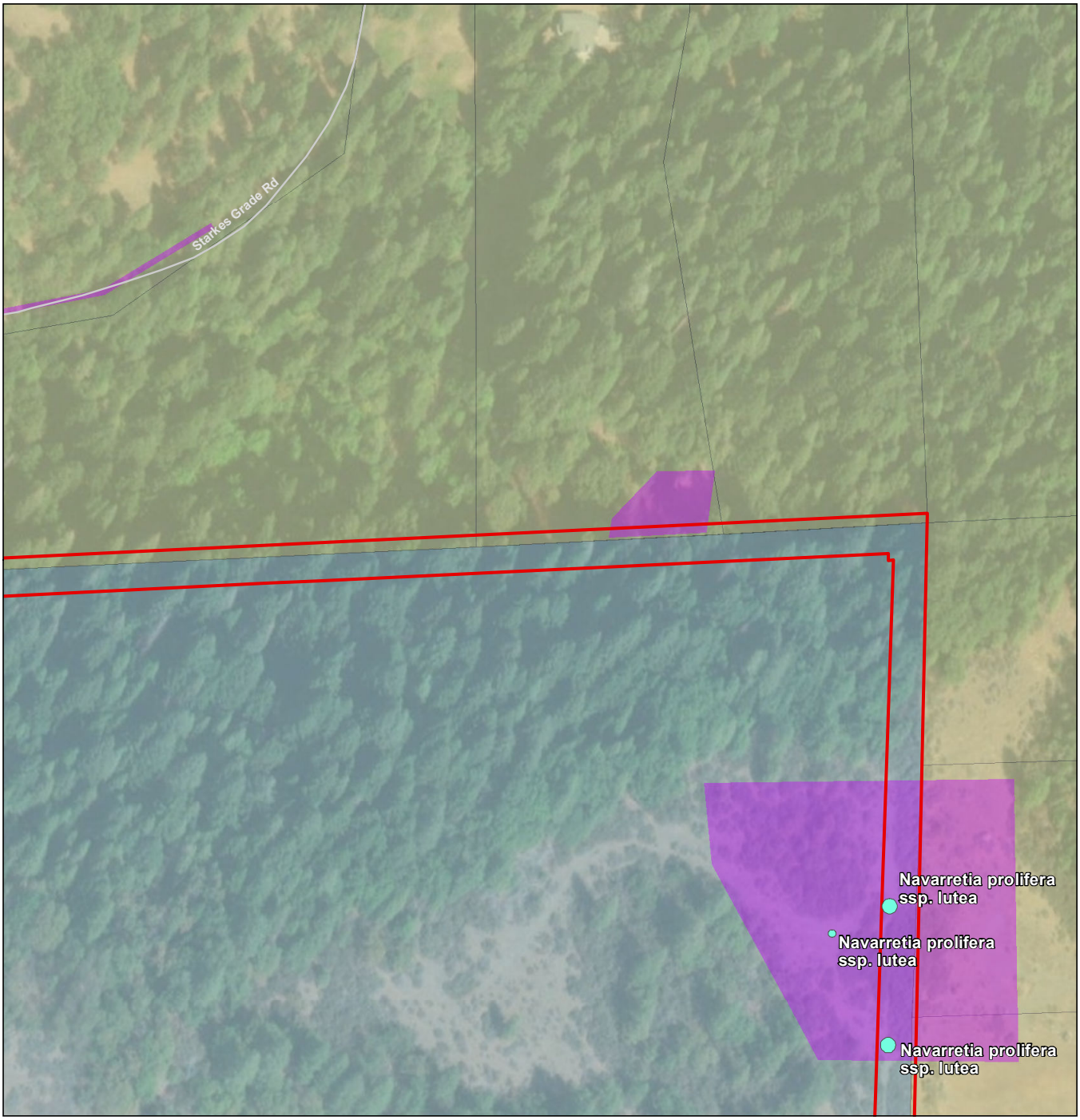

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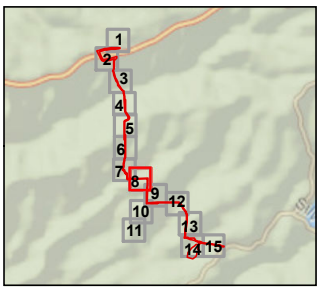

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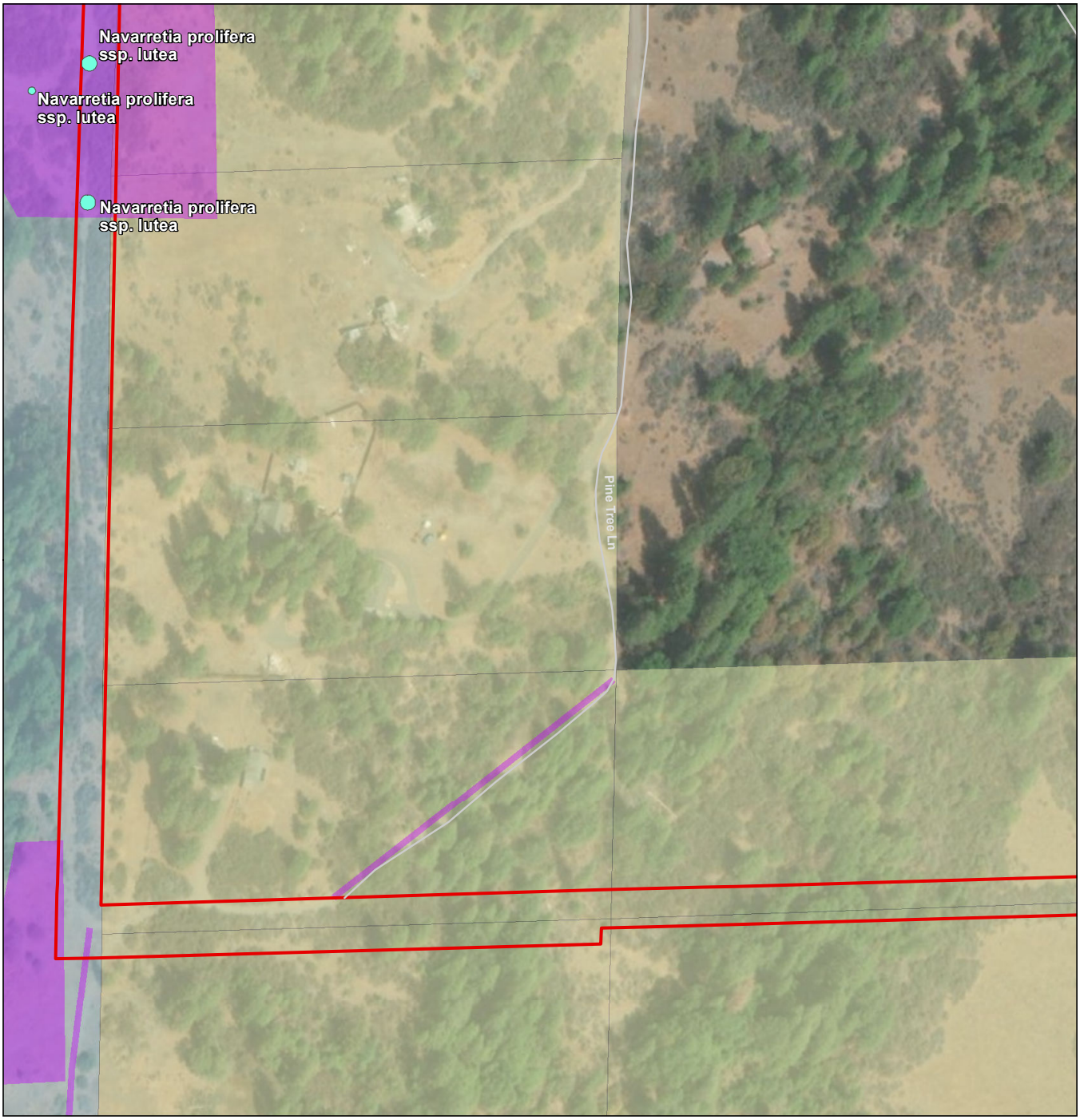

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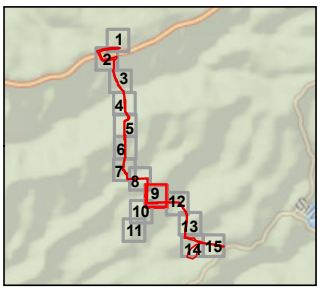

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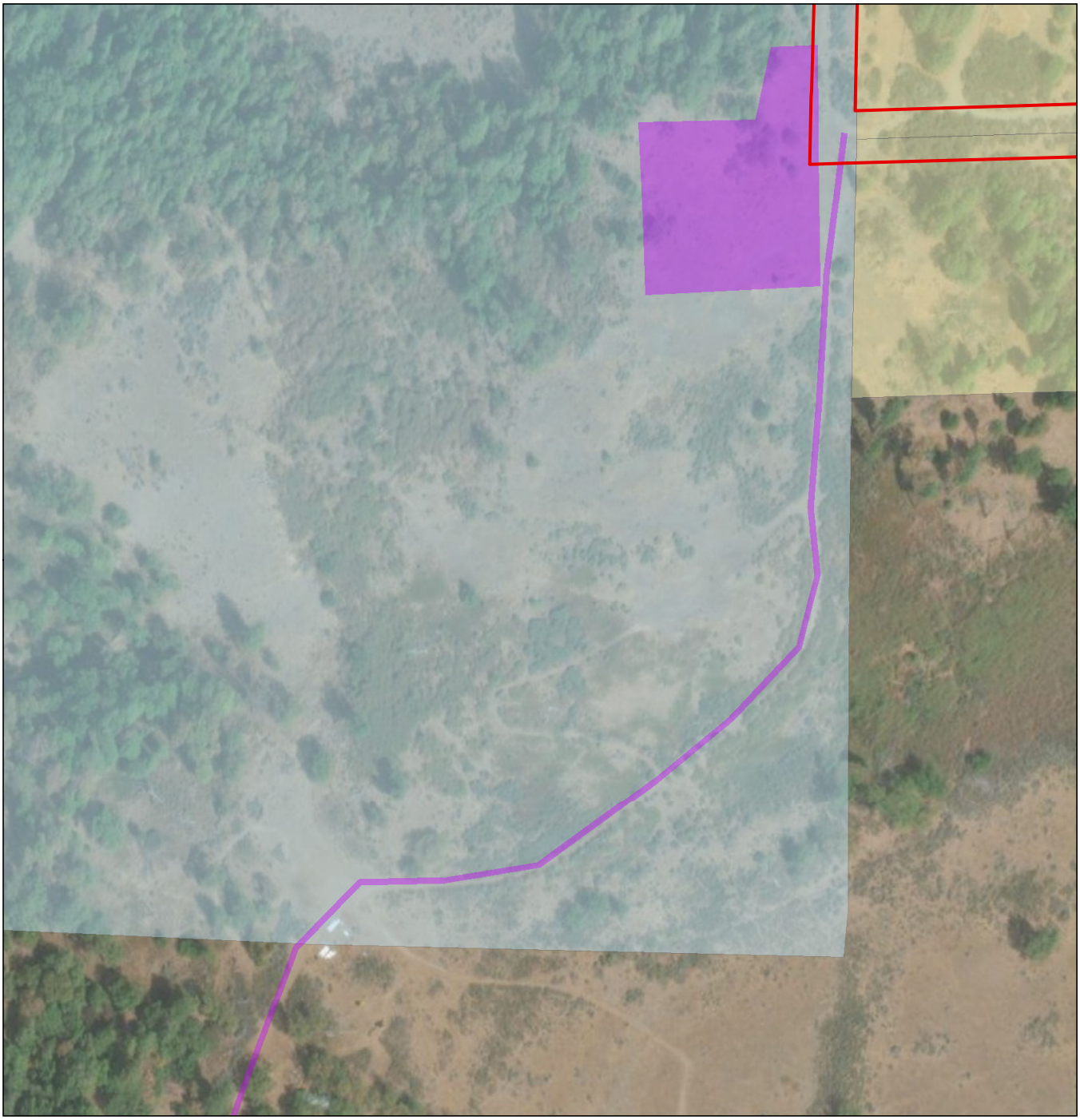

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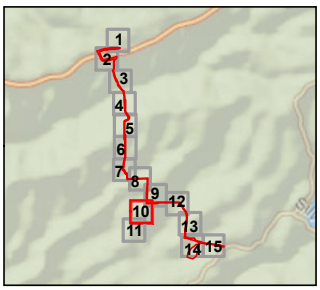

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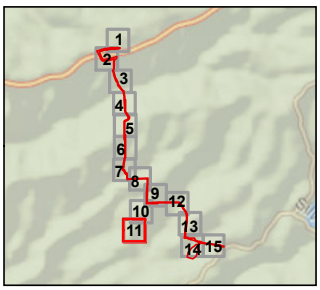

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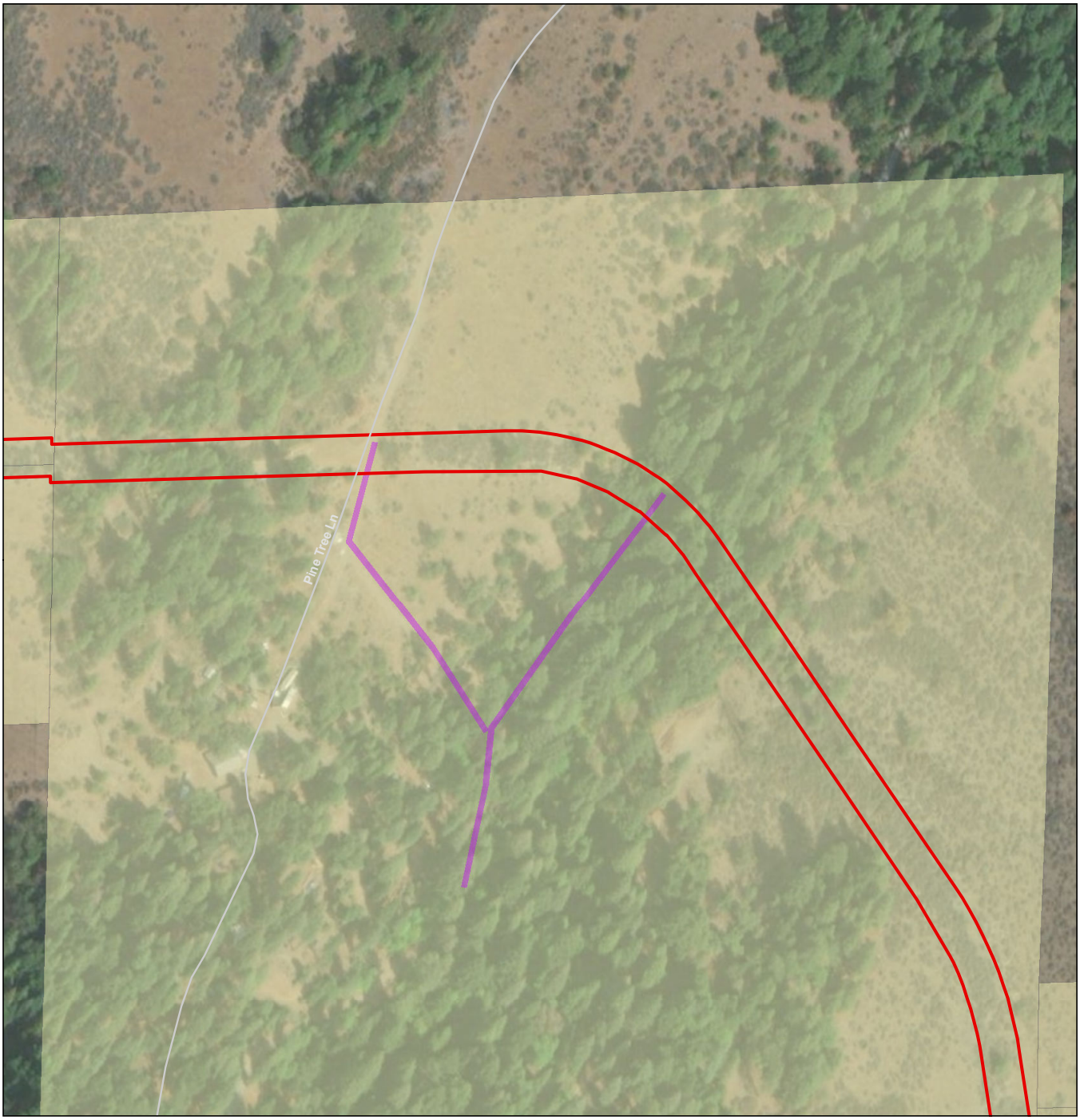

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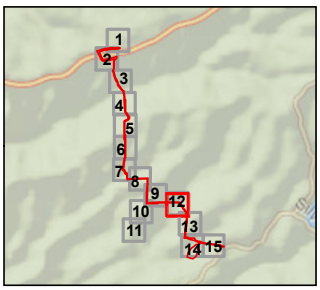

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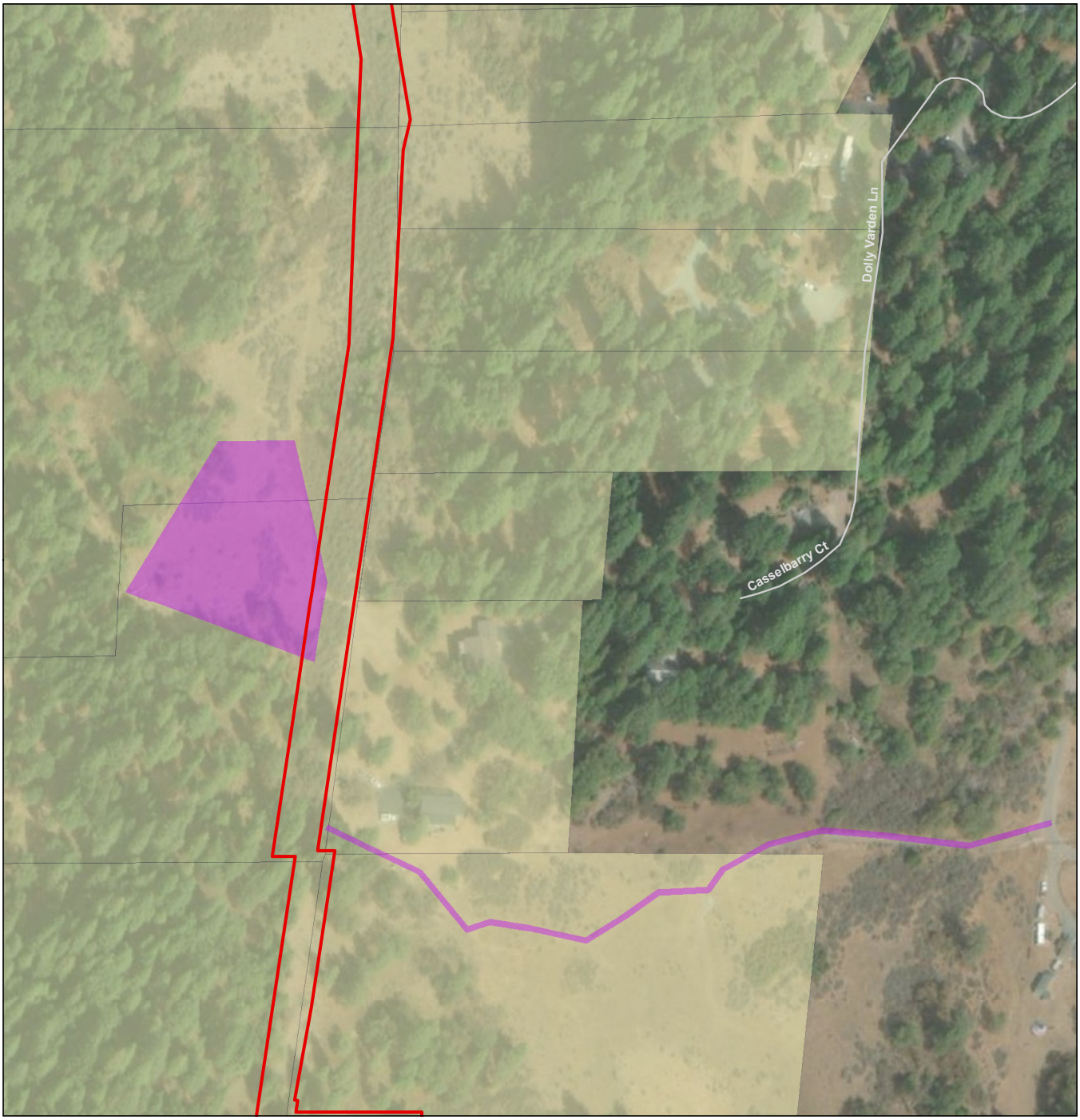

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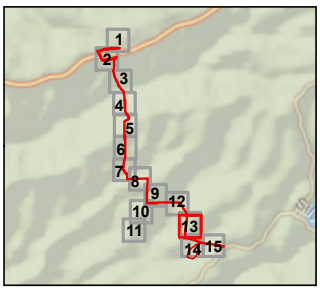


Notes
1. Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
2. Background: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

- Project Area
- Existing Reservoir
- Potential Pump Station Location
- Proposed Staging and Access

Rare Plants Observed
- Clarkia virgata
- Navarretia prolifera ssp. lutea

Parcel Ownership
- El Dorado Irrigation District
- U.S.Forest Service
- Private

0 100 200 Feet
(At original document size of 8.5x11)
1:2,400

N

Stantec

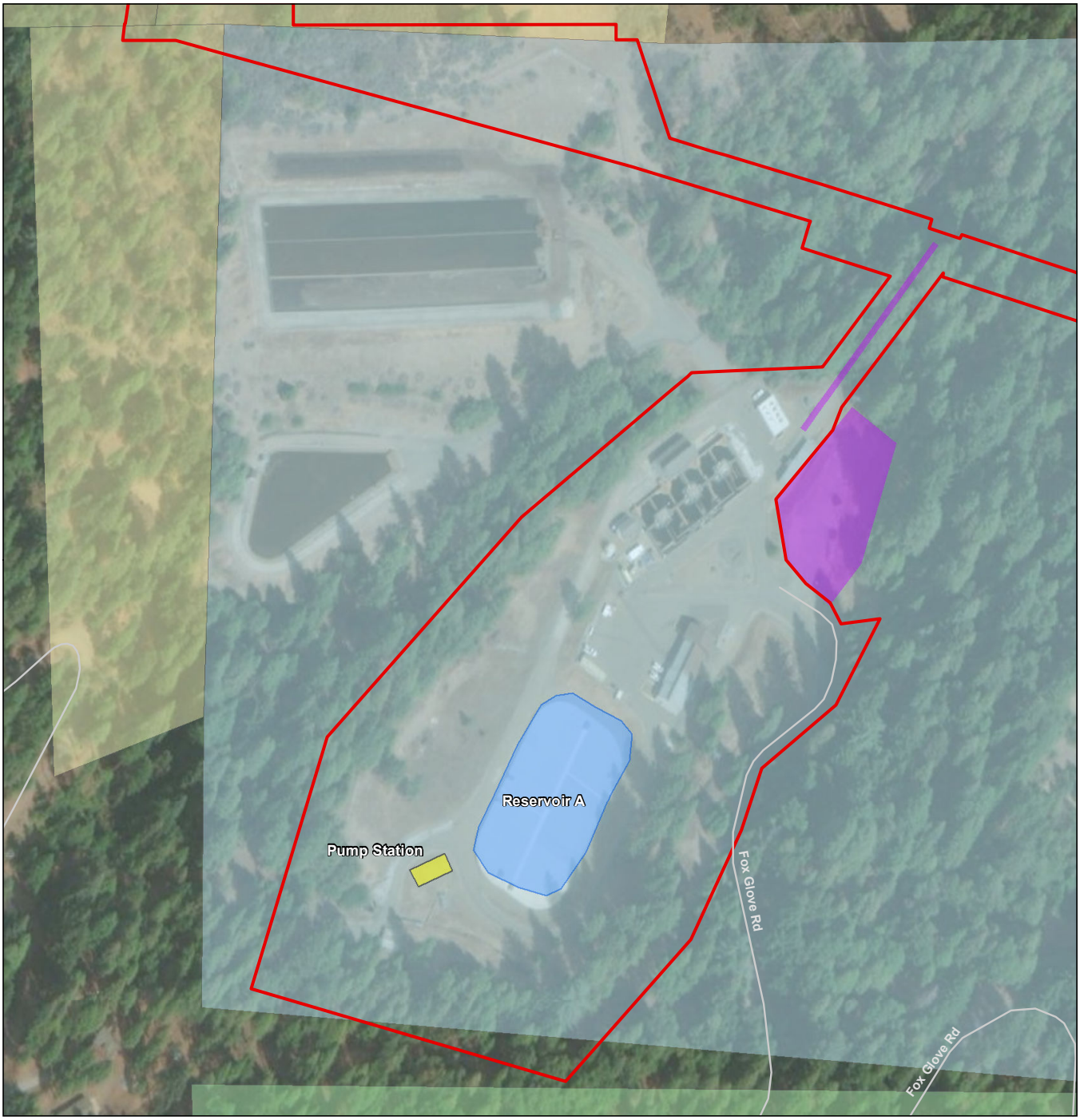
Project Location
El Dorado County, CA

Prepared by PG on 2023-09-21
TR by MO on 2023-09-22

Client/Project
El Dorado Irrigation District
Sly Park Intertie Improvements Project

Figure No.
3

Title
Special Status Plant Species Observed during May 27 & 31, 2022 Surveys



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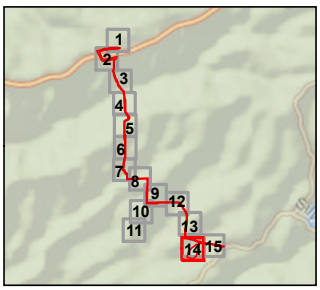

Notes
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2. Background: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

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- Private

0 100 200 Feet
(At original document size of 8.5x11)
1:2,400

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Stantec

Project Location
El Dorado County, CA

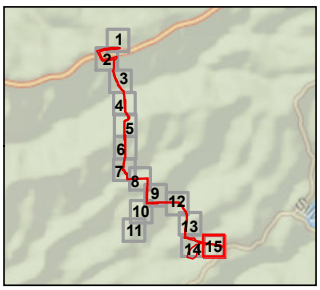
Prepared by PG on 2023-09-21
TR by MO on 2023-09-22

Client/Project
El Dorado Irrigation District
Sly Park Intertie Improvements Project

Figure No.
3

Title
Special Status Plant Species Observed during May 27 & 31, 2022 Surveys

V:\1857\Active\185705950\03_data\gis_cad\gis\mxd\Figures\Bio\Fig_3_RarePlants.mxd Revised: 2023-09-21 By: pglendening



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Project Location
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Client/Project
El Dorado Irrigation District
Sly Park Intertie Improvements Project

Figure No.
3

Title
Special Status Plant Species Observed during May 27 & 31, 2022 Surveys

Appendix D Photographs of Special status Plant Species Observed

Photo 1. Yellow bur navarretia.

Photo 2. Population of yellow bur navarretia within open area in chaparral habitat.

Photo 3. Sierra clarkia.

Photo 4. Sierra clarkia within grassland and foothill woodland habitat.

Appendix E Special Status Plant California Natural Diversity Database Forms

Mail to:
California Natural Diversity Database
California Dept. of Fish & Wildlife
P.O. Box 944209
Sacramento, CA 94244-2090
CNDDB@wildlife.ca.gov

For Office Use Only
Source Code: _____ Quad Code: _____
Elm Code: _____ Occ No.: _____
EO Index: _____ Map Index: _____

Date of Field Work (mm/dd/yyyy): 05/27/2022

Clear Form

California Native Species Field Survey Form

Print Form

Scientific Name: Navarretia prolifera ssp. lutea

Common Name: yellow bur navarretia

Species Found? ● Yes ○ No _____ If not found, why?

Total No. Individuals: ~100+ Subsequent Visit? ○ Yes ● No

Is this an existing NDDB occurrence? _____ Yes, Occ. # ☒ No ☐ Unk.

Collection? If yes: _____ Number _____ Museum / Herbarium

Reporter: Meghan Oats
Address: 101 Providence Mine Rd Suite 202
E-mail Address: meghan.oats@stantec.com
Phone: 530.204.6054

Plant Information
Phenology:
25 % vegetative | 75 % flowering | Ø % fruiting

Animal Information N/A
_____ # adults _____ # juveniles _____ # larvae _____ # egg masses _____ # unknown
☐ wintering ☐ breeding ☐ nesting ☐ rookery ☐ burrow site ☐ lek ☐ other

Location Description *(please attach map AND/OR fill out your choice of coordinates, below)*

County: El Dorado Landowner / Mgr: El Dorado Irrigation District & Private
Quad Name: Slug Park Elevation: ~3554
T___ R___ Sec___, ___¼ of ___¼, Meridian: H○ M○ S○ Source of Coordinates (GPS, topo. map & type): GPS
T___ R___ Sec___, ___¼ of ___¼, Meridian: H○ M○ S○ GPS Make & Model: Arrow 100
DATUM: NAD27 ○ NAD83 ○ WGS84 ○ Horizontal Accuracy: ~1m meters/feet
Coordinate System: UTM Zone 10 ○ UTM Zone 11 ○ *OR* Geographic (Latitude & Longitude) ○
Coordinates: 38.733459, -120.612038; 38.725305, -120.607223

Habitat Description (plants & animals) *plant communities, dominants, associates, substrates/soils, aspects/slope:*
Animal Behavior *(Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):*
Avena sp., grassland area, soils slightly disturbed/open areas.

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): ● Excellent ○ Good ○ Fair ○ Poor
Immediate AND surrounding land use: open grassland
Visible disturbances: existing pipeline area
Threats: _____
Comments:

Determination: *(check one or more, and fill in blanks)*
☒ Keyed (cite reference): Jepson eFlora (second edition)
☐ Compared with specimen housed at: _____
☐ Compared with photo / drawing in: _____
☐ By another person (name): _____
☐ Other: _____

Photographs: *(check one or more)*

	Slide	Print	Digital
Plant / animal	☐	☐	☒
Habitat	☐	☐	☒
Diagnostic feature	☐	☐	☐

May we obtain duplicates at our expense? ● yes ○ no

Mail to:
California Natural Diversity Database
California Dept. of Fish & Wildlife
P.O. Box 944209
Sacramento, CA 94244-2090
CNDDB@wildlife.ca.gov

Date of Field Work (mm/dd/yyyy): 05/27/2022

For Office Use Only
Source Code: _____ Quad Code: _____
Elm Code: _____ Occ No.: _____
EO Index: _____ Map Index: _____

Clear Form

California Native Species Field Survey Form

Print Form

Scientific Name: Clarkia virgata

Common Name: Sierra clarkia

Species Found? (●) Yes ( ) No _____ If not found, why?

Total No. Individuals: ~10 Subsequent Visit? ( ) Yes (●) No

Is this an existing NDDB occurrence? _____ Yes, Occ. # [X] No [ ] Unk.

Collection? If yes: _____ Number _____ Museum / Herbarium

Reporter: Meghan Oats
Address: 101 Providence Mine Rd Suite 207
E-mail Address: meghan.oats@stantec.com
Phone: 530.264.6056

Plant Information
Phenology:
15 % vegetative | 85 % flowering | ∅ % fruiting

Animal Information N/A
_____ # adults _____ # juveniles _____ # larvae _____ # egg masses _____ # unknown
[ ] wintering [ ] breeding [ ] nesting [ ] rookery [ ] burrow site [ ] lek [ ] other

Location Description *(please attach map AND/OR fill out your choice of coordinates, below)*

County: El Dorado Landowner / Mgr: Private
Quad Name: Slv Park Elevation: ~3491
T___ R___ Sec___, ___¼ of ___¼, Meridian: H( ) M( ) S( )
T___ R___ Sec___, ___¼ of ___¼, Meridian: H( ) M( ) S( )
Source of Coordinates (GPS, topo. map & type): GPS
GPS Make & Model: Arrow 100
DATUM: NAD27 ( ) NAD83 ( ) WGS84 ( )
Horizontal Accuracy: ~1m meters/feet
Coordinate System: UTM Zone 10 ( ) UTM Zone 11 ( ) *OR* Geographic (Latitude & Longitude) ( )
Coordinates: 38.7477487, -120.614870

Habitat Description (plants & animals) *plant communities, dominants, associates, substrates/soils, aspects/slope:*
Animal Behavior *(Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):*
south facing slope - grasslands w/ in forested/oak woodland

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): (●) Excellent ( ) Good ( ) Fair ( ) Poor
Immediate AND surrounding land use: Open woodland / forest
Visible disturbances: existing pipeline area
Threats: _____
Comments:

Determination: *(check one or more, and fill in blanks)*
[X] Keyed (cite reference): Jepson eFlora (second edition)
[X] Compared with specimen ~~housed~~ at: California Known location
[ ] Compared with photo / drawing in: _____
[ ] By another person (name): _____
[ ] Other: _____

Photographs: *(check one or more)*

	Slide	Print	Digital
Plant / animal	[ ]	[ ]	[X]
Habitat	[ ]	[ ]	[X]
Diagnostic feature	[ ]	[ ]	[ ]

May we obtain duplicates at our expense? (●) yes ( ) no

APPENDIX D

Cultural Report

HELIX Environmental Planning

Sly Park Intertie Improvements Project

Cultural Resources Assessment

August 2022 | 02569.00001.002

Prepared for:

El Dorado Irrigation District
2890 Mosquito Road
Placerville, CA 95667

Prepared by:

HELIX Environmental Planning, Inc.
1677 Eureka Road, Suite 100
Roseville, CA 95661

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EXECUTIVE SUMMARY

The El Dorado Irrigation District (District) proposes to replace the existing 22-inch Sly Park Intertie (SPI) pipeline with a new 24-inch pipeline (project). The SPI pipeline, located in Pollock Pines in El Dorado County, California, was originally constructed in 1978 and remained in service through 2013 until it became inoperative due to advanced corrosion and leaks. Increased threat of wildfire and severe drought conditions have made replacement of this crucial transmission intertie an essential project to be completed by the District.

This report documents HELIX's efforts to assess the potential of this project to significantly impact prehistoric or historic-era cultural resources that meet the criteria of significance under Section 106 of the National Historic Preservation Act and/or the California Environmental Quality Act (CEQA). The tasks for this Assessment included a records search at the North Central Information Center (NCIC), a request for a search of the Native American Heritage Commission's (NAHC) Sacred Lands file, and field survey of the proposed Area of Potential Effects (APE).

A records search conducted by HELIX at the NCIC on May 27, 2022, determined that 23 studies have previously been conducted within a 0.25-mile radius of the APE, and six of these studies included the current APE as part of their survey area. The records search also determined that six previously recorded cultural resources are located within 0.25 miles of the current APE, and a portion of one resource is within the APE itself. P-09-000702 (CA-ELD-000614/H; FS 05-03-56-197) is an approximately 70-acre multicomponent site that was located on and to the north of Clear Creek, at the far southern end of the current APE. The site was tested and evaluated in 1990, and as a result was recommended ineligible for the NRHP. The portion of the site that would be within the current APE was destroyed during construction of the District's Reservoir A Water Treatment Plant.

A review of historic maps and aerial photographs showed that three structures were present in the vicinity of the APE as of the early 1950s: two structures located west of the south-central portion of the APE, and a sawmill located approximately 300 feet east of the proposed Neilsen Road Staging area. The two structures were not investigated further because they are located in a residential area where the pipeline alignment runs under a paved street. Little additional information is available about the sawmill, other than that its construction predates 1950.

On May 26, 2022, HELIX requested that the NAHC conduct a search of their Sacred Lands File for the presence of Native American sacred sites or human remains in the vicinity of the proposed project area. A written response received from the NAHC on July 14, 2022, stated that the Sacred Lands File failed to indicate the presence of Native American cultural resources in the immediate area. The response included a list of Native American contacts that were recommended by the NAHC as potential sources of information related to cultural resources in the vicinity of the project area. The contact list was forwarded to the District on July 14, 2022. At the District's request HELIX did not attempt to contact any of the Native American representatives on the list.

HELIX archaeologists and a District representative surveyed the project APE on June 13 and 14, 2022. Ground surface visibility was poor throughout most of the APE, which also includes several sections where slopes exceed 35 percent; areas of steep topography are generally considered to have a low sensitivity for prehistoric resources and low to moderate sensitivity for historic-era resources.

The northern boundary of the Nielsen Road Staging Area is marked by a deep V-shaped ditch that runs roughly east to west and passes to the north of a small holding pond and east of a shed, possibly associated with an old sawmill, which is outside of the APE's boundaries. Only a 250-foot portion of the ditch that intersects the current APE was examined during the survey due to vegetation constraints. It is also unclear whether the ditch dates to the historic era; it appears that the ditch represents a flood control feature that redirects water in the event that the holding pond floods over during heavy rains. The ditch lies outside of the area that would be subjected to ground disturbances by the proposed project.

No intact CRHR- or NRHP-eligible archaeological or built-environment resources were identified within the APE during the records search or field surveys. HELIX recommends that there would be no effect on historical resources or historic properties, including archaeological and built-environment resources, as a result of project implementation. No additional studies, archaeological work, or construction monitoring are recommended. However, given the history of the area and the types of resources encountered during previous studies it should be assumed that the APE is moderately sensitive for both prehistoric and historic-era resources, and therefore HELIX recommends that the Worker Awareness Training Program and Inadvertent Discovery Procedures outlined below be implemented in the unlikely event that human remains or cultural resources are encountered during construction. If future refinements of the project's footprint or description show that the sawmill property east of the Nielsen Road Staging Area may be affected, additional research and fieldwork may be required to document the property, determine its significance under CEQA and Section 106, and assess the nature and extent of those potential effects.

1.0 PROJECT BACKGROUND

1.1 INTRODUCTION

The El Dorado Irrigation District (District) proposes to replace the existing 22-inch Sly Park Intertie (SPI) pipeline with a new 24-inch pipeline (project). The SPI pipeline, located in Pollock Pines in El Dorado County, California, is a critical element for water supply transmission and reliability for the District. The pipeline was originally constructed in 1978 and remained in service through 2013 until it became inoperative due to advanced corrosion and leaks. Increased threat of wildfire and severe drought conditions have made replacement of this crucial transmission intertie an essential project to be completed by the District.

Cultural resources investigations conducted in support of this project are subject to provisions of Section 106 of the National Historic Preservation Act and the California Environmental Quality Act (CEQA), as defined by Section 15064.5 of the CEQA Guidelines. This report documents HELIX's efforts to assess the potential of this project to significantly impact historical resources and/or historic properties (i.e., prehistoric or historic-era cultural resources that meet the criteria of significance under CEQA and Section 106, respectively).

1.2 PROJECT DESCRIPTION

The SPI pipeline was originally constructed in 1978 to alleviate water shortages during drought conditions experienced in 1976 and 1977. The SPI extends approximately 3.5 miles from the Reservoir 1 Water Treatment Plant to the Reservoir A Water Treatment Plant. The pipeline provides an intertie between the District's two largest drinking water supply sources providing two thirds of the District's water supply.

The project consists of excavation, trenching, and removal of the existing 22-inch pipeline and installing a new 24-inch pipeline within the same 3.5-mile right-of-way alignment. Open trench shoring will be utilized depending on the depth of the trench. When required, new competent fill material will be utilized to backfill the pipeline trenches. Currently three staging areas for equipment supplies and approximately 2400 feet of temporary access roads are projected to be established. The number and location of the staging areas and access roads may change as the project design develops.

In addition, a new pump station will be constructed to facilitate bidirectional water supply flow between the Reservoir A Water Treatment Plant to the Reservoir 1 Water Treatment Plant. Gravity flow will be utilized for supplies from Reservoir 1 to Reservoir A and the new pump station located at the Reservoir A facility will provide flow from Reservoir A to Reservoir 1.

The project location is depicted on a Regional Location Map (Figure 1) that can be found within Appendix A.

1.3 AREA OF POTENTIAL EFFECTS

The Area of Potential Effects (APE) for the proposed project is defined as the geographic area where project activities may directly or indirectly cause changes in the character or use of historic properties of pre-contact or historic age, if any such properties exist. The APE for the proposed project measures a total of 13.52 acres and includes the 3.5-mile long, 20-foot-wide SPI pipeline alignment Right of Way (ROW), two small leak repair areas, and three potential staging areas. Acreages for each of these project elements are shown on Table 1.

Table 1
ACREAGES OF PROJECT ELEMENTS WITHIN THE APE

Project Element	Acres
SPI Pipeline Alignment	9.06
Leak Repair Footprint East	0.16
Leak Repair Footprint West	0.61
Lynx Trail Staging Area	0.99
Neilsen Road Staging Area	1.92
Reservoir A Staging Area	0.78
TOTAL	**13.52**

The APE also includes approximately 2,400 feet of temporary access roads, most of which are existing dirt roads that are currently regularly used and would not be modified or improved. The APE is depicted on the U.S. Geological Survey (USGS) *Pollock Pines, CA* and *Sly Park, CA* 7.5-minute quadrangle maps (Figure 2) and on an aerial overview map of the APE (Figure 3) in Appendix A.

2.0 REGULATORY FRAMEWORK

2.1 FEDERAL REGULATIONS

2.1.1 National Environmental Policy Act

NEPA and its supporting federal regulations establish certain requirements that must be adhered to for any action "financed, assisted, conducted or approved by a federal agency." When making a decision on the issuance of federal grant monies or a permit to conduct work on federal lands for components of the proposed action, the federally designated lead agency pursuant to NEPA is required to "determine whether the proposed action may significantly affect the quality of the human environment." NEPA requires the systematic evaluation of potential environmental impacts of a proposed action and alternative actions, the identification of adverse effects, and consultation with any federal agency that has jurisdiction by law or special expertise with respect to any environmental impact involved. With regard to cultural resources, NEPA states, "It is the continuing responsibility of the Federal Government to use all practicable means . . . to preserve important historic, cultural, and natural aspects of our national heritage." (42 USC 4331). The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the NRHP, or may cause loss or destruction of significant scientific, cultural, or historical resources, must be considered [40 Code of Federal Regulations (CFR) 1508.27(b)8].

2.1.2 National Historic Preservation Act of 1966 (16 USC 470)

Enacted in 1966, the NHPA declared a national policy of historic preservation and instituted a multifaceted program, administered by the Secretary of the Interior, to encourage the achievement of preservation goals at the federal, state, and local levels. The NHPA authorized the expansion and maintenance of the NRHP, established the position of State Historic Preservation Officer and provided for the designation of State Review Boards, set up a mechanism to certify local governments to carry out the purposes of the NHPA, assisted Native American tribes in preserving their cultural heritage, and created the Advisory Council on Historic Preservation (ACHP).

2.1.2.1 Section 106

Section 106 of the NHPA states that federal agencies with direct or indirect jurisdiction over federally funded, assisted, or licensed undertakings must take into account the effect of the undertaking on any historic property that is included in or eligible for inclusion in the NRHP, and that the ACHP must be afforded an opportunity to comment on such undertakings through a process outlined in 36 CFR Part 800. The Section 106 process involves the identification of significant historic and archaeological resources ("historic properties") within an APE, the determination of whether the undertaking will cause an adverse effect on historic properties, and the resolution of those adverse effects through execution of a Memorandum of Agreement. In addition to the ACHP, interested members of the public—including individuals, organizations, and agencies (such as the California Office of Historic Preservation)—are provided with opportunities to participate in the process.

2.1.2.2 National Register of Historic Places

The NRHP was established by the NHPA of 1966 as "an authoritative guide to be used by federal, state, and local governments, private groups, and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment" (36 CFR 60.2).

The NRHP recognizes properties that are significant at the national, state, and local levels. To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, and association. A property is eligible for the NRHP if it is significant under one or more of the following criteria:

- Criterion A: It is associated with events that have made a significant contribution to the broad patterns of our history.
- Criterion B: It is associated with the lives of persons who are significant in our past.
- Criterion C: It embodies the distinctive characteristics of a type, period, or method of construction; represents the work of a master; possesses high artistic values; or represents a significant and distinguishable entity whose components may lack individual distinction.
- Criterion D: It has yielded, or may be likely to yield, information important in prehistory or history (36 CFR 60.4).

Cemeteries, birthplaces, graves of historic figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, and properties that are primarily commemorative in nature are not considered eligible for the NRHP unless they satisfy certain conditions. In general, a resource must be at least 50 years old to be considered for the NRHP, unless it satisfies a standard of exceptional importance.

2.1.3 Native American Graves Protection and Repatriation Act of 1990

The Native American Graves Protection and Repatriation Act of 1990 sets provisions for the inadvertent discovery and/or intentional removal of human remains and other cultural items from federal and tribal lands. It clarifies the ownership of human remains and sets forth a process for repatriation of human remains and associated funerary objects and sacred religious objects to the Native American groups claiming to be lineal descendants or culturally affiliated with the remains or objects. It requires any federally funded institution housing Native American remains or artifacts to compile an inventory of all cultural items within the museum or with its agency and to provide a summary to any Native American tribe claiming affiliation.

2.1.4 American Indian Religious Freedom Act

The American Indian Religious Freedom Act (AIRFA) of 1978 was enacted to protect and preserve the traditional religious rights and cultural practices of Native Americans. These rights include, but are not limited to, access of sacred sites, freedom to worship through ceremonial and traditional rights and use, and possession of objects considered sacred. The AIRFA requires that federal agencies evaluate their actions and policies to determine if changes are needed to ensure that Native American religious rights and practices are not disrupted by agency practices. Such evaluations are made in consultation with native traditional religious leaders.

2.2 STATE REGULATIONS

2.2.1 California Environmental Quality Act

Pursuant to CEQA, a historical resource is a resource listed in, or eligible for listing in, the California Register of Historical Resources (CRHR). In addition, resources included in a local register of historic resources, or identified as significant in a local survey conducted in accordance with state guidelines, are also considered historic resources under CEQA, unless a preponderance of the facts demonstrates otherwise. According to CEQA, the fact that a resource is not listed in, or determined eligible for listing in, the CRHR, or is not included in a local register or survey, shall not preclude a Lead Agency, as defined by CEQA, from determining that the resource may be a historic resource as defined in California Public Resources Code (PRC) Section 5024.1.7.

CEQA applies to archaeological resources when (1) the historic or prehistoric archaeological resource satisfies the definition of a historical resource, or (2) the historic or prehistoric archaeological resource satisfies the definition of a “unique archaeological resource.” A unique archaeological resource is an

archaeological artifact, object, or site that has a high probability of meeting any of the following criteria (PRC § 21083.2(g)):

1. The archaeological resource contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.

2. The archaeological resource has a special and particular quality such as being the oldest of its type or the best available example of its type.

3. The archaeological resource is directly associated with a scientifically-recognized important prehistoric or historic event or person.

2.2.1.1 California Register of Historical Resources

Created in 1992 and implemented in 1998, the CRHR is "an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC § 5024.1(a)). Certain properties, including those listed in or formally determined eligible for listing in the National Register of Historic Places (NRHP) and California Historical Landmarks (CHLs) numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historic resources surveys, or designated by local landmarks programs may be nominated for inclusion in the CRHR.

A resource, either an individual property or a contributor to a historic district, may qualify as a historical resource and be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria (PRC § 5024.1(c)):

Criterion 1: It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

Criterion 2: It is associated with the lives of persons important in our past.

Criterion 3: It embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.

Criterion 4: It has yielded, or may be likely to yield, information important in history or prehistory.

Resources nominated to the CRHR must retain enough of their historic character or appearance to be recognizable as historic resources and to convey the reasons for their significance. It is possible that a resource whose integrity does not satisfy NRHP criteria may still be eligible for listing in the CRHR. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if, under Criterion 4, it maintains the potential to yield significant scientific or historical information or specific data. Resources that have achieved significance within the past 50 years also may be eligible for inclusion in the CRHR, provided that enough time has lapsed to obtain a scholarly perspective on the events or individuals associated with the resource.

2.2.2 Native American Heritage Commission

Section 5097.91 of the PRC established the Native American Heritage Commission (NAHC), whose duties include the inventory of places of religious or social significance to Native Americans and the identification of known graves and cemeteries of Native Americans on private lands. Under Section 5097.9 of the PRC, a State policy of noninterference with the free expression or exercise of Native American religion was articulated along with a prohibition of severe or irreparable damage to Native American sanctified cemeteries, places of worship, religious or ceremonial sites, or sacred shrines located on public property. Section 5097.98 of the PRC specifies a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from a county coroner.

2.2.3 Government Code Sections 6254(r) and 6254.10

These sections of the California Public Records Act were enacted to protect archaeological sites from unauthorized excavation, looting, or vandalism. Section 6254(r) explicitly authorizes public agencies to withhold information from the public relating to "Native American graves, cemeteries, and sacred places maintained by the Native American Heritage Commission." Section 6254.10 specifically exempts from disclosure requests for "records that relate to archaeological site information and reports, maintained by, or in the possession of the Department of Parks and Recreation, the State Historical Resources Commission, the State Lands Commission, the Native American Heritage Commission, another state agency, or a local agency, including the records that the agency obtains through a consultation process between a Native American tribe and a state or local agency."

2.2.4 Health and Safety Code, Sections 7050 and 7052

Health and Safety Code, Section 7050.5 declares that, in the event of the discovery of human remains outside of a dedicated cemetery, all ground disturbance must cease, and the county coroner must be notified. Section 7052 establishes a felony penalty for mutilating, disinterring, or otherwise disturbing human remains, except by relatives.

2.2.5 Penal Code, Section 622.5

Section 622.5 of the Penal Code provides misdemeanor penalties for injuring or destroying objects of historic or archaeological interest located on public or private lands, but specifically excludes the landowner.

3.0 RECORDS SEARCHES

3.1 NORTHWEST INFORMATION CENTER RECORDS SEARCHES

On May 27, 2022, a records search of the APE and a 0.25-mile radius beyond the APE boundaries was conducted by HELIX at the North Central Information Center (NCIC) at California State University, Sacramento. The purpose of the record search was to (1) identify prehistoric and historic resources previously documented in the APE and within 0.5 miles of APE boundaries; (2) determine which portions of the APE may have been previously studied, when those studies took place, and how the studies were conducted; and (3) ascertain the potential for archaeological resources, historical resources, and human

remains to be found in the APE. The records search also included reviews of the appropriate USGS topographic maps on which cultural resources are plotted, archaeological site records, building/structure/object records, and data from previous surveys and research reports. The California Points of Historical Interest, the California Historical Landmarks, the NRHP, the CRHR, and the California State Historic Resources Inventory listings were reviewed to ascertain the presence of designated, evaluated, and/or historic-era resources within the APE. Historical maps and historical aerial photographs of the area were also examined.

3.1.1 Records Search Results

3.1.1.1 Previous Studies

The cultural resources records searches identified 23 studies that have previously been conducted within a 0.25-mile radius of the APE (Table 2). Of these, six studies included the current APE as part of their survey area; these are shown in bold in Table 2 and discussed briefly below.

Table 2
PREVIOUS STUDIES CONDUCTED WITHIN 0.25 MILES OF THE APE

Report	Year	Author(s)	Title	Affiliation
000962	1996	Starns, Jean E.	Camino Conduit Maintenance, Cultural Resource Report, Project Number 7080, El Dorado Irrigation District	El Dorado Irrigation District
001388	1993	Gould, Gary	Archeological and Historical Resources Survey and Impact Assessment for Christian Life Center of Pollock Pines Timber Harvest Plan	Unknown
001947	1999	Kral, James	Confidential Archaeological Addendum for Timber Operations on Non-Federal Lands in California for Shady Timber Harvest Plan	California Dept. of Forestry
002140	1995	Wheeler, Richard A.	Archeological and Historical Resources Survey and Impact Assessment for the Kennedy Timber Harvesting Plan	Unknown
002149	1993	Stewart, Mark	Archaeological and Historical Resources Survey and Impact Assessment for the Kent 60 Timber Harvesting Plan	Unknown
002276	**1990**	**Farber, Alfred, et al.**	**Archaeological and Historical Investigations of Site CA-ELD-614/H, El Dorado National Forest**	**Professional Archaeological Services**
002345	2000	Allen, Robert W.	Confidential Archaeological Addendum for Timber Operations on Non-Federal Lands in California for the Clint Miller THP	Unknown
003562	2002	Derr, Eleanor	El Dorado Irrigation District Reservoir Line, Cover and Tank Project	Cultural Resources Unlimited
003581	1999	Noble, Daryl G.	An Archaeological Survey of Highway 50 Near Camino Between Five Mile Road and Sawmill Road El Dorado County, California 03-ED-50 K.P. 36.7/R46.50 03 - 366400	Caltrans
004701	2002	Allen, Robert W.	Archaeological Addendum to the C Miller Timber Harvest Plan Amendment	Unknown

Report	Year	Author(s)	Title	Affiliation
004704	2003	Kral, James J.	Archaeological Addendum to the Debron's Slalom Timber Harvest Plan	Progressive Forestry
004731	1991	Supernowicz, Dana E.	Archaeological Survey Report of Parcel 3 of Parcel Map 12-15 Assessor's Parcel Number 77-290-21 Near Starks Grade, El Dorado County, California	Unknown
004756	**1977**	**Snoke, James M.**	**Archaeological Reconnaissance El Dorado Main-Reservoir 1 to Moose Hall; Forebay Reservoir to Reservoir 1 Along the Blair Road Diversion; Sly Park Intertie from Reservoir 1 to Jenkinson Lake**	**American River College**
004762	**1994**	**Rood, Judy**	**Archaeological Reconnaissance Report Addendum to the Sly Guard Thinning, North Fork Cosumnes River Watershed ARR 05-03-336/05-03-336-92**	**El Dorado National Forest**
006475	2005	Fernandez, Trish	Cultural Resources Inventory and Evaluation Report for Pleasant Oak Main Replacement Project	El Dorado Irrigation District
006965	1974	Ritter, Eric W.	Archaeological Resources: El Dorado Main No. 2-Pleasant Oak Main and Laterals	Department of Anthropology, University of California, Davis
007826	**2006**	**McKinstry, Steve**	**An Archaeological Survey Report for the Amendment to THP# 4-06-16, El Dorado County, CA**	**McKinstry's Professional Forestry Services**
009328	2001	Wulf, Eric	Negative Archaeological Survey Report for the Proposed Maintenance Disposal Area Off Highway 50, El Dorado County, California, EA 03-5T5000	Caltrans
009947	**1982**	**Dougherty, John, and Dana Supernowicz**	**Pendola Land Exchange**	**USFS**
011427	2011	Coe, Livy	Field Office Report of Cultural Resources Ground Survey Findings Contract/Application # 7491041151D	NRCS
011666	2012	Tiesen, Kim	An Archaeological Survey Report for the Dude Timber Harvesting Plan El Dorado County, California	Sierra Pacific Industries
012219	2012	Corcoran, Dan	El Dorado Irrigation District Main Ditch-Forebay to RES 1 Project, Cultural Resources Survey Report	Cardno ENTRIX
013239	**2019**	**Coleman, Jason**	**Cultural Resource Management Report, Sly Park Fuels Reduction Project, R2019-05-03-56014**	**Solano Archaeological Services**

Report 02276 (Farber et al. 1990) documented an investigation of site CA-ELD-614/H (described in Section 3.1.2 below), which is located near the southern end of the current APE. The study, which supported the construction of the Reservoir A Water Treatment Plant by the District, involved mapping, subsurface testing, and surface collection on the site. The report's authors concluded that the site's

prehistoric deposit consisted of a very limited range of artifact classes, and also lacked stratigraphic integrity and reliable chronologic indicators. They found a similarly limited assemblage related to the site's historic cabin remains and failed to find any associations with historically significant events or people. As a result, the study recommended that the site was ineligible for inclusion in the NRHP.

Report 004756 (Snoke 1977) documented a reconnaissance survey along the existing El Dorado Canal route at the northern end of the current APE. The study was conducted to support the District's proposed Sly Park Intertie. Other than the canal itself, no findings resulted from the study.

Report 004762 (Rood 1994) describes a reconnaissance survey conducted to support a timber thinning project. The study investigated an area located at the southern end of the current APE that overlaps the area addressed by Report 02276. Other than site CA-ELD-000614/H, described in Section 3.1.2 below, no resources within the current APE were encountered during the survey.

Report 007826 (McKinstry 2006) is an archaeological survey report intended to support a timber harvesting plan along the North Fork of Clear Creek, in the south-central portion of the current APE. The study documented a single historic-era resource consisting of two shallow stone-lined depressions that are located more than 0.25-mile from the current APE.

Report 009947 (Dougherty and Supernowicz 1982) documents a survey of approximately 1,015 discontinuous acres in support of the Pendola Land Exchange. A small portion of the survey area intersected the central portion of the current APE. No resources were found in the vicinity of the current APE.

Report 013239 (Coleman 2019) documents a survey of approximately 2,995 discontinuous acres in support of the Sly Park Fuels Reduction Project. A small portion of the survey area intersected the central portion of the current APE. No resources were found in the vicinity of the current APE.

3.1.2 Previously Recorded Resources

The cultural resources records searches determined that six previously recorded cultural resources are located within 0.25 miles of the APE; these are shown in Table 3. One of these resources intersects the current APE; is shown in bold and discussed briefly below.

Table 3
PREVIOUSLY RECORDED CULTURAL RESOURCES WITHIN 0.25 MILES OF THE APE

Primary	Trinomial	Year	Recorder	Description
P-09-000702	**CA-ELD-000614/H (FS 05-03-56-197)**	**1987**	**Wyndle, K., G. Walter, and D. Rael**	**Prehistoric lithic scatter and milling stations; possible cabin remains**
P-09-003555	None	2006	Kral, James J.	Historic can dump and refuse scatter
P-09-003556	None	2006	Kral, James J.	Collapsed adit
P-09-003557	None	2006	Kral, James J.	Placer mining features
P-09-003558	None	2006	Kral, James J.	Bedrock milling station
P-09-005298	None	1980	Elder, Sandy	Sportsman's Hall

P-09-000702 (CA-ELD-000614/H; FS 05-03-56-197) is an approximately 70-acre multicomponent site that was located on and to the north of Clear Creek, at the far southern end of the current APE. Consisting of three discontinuous loci, the site included the remnants of an unmortared stone cabin foundation, rough-hewn beams, historic-era refuse and building materials, several bedrock mortars, and two discrete lithic scatters. The site was tested and evaluated in 1990, and as a result was recommended ineligible for the NRHP (Farber et al. 1990). The portion of the site that would be within the current APE is now occupied by the District's Reservoir A water treatment plant.

3.1.3 Historic Maps and Aerial Photographs

During the records search review HELIX examined historic topographic maps, including versions of the Pollock Pines, California 7.5' USGS quad from 1950 through 1976, and the Sly Park, California 7.5'USGS quad from 1953 through 1972; General Land Office (GLO) plat maps from 1870 and 1874; and historic aerial photographs from 1984 to the present (Historic Aerials 2022).

The only structures in the vicinity of the APE that are shown on the historic topographic maps are two structures located on Starkes Grade Road west of the south-central portion of the APE, and a sawmill located approximately 250 feet east of the proposed Neilsen Road Staging area. The two structures were not investigated further because they are located in a residential area where the pipeline alignment runs under a paved street, and potential effects are expected to be minimal as the new pipeline will be installed in the footprint of the existing pipeline once it has been removed. Little additional information is readily available about the sawmill, other than that its construction predates 1950. GLO land records indicate that a 160-acre homestead patent, which included the land surrounding the sawmill, was granted to Alexander K. Fleming in 1900 (BLM 2022). It is not known if Fleming or his family are associated with the sawmill.

3.2 NATIVE AMERICAN HERITAGE COMMISSION SACRED LANDS FILE SEARCH

On May 26, 2022, HELIX requested that the NAHC conduct a search of their Sacred Lands File for the presence of Native American sacred sites or human remains in the vicinity of the proposed project area. A written response received from the NAHC on July 14, 2022, stated that the Sacred Lands File failed to indicate the presence of Native American cultural resources in the immediate area. The response included a list of Native American contacts that were recommended by the NAHC as potential sources of information related to cultural resources in the vicinity of the project area. The contact list was forwarded to the District on July 14, 2022. At the District's request HELIX did not attempt to contact any of the Native American representatives on the list. Documentation related to the Sacred Lands File search is provided in Appendix B.

4.0 PEDESTRIAN SURVEY

HELIX Senior Archaeologist Clarus J. Backes, RPA, HELIX Archaeologist Jentin Joe, and District Environmental Review Analyst Doug Venable surveyed the project APE on June 13 and 14, 2022. The survey involved systematic investigation of the ground surface throughout the pipeline ROW and associated project elements, although formal transects were generally found to be impractical due to

topography, vegetation, and the linear nature of the APE. During the survey the ground surface was examined for artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, fire-affected rock, prehistoric ceramics), soil discoloration that might indicate the presence of a prehistoric cultural midden, soil depressions, land modifications (e.g., ditches, roads and trails, mining features) and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations, wells) or historic debris (e.g., metal, glass, ceramics). The survey was cursory in portions of the APE where the pipeline alignment is currently capped with asphalt or concrete. Representative survey photographs are found in Appendix C.

Ground surface visibility was poor throughout most of the APE. Local vegetation is dominated by Ponderosa pine, incense cedar, Douglas fir, black oak, and manzanita, with an understory consisting of ceanothus, poison oak, and assorted forbs and grasses. The APE also includes several sections where slopes exceed 35 percent. Areas of steep topography are generally considered to have a low sensitivity for prehistoric resources, although historic-era resources like ditches, flumes, railroad grades, and expedient roads can sometimes be found.

The APE was surveyed from north to south. The northernmost section of the pipeline alignment, extending from Reservoir Number 1, across US Highway 50, and south to Ridgeway Drive, passes through a fully developed residential area. Survey was not attempted in this section because the pipeline alignment generally runs through private property and under paved streets. In addition, the section of the APE that extends from Ridgeway Drive south to approximately 250 feet north of Leak Repair Footprints East and West was found to not be surveyable due to dense vegetation and slopes exceeding 45 degrees.

At the leak repair footprints the topography flattens, and the pipeline ROW becomes more apparent because vegetation along the alignment is thinner than in the surrounding areas (Photo 1). The alignment bisects the 0.61-acre Leak Repair Footprint West; outside of the ROW this area is heavily overgrown and essentially impenetrable (Photo 2). Leak Repair Footprint East would be located on a small shelf approximately 35 feet east and five feet upslope of the ROW (Photo 3). The survey found that this area was less vegetated but marked by heavy ground disturbances and modern trash associated with a residence located off Nielsen Road, approximately 180 feet east of the ROW. No historic-age materials or features were encountered in either leak repair footprint.

The Nielsen Road Staging Area, located immediately north of the North Fork of Weber Creek, is a flat but heavily disturbed area measuring approximately 1.92 acres (Photo 4). A large, corrugated steel shed approximately 250 feet east of the staging area's eastern boundary is associated with a sawmill that has been present since at least 1950. The staging area currently holds a moderately dense scatter of modern trash, discarded fencing material, nondescript metal and lumber fragments, and dilapidated construction equipment. The northern boundary of the staging area is marked by a ditch that runs roughly east to west and passes to the south of a small holding pond that is northeast of the shed. The ditch is deeply V-shaped in cross section and measures approximately five feet deep and 12 feet wide (Photo 5). The north sidewall of the ditch is cut into the approximately 45-degree hillslope, while the south sidewall is formed by a berm that is approximately five feet tall on the northern side and eight feet tall on the southern side. Only a 250-foot portion of the ditch that runs along the border of the current APE was examined during the t survey, but LIDAR data provided by the District suggests that the ditch may extend to the west along the slope above the North Fork of Weber Creek (although this could not be confirmed in the field due to the density of the vegetation). It is also unclear whether the ditch

dates to the historic era as the ditch is fairly free of sediment, and the berm on the south side of the ditch holds numerous small (<10-inch diameter at breast height [DBH]) Ponderosa pines, suggesting that its construction was relatively recent. The ditch appears to have been constructed as a flood control feature to redirect water in the event that the holding pond floods over during heavy rains. The ditch also lies outside of the area that would be subjected to ground disturbances by the proposed project.

Proceeding south, the alignment crosses under the North Fork of Weber Creek, and both banks of the creek are very steep and choked with brush and poison oak. No bedrock is visible in the vicinity of the alignment that would suggest a high sensitivity for prehistoric features.

The alignment gains approximately 600 feet in elevation as it ascends from the North Fork of Weber Creek to Lynx Trail (Photo 6). This segment is also heavily overgrown and generally too steep to suggest a high likelihood for cultural resources. Before cresting the ridge, the alignment takes an eastward turn to avoid descending into an unnamed drainage and then returns to its original north-to-south course. On the ridgetop the 0.99-acre Lynx Trail Staging Area was surveyed and found to be flat and relatively free of ground cover, although the only cultural materials observed were modern roadside trash. Moving south the alignment runs through a residential area where the existing pipeline lies under paved portions of Slalom Lane and Starkes Grade Road. The alignment crosses the South Fork of Weber Creek, and then ascends the steep slope to the south of that drainage.

The southern portion of the alignment includes intermittent, relatively open areas of chapparal and manzanita. In this area some portions of the alignment are differentiated from the surrounding areas by a corridor of brush (Photo 7). The existing dirt roads that are proposed as potential access roads were investigated but no cultural materials were found (Photo 8). Likewise, no cultural features were observed where the alignment crosses the North Fork of Clear Creek, despite the presence of exposed bedrock and large boulders (Photo 9). From this point the alignment turns to the south, ascends another ridge, and then descends to the District's Reservoir A facility.

In summary, the survey did not detect any prehistoric or historic-era archaeological or built-environment resources within the project's APE.

5.0 SUMMARY AND RECOMMENDATIONS

5.1 SUMMARY

HELIX assessed the potential for the proposed project to affect historic properties and historical resources within the project APE. A records search conducted by HELIX at the NCIC on May 27, 2022, determined that 23 studies have previously been conducted within a 0.25-mile radius of the APE, and six of these studies included the current APE as part of their survey area. The records search also determined that six previously recorded cultural resources are located within 0.25 miles of the current APE, and a portion of one resource is within the APE itself: P-09-000702 (CA-ELD-000614/H; FS 05-03-56-197) is an approximately 70-acre multicomponent site that was located on and to the north of Clear Creek, at the far southern end of the current APE. The site was tested and evaluated in 1990, and as a result was recommended ineligible for the NRHP (Farber et al. 1990). The portion of the site that would be within the current APE was destroyed during construction of the District's Reservoir A water treatment plant.

A review of historic maps and aerial photographs showed that three structures were present in the vicinity of the APE as of the early 1950s: two structures located west of the south-central portion of the APE, and a sawmill located approximately 300 feet east of the proposed Neilsen Road Staging area. The two structures were not investigated further because they are located in a residential area where the pipeline alignment runs under a paved street. Little additional information is available about the sawmill, other than that its construction predates 1950.

On May 26, 2022, HELIX requested that the NAHC conduct a search of their Sacred Lands File for the presence of Native American sacred sites or human remains in the vicinity of the proposed project area. A written response received from the NAHC on July 14, 2022, stated that the Sacred Lands File failed to indicate the presence of Native American cultural resources in the immediate area. The response included a list of Native American contacts that were recommended by the NAHC as potential sources of information related to cultural resources in the vicinity of the project area. The contact list was forwarded to the District on July 14, 2022. At the District's request HELIX did not attempt to contact any of the Native American representatives on the list.

HELIX archaeologists and a District representative surveyed the project APE on June 13 and 14, 2022. Ground surface visibility was poor throughout most of the APE, which also includes several sections where slopes exceed 35 percent; areas of steep topography are generally considered to have a low sensitivity for prehistoric resources and low to moderate sensitivity for historic-era resources.

The northern boundary of the Nielsen Road Staging Area is marked by a deep V-shaped ditch that runs roughly east to west and passes to the south of a small holding pond and northeast of a shed, possibly associated with an old sawmill, which is outside of the APE's boundaries. Only a 250-foot portion of the ditch that runs along the border of the current APE was examined during the survey due to vegetation constraints. It is also unclear whether the ditch dates to the historic era; it appears that the ditch represents a flood control feature that redirects water in the event that the holding pond floods over during heavy rains. The ditch lies outside of the area that would be subjected to ground disturbances by the proposed project.

In summary, no intact CRHR- or NRHP-eligible archaeological or built-environment resources were identified within the APE during the records search or field surveys. HELIX recommends that there would be no effect on historical resources or historic properties, including archaeological and built-environment resources, as a result of project implementation. No additional studies, archaeological work, or construction monitoring are recommended. However, given the history of the area and the types of resources encountered during previous studies it should be assumed that the APE is moderately sensitive for both prehistoric and historic-era resources, and therefore HELIX recommends that the Worker Awareness Training Program and Inadvertent Discovery Procedures outlined below be implemented in the unlikely event that human remains or cultural resources are encountered during construction.

These recommendations have one caveat, however – if future refinements of the project's footprint or description show that the sawmill property east of the Nielsen Road Staging Area may be affected, additional research and fieldwork may be required to document the property, determine its significance under CEQA and Section 106, and assess the nature and extent of those potential effects.

5.2 RECOMMENDATIONS

5.2.1 Worker Awareness Training Program

All construction personnel involved in ground disturbing activities shall be trained in the recognition of possible cultural resources and protection of such resources. The training will inform all construction personnel of the procedures to be followed upon the discovery of archaeological materials, including Native American burials. Construction personnel will be instructed that cultural resources must be avoided and that all travel and construction activity must be confined to designated roads and areas. The training will include a review of the local, state, and federal laws and regulations related to cultural resources, as well as instructions on the procedures to be implemented should unanticipated resources be encountered during construction, including stopping work in the vicinity of the find and contacting the appropriate environmental compliance specialist.

5.2.2 Accidental Discovery of Human Remains

Although considered highly unlikely, there is always the possibility that ground disturbing activities during construction may uncover previously unknown human remains. In the unlikely event that human remains are discovered, there should be no further excavation or disturbance of the site or any area that is reasonably suspected to overlie adjacent human remains until the following conditions are met:

On non-federal lands: In the event of an accidental discovery or recognition of any human remains, PRC Section 5097.98 must be followed. Once project related earthmoving begins and if there is a discovery or recognition of human remains, the following steps shall be taken:

1. There shall be no further excavation or disturbance of the specific location or any nearby area reasonably suspected to overlie adjacent human remains until the County Coroner is contacted to determine if the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains are Native American, the coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the "most likely descendant" of the deceased Native American. The most likely descendant may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains, and any associated grave goods as provided in PRC Section 5097.98, or

2. Where the following conditions occur, the landowner or his/her authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendent or on the project area in a location not subject to further subsurface disturbance:

    a. The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 48 hours after being notified by the commission;

    b. The descendent identified fails to make a recommendation; or

c. The landowner or his authorized representative rejects the recommendation of the descendent, and the mediation by the NAHC fails to provide measures acceptable to the landowner.

On Eldorado National Forest (ENF) lands: NAGPRA (25 USC 3001–3013) would apply for a discovery on federal lands. A NAGPRA discovery does not necessarily solely entail human remains; it can include associated or unassociated funerary objects, sacred objects, and cultural patrimony per 25 USC 3001 Section 2(3). According to the provisions of NAGPRA, all work in the immediate vicinity of the discovery must cease, and any necessary steps to ensure the integrity of the immediate area must be taken. The ENF archaeologist must be notified immediately. The ENF as a managing federal agency is responsible for compliance with NAGPRA. NAGPRA requires federal agencies, such as the ENF, to cease activity around the discovery, protect the items, and provide notice to Native American tribes with an interest in the items and determine final disposition of these items, including, if required, repatriation (25 USC 3002[a] and [d]; 25 USC 3005).

5.2.3 Accidental Discovery of Cultural Resources

If cultural resources are discovered during construction operations should stop in the immediate vicinity of the find and a qualified archaeologist shall be consulted to determine whether the resource requires further study. The archaeologist will make recommendations to the District concerning appropriate measures that will be implemented to protect the resources, including but not limited to excavation and evaluation of the finds, consistent with Section 15064.5 of the CEQA Guidelines and 36 CFR 800. Cultural resources could consist of but are not limited to stone, bone, wood, or shell artifacts, or features including hearths, structural remains, or historic dumpsites. No further grading or construction activity should occur within 50 feet of the discovery until the District approves measures to protect these resources.

6.0 REFERENCES

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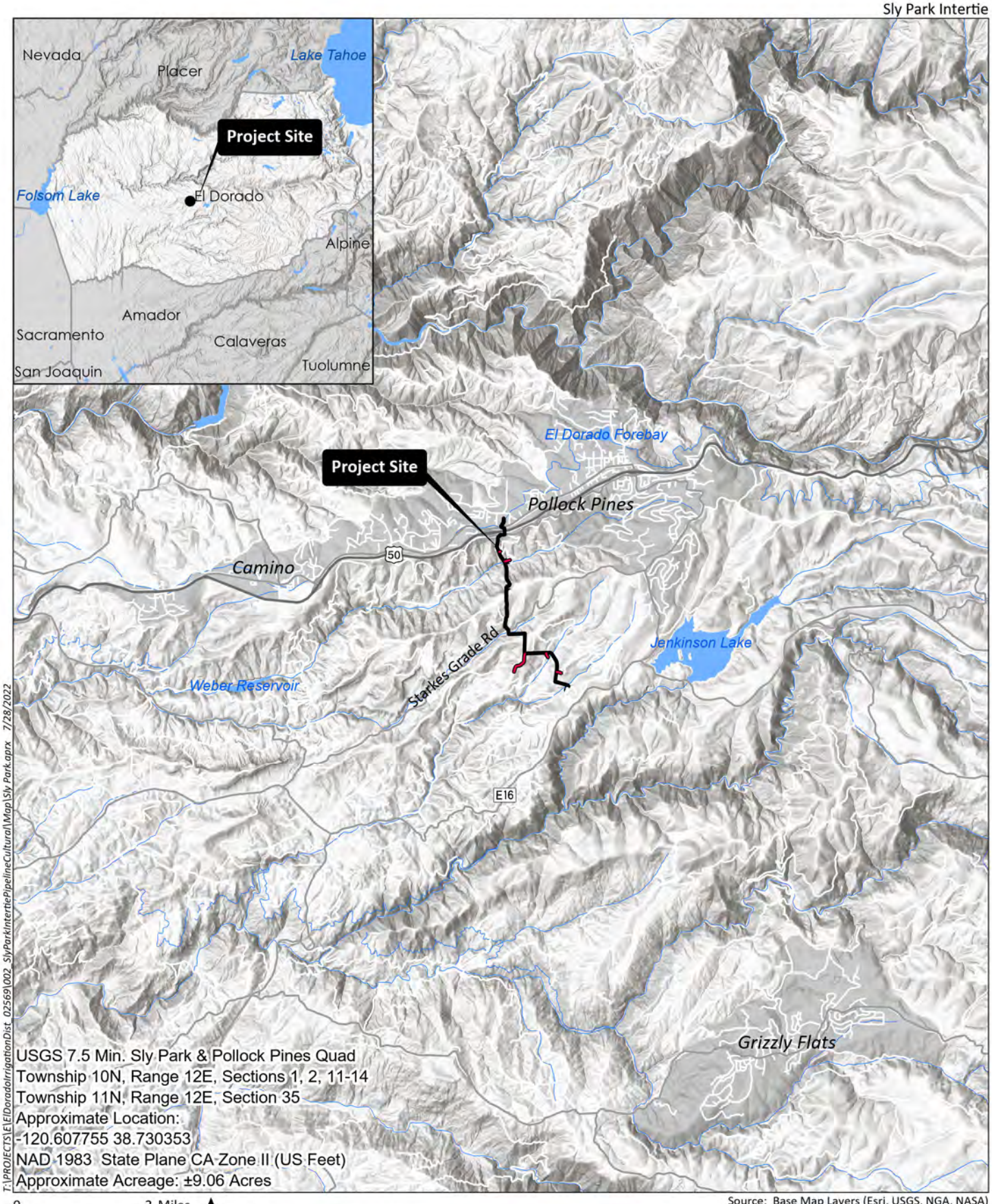
Appendix A

Figures



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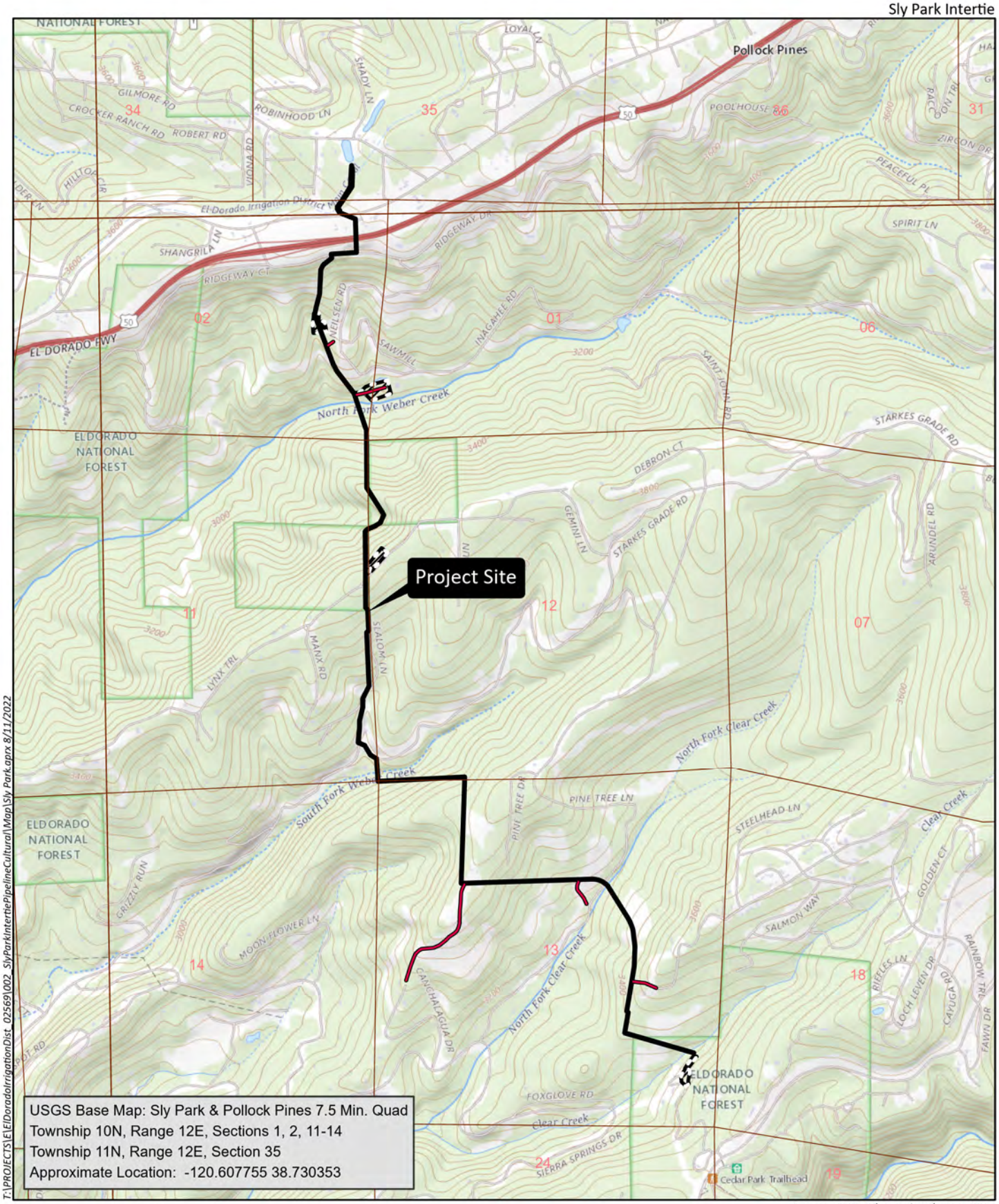
HELIX Environmental Planning

Project Vicinity Map

Figure 1

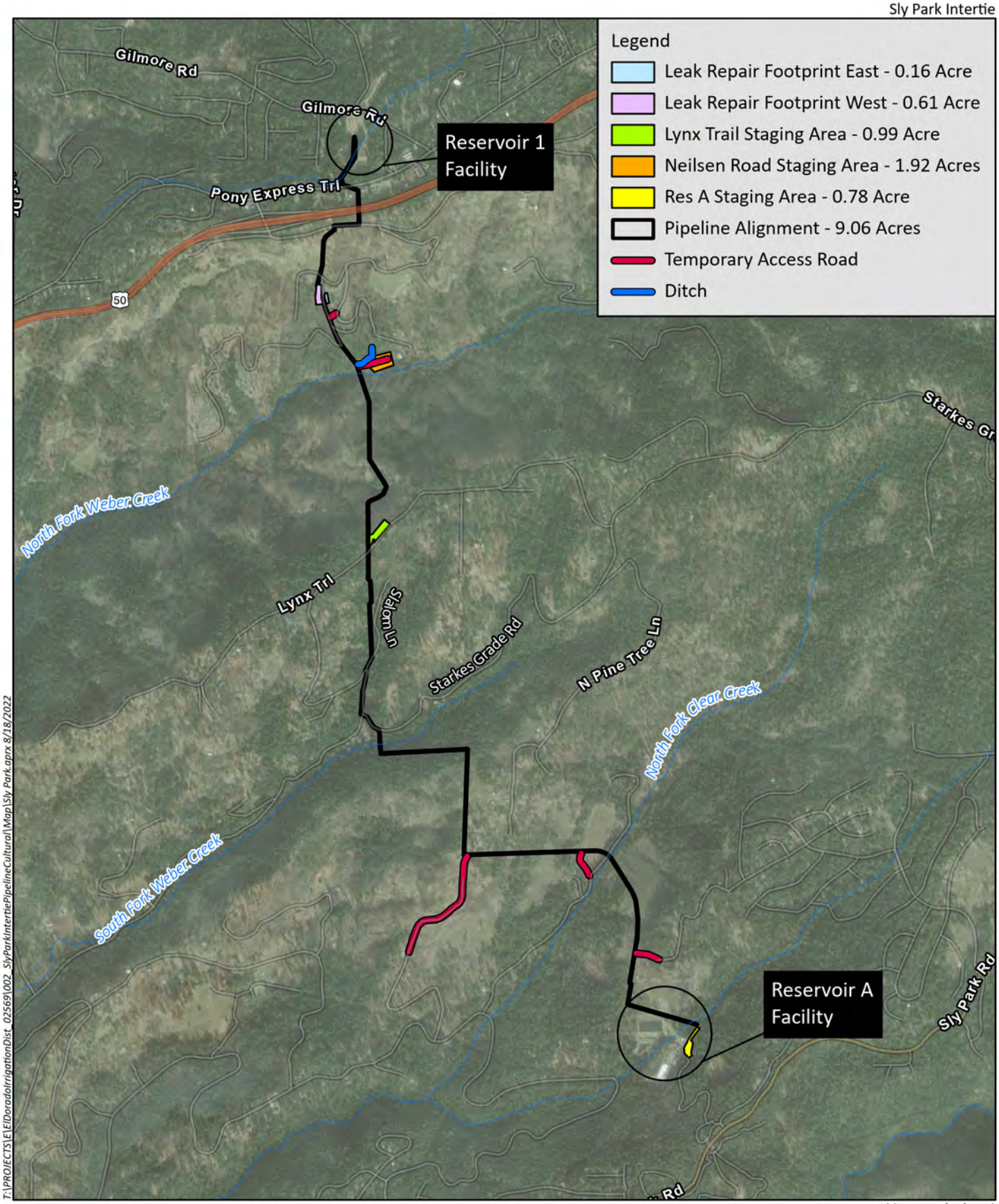


Source: USGS, The National Map, 2021

HELIX Environmental Planning

Project Location Map

Figure 2



Source: Aerial (Maxar, 1/31/2020)

HELIX Environmental Planning

Area of Potential Effects

Figure 3

Appendix B

Sacred Lands File Search Documentation

NATIVE AMERICAN HERITAGE COMMISSION

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov

July 14, 2022

Clarus Backes
HELIX Environmental Planning, Inc.

Via Email to: clarusb@helixepi.com

Re: Sly Park Intertie Pipeline Project, El Dorado County

Dear Mr. Backes:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Pricilla.Torres-Fuentes@nahc.ca.gov.

Sincerely,

Pricilla Torres-Fuentes

Pricilla Torres-Fuentes
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
El Dorado County
7/14/2022

Ione Band of Miwok Indians
Sara Dutschke, Chairperson
9252 Bush Street — Miwok
Plymouth, CA, 95669
Phone: (209) 245 - 5800
consultation@ionemiwok.net

Shingle Springs Band of Miwok Indians
Regina Cuellar, Chairperson
P.O. Box 1340 — Maidu
Shingle Springs, CA, 95682 — Miwok
Phone: (530) 387 - 4970
Fax: (530) 387-8067
rcuellar@ssband.org

Tsi Akim Maidu
Grayson Coney, Cultural Director
P.O. Box 510 — Maidu
Browns Valley, CA, 95918
Phone: (530) 383 - 7234
tsi-akim-maidu@att.net

United Auburn Indian Community of the Auburn Rancheria
Gene Whitehouse, Chairperson
10720 Indian Hill Road — Maidu
Auburn, CA, 95603 — Miwok
Phone: (530) 883 - 2390
Fax: (530) 883-2380
bguth@auburnrancheria.com

Washoe Tribe of Nevada and California
Darrel Cruz, Cultural Resources Department
919 Highway 395 North — Washoe
Gardnerville, NV, 89410
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darrel.cruz@washoetribe.us

Wilton Rancheria
Dahlton Brown, Director of Administration
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Elk Grove, CA, 95624
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Wilton Rancheria
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Colfax-Todds Valley Consolidated Tribe
Clyde Prout, Chairperson
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Auburn, CA, 95604 — Miwok
Phone: (916) 577 - 3558
miwokmaidu@yahoo.com

Colfax-Todds Valley Consolidated Tribe
Pamela Cubbler, Treasurer
P.O. Box 4884 — Maidu
Auburn, CA, 95604 — Miwok
Phone: (530) 320 - 3943
pcubbler@colfaxrancheria.com

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Sly Park Intertie Pipeline Project, El Dorado County.

Appendix C

Representative Survey Photographs

Photo 1. Northern portion of pipeline alignment and Leak Repair Footprint West, looking southeast.

Photo 2. Leak Repair Footprint West, looking northwest.

Photo 3. Leak Repair Footprint East, looking north.

Photo 4. Nielsen Road Staging Area, looking northeast.

Photo 5. Ditch SPI-1, looking northeast.

Photo 6. Central portion of pipeline alignment, looking south.

Photo 7. South-central portion of the pipeline alignment, looking northwest.

Photo 8. Access road on the west side of the APE, looking northeast.

Photo 9. North Fork of Clear Creek, looking south.

APPENDIX E

Mitigation Monitoring and Reporting Program

Appendix E Introduction

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

E.1 Project Description

E.1.1 PROJECT LOCATION

The Project is located approximately 1.5 miles southwest of the Pollock Pines community and 10 miles east of the city of Placerville, California, within the Pollock Pines and Sly Park, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangles. The northern segment of the Project area starts adjacent to Reservoir 1 on Pony Express Trail and is located on the north side of U.S. Highway 50 (HWY 50). The Project area continues approximately 4.5 miles south-southeast before terminating at the Sly Park Hills Tank, located off Mackinaw Street, approximately 0.5 miles from Reservoir A. The Project area elevations range between approximately 3,000 and 3,730 feet (914 and 1,140 meters) above mean sea level (amsl). The Project traverses lands owned by the District, and lands administered by the Eldorado National Forest, and various private property.

E.1.2 PROJECT SUMMARY

The El Dorado Irrigation District (District) is proposing to implement the Sly Park Intertie (SPI) Improvements Project (Project) to replace the connection between the District's two largest drinking water treatment plant facilities that, together, provide two-thirds of the District's water supply. The Project would enable the District to efficiently convey drinking water sourced from its existing water supplies at Jenkinson Lake and the South Fork American River watershed to areas throughout the District's service area (See Figure 1.1-1 of Draft EIR). The SPI is an existing 22- to 24-inch diameter steel pipeline, approximately 4.5 miles in length, which extends between the District's Reservoir 1 Water Treatment Plant (Reservoir 1) and Reservoir A Water Treatment Plant (Reservoir A), and continues to the Sly Park Hills Tank. Construction is planned to begin in 2024 and to be completed in 2025, over a period of approximately 18 months.

E.2 Procedures for Monitoring and Reporting

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

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

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

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

E.3 CEQA Mitigation Measures

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

Table E-1. Summary of the Project Mitigation Measures

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program	Standards for Success
Aesthetics and Visual Resources				
Mitigation Measure AES-1: Use of Best Management Practices to Minimize Lighting Impacts from Construction The following best management practices (BMPs) shall apply to Project construction activities and staging areas to ensure minimal adverse impacts to nighttime views for adjacent sensitive receptors. These BMPs shall be implemented by the contractor during construction. BMPs shall include, but are not limited to: • Identify when/where lighting is needed and confine/minimize lighting to the extent necessary to meet safety purposes. • Select warm color temperature bulbs (less than 5000K). • Limit the height of fixtures to minimize the amount of light crossing property lines and overall light levels. • Utilize temporary lighting shields during construction where construction lighting impacts to residences and other habitable structures cannot be avoided.	The District and contractor. This mitigation measure shall be referenced in the contract documents for the Project.	During construction of the Project	The District shall verify that the chosen contractor is implementing construction light reduction measures and that the design plans meet the operational light reduction measures in accordance with this mitigation measure.	Lighting impacts are reduced to a less than significant level for all residences and habitable structures adjacent to the Project during construction.
Air Quality				
Mitigation Measure AIR-1: Dust and Emissions Control Plan The District shall require that the selected contractor prepare and implement a Project Dust and Emissions Control Plan that is approved by the El Dorado Air Quality Management District (AQMD) prior to construction. The following measures shall be conducted throughout the construction period to limit and control dust and air emissions: • All material excavated, stockpiled, or graded shall be sufficiently watered, treated, or covered to prevent fugitive dust from leaving the property boundaries and/or causing a public nuisance. • All areas with vehicle traffic shall be watered or have a dust palliative applied as necessary to minimize dust emissions. • All on-site vehicle traffic shall be limited to a speed of 15 mph on unpaved roads. • All land clearing, grading, earth moving, or excavation activities on the Project shall be suspended as necessary to prevent excessive windblown dust when winds are expected to exceed 20 mph. • All inactive portions of the construction site shall be covered, seeded, or watered or otherwise stabilized until a suitable cover is established. • All material transported off-site shall be either sufficiently watered or securely covered to prevent it from being entrained in the air and there must be a minimum of six (6) inches of freeboard in the bed of the transport vehicle. • Paved streets adjacent to the Project shall be reasonably clean through methods such as sweeping or washing at the end of each day, or more frequently if necessary, to remove excessive accumulations or visibly raised areas of soil which may have resulted from activities at the Project area.	The District shall require that the contractor prepare and implement a Construction Emissions and Dust Control Plan. The District shall be responsible for ensuring that all adequate dust control measures are implemented in a timely manner during all phases of Project development and construction by the contractor. This mitigation measure shall be referenced in the contract documents for the Project.	An Emissions and Dust Control Plan shall be prepared and approved by the El Dorado AQMD prior to construction and implemented during all phases of grading and activities that generate dust.	During construction, regular inspections shall be performed by a District representative and reports shall be kept on file by the District for inspection by the El Dorado AQMD or other interested parties as specified in the Emissions and Dust Control Plan.	Visible emissions and dust are kept to the lowest practicable level during construction periods. The goal is to minimize dust and emissions during construction, including asbestos particulate matter as a result of any construction activities, and to the extent feasible, avoid activities that would generate

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program	Standards for Success
• Prior to the end of construction, the applicant shall re-establish ground cover on the site through seeding. • The Project contractor shall ensure that all construction equipment is properly maintained. The Project is not located in an area mapped as having, or otherwise known to have, ultramafic rock, serpentine, or naturally occurring asbestos (El Dorado County 2015). However, if naturally occurring asbestos is discovered during Project construction, the following shall occur: • If naturally occurring asbestos, serpentine, or ultramafic rock is discovered in the area to be disturbed after the start of any construction or construction-related activity, a Professional Geologist or the Air Pollution Control Officer must report the discovery to the El Dorado AQMD no later than the next business day; and • The Project shall comply with applicable provisions of Rule 223-2 and the California Asbestos ATCM for Construction, Grading, Quarrying, and Surface Mining Operations (CCR Title 17, Section 93105).				air quality complaints from the public.
Biological Resources				
Mitigation Measure GEO-1: Prepare and Implement a SWPPP *See Geology and Soils section below*	*See Geology and Soils Section below*	*See Geology and Soils Section below*	*See Geology and Soils Section below*	*See Geology and Soils Section below*
Mitigation Measure BIO-1: Pre-Construction Botanical Surveys A qualified botanist shall conduct special-status plant surveys prior to construction activities in areas with suitable habitat for the three special-status species identified as having a moderate potential to occur or are present in the Project area (Pleasant Valley Mariposa lily, Sierra clarkia, and yellow bur Navarretia). Surveys shall follow protocols designated by California Department of Fish and Wildlife (CDFW) (CDFW 2018) and California Native Plant Society (CNPS) (CNPS 2001) and shall occur during the appropriate floristic bloom periods. The mid-bloom period overlaps for the three species identified occurring May through July, and would be appropriate for the three species with the potential to occur in the Project area. Previous rare plant surveys detected two special-status plant species within the Project area: Sierra clarkia and yellow bur navarretia (Stantec 2023a). To avoid or minimize and compensate for potential impacts on special-status plant species, the following measures are recommended: 1. Where special-status plants have been determined to be absent in the Project area, then no further measures are required. 2. Where special-status plants have been determined present within the Project area (e.g., Sierra clarkia and yellow bur navarretia), Project activities shall be reduced and minimized to avoid impacts with the following: a. A qualified botanist shall map the population, place flagging to identify the population location, and install environmentally sensitive exclusion fencing and appropriate signage at an appropriate buffer distance (e.g., ~25 feet), starting from the edge of the special-status plant and/or plant population. Signage shall indicate that the area is environmentally sensitive and not to be disturbed. b. Adjust the location of Project activities away from special-status plants to the extent practicable.	The District. This mitigation measure shall be referenced in the contract documents for the Project.	Pre-construction rare plant surveys shall be conducted by a qualified botanist or biologist between May and July, or as otherwise deemed appropriate by a qualified botanist. Avoidance or buffer zones shall be marked before construction begins.	The survey shall be conducted by a qualified botanist and a Rare Plant Survey Report shall be developed and kept on file with the District. If special-status species are encountered, the Rare Plant Survey Report shall be submitted to the appropriate regulatory agencies (i.e., CDFW, USFS, and/or USFWS).	The presence or absence of special-status plant species are documented and, if observed, are handled and mitigated according to the performance standards outlined above and developed with the appropriate regulatory agencies.

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program	Standards for Success
3. If Project activities cannot avoid a special-status plant population and would directly disturb more than 25 percent of the population by either number of plants or extent of occupied habitat, a conservation plan shall be implemented in coordination with a qualified botanist and consultation with CDFW. The conservation plan may consist of but is not limited to: plant salvage and relocation; collection and subsequent planting of seed, or incorporating seed from native nursery into seed mix used for revegetation efforts; stockpiling, storing, and replacing topsoil containing the local seed bank; or other measures determined practicable based on the species and site conditions. For some species and site conditions, conservation efforts may not have a reasonable probability of success; or could result in detrimental effects on existing special-status plant populations. In these cases, as determined by a qualified botanist, no conservation measures shall be required.				
Mitigation Measure BIO-2: Biological Resources Awareness Training The District shall provide biological resources awareness training for workers prior to beginning Project construction activities. The District shall have a qualified biologist prepare training materials (i.e., printed handouts) that provide information on the following topics: • How to recognize special-status plant species, wildlife species, and sensitive habitats that could occur in the Project area (i.e., special-status amphibian identification and habitat, special-status avian identification and habitat, wetland habitats, and riparian habitats); • What to do if special-status species are encountered in the Project area; • Information on practicing good housekeeping (e.g., removing litter, trash, and other debris on a daily basis to avoid attracting animals to the Project site) and implementing BMPs; • Information on other mitigation measures relevant to biological resources; • Information on regulations and applicable civil and criminal penalties for violations. The training shall initially be presented to key Project personnel at the Project kickoff. Printed handouts shall be distributed and used for future reference by Project personnel. Project personnel that are trained during the Project kickoff shall be responsible for making sure that other workers on the Project receive the training before initiating on-site work. A roster of trained Project personnel shall be maintained in the Project construction office and made available for review by regulatory agencies, if needed. This training may be conducted in coordination with the tribal cultural resource awareness training (MM TRIB-2), cultural resources awareness training (MM CUL-2), and paleontological resources awareness training (MM GEO-2).	The District and the contractor. This mitigation measure shall be referenced in the contract documents for the Project.	Training shall be conducted before work begins, and new personnel shall be trained before initiating on-site work.	The training shall be conducted by trained personnel and documented (by sign-in sheet or other method) by the District's contractor for the dates the training occurred, and the staff trained. Retention of the training reference pamphlets shall also be kept on the construction site and within District files.	Construction personnel are trained in the key characteristics for identifying and avoiding impacts to special-status species and sensitive habitats.

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program	Standards for Success
Mitigation Measure BIO-3: Reduce the Spread and Introduction of Invasive Noxious Weeds Invasive and noxious weeds have the potential to directly and indirectly impact plant communities at or near the Project area. To reduce the spread and introduction of weeds, the following measures shall be implemented: • All Project-related equipment and vehicles shall be decontaminated of weeds and soils prior to initiation of work on the Project; and • Any imported topsoil, mulch, and seed used in Project-related activities (e.g., restoration, reseeding, erosion control, and soil stabilization) shall be certified weed-free.	The District and the contractor. This mitigation measure shall be referenced in the contract documents for the Project.	Prior to the initiation of construction and with each new piece of equipment and/or materials	The District shall verify that all equipment and other materials brought on site are certified weed-free through visual inspection and/or a signed affidavit from the contractor.	Minimize the potential for introduction of new weed species into the Project area through visual inspection of equipment and/or signed affidavits from the contractor of weed free certification.
Mitigation Measure BIO-4: Avoid and Minimize Impacts to California Red-legged Frog and Suitable Habitat The northern portion of the Project area is located within DCH Unit ELD-1 for California red-legged frog, a federally listed species and a California SSC. California red-legged frog are known to occur at Spivey Pond located approximately 0.75 mile upstream from the Project's North Fork Weber Creek crossing (CDFW 2023g). Although no observations of California red-legged frog were made within the Project area during the field surveys performed in May 2022 and June 2023, the Project area, specifically along North Fork Weber Creek, was determined to provide potential aquatic non-breeding, dispersal, and upland habitats. The following measures shall be implemented to avoid or minimize the potential for adverse impacts on California red-legged frog: The following measures shall be implemented to avoid or minimize the potential for adverse impacts on California red-legged frog: 1. EID shall retain a biological monitor (or qualified biologist) for the Project that possess the necessary qualifications and experience to identify all life stages of CRLF, conduct surveys, and identify suitable aquatic and upland habitat. 2. A qualified biologist shall train other personnel to monitor for California red-legged frog to facilitate compliance with the conservation measures described herein and minimize potential adverse effects to this species associated with implementation of the Proposed Action. Construction personnel will include a trained inspector responsible for monitoring the implementation of RPMs for California red-legged frog on a daily basis. The inspector will contact a qualified biologist as needed during construction. 3. A qualified biologist will conduct focused daytime and nighttime surveys for California red-legged frog within one week of initial ground disturbance or vegetation removal. The surveys will focus on stream and riparian habitats and adjacent upland areas. "Spot check" monitoring will be performed at least once per week by a qualified biologist during construction.	The District and the contractor. This mitigation measure shall be referenced in the contract documents for the Project.	Measures shall be conducted prior to and during construction activities.	All monitoring shall be conducted by a qualified biologist or trained inspector and records of monitoring shall be developed and kept on file with the District. Relocation, if necessary, shall only be performed by an authorized Section 10(a)(1)(A) recovery permitted biologist. Additionally, all observed and relocated frogs shall be reported to the USFWS as soon as practicable and no longer than 48 hours from the time of observation.	California red-legged frog shall not be disturbed without a Section 10(a)(1)(A) recovery permitted biologist before, during, or after Project construction activities.

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program	Standards for Success
4. EID will ensure the contractor stops work at the request of the qualified biologist, the Service, or the California Department of Fish and Wildlife, if activities are identified that may result in take of a California red-legged frog. The contractor will temporally suspend activities in the immediate area that could result in take of the animal until it leaves the site of its own volition or is removed by the qualified biologist, the Service, or the California Department of Fish and Wildlife to an appropriate release site using Service-approved techniques. Each California red-legged frog encountered within the Action Area will be treated on a case-by-case basis by the qualified biologist in coordination with the Service (note: in cases of dispute, the Service will have final authority), but the general protocol is as follows: (1) leave the non-injured frog alone if it is not in danger or (2) move the frog to a nearby secure location if it is in danger. These two options are as follows. a. When a California red-legged frog is encountered in the Action Area, the first priority will be to temporarily stop activities in the immediate surrounding area that are likely to result in harm, harassment, injury, or death of the individual as determined by the qualified biologist. The qualified biologist will then assess the situation to select a course of action that will minimize adverse effects to the animal. The qualified biologist will determine if the appropriate course of action is to avoid contact with the California red-legged frog and allow it to move out of the hazardous situation on its own volition to a safe location. The animal will not be picked up and moved because it is not moving fast enough or it is inconvenient for the project schedule. This protocol only applies to situations where a California red-legged frog is encountered on the move to a location that contains habitat that will not be damaged or destroyed by the Proposed Action. b. If the qualified biologist determines the appropriate course of action to prevent the immediate injury or death of a California red-legged frog is to move it, it will be captured and moved to a location with suitable habitat that is not proposed for construction, tree or vegetation removal, timber harvest, borrow excavation, or other activities. The qualified biologist will monitor the animal for an appropriate period of time to ensure it does not re-enter a work area. If secure suitable habitat is located immediately adjacent to, or close to, where the animal was captured, the preferred action is relocation to that location. A general guidance is the animal should not be moved outside of the area it would have traveled on its own. Under no circumstances will a California red-legged frog be relocated to a property without the landowner's written permission. It is EID's responsibility to arrange for that permission. The qualified biologist should be the individual to capture and handle California red-legged frogs. Nets or bare hands may be used to capture the animals. Soaps, oils, creams, lotions, repellents, or solvents of any sort will not be used on hands within 2 hours before and during periods when the qualified biologist is capturing and relocating a California red-legged frog. To avoid transferring disease or pathogens between sites when handling the animals, the qualified biologist will follow the appropriate recommendations in the Declining Amphibian Population Task Force Fieldwork Code of Practice (https://www.fws.gov/ventura/docs/species/protocols/DAFTA.pdf).				

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program	Standards for Success
c. After the California red-legged frog is determined to be secure at the original location or it has been moved to a new location by the qualified biologist, and the Service has not been involved, EID will report all observed and relocated California red-legged frogs to the USFWS, as soon as practicable and no longer than 48 hours from the time of observation. 5. If requested verbally by the Service or the California Department of Fish and Wildlife (CDFW), the District shall provide immediate access, when safe to do so, to the Action Area to personnel from one or both of these agencies to inspect potential project-related effects to the California red-legged frog and its habitat. 6. The District shall require all contractors and subcontractors to comply with the biological opinion for the California red-legged frog during the performance of their contract and ensure that all project personnel do their utmost to prevent disturbance to California red-legged frogs. The contracts will include specific language that requires contractors to work within the specific boundaries of the Action Area, including construction, staging areas, and access routes identified in the project description of the biological assessment for the Proposed Action. 7. The District shall provide biological resources awareness training for workers prior to beginning Proposed Action construction activities. The District shall have a qualified biologist prepare training materials (i.e., printed handouts) that provide information on the following topics: a. How to recognize special-status plant species, wildlife species, and sensitive habitats that could occur in the Action Area (i.e., special-status amphibian identification and habitat, special-status avian identification and habitat, wetland habitats, and riparian habitats); b. What to do if special-status species are encountered in the Action Area; c. Information on practicing good housekeeping (e.g., removing litter, trash, and other debris on a daily basis to avoid attracting animals to the Action Area) and implementing BMPs; d. Information on other mitigation measures relevant to biological resources; e. Information on regulations and applicable civil and criminal penalties for violations. The training shall initially be presented to key project personnel at the Proposed Action kickoff meeting. Printed handouts shall be distributed and used for future reference by project personnel. Project personnel that are trained during the kickoff meeting shall be responsible for making sure that other workers on the Proposed Action receive the training before initiating on-site work. A roster of trained Proposed Action personnel shall be maintained in the on-site construction office and made available for review by regulatory agencies, if needed. 8. BMPs (e.g., weed free straw bales, straw mulch, non-monofilament fiber rolls, silt fence) will be implemented to prevent erosion and provide stormwater runoff protection. Plastic mono-filament netting or similar non-biodegradable material will not be used for erosion control or other purposes. Additionally, erosion and sediment control measures including the implementation of a SWPPP will be in place throughout construction activities.				

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program	Standards for Success
9. All food-related trash items, such as wrappers, cans, bottles, and food scraps will be disposed of in a closed container and removed daily from the construction area. 10. EID shall implement a hazardous materials prevention plan and a spill prevention and contingency plan to prevent hazardous substances and construction by-products (e.g., gas, oil, other petroleum products, chemicals, fresh cement, asphalt) from contaminating the soil or entering aquatic habitat. Spill kits with a sufficient quantity of absorbent and barrier materials to adequately contain and recover potential spills of fuels or oils will be maintained on-site. Refueling will be limited to designated locations outside riparian habitat. 11. EID shall implement a stream diversion plan that complies with applicable permit conditions. 12. EID shall implement a site restoration and revegetation plan. 13. To prevent the potential entrapment of California red-legged frog within the Action Area, all steep-walled holes, trenches, pits or any other excavated area more than one foot deep will be filled, covered, or constructed with an escape ramp at the close of each working day. Covers will be provided with plywood or similar material and escape ramps will be constructed of earthen fill or wooden planks. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals. If at any time a trapped California red-legged frog is discovered, escape ramps or other appropriate structures will be placed to allow the animal to escape, and a qualified biologist will be contacted to assist as needed. Any observations of a California red-legged frog will be reported to the USFWS, as soon as practicable and no longer than 48 hours from the time of observation. 1.				
Mitigation Measure BIO-5: Avoid or Minimize Impacts to Foothill Yellow-Legged Frog and Northwestern Pond Turtle The Project area is within the range of the East/Southern Sierra clade (South Sierra DPS) of foothill yellow-legged frog, which is listed as endangered under CESA and endangered under the ESA and northwestern pond turtle, which is listed as proposed threatened under the ESA. Foothill yellow-legged frog are not known to occur in the Project area or within the watersheds of the Project area and there is one occurrence of northwestern pond turtle nearby the Project area. However, limited potential suitable habitat for both species was identified within North Fork Weber Creek where the Project area bisects the stream (CDFW 2023g). As such, in addition to the measures described above for the California red-legged frog, the following measures are recommended to avoid or minimize the potential for adverse impacts on foothill yellow-legged frog and northwestern pond turtle: 1. Provide training specific to the foothill yellow-legged frog and northwestern pond turtle. 2. A qualified biologist shall conduct pre-construction visual encounter surveys for foothill yellow-legged frog prior to any work (e.g., excavation, pipe installation, cofferdam installation and removal) within the stream zones. 3. A qualified biologist shall conduct pre-construction northwestern pond turtle surveys prior to any work (e.g., excavation, pipe installation, cofferdam installation and removal) within the stream zones.	The District and the contractor. This mitigation measure shall be referenced in the contract documents for the Project.	Biological resources awareness training as specified in BIO-2 will be provided for all Project personnel before work begins, and new personnel shall be trained before initiating on-site work. A qualified biologist shall conduct pre-construction visual encounter surveys	All surveys shall be conducted by a qualified biologist and a brief survey report shall be developed and kept on file with the District.	Foothill yellow-legged frog shall not be disturbed without a Section 10(a)(1)(A) recovery permitted biologist before, during, or after Project construction activities.

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program	Standards for Success
		for foothill yellow-legged frog and pre-construction surveys for northwestern pond turtle prior to any in-water work.		
Mitigation Measure BIO-6: Native Aquatic Species Rescue and Relocation To avoid and/or minimize potential impacts on native aquatic species during the four stream crossings within the Project area, an aquatic species rescue plan shall be prepared to determine how native fish and other aquatic species will be rescued and relocated. This plan shall be submitted to the CDFW and shall include the methodology and procedures required to rescue and relocate native aquatic species stranded during the dewatering process including, but not limited to, the following: 1. A CDFW-approved biologist (or crew of biologists) shall be on-site immediately prior to and during the dewatering process to conduct any necessary native aquatic species rescue activities in the immediate work area (e.g., fish, frogs). 2. If a special-status species (e.g., California red-legged frog) is present and in harm's way, this species shall be relocated by a qualified biologist according to the aquatic species rescue plan or species-specific measures per USFWS and CDFW guidance. 3. A qualified biologist shall relocate all stranded native aquatic species individuals to appropriate suitable habitat outside of the work areas.	The District. This mitigation measure shall be referenced in the contract documents for the Project.	Aquatic species rescue shall be conducted as needed prior to any in water work or water diversion is scheduled to take place.	Aquatic species rescue shall be conducted by qualified biologists and a brief aquatic species rescue report shall be developed and kept on file with the District.	Native aquatic species will not be disturbed before, during, or after Project construction activities.

Mitigation Measure BIO-7: Avoid or Minimize Impacts to Special-Status Bird Species, Nesting Raptors, and Other Migratory Birds Protected under the Migratory Bird Treaty Act (MBTA) and Fish and Game Code (FGC) Suitable nesting habitat for birds occurs throughout the Project area. Therefore, the District will implement one of the following measures, depending on the specific construction timeframe, to avoid disturbance to ground, tree, and other nesting birds: 1. If construction activities are scheduled to occur during the nesting season (nesting season is approximately March 1 to August 31), a pre-construction nesting survey shall be conducted by a qualified biologist. a. The survey shall be conducted within the Project area and within approximately 100 feet of the Project area for migratory birds and 500 feet for raptors (as accessible). b. The survey shall be conducted within one week before initiation of construction activities. If no active nests are detected, then no additional measures are required. c. If active nests are present in any areas that would be directly or indirectly affected by construction activities, a no-disturbance buffer shall be established around the nest site until after the nesting season or after a qualified biologist determines that the young have fledged (typically late June to mid-July). The extent of the buffer shall be determined by a qualified biologist based on consideration of the species, the expected extent of noise or construction disturbance, ambient levels of noise and other disturbances, and line of sight between the nest and the disturbance (e.g., topographic or other visual barriers). d. For California Spotted Owl, surveys shall be conducted following the latest Service-approved protocols for either callback survey or acoustically-assisted survey. Surveys will be conducted implementing the one-year six-survey guidelines as presented within the Protocol for Surveying Spotted Owls in Proposed Management Activity Areas and Habitat Conservation Areas (USFS 1993). i. If surveys detect nesting or roosting California spotted owl, a limited operating period (LOP) will be implemented within 0.25 mile of the active nest or roost site (if known) or within an Activity Center (if active nest/roost site is not known), or in and within 0.25 mile of nesting/roosting habitat (if surveys were not conducted in habitat). For habitat-manipulating activities (e.g., removal of large trees 20-inch dbh and greater), implement an LOP from March 1 through August 31. For noise-generating activities that do not reduce habitat quantity or quality (e.g., vegetation removal and construction within the utility corridor), implement an LOP from March 1 through July 9. The specified buffer sizes and/or LOPs may be modified on a case-by-case basis if compelling information demonstrates a smaller buffer distance or shortened LOPs will still avoid potential effects. Requests to reduce the specified buffer sizes or LOPs will be submitted to the Service for review and approval. LOPs may be discontinued in a year if protocol-level surveys for determining reproductive status confirm owls are not nesting or fledglings have dispersed in that calendar year. 2. If construction activities are initiated outside the nesting season (approximately September 1 to February 28), then no pre-construction nesting survey shall be required. 3. If construction activities have been continuous (i.e., no lapse in construction activities of 10 days or longer in a specific area) once the nesting season begins, any birds nests that become established in or near the Project	The District. This mitigation measure shall be referenced in the contract documents for the Project.	One nesting survey shall be conducted by a qualified biologist within one week prior to construction, should the proposed Project be initiated between March 1 and August 31. Additionally, if the proposed Project is initiated during that time frame, protocol surveys should be conducted for California Spotted Owl using the Protocol for Surveying Spotted Owls in Proposed Management Activity Areas and Habitat Conservation Areas (USFS 1993).	The survey(s) shall be conducted by a qualified biologist and a brief survey report shall be documented and kept on file with the District.	Special-status species, nesting raptors and other migratory birds covered under the MBTA and FGC will not be disturbed during the Project construction activities; exclusion buffers will be installed and monitored.

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program	Standards for Success
area shall be considered to be habituated to the construction activities (assuming there won't be a significant increase in construction disturbance or noise). If there has been a lapse in construction activities of 10 days or longer in a specific area during the nesting season or there will be a significant increase in construction disturbance or noise, a pre-construction nesting survey shall be conducted by a qualified biologist and no-disturbance buffers established (if needed) as described above.				
Mitigation Measure BIO-8: Avoid and Minimize Impacts to Riparian Habitat Riparian habitat is present at the four stream crossings within the Project area: North Fork Weber Creek, South Fork Weber Creek, North Fork Clear Creek, and Clear Creek. The Project would result in temporary impacts to riparian habitat along the four stream crossings within the Project area, which is considered a sensitive natural community. Therefore, per FGC Section 1602, if Project activities would obstruct the flow of, or alter the bed, channel, or bank of, any stream, a Notification of Lake and Streambed Alteration Agreement (LSAA) shall be submitted to CDFW. If required, an LSAA shall be obtained from CDFW and all conditions of the LSAA shall be implemented. Additionally, the implementation of Mitigation Measure BIO-4: Avoid and Minimize Impacts to California Red-legged Frog and Mitigation Measure BIO-9: Avoid and Minimize Impacts on Waters of the United States (WOTUS)/Waters of the State (WOTS) will further aid in the avoidance or minimization of the potential for adverse impacts on riparian habitat.	The District and the contractor. This mitigation measure shall be referenced in the contract documents for the Project.	If required, an LSAA shall be obtained from CDFW prior to construction.	The District shall ensure that, if required, an LSAA shall be obtained from CDFW prior to construction and the appropriate fees paid to comply with the FGC Section 1602.	Appropriate agreement compliance and compensation in coordination with CDFW.
Mitigation Measure BIO-9: Avoid and Minimize Impacts on Waters of the United States and Waters of the State The Project, including access and staging areas, has been designed to avoid waters and wetland features to the extent practicable. However, the Project would involve vegetation removal, trenching, and potential dewatering or diversion at the four stream crossings. These streams are WOTUS and WOTS (Stantec 2023b). In addition to Mitigation Measure Bio-4: Avoid and Minimize Impacts to California Red-legged Frog and Mitigation Measure BIO-8: Avoid and Minimize Impacts to Riparian Habitat, the following measures are recommended to avoid or minimize the potential for adverse impacts on WOTUS and WOTS: 1. Before any discharge of dredge or fill material into WOTUS/WOTS, the required permits/authorizations shall be obtained from United States Army Corps of Engineers (USACE) and the Regional Water Quality Control Borad (RWQCB). All terms and conditions of the required permits/authorizations shall be implemented. 2. Before any activities that would obstruct the flow of, or alter the bed, channel, or bank of any stream, a Notification of Streambed Alteration shall be submitted to CDFW. An LSAA shall be obtained from CDFW and all conditions of the LSAA shall be implemented. 3. All WOTUS/WOTS that are temporarily affected by Project construction shall be restored as close as practicable to their original contours within 10 days of the completion of construction activities. 4. Riparian vegetation removal shall be minimized to the greatest extent practicable. Where practicable, vegetation shall be cut with hand tools at ground level to enable regrowth from roots when construction is complete.	The District and the contractor. This mitigation measure shall be referenced in the contract documents for the Project.	Prior to construction, the District shall obtain a NWP #58 for Utility Line Activities for Water and Other Substances from USACE to comply with CWA Section 404, and a CWA Section 401 WQC from the RWQCB.	The District shall ensure that environmental permits/agreement shall be obtained prior to construction and the appropriate fees paid to comply with the regulatory agency compensatory mitigation schedule for temporary and permanent impacts to WOTUS or WOTS and riparian areas.	Appropriate State and federal permit/agreement compliance and compensation, including no net loss of WOTUS or WOTS from the Project.

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program	Standards for Success
Mitigation Measure BIO-10: Avoid and Minimize Impacts to Oak Trees and Oak Woodlands Construction of the Project may require oak tree removal within the densely treed portions of the Project area. Also, trenching and other ground disturbance could encroach within the dripline of oak trees. The following measures will be implemented to avoid or minimize the potential for adverse impacts on oak trees and oak woodlands. 1. Final design of the Project shall avoid oak tree removal and encroachment into the driplines of oak trees to the maximum extent practicable. 2. Protection zones for oak trees and oak woodlands that can be avoided shall be marked in the field (e.g., by installing and maintaining tree exclusion/protection fencing around oak tree driplines). No encroachment into the fenced areas shall be allowed and fencing shall remain in place until all construction activities in the vicinity have been completed. 3. Excessive soil compaction shall be prevented by carefully selecting storage areas and construction traffic routes. Stockpiled soil, construction materials, and excessive foot traffic shall be prohibited within the driplines of oak trees to the maximum extent practicable. 4. Oak tree roots to be severed shall be the maximum practicable distance from the trunk. To the extent practicable, roots that are damaged as a result of construction activities (e.g., jagged roots resulting from excavation with heavy equipment) shall be traced back and cleanly cut behind any split, cracked, or damaged area. Removed soil shall be backfilled as soon as practicable to minimize the drying of the roots. 5. Removal of soil, leaves, and vegetation within dripline of oaks shall be minimized to the extent practicable.	The District and the contractor. This mitigation measure shall be referenced in the contract documents for the Project.	Prior to construction protection zones for oak trees and oak woodlands that can be avoided shall be marked in the field by installing and maintaining tree exclusion/protection fencing at least 1 foot outside of the oak tree driplines.	Any oak tree removal shall be documented by the contractor and a brief survey report shall be developed and kept on file with the District.	Impacts to oak trees within the Project area will be minimized to the greatest extent feasible.
Cultural Resources				
Mitigation Measure CUL-1: Proper Handling of Inadvertent Discovery of Cultural Resources If cultural resources are encountered during construction, compliance with federal and State regulations and guidelines regarding the treatment of cultural resources and/or human remains shall be required. 1. If potential prehistoric or historic-period archaeological resources are encountered during Project implementation, all construction activities within 100-feet shall halt and the District shall be notified. 2. A qualified archaeologist, defined as one meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology, shall inspect the findings as soon as practicable following discovery and report the results of the inspection to the District. 3. If the identified archaeological resource is determined to be prehistoric, the District and qualified archaeologist shall coordinate with and solicit input from a culturally affiliated Native American Tribal Representative regarding significance and treatment of the resource as a potential Tribal Cultural Resource. Any Tribal Cultural Resources discovered during Project work shall be treated in consultation with the tribe, with the goal of preserving in place with proper treatment. See MM TRIB-1, TRIB-2, and TRIB-3 for more discussion of tribes and culturally sensitive areas. 4. If the District determines that the resource qualifies as a historical resource or a unique archaeological resource (as defined pursuant to the CEQA Guidelines) and that the Project has potential to damage or destroy the resource, mitigation shall be implemented in accordance with PRC Section 21083.2 and CEQA Guidelines	The District and contractor. This mitigation measure shall be referenced in the contract documents for the Project.	Prior to and during implementation of Project activities.	If subsurface cultural resources are uncovered during Project ground disturbing activities, the District's contractor shall complete the above steps.	Protection of archaeological resources.

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program	Standards for Success
Section 15126.4. Consistent with CEQA Guidelines Section 15126.4(b)(3), mitigation shall be accomplished through either preservation in place or, if preservation in place is not feasible, data recovery through excavation. 5. If preservation in place is feasible, this may be accomplished through one of the following means: (1) modifying the construction plan to avoid the resource; (2) incorporating the resource within open space; (3) capping and covering the resource before building appropriate facilities on the resource site; or (4) deeding the resource site into a permanent conservation easement. 6. If avoidance or preservation in place is not feasible, a qualified archaeologist shall prepare and implement a detailed treatment plan to recover the scientifically consequential information from and about the resource, which shall be reviewed and approved by the District prior to any excavation at the resource site. 7. Treatment of unique archaeological resources shall follow the applicable requirements of PRC Section 21083.2, including creation of a treatment plan. Treatment for most resources shall consist of (but shall not be limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim of targeting the recovery of important scientific data contained in the portion(s) of the significant resource to be impacted by the Project. The treatment plan shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, curation of artifacts and data at an approved facility, and dissemination of reports to local and State repositories, libraries, and interested professionals.				
Mitigation Measure CUL-2: Cultural Resource Awareness Training The District shall provide cultural resources awareness training for workers prior to beginning Project construction activities. The District shall have a qualified archaeologist prepare training materials (I.e., printed handouts) that provide information on the following topics: • How to recognize cultural resources, including prehistoric and historic artifacts • What to do if artifacts are encountered in the Project area • Information on other measures relevant to cultural resources • Information on regulations and applicable civil and criminal penalties for violations. The training shall initially be presented to key Project personnel at the Project kickoff. Printed handouts shall be distributed and used for future reference by Project personnel. Project personnel that are trained during the Project kickoff shall be responsible for making sure that other workers on the Project receive the training before initiating on-site work. A roster of trained Project personnel shall be maintained in the Project construction office and made available for review by regulatory agencies, if needed. This training may be conducted in coordination with the tribal cultural resource awareness training (MM TRIB-2), biological resources awareness training (MM BIO-2), and paleontological resources awareness training (MM GEO-2).	The District and contractor. This mitigation measure shall be referenced in the contract documents for the Project.	Training shall be conducted before work begins, and new personnel shall be trained before initiating on-site work.	The training shall be conducted by trained personnel and documented (by sign-in sheet or other method) by the District's contractor for the dates the training occurred, and the names of the staff trained. Retention of the reference pamphlets shall also be kept on the construction site and within District files.	Construction personnel are trained in the key characteristics for identifying and avoiding impacts to cultural resources.
Mitigation Measure CUL-3: Proper Handling of Inadvertent Discovery of Human Remains If human remains are encountered, work shall halt in the vicinity and the El Dorado County Coroner shall be notified immediately pursuant to Public Resources Code (PRC) Section 7050.5. At the same time, an archaeologist shall be	The District and contractor. This mitigation measure shall be referenced in the	Prior to and during implementation of Project activities.	If human remains are encountered (or are suspected) during	Protection of archaeological, tribal cultural

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program	Standards for Success
contacted to evaluate the situation. If human remains are of Native American origin, the coroner shall notify the Native American Heritage Commission (NAHC) within 24 hours of this identification. The NAHC shall identify the person or persons it believes to be the most likely decedent (MLD) from the deceased Native American. The MLD shall have an opportunity to make a recommendation to the landowner or the person responsible for the excavation work for means of treating, with appropriate dignity, the human remains, and any associated grave goods as provided in PRC Section 5097.98.	contract documents for the Project.		any project related activity, the District's contractor shall complete the activities in this mitigation measure.	resources, and human remains.
Geology and Soils				
Mitigation Measure GEO-1: Prepare and Implement a Stormwater Pollution Prevention Plan (SWPPP) The selected construction contractor shall be required to comply with a site-specific SWPPP to reduce the risk of substantial soil erosion or loss of topsoil in accordance with requirements of the latest amendment of the National Pollution Discharge Elimination System (NPDES) General Construction Permit. The Construction General Permit requires the development of a SWPPP by a certified Qualified SWPPP Developer (QSD). The SWPPP is required to identify appropriate BMPs to prevent erosion or soil loss from the Project site. These measures would include the implementation of construction staging in a manner that minimizes the amount of area disturbed at any one time; secondary containment for storage of fuel and oil; and the management of stockpiles and disturbed areas by means of earth berms, diversion ditches, straw wattles, straw bales, silt fences, gravel filters, mulching, revegetation, and temporary covers as appropriate. The SWPPP shall also meet post-construction performance standards to ensure the post construction site is stabilized appropriately.	The District shall ensure the SWPPP is prepared by a certified QSD and implemented consistent with all applicable requirements. This mitigation measure shall be referenced in the contract documents for the Project.	The SWPPP shall be prepared prior to construction and implemented during the duration of construction, and the site should be stabilized post-construction.	The District shall monitor implementation of the mitigation measure and a copy of the SWPPP shall be present at the Project site during construction as well as at District offices.	Adherence to all applicable conditions and no substantial erosion or topsoil loss during or post-construction.
Mitigation Measure GEO-2: Paleontological Resources Awareness Training The District shall provide paleontological awareness training for workers prior to beginning Project construction activities. The District shall have a qualified paleontologist prepare training materials (i.e., printed handouts) that provide information on the following topics: • How to recognize paleontological resources • What to do if paleontological resources are suspected or encountered in the Project area • Information on avoidance and other measures relevant to paleontological resources • Confidentiality and appropriate treatment of paleontological resources (MM GEO-3) • Information on regulations and applicable civil and criminal penalties for violations The training shall initially be presented to key Project personnel at the Project kickoff. Printed handouts shall be distributed and used for future reference by Project personnel. Project personnel that are trained during the Project kickoff shall be responsible for making sure that other workers on the Project receive the training before initiating on-site work. A roster of trained Project personnel shall be maintained in the Project construction office and made available for review by regulatory agencies, if needed. This training may be conducted in coordination with the tribal cultural resource awareness training (MM TRIB-2), cultural resources awareness training (MM CUL-2), and biological resources awareness training (MM BIO-2).	The District and contractor. This mitigation measure shall be referenced in the contract documents for the Project.	Training shall be conducted before work begins, and new personnel shall be trained before initiating on-site work.	The training shall be conducted by trained personnel and documented (by sign-in sheet or other method) by the District's contractor for the dates the training occurred, and the staff trained. Retention of the training reference pamphlets shall also be kept on the construction site and within District files.	Construction personnel are trained in the key characteristics for identifying and avoiding impacts to paleontological resources.

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program	Standards for Success
Mitigation Measure GEO-3: Proper Handling of the Unanticipated Discovery of Paleontological Resources or Unique Geologic Features If paleontological resources (i.e., fossils) and/or unique geologic features are encountered during construction, compliance with federal regulations (16 United States Code [USC] Chapter 1C, Sections 470aa through 470aaa-11) and guidelines (Society of Vertebrate Paleontology [SVP] guidelines) regarding the treatment of such resources shall be required. If paleontological resources or unique geologic features are encountered during ground disturbing activities, work within 100 feet of the discovery shall be halted until the District notifies a qualified geologist or paleontologist to evaluate the significance of the find. If the find is determined to be significant, the District shall determine the appropriate avoidance measures or other appropriate mitigation in consultation with a qualified geologist or paleontologist and landowner, such as site salvage. Significant paleontological resources recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified paleontologist according to current professional standards. The SVP provides guidelines on assessment and mitigation of adverse impacts to paleontological resources.	The District and contractor. This mitigation measure shall be referenced in the contract documents for the Project.	During all ground-disturbing activities.	If any find is determined to be significant, representatives of the District shall document consultation with a qualified geologist or paleontologist and document the determination of recommended protection and avoidance measures or other appropriate mitigation. The District shall prepare a brief memorandum incorporating notes and records from the contractor and qualified geologist or paleontologist to document steps taken to comply with the avoidance measures or other appropriate mitigation. The memorandum shall be kept on file at the District's offices.	The evaluation and recording of any newly identified paleontological resources and unique geologic features, and treatment by avoidance, protection, or documentation of any discovered resource that qualify as significant.

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program	Standards for Success
Hazards and Hazardous Resources				
Mitigation Measure GEO-1: Prepare and Implement a SWPPP *See Geology and Soils section above*	*See Geology and Soils Section above*	*See Geology and Soils Section above*	*See Geology and Soils Section above*	*See Geology and Soils Section above*
Mitigation Measure TRA-1: Prepare and Implement a Traffic Control Plan *See Transportation section below*	*See Transportation section below*	*See Transportation section below*	*See Transportation section below*	*See Transportation section below*
Mitigation Measure WILD-1: Prepare and Implement a Fire Safety Plan *See Wildfires Section below*	*See Wildfires Section below*	*See Wildfires Section below*	*See Wildfires Section below*	*See Wildfires Section below*
Mitigation Measure HAZ-1: Prepare and Implement a Hazardous Materials Release Prevention Plan The District shall create and implement a Hazardous Materials Release Prevention Plan to reduce the risk of exposure to hazards due to the handling of hazardous materials during construction. The plan shall identify control measures to prevent the release of hazardous materials, as well as a detailed action plan to respond to an incidental spill in compliance with all local, State, and federal regulations relating to the handling and disposal of hazardous materials. The plan shall include, but would not be limited to, the following: • Containment and cleanup equipment (e.g., absorbent pads, mats, socks, granules, drip pans, shovels, and lined clean drums) shall be at the staging areas and construction sites for use, as needed. • Staging areas where refueling, storage, and maintenance of equipment occur shall not be located within 100 feet of drainages to reduce the potential for contamination by spills. • Construction equipment shall be maintained and kept in good operating condition to reduce the likelihood of line breaks or leakage. • No refueling or servicing shall be done within 25 feet of a waterway and without absorbent material (e.g., absorbent pads, mats, socks, pillows, and granules) or drip pans underneath to contain spilled material. If these activities result in an accumulation of materials on the soil, the soil shall be removed and properly disposed of as hazardous waste. • If a spill is detected, construction activities shall immediately cease in the area, and the procedures described in the plan shall be immediately enacted to safely contain and remove spilled materials. • Hazardous waste shall not be stored or accumulated within the Project area. All contaminated materials shall be classified as hazardous waste and disposed of in accordance with all local, State, and federal regulations. • Spill areas shall be restored to pre-spill conditions, as practicable. • Spills shall be documented and reported to the District and appropriate resource agency personnel.	The District shall be responsible for verifying and documenting that the Hazardous Materials Release Prevention Plan meets all applicable requirements. The selected construction contractor shall be responsible for following the plan and implementing the action plan in event of a spill. This mitigation measure shall be referenced in the contract documents for the Project.	Plan preparation shall be required prior to construction. Plan implementation shall be required throughout construction.	The Hazardous Materials Release Prevention Plan shall be developed by the construction contractor and shall be required to be kept on-site during Project activities. Additionally, the contractor shall provide the District with copies of the plan; one shall remain on file at the Project site and the other shall remain at District offices. The contractor shall ensure all construction workers involved in the operation and movement of construction equipment are familiar with the plan and that the plan is	Hazardous materials release prevention and adherence to plan conditions and release prevention practices.

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program	Standards for Success
			appropriately followed throughout construction.	
Hydrology and Water Quality				
Mitigation Measure GEO-1: Prepare and Implement a SWPPP *See Geology and Soils section above*	*See Geology and Soils Section above*	*See Geology and Soils Section above*	*See Geology and Soils Section above*	*See Geology and Soils Section above*
Mitigation Measure HAZ-1: Prepare and Implement a Hazardous Materials Release Prevention Plan *See Hazards and Hazardous Materials section above*	*See Hazards and Hazardous Materials section above*	*See Hazards and Hazardous Materials section above*	*See Hazards and Hazardous Materials section above*	*See Hazards and Hazardous Materials section above*
Mitigation Measure BIO-8: Avoid and Minimize Impacts to Riparian Habitat *See Biological Resources section above*	*See Biological Resources section above*	*See Biological Resources section above*	*See Biological Resources section above*	*See Biological Resources section above*
Mitigation Measure BIO-9: Avoid and Minimize Impacts to Waters of the United States and Waters of the State *See Biological Resources section above*	*See Biological Resources section above*	*See Biological Resources section above*	*See Biological Resources section above*	*See Biological Resources section above*
Public Services				
Mitigation Measure TRA-1: Prepare and Implement a Traffic Control Plan *See Transportation section below*	*See Transportation section below*	*See Transportation section below*	*See Transportation section below*	*See Transportation section below*
Transportation				
Mitigation Measure TRA-1: Prepare and Implement a Traffic Control Plan The construction contractor and/or the District shall prepare and implement a traffic control plan. The traffic control plan shall contain detailed measures approved by the County in order to ensure acceptable levels of traffic flow, emergency response notification and response times, and public and school bus transit coordination and detours. The plan shall include at a minimum: discussion of expected construction schedule and locations, traffic control measures, residential access procedures, and coordination with and notification of residents, emergency response agencies, and school districts affected by lane and road closures to ensure delays are minimized, detours are noticed, and that emergency access remains possible at all times.	The District shall ensure the selected contractor appropriately prepares and implements the traffic control plan in accordance with all applicable guidelines and the requirements of this mitigation measure through approval by County Department of Transportation. This mitigation measure shall be	Prior to and during construction.	The District shall monitor and coordinate with the contractor during weekly construction meetings to ensure that the traffic control plan is implemented successfully as documented in inspection logs, and the traffic control plan	Traffic flow remains at acceptable levels, emergency access remains reasonably possible at all times, school bus routes in the area and residents are appropriately apprised of road

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program	Standards for Success
	referenced in the contract documents for the Project.		shall remain on file at the District.	closures, delays, and lane restrictions, and the Project area remains in compliance with all applicable transportation goals, policies, and requirements.
Tribal Cultural Resources				
Mitigation Measure TRIB-1: Implement Best Management Practices to Reduce or Avoid Impacts on Tribal Cultural Resources The District shall implement the following measure to reduce or avoid impacts on tribal cultural resources (TCRs). If interested Native American tribe(s) provide information demonstrating the significance of the Project site and specific evidence supporting the determination that the site is sensitive for TCRs, the District will conduct a site visit with tribal representatives to evaluate the potential for TCRs at the Project site. If tribal representatives and the District determine the site is sensitive for TCRs and that the proposed Project may have a significant impact on TCRs, the District, in consultation with tribal representatives, will develop and implement best management practices (BMPs) to reduce or avoid impacts on TCRs. BMPs may include but are not limited to: 1) modify the proposed Project to preserve the TCRs in place, 2) establish exclusion zones and/or minimize work activities in proximity to TCRs, or (3) implement other recommendations developed in consultation with tribal representatives to minimize potential impacts to TCRs.	The District and contractor. This mitigation measure shall be referenced in the contract documents for the Project.	Prior to and during implementation of ground disturbing Project activities	If subsurface TCRs resources are uncovered during Project ground disturbing activities, the District's contractor shall complete the above activities.	Protection of TCRs.
Mitigation Measure TRIB-2: Tribal Cultural Resource Awareness Training The District shall provide TCR awareness training for workers prior to beginning Project construction activities. The District shall utilize information provided by culturally affiliated tribal representatives to develop the training materials (i.e., printed handouts) that provide information on the following topics: How to recognize TCRs • What to do if TCRs are suspected or encountered in the Project area • Information on avoidance and other measures relevant to TCRs • Confidentiality and culturally appropriate treatment of TCRs • Information on regulations and applicable civil and criminal penalties for violations The training materials will be shared with tribal representatives and tribal representatives will be invited to participate in the training. The training shall be presented to Project personnel at the Project kickoff. Printed handouts shall be distributed and used for future reference by Project personnel. A roster of trained Project	The District and contractor. This mitigation measure shall be referenced in the contract documents for the Project.	Training shall be conducted before work begins, and new personnel shall be trained before initiating on-site work.	The training shall be conducted by trained personnel and documented (by sign-in sheet or other method) by the District's contractor for the dates the training occurred, and the staff trained. Retention of the training reference pamphlets shall also	Construction personnel are trained in the key characteristics for identifying and avoiding impacts to TCRs.

Mitigation Measure	Responsible Party	Monitoring Timing	Monitoring and Reporting Program	Standards for Success
personnel shall be maintained in the Project construction office and made available for review by regulatory agencies and culturally affiliated tribal representatives if needed. This training may be conducted in coordination with the cultural resources awareness training (MM CUL-2), paleontological resources training (MM GEO-2), and biological resources awareness training (MM BIO-2).			be kept on the construction site and within District files.	
Mitigation Measure TRIB-3: Proper Handling of Inadvertent Discovery of Tribal Cultural Resources The District shall implement the following measure to reduce or avoid impacts and address the evaluation and treatment of inadvertent discoveries of potential TCRs during Project activities. If any suspected TCRs are discovered during Project construction activities, all work shall cease within 100-feet of the discovery. The District shall invite a tribal representative from culturally affiliated tribes to visit the site and examine the discovery to determine whether or not the discovery represents a TCR (PRC §21074). Tribal representatives shall have 48 hours to respond to the District's notification and schedule a site visit. If the discovery represents a TCR, the District will work with tribal representatives to develop recommendations for culturally appropriate treatment. Recommendations may include but are not limited to: (1) modifying the Project to preserve the TCR in place, (2) establishing exclusion zones and/or minimizing work activities in proximity to the TCR, or (3) implementing other recommendations developed in consultation with tribal representatives to minimize potential impacts to the TCR. Work at the discovery location will not resume until the agreed upon treatment has been implemented to the satisfaction of the District. See MM CUL-1 for an inadvertent discovery that qualifies as a historical or a unique archaeological resource.	The District; the contractor. This mitigation measure shall be referenced in the contract documents for the Project.	Prior to and during implementation of ground disturbing Project activities.	If TCRs are encountered during Project ground disturbing activities, the District's contractor shall complete the above activities.	Protection of TCRs.
Wildfires				
Mitigation Measure WILD-1: Prepare and Implement a Fire Safety Plan The District shall require the Project contractor to prepare a Fire Safety Plan prior to construction activities and to implement the Fire Safety Plan during all vegetation removal and construction activities. The plan shall describe preventative measures for fire protection; procedures for evaluating weather conditions during which fire risk is elevated (conditions under which activities would cease due to elevated fire conditions); equipment used to prevent fire and respond to a fire immediately; personnel responsibilities and assignments to implement the Fire Safety Plan; and other measures to reduce fire risk during construction.	Responsible Party: The District shall ensure the selected contractor appropriately prepares and implements the Fire Safety Plan in accordance with all applicable guidelines and the requirements of this mitigation measure. This mitigation measure shall be referenced in the contract documents for the Project.	Timing: Prior to and during construction.	The District shall monitor and coordinate with the contractor during weekly construction meetings to ensure that the Fire Safety Plan is implemented successfully as documented in inspection logs, and the Fire Safety Plan shall remain on file at the District.	Fire prevention through adherence to plan conditions and fire prevention practices.

E.4 References

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