

Sacramento Municipal Utility District

El Rio Substation Project

Draft Initial Study and Mitigated Negative Declaration •
September 2023



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Draft Initial Study and Mitigated Negative Declaration • September 2023

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LIST OF ABBREVIATIONS

AB	Assembly Bill
ACM	asbestos-containing material
APN	Assessor's Parcel Number
ARB	California Air Resources Board
ATSDR	Agency for Toxic Substances and Disease Registry
BACT	Best Available Control Technology
BMP	best management practice
CAAQS	California ambient air quality standards
CAL FIRE	California Department of Forestry and Fire Protection
CalEPA	California Environmental Protection Agency
Cal/OSHA	California Division of Occupational Safety and Health
CalEEMod	California Emissions Estimator Model
CalEnviroScreen	California Communities Environmental Health Screening Tool
Caltrans	California Department of Transportation
CBC	California Building Code
CCVT	capacitor-coupled voltage transformers
CCR	California Code of Regulations
CDC	Centers for Disease Control and Prevention
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CGP	Construction General Permit
CGS	California Geological Survey
CHRIS	California Historical Resources Information System
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNG	compressed natural gas
CNPS	California Native Plant Society
CO ₂	carbon dioxide
CRHR	California Register of Historical Resources
CT	current transformer
CUPA	Certified Unified Program Agency
DAC	disadvantaged community
dB	Decibel

dBA	A-Weighted Decibel
DDT	Dichlorodiphenyltrichloroethane
DOC	California Department of Conservation
DPM	Diesel-exhaust particulate matter
Draft IS/MND	draft initial study/mitigated negative declaration
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
EJ	Environmental Justice
EMD	Environmental Management Department
ESA	federal Endangered Species Act
ESA Phase I	Environmental Site Assessment
FEMA	Federal Emergency Management Agency
FMMP	Farmland Mapping and Monitoring Program
FTA	Federal Transit Authority
GGRF	Greenhouse Gas Reduction Fund
GHG	Greenhouse gas
HMBP	Hazardous Materials Business Plan
HRSA	Health Resources & Services Administration
I-80	Interstate 80
in/sec	inch per second
kV	Kilovolt
L _{eq}	Energy Equivalent Noise Level
L _{max}	Maximum Noise Level
L _{min}	Minimum Noise Level
L _{dn} or DNL	Day-Night Average Noise Level
LBP	lead-based paint
lbs/day	pounds per day
LED	light emitting diode
LNG	liquefied natural gas
LUSTs	leaking underground storage tanks
MMRP	mitigation monitoring and reporting program
MTCO _{2e}	metric tons per year of CO ₂ equivalent
MVA	megavolt amperes
MVAR	megavolt amperes reactive
NAAQS	national ambient air quality standards

NAHC	Native American Heritage Commission
NASb	North American Subbasin
NCIC	North Central Information Center
NESHAP	National Emission Standard for Hazardous Air Pollutants
NMFS	National Marine Fisheries Service
NOA	naturally occurring asbestos
NOI	notice of intent
NO _x	nitrogen oxides
NPDES	National Pollution Discharge Elimination System
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
OEHHA	Office of Environmental Health Hazards Assessment
OHWM	ordinary high water mark
OPR	Governor's Office of Planning and Research
OSHA	Occupational Safety and Health Administration
PCBs	polychlorinated biphenyls
PF	Public Facility
PT	potential transformers
PM	particulate matter
ppm	parts per million
PPV	peak particle velocity
PRC	Public Resources Code
project	El Rio Substation Project
RLECP	Rio Linda and Elverta Community Plan
RLECWD	Rio Linda Elverta Community Water District
ROG	reactive organic gases
RWQCB	Regional Water Quality and Control Board
SB	Senate Bill
SF ₆	Sulfur Hexafluoride
SGMA	Sustainable Groundwater Management Act
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMUD	Sacramento Municipal Utility District
SPCC	Spill Prevention Control and Countermeasure
SSBMI	Shingle Springs Band of Miwok Indians
SSC	species of special concern

SVAB	Sacramento Valley Air Basin
SVI	Social Vulnerability Index
SVP	Society of Vertebrate Paleontology
SWPPP	storm water pollution prevention plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
THRIS	Tribal Historic Information System
TMDL	Total Maximum Daily Load
TPH	total petroleum hydrocarbons
UAIC	United Auburn Indian Community
UCMP	University of California Museum of Paleontology
USEPA	United States Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
UST	underground storage tank
VMT	vehicle miles traveled
WAPA	Western Area Power & Administration
WEAP	Worker Environmental Awareness Program
WEAT	Worker Environmental Awareness Training
WDR	waste discharge requirement

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1.0 INTRODUCTION

1.1 Project Overview

The Sacramento Municipal Utility District (SMUD) is proposing the El Rio Substation Project (“project”) to construct and operate a new substation and decommission and remove outdated equipment at the existing Elverta Substation. The proposed El Rio Substation would be located on and adjacent to the Elverta Substation, south of Elverta Road and west of El Rio Avenue, in the unincorporated community of Elverta, California. The proposed El Rio Substation would include new transformers and circuit breakers, a substation control building, paved access, fencing, lighting, stormwater drainage and utilities. North of the substation, two existing electrical towers carrying 230-kilovolt (kV) transmission lines would be replaced with two or three steel monopoles (also known as steel tubular poles) on a new alignment to tie the proposed substation into the existing grid. A stormwater retention basin would be constructed within or south of the proposed El Rio Substation. Following the energization of the proposed El Rio Substation, the existing Elverta Substation would be decommissioned and outdated substation equipment dismantled and removed from the site.

1.2 Purpose of Document

This draft initial study/mitigated negative declaration (Draft IS/MND) has been prepared by SMUD to evaluate potential environmental effects resulting from the El Rio Substation Project (project). Chapter 2, “Project Description,” presents the detailed project information.

This document has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations [CCR] Section 15000 et seq.). Under CEQA, an IS can be prepared by a lead agency to determine if a project may have a significant effect on the environment (CEQA Guidelines Section 15063[a]), and thus to determine the appropriate environmental document. For this project, the lead agency has prepared the following analysis that identifies potential physical environmental impacts and mitigation measures that would reduce impacts to a less-than-significant level. SMUD is the lead agency responsible for complying with CEQA.

In accordance with CEQA, SMUD is distributing a notice of intent (NOI) to adopt a MND to solicit comments on the analysis and mitigation measures presented in this Draft IS/MND. The NOI will be distributed to property owners within a minimum of 1,000 feet of the project, as well as to the State Clearinghouse/Governor’s Office of Planning and Research and each responsible and trustee agency. This Draft IS/MND will be available for review and comment from September 5 to October 5, 2023.

Written comments (including those submitted via e-mail) must be received by close of business on October 5, 2023. Letters should be addressed to:

SMUD–Environmental Services
P.O. Box 15830 MS B209
Sacramento, CA 95852-1830
Attn: Ammon Rice

E-mail comments should be addressed to **Ammon.Rice@smud.org**. Anyone with questions regarding the NOI or Draft IS/MND may call Ammon Rice at 916.732.7466.

Digital copies of the NOI and Draft IS/MND are available: <https://www.smud.org/CEQA>. Hard copies of the NOI and Draft IS/MND are available for public review at the following locations:

Sacramento Municipal Utility District
Customer Service Center
6301 S Street
Sacramento, CA 95817

Sacramento Municipal Utility District
East Campus Operations Center
4401 Bradshaw Road
Sacramento, CA 95827

1.3 Public Review Process

This Draft IS/MND is being circulated for a 30-day public comment period and is available at the locations identified above. Following the 30-day public review period, a final IS/MND will be prepared, presenting written responses to comments received on significant environmental issues. Before SMUD’s Board of Directors makes a decision on the project, the final IS/MND will be provided to all parties commenting on the Draft IS/MND.

1.4 SMUD Board Approval Process

The SMUD Board of Directors must adopt the IS/MND and approve the mitigation monitoring and reporting program (MMRP; Appendix A) before it can approve the project. The project and relevant environmental documentation will be formally presented at a SMUD Environmental Resources and Customer Service Committee meeting for information and discussion. The SMUD Board of Directors will then consider adopting the final IS/MND and MMRP at its next regular Board meeting. Meetings of the SMUD Board of Directors are generally held on the third Thursday of each month.

1.5 Document Organization

This Draft IS/MND is organized as follows:

Chapter 1, “Introduction”: This chapter provides an introduction to the environmental review process and describes the purpose and organization of this document.

Chapter 2, “Project Description”: This chapter provides a detailed description of the project.

Chapter 3, “Environmental Checklist”: This chapter presents an analysis of a range of environmental issues identified in the CEQA Environmental Checklist and determines whether the project would result in no impact, a less-than-significant impact, or a less-than-significant impact with mitigation incorporated. Where needed to reduce impacts to a less-than-significant level, mitigation measures are presented.

Chapter 4, “Environmental Justice Analysis”: Although not required by CEQA, SMUD has elected to prepare an evaluation of potential environmental justice issues related to the project.

Chapter 5, “List of Preparers”: This chapter lists the organizations and people who prepared the document.

Chapter 6, “References”: This chapter lists the references used in preparation of this Draft IS/MND.

1.6 Environmental Factors Potentially Affected

Impacts on the environmental factors below are evaluated using the checklist included in Chapter 3. SMUD determined that the environmental factors checked below would be less than significant with implementation of mitigation measures. It was determined that the unchecked factors would have a less-than-significant impact or no impact.

- | | | |
|--|---|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input checked="" type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input checked="" type="checkbox"/> Geology / Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input checked="" type="checkbox"/> Hazards & Hazardous Materials |
| <input type="checkbox"/> Hydrology / Water Quality | <input type="checkbox"/> Land Use / Planning | <input type="checkbox"/> Mineral Resources |
| <input checked="" type="checkbox"/> Noise | <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation / Traffic | <input checked="" type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities / Service Systems | <input type="checkbox"/> Wildfire | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

1.7 Determination

On the basis of this initial evaluation:

- I find that the proposed project could not have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project COULD have a significant effect on the environment, there WILL NOT be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Signature

09/04/2023

Date

Ammon Rice

Printed Name

Supervisor, Environmental Services

Title

Sacramento Municipal Utility District

Agency

2.0 PROJECT DESCRIPTION

SMUD is proposing to construct and operate a new 230-115-69 kV substation that would replace the existing Elverta Substation located south of Elverta Road and just west of El Rio Avenue in Elverta, California. Using transformers, substations transfer power from the transmission system to the distribution system that serves a particular area. The substation reduces the voltage from the large transmission lines and moves power into a system that powers residential and commercial customers. The proposed substation would convert or “step down” voltage from 230 kV transmission lines to 115 kV and 69 kV through transformers for local distribution. The El Rio Substation Project (hereafter referred to as “project”) is proposed to be constructed on a portion of the existing Elverta Substation as well as on the 4.4-acre property immediately east of the Elverta Substation. The existing Elverta Substation would be decommissioned and removed from the site as it is nearing the end of its service life. The proposed project components would include the El Rio Substation and the installation of two or three new towers for relocation of existing transmission lines to tie the proposed substation into the existing grid.

2.1 Project Location

The project is located in a rural area of Sacramento County on the southwest corner of Elverta Road and El Rio Avenue in the census-designated place of Elverta, California (Figure 2-1). The project site consists of the 5.5-acre existing Elverta Substation as well as the 4.4-acre property to the east and a transmission easement to the north that encompasses the two existing transmission towers to be removed and the planned layout line on which the two or three new transmission towers will be installed (hereafter the “project site”) (Figure 2-2). Elevation at the project site ranges from 36 to 49 feet above mean sea level.

The project site can be accessed from the south via Interstate 80 (I-80) and from the west via State Route 99. The project site is located approximately 3.25 miles east of State Route 99/Elverta Road interchange and approximately 7 miles north of the I-80/Raley Boulevard interchange. Current access to the project site is obtained through a gated driveway on Elverta Road.

2.2 Project Objectives

The objectives of the project are to:

- contribute to SMUD’s goals for ensuring electrical service reliability;
- provide safe and reliable electrical service to existing and proposed development in the northern Sacramento County and Natomas areas;
- provide greater operational flexibility between circuits and substations in the area;
- maximize the use of available SMUD property and resources; and
- minimize impacts to nearby sensitive receptors and sensitive natural communities.

2.3 Background Information

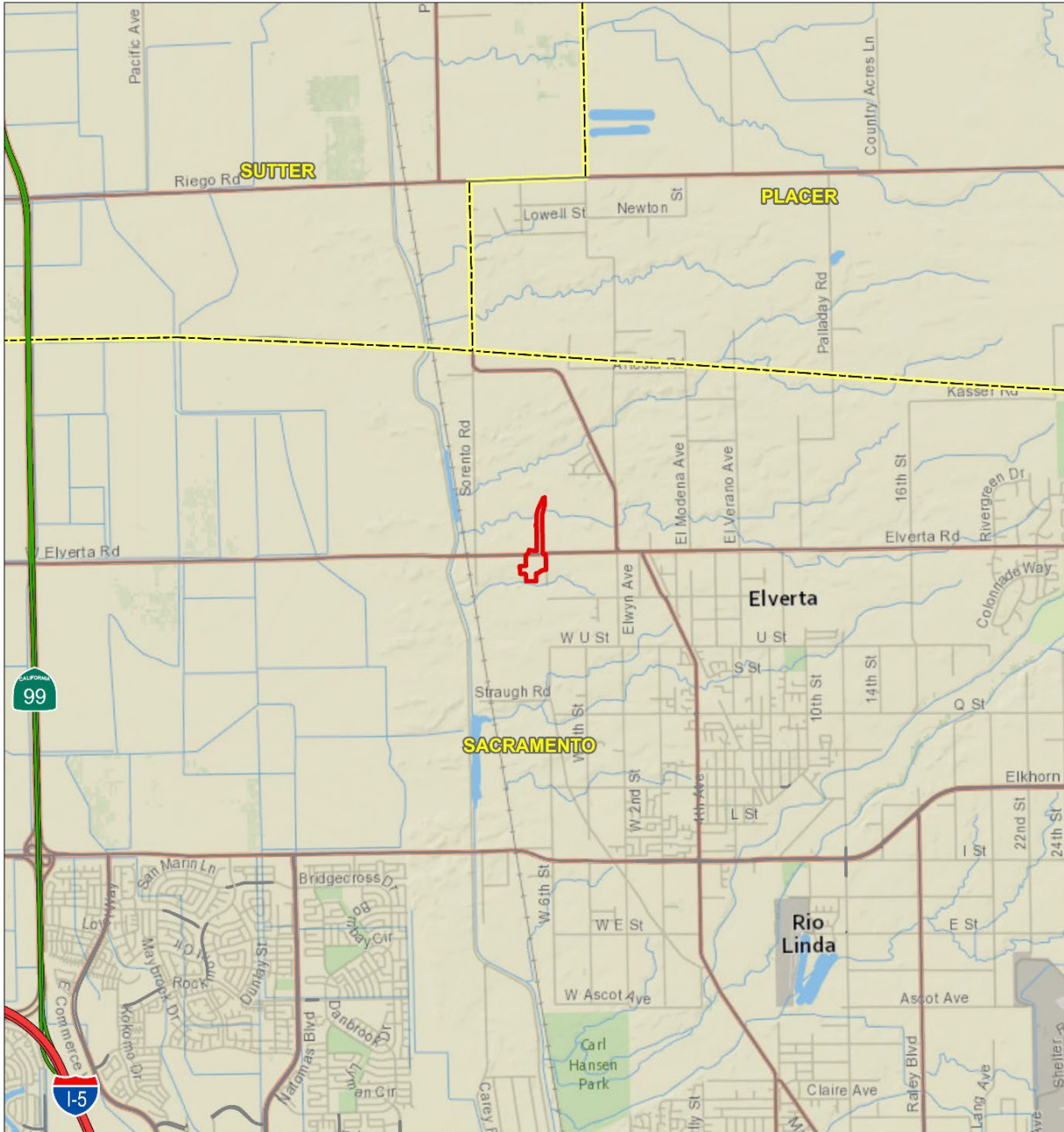
The existing substation, constructed in 1954, is located on 5.5 acres, which are under easement to SMUD from the Western Area Power & Administration (WAPA). The 58.5-acre parcel owned by WAPA, Assessor Parcel Number (APN) 202-0090-001-000, is zoned “IR – Interim Agricultural Reserve,” has a Sacramento County General Plan land use designation of “INT IND – Intensive Industrial,” and contains a WAPA substation to the west of the SMUD Elverta station.

The existing SMUD Elverta Substation consists of an outdoor switchyard including:

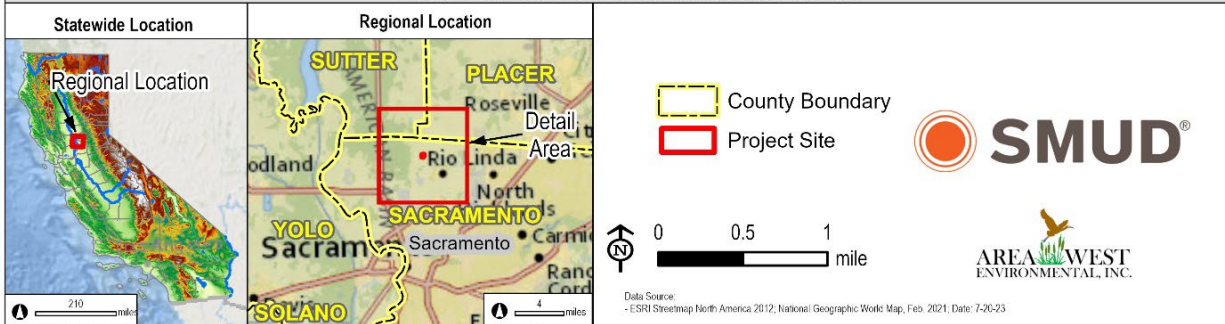
- three 230kV transmission lines;
- five 230kV circuit breakers;
- one 230/115kV 150 megavolt amperes (MVA) transformer;
- one 230/69kV 224MVA transformer;
- five 69kV transmission lines;
- nine 69kV circuit breakers; and
- two 69kV, 25 mega volt ampere reactive (MVAR) capacitor banks.

To construct the new substation, SMUD is proposing to acquire the parcel immediately east of the existing substation. The property at 604 West Elverta Road is a 4.4-acre parcel, APN 202-0090-024-000, is currently zoned “AR-5: Agricultural – Residential 5 acres” with a County General Plan land use designation as “AG-RES: Agricultural – Residential” (Sacramento County 2023). The residential property contains a house and livestock operations onsite.

Surrounding land uses include agricultural, industrial, and scattered residential residences. Rural residences are located east and south of the project site along El Rio Avenue. The ABC Ready-Mix concrete batch plant is also located on El Rio Avenue, approximately 400 feet south of the project site. Directly to the west of the project site is a WAPA-owned substation. Elverta Road is a two-lane rural road that connects the census-designated places of Elverta and Antelope to State Route 99. El Rio Avenue is a two-lane rural road used for local traffic for residents and the ABC Ready-Mix concrete batch plant.



SMUD EL RIO SUBSTATION CONSTRUCTION PROJECT



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Figure 2-1. Project Vicinity

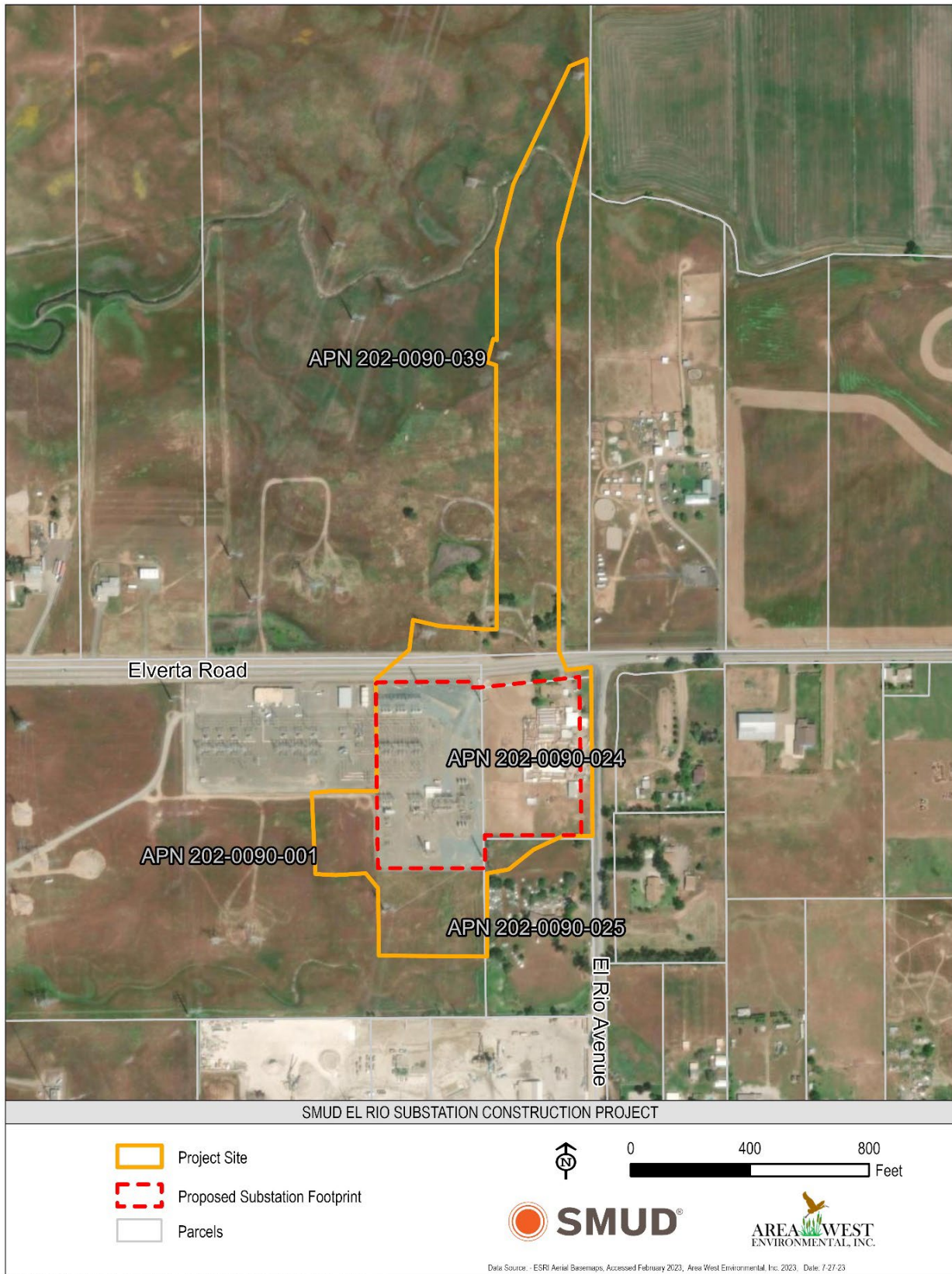


Figure 2-2. Project Site

2.4 Proposed Project

The project consists of constructing and operating a new 230-115-69kV substation that would replace the existing Elverta Substation. The substation would receive 230kV and step it down to 69kV. The El Rio Substation would be constructed on a portion of the existing Elverta Substation property, as well as on the parcel located immediately east of the existing Elverta Substation. The new substation would include new electrical equipment, a control building, driveway access, site fencing, lighting, stormwater drainage, and utilities.

2.4.1 Project Components

The proposed project consists of three primary components: constructing the proposed El Rio Substation, replacing transmission lines and towers, and decommissioning the Elverta Substation. The components of the proposed substation are depicted in Figure 2-3. The following sections provide detailed information about the proposed project components.

Proposed El Rio Substation

The proposed 9.9-acre El Rio Substation would be graded and covered in crushed gravel except where permanent concrete foundations for the control building, transformers, circuit breakers, disconnect switches, bus structures, and other equipment, and paved access roads would be built (Figure 2-4). The substation would be energized by interconnecting to the existing 230-115-69kV lines located to the north and south of the substation.

Electrical equipment

Electrical substations are an assemblage of electrical components. The main component of a substation is the switchyard, power transformers, circuit breakers, and control building.

The proposed El Rio Substation would include 230kV, 115kV and 69kV transmission lines, and require the construction of new infrastructure including:

- two 230/69kV 224MVA transformers,
- one 230/115kV 250MVA transformer,
- ten 230kV circuit breakers,
- one 115kV circuit breaker,
- eight 69kV circuit breakers,
- two 69kV capacitor banks,

- twenty-seven 230kV disconnect switches,
- two 115kV disconnect switches,
- twenty-four 69kV disconnect switches,
- seven sets of 230kV capacitor-coupled voltage transformers (CCVT),
- one set of 115kV CCVT,
- two sets of 69kV potential transformers (PT),
- one current transformer (CT)/PT Combo unit,
- Seven circuit switchers.

As employed in the existing substation, SMUD would use limited amounts of Sulfur Hexafluoride (SF₆), a common insulating gas for high-voltage electrical systems, at the project site. Use of the proposed switchgear equipment would comply with recordkeeping, reporting, and leakage emission limit requirements in California Air Resources Board (ARB) regulations for reduction of SF₆ emissions. As part of substation operations and maintenance activities, SMUD would monitor existing substation equipment to accurately and immediately identify any SF₆ leaks and immediately repair leaks that are discovered. SMUD is also an active member of the SF₆ Emission Reduction Partnership, which focuses on reducing emissions of SF₆ from transmission and distribution sources.

Control building

The proposed El Rio Substation would include a control building measuring approximately 95 feet by 42 feet with a height of 25 feet. The control building would be built on the north end of the existing Elverta Substation (Figure 2-4). The control building would be unoccupied, but would include a restroom for employee use while onsite.

Driveway Access and Fencing

The substation would include three driveway entrances: one existing gated driveway entrance from Elverta Road, one new 30-foot-wide gated driveway entrance from Elverta Road, and one new entrance from El Rio Avenue. Additionally, three 20-foot-wide and two 15-foot-wide paved access roads would be constructed within the substation (Figure 2-4). Areas that are not paved or will house equipment or structures would be covered in crushed gravel.

To maintain site security and public safety, a minimum 9-foot fence would be installed around the perimeter of the proposed substation (Figure 2-4). The fence would be chain link with barbed wire and razor ribbon at the top, similar to existing conditions.

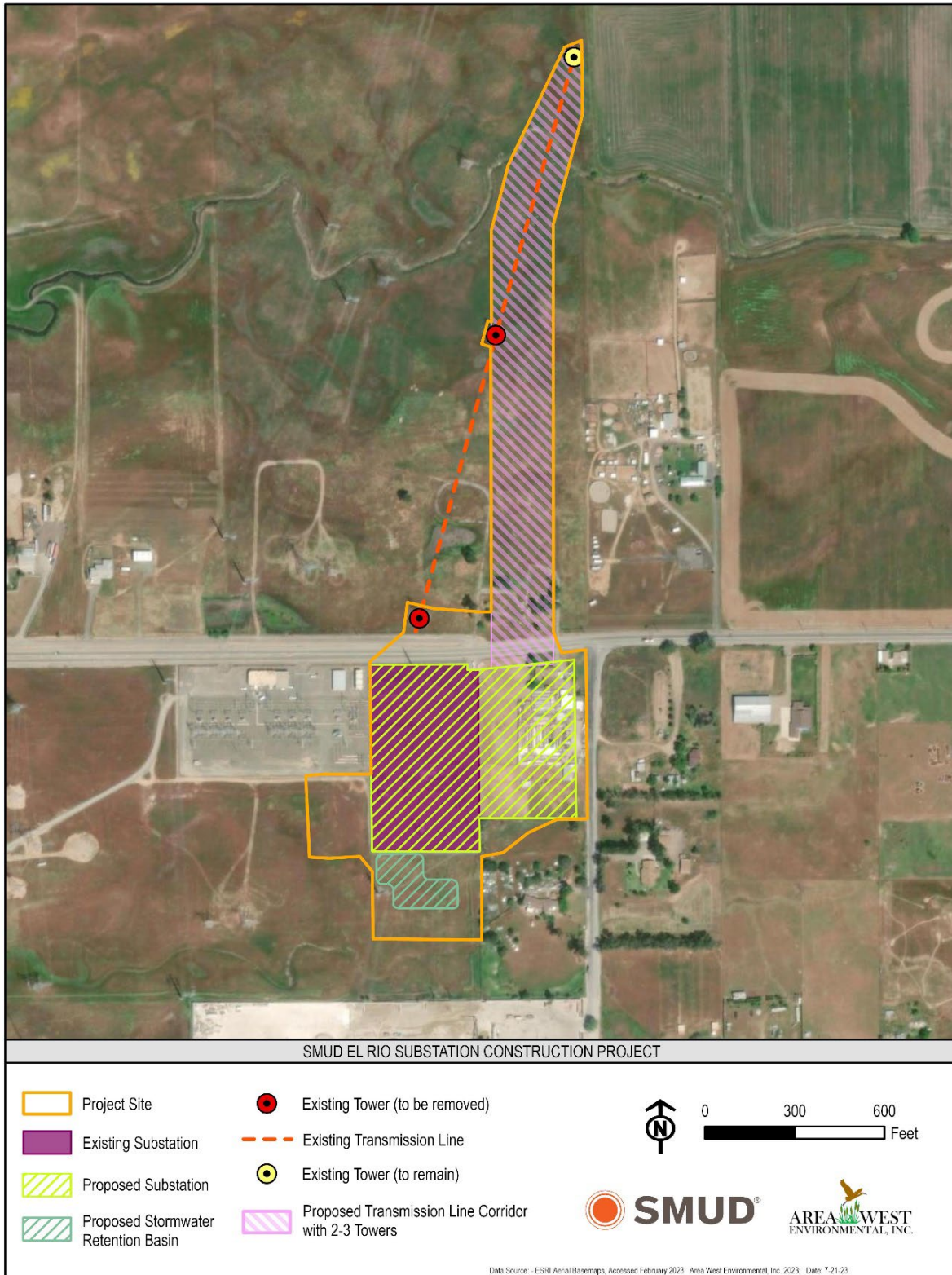


Figure 2-3. Proposed Project Elements

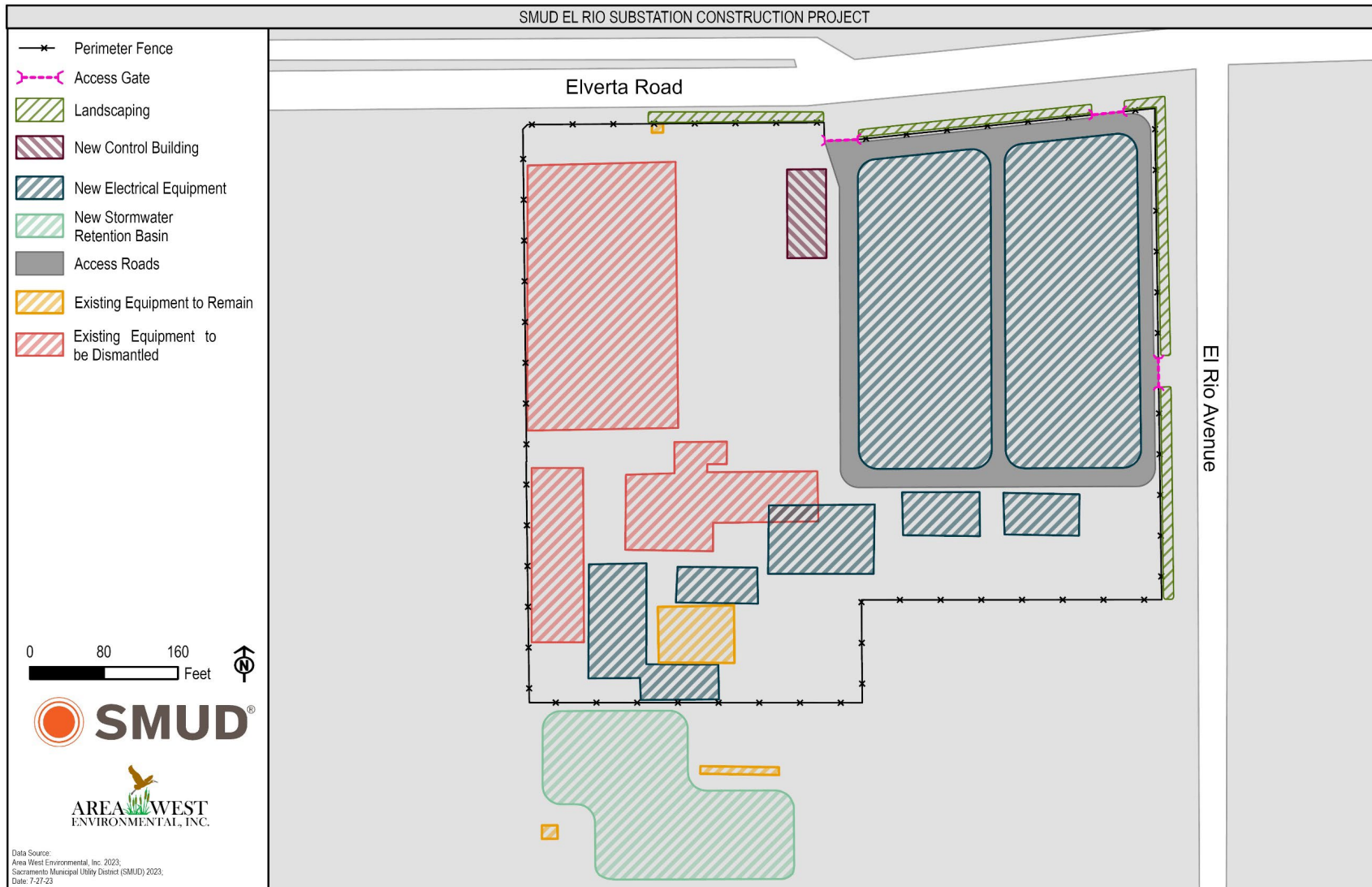


Figure 2-4. Conceptual Substation Plan

Lighting

Lighting would be provided at the substation for safety, security, and nighttime emergency maintenance and would consist of light-emitting diode (LED) light sources. Lighting would fulfill the National Electrical Safety Code requirements. Lights would likely be installed at the entry gates and various locations within the substation. Most substation lighting would be off during standard operating conditions, except on occasions when nighttime access is required. All substation lighting would be oriented downward toward major equipment to minimize glare onto surrounding properties.

Stormwater Drainage

The substation would be designed such that on-site runoff would be collected into an underground storm drain pipe system and a stormwater retention basin. The stormwater retention basin would be constructed south of the existing Elverta Substation or within the El Rio Substation footprint after the Elverta Substation is dismantled and in accordance with site drainage design requirements. In order to minimize drainage impacts from the increased amount of non-permeable surfaces (estimated to be 60,000 square feet), the proposed on-site retention basin would collect stormwater in the basin, allowing pollutants to be captured by vegetation and the water to percolate into the soil. If the stormwater retention basin were constructed outside of SMUD's current easement area on the WAPA-owned parcel, SMUD would modify the existing easement with WAPA to include the basin area.

Utilities

SMUD would install one restroom for employee use in the new control building. Water service for the restroom would be through the use of an existing water well within the Elverta Substation or SMUD would request water service from the local utility agency, the Rio Linda Elverta Community Water District (RLECWD). SMUD would install a new onsite wastewater system (septic system) to provide sewer service for the restroom.

Transmission and Distribution Lines and Poles

The proposed project would include modifying and replacing existing towers and overhead powerlines. The project would replace two lattice towers north of the proposed substation with two to three new monopole 230kV transmission towers, spaced approximately 500 to 1,000 feet apart, along a new alignment (Figure 2-3). Existing 69-115-230kV lines would be re-strung as needed to tie the proposed substation into SMUD's existing electrical grid.

Elverta Substation Decommissioning

Following the energization of the proposed El Rio Substation, the existing Elverta Substation would be decommissioned and outdated substation equipment dismantled and removed from the site, as described in Section 2.4.3 Project Construction.

2.4.2 Project Operation and Maintenance

Operation and maintenance of the proposed substation would be similar to the existing operation and maintenance of the Elverta Substation. During normal operations, the substation would be operated remotely and continuously. Substation maintenance would occur on a regular basis from two to four times per month for internal inspections and four times per year for perimeter maintenance. Major maintenance would occur about once every three years. After the substations have been in operation for an extended period of time, the transformer oil would require filtering. Impurities in the filtrate would either be removed and recycled or disposed of in accordance with federal, state, and local hazardous waste disposal requirements. Additionally, restroom and vegetation management may occur with routine operations and maintenance activities.

2.4.3 Project Construction

Construction Phasing

Construction of the proposed El Rio Substation would occur in several phases. The phases may be sequential, or they may overlap, and not all pieces of construction equipment may be used for the entire duration of a construction phase. The phases of construction would include the following:

- Site preparation
 - clearing and grubbing
 - site grading
 - drainage improvements and retention basin excavation
 - access road improvements
 - fencing installation
 - below-grade civil construction, including water and sewer lines, foundations, electrical grounding, and conduits
- Substation components
 - control building construction
 - erection of steel components and poles
 - electrical equipment installation
- Transmission and distribution lines and poles

- Decommissioning of the Elverta Substation

Site Preparation

Clearing and grubbing at the project site would include removal of existing structures such as residential buildings, barn, sheet-metal-fenced livestock enclosures, detached garage, shed-type outbuildings, ground pipes, power poles, and barbed wire fencing. Vegetation would be cleared from the site, as needed.

The proposed substation site would be graded for substation equipment, drainage, and access roads. SMUD anticipates excavation and removal of existing soil and import of backfill to re-establish grade within the site. While volumes are not yet finalized, the project currently estimates a volume of up to 6,000 cubic yards of exported soils and 7,000 cubic yards of imported fill. Imported fill, and, to the extent feasible, excavated soil, would be used to construct a raised substation pad and a paved access road. The raised pad would have a maximum side slope of 3:1.

A stormwater retention basin would be excavated within the proposed substation or south of the existing Elverta Substation in accordance with site drainage design requirements (Figure 2-3). The estimated excavation depth for the retention basin is 9 to 12 feet.

Below grade water and sewer lines and subsurface drainage components would be installed. Foundations for the control building and transistors would also be installed below grade. The maximum depth of construction within the substation site would be approximately 25 feet.

Following the installation of below grade infrastructure, 20-foot- and 15-foot-wide access roads would be paved, connecting the access points on Elverta Road and El Rio Avenue with the control building and electrical equipment.

The 9-foot chain link fence and gates with barbed wire and razor ribbon at the top would be installed around the perimeter of the substation site. Landscaping would be installed between the property line and the new chain link fence.

Substation Components

The new control building would be constructed with masonry block, concrete, or steel walls. New substation equipment and overhead electrical conductors would be installed to provide connectivity to existing incoming electrical transmission service and outgoing distribution service.

Construction would involve installing electrical conduits, grounding, and reinforced concrete foundations, and assembling the two 230/69kV 224MVA transformers, one 230/115kV 250MVA transformer, ten 230kV circuit breakers, one 115kV circuit breaker, and eight 69kV circuit breakers, two 69kV capacitor banks, twenty-seven 230kV disconnect switches, two 115kV disconnect switches, twenty-four 69kV disconnect

switches, seven sets of 230kV CCVT, one set of 115kV CCVT, two sets of 69kV PT, one CT/PT Combo unit, and seven circuit switchers.

After the substation and control building equipment are installed and tested, and all network connections are installed, the El Rio Substation would be energized and begin operations.

Subtransmission and Transmission Lines and Poles

The project would include modifying existing overhead 69, 115, and 230 kV power lines that would link the substation to SMUD's existing electrical grid.

Three 75-foot-tall steel power poles supporting 69kV electrical lines are located south of the substation near the proposed retention basin. The poles would remain in their current location and the line restrung after substation and retention basin construction is complete.

Two existing lattice towers carrying 230kV line north of the existing substation would be replaced with two or three new single-circuit tapered tubular steel transmission monopoles on a new parallel alignment (Figure 2-3). The new transmission poles would be 142 feet tall, which is approximately the same height as the existing transmission towers and would have up to 9-foot-diameter reinforced concrete foundations. Once the line is strung onto the new poles, the lattice towers would be dismantled and removed. The tower foundations would be left in place, cut off 6 feet below grade.

Installation of the two or three new transmission poles would consist of pole foundation preparation, pole installation, transfer of existing 230kV circuits, and restringing with new transmission lines. Installation of each steel transmission pole would require auguring a nine-foot-diameter hole that is up to 30 feet deep using a truck-mounted machine auger. A steel reinforcing cage would be lowered into the hole by a crane. Concrete would be poured from a truck to form the new reinforced concrete foundation. New electrical components (cross-arms, pins, insulators, etc.) would be attached to the tubular steel pole, which would then be lifted to an upright position by a crane, and bolted to the concrete foundation by workers using handheld power tools. Existing access routes (roads or farm equipment tracks) would be used, either from the north or the south, depending on the pole location. No new access roads or equipment staging areas would be developed; equipment would drive across native soils during the dry season when the soil is capable of supporting equipment.

Decommissioning Elverta Substation

After the El Rio Substation is energized, the Elverta Substation would be de-energized, and existing substation equipment, structures, and below grade infrastructure would be dismantled and removed from the site. Salvageable components would be removed for reuse; non-reusable materials would be recycled or scrapped.

Construction Schedule

Project construction is anticipated to begin during the first quarter of 2025 and commissioning and energization would occur in December 2026. SMUD anticipates the construction duration to be approximately 24 months for the new substation and approximately 3 months for decommissioning of the Elverta Substation.

Table 2-1 summarizes the timeline for the project phase. The phases may be sequential, or they may overlap.

Table 2-1. Project Phase Timeline

Project Phase	Timeline
Clearing and grubbing	3 weeks
Grading, drainage facilities, and access road improvements	16 weeks
Installation of perimeter fencing and perimeter electrical grounding	4 weeks
Installation of water and sewer lines, electrical grounding, below-ground conduits, cable troughs, and foundations	16 weeks
Construction of the control building	40 weeks
Integration of the control building with the switchyard	40 weeks
Paving of the substation interior access roads	3 weeks
Erection of structural steel components and tubular steel poles at proposed substation	8 weeks
Installation of the substation equipment and transmission and distribution lines	40 weeks
Commissioning phase	26 weeks
Decommissioning of the existing Elverta Substation	16 weeks

Personnel, Equipment, and Staging

Construction would require an average daily worker population of approximately 15 workers, with up to approximately 30 workers during peak construction activities associated with on-site demolition, re-grading, and heavy equipment deliveries. Crews would normally work Monday through Saturday from 7 a.m. to 6 p.m.

Table 2-2 provides summary of the typical and anticipated construction equipment that would be used for each project phase.

Table 2-2. Summary of Anticipated Equipment for Each Project Phase

Equipment	Project Phase
Asphalt paver	Paving
Backhoe	Clearing and grubbing, grading, fencing, below grade civil construction, control building construction, paving, decommissioning of Elverta Substation
Boom truck	Control building construction
Compactor	Clearing and grubbing, grading
Concrete truck	Fencing, below grade civil construction, control building construction,
Crane	Control building construction, erection of structural steel components and tubular steel poles, installation of new substation electrical components, decommissioning of Elverta Substation
Crew vehicles	Clearing and grubbing, grading, fencing, below grade civil construction, control building construction, paving, erection of structural steel components and tubular steel poles, installation of new substation electrical components, decommissioning of Elverta Substation
Dozer	Clearing and grubbing, grading
Excavator	Clearing and grubbing, grading, fencing, below grade civil construction, control building construction, decommissioning of Elverta Substation
Forklift	Fencing, below grade civil construction, control building construction, erection of structural steel components and tubular steel poles, installation of new substation electrical components,
Front-end Loader	Clearing and grubbing, grading, below grade civil construction, control building construction, paving, decommissioning of Elverta Substation
Generator	Clearing and grubbing, grading, fencing, below grade civil construction, control building construction, paving, erection of structural steel components and tubular steel poles, installation of new substation electrical components
Grader	Clearing and grubbing, grading
Manlift	Control building construction, erection of structural steel components and tubular steel poles, installation of new substation electrical components
Scraper	Clearing and grubbing, grading
Semi-end dump truck	Clearing and grubbing, grading, fencing, below grade civil construction, control building construction, paving, decommissioning of Elverta Substation

Equipment	Project Phase
Semi-flatbed truck	Fencing, below grade civil construction, control building construction, erection of structural steel components and tubular steel poles, installation of new substation electrical components
Service truck	Clearing and grubbing, grading, fencing, below grade civil construction, control building construction, paving, erection of structural steel components and tubular steel poles, decommissioning of Elverta Substation
Skid steer with drills	Fencing, below grade civil construction, control building construction
Tandem haul trucks	Clearing and grubbing, grading
Transformer oil processing equipment	Installation of new substation electrical components
Truck-mounted drill rig	Below grade civil construction, control building construction,
Vibratory roller	Clearing and grubbing, grading, fencing, below grade civil construction, control building construction, paving, decommissioning of Elverta Substation
Water truck/sweeper	Clearing and grubbing, grading, fencing, below grade civil construction, control building construction, paving, erection of structural steel components and tubular steel poles, installation of new substation electrical components, decommissioning of Elverta Substation
Welder	Below grade civil construction, control building construction, erection of structural steel components and tubular steel poles

Staging for construction equipment and a materials laydown area would be located within the existing substation. During construction, access to the staging area would be maintained, with primary access through the existing Elverta Substation.

Construction materials would be delivered to the site and stored on the project site or in the designated staging and laydown area. Deliveries would be made by concrete trucks, flatbed trucks, and tractor-trailer rigs. Hazardous materials, including paint, grease, epoxies, and oil would be delivered to the site, and stored in either storage lockers or covered containers, in accordance with local, state, and federal requirements. Once the electrical equipment has been installed, transformer oil and sealed batteries would be delivered and stored in approved containers.

2.5 Potential Permits and Approvals Required

Elements of the project could be subject to the permitting and/or approval authority of other agencies. As the lead agency pursuant to CEQA, SMUD is responsible for considering the adequacy of this IS/MND and determining whether the project should be approved. The following agencies could require permits or approvals as part of project implementation:

- **State Water Resources Control Board (SWRCB)/Central Valley Regional Water Quality Control Board (RWQCB):** The RWQCB issues Construction Storm Water Discharge Permits under Water Quality Order 2009-009-DWQ for projects that disturb more than one acre of land. The permit would require preparation and implementation of a stormwater pollution prevention plan (SWPPP) that would specify storm water best management practices (BMPs).

Should dewatering of the construction site occur, the project would apply for coverage under Water Quality Order 2003-0003-DWQ, which permits small and/or temporary dewatering projects (i.e., excavations during construction).

- **California Department of Transportation (Caltrans):** Caltrans issues permits for movement of oversized or excessive loads on state highways.
- **Sacramento Metropolitan Air Quality Management District (SMAQMD):** Authority to Construct/Permit to Operate pursuant to SMAQMD Regulation 2 (Rule 201 et seq.).
- **Sacramento County:** The project would require permits from the Sacramento County Environmental Management Department:
 - On-Site Wastewater Treatment Permit
 - Cathodic Protection Well Permit

3.0 ENVIRONMENTAL IMPACT EVALUATION

3.0 Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
4. “Negative Declaration: Less Than Significant with Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less-Than-Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less-than-significant level (mitigation measures from “Earlier Analyses,” as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063I(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

- c) **Mitigation Measures.** For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. **Supporting Information Sources:** A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
 - a) the significance criteria or threshold, if any, used to evaluate each question;
and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significance.

3.1 Aesthetics

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
I. Aesthetics.				
Except as provided in Public Resources Code Section 21099 (where aesthetic impacts shall not be considered significant for qualifying residential, mixed-use residential, and employment centers), would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.1.1 Environmental Setting

Aesthetic resources are generally defined as both the natural and built features of the landscape that contribute to the public’s experience and appreciation of the environment. Aesthetic impacts may occur depending on the extent to which the implementation of a project would negatively alter the public’s perception of the visual character and quality of the environment, where visual character is defined by available public views (vistas) and/or available resources.

A scenic vista is generally defined as an expansive view of a highly valued landscape observable from a publicly accessible vantage point or from a designated scenic highway. Scenic resources are physical features that provide scenic value to a project site and its surroundings. These typically include topographic, geologic, hydrologic, and biological resources (e.g., hills, rock outcroppings, creeks, woodlands, or landmark trees) and also can include historic buildings. Some state and county highways are also considered scenic.

The area immediately surrounding the project site is relatively flat and open and comprises lands zoned agricultural, agricultural reserve, and agricultural residential. Agricultural uses include, but are not limited to, rice, hay, and animal production. Rural residences are located east and south of the project site along El Rio Avenue. The ABC Ready-Mix concrete batch plant is also located on El Rio Avenue, approximately 400 feet south of the project site. Directly to the west of the project site is a WAPA-owned substation. To the south of the ABC Ready-Mix concrete plant is a parcel zoned heavy industrial that is used for a 10-megawatt solar power generation facility (Sacramento County, 2023).

Views from publicly accessible roadways in the immediate vicinity surrounding the project site are dominated by flat, open fields with scattered trees, overhead utility lines and poles, and industrial, residential and agricultural structures. The vertical components in the existing substations (SMUD and WAPA) add an industrial element to views along Elverta Road.

Viewer groups of the project site predominantly consist of motorists traveling east or west on Elverta Road, motorists traveling north or south on El Rio Avenue, and residents of rural residences near El Rio Avenue. East Levee Road offers a more distant partial view of the project site through tree-lined road sections, agricultural buildings, and WAPA infrastructure.

There are no designated or eligible state or county scenic highway segments within 3 miles of the project site. The only officially designated scenic highways in Sacramento County are River Road (County Route 160), which borders the Sacramento River between the communities of Isleton and Paintersville, and State Route 160 between Antioch and the Sacramento City limits (Caltrans 2020).

The County of Sacramento General Plan (Public Facilities Element 1993) and the Sacramento County Zoning Code (2015) describe goals, policies, and design requirements directly related to the site selection and design of new electrical utility facilities. Most of the stated goals and policies are applicable to new substation sites rather than substation replacement. However, aesthetic goals, policies, and design requirements directly applicable to the project are listed below.

Objective: Minimize the health, safety, aesthetic, cultural, agricultural and biological impacts of energy facilities in Sacramento County.

Public Facility Policy (PF)-68: Cooperate with the serving utility in the location and design of energy production and distribution facilities in a manner that is compatible with surrounding land uses by employing the following methods when appropriate to the site:

- Visually screen facilities with topography and existing vegetation and install site-appropriate landscaping consistent with surrounding land use zone development standards where appropriate, except where it would adversely affect access to

utility facilities, photovoltaic performance or interfere with power generating capability.

- Provide site-compatible landscaping.
- Minimize glare through siting, facility design, nonreflective coatings, etc. except for the use of overhead conductors.
- Site facilities in a manner to equitably distribute their visual impacts in the immediate vicinity.

Objective: Ensure the provision of safe, reliable, efficient and economical electric service while minimizing potential land use conflicts, and health, safety, environmental, and aesthetic impacts of transmission facilities.

PF-85: To minimize visual impacts and protect the county's visual and aesthetic resources, new bulk substations should be located in industrial and non-retail commercial areas when possible. To further minimize visual intrusion and potential land use conflicts, substations shall be enclosed with site-appropriate security fence in concert with a landscaped setback along all public street frontages.

Objective: Plan and design transmission facilities to minimize visual impacts, preserve existing land uses, and avoid biological and cultural resources.

PF-89. Wherever feasible, utilize existing transmission poles to accommodate new overhead transmission lines. If practical, existing and future transmission corridors should be shared by more than one utility company subject to the Northern California Joint Pole Agreement.

PF-96. Locate transmission facilities in a manner that maximizes the screening potential of topography and vegetation

PF-97: Utilize monopole construction, where practicable, to reduce the visual impact on a corridor's middle and distant views.

Sacramento County Zoning Code (2015) Section 3.6.6.A Utility and Public Service Facility Uses, 3.6.6.A.1.c Substations should be designed and constructed in such a manner as to minimize off-site visual and noise impacts. Planted or landscaped setback of at least 31 feet should be provided on all public street frontages of the parcel.

3.1.2 Discussion

- a) **Have a substantial adverse effect on a scenic vista?**
- c) **In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?**

Less than Significant. The project would include decommissioning the existing Elverta Substation and the development of the new El Rio Substation on the adjacent lot and part of the existing substation lot. Components of the new substation would include new electrical equipment, a control building, driveway access, site fencing, lighting, stormwater drainage, and utilities. Planned ground treatments will observe a 31-foot setback from both El Rio Avenue and Elverta Road and will include concrete foundations for electrical components, pavement on new access driveways, and gravel. Aesthetic landscaping treatment would be applied to the project outside of the proposed fencing along Elverta Road and El Rio Avenue and is expected to be similar to the existing treatment (*Agavaceae* plants). The project would also include the removal of two existing lattice towers to the north of the proposed substation site and replacement with two or three new 142-foot-tall steel monopoles located on a new alignment immediately east of the existing lattice towers.

Views of the proposed substation components, building, fencing and lighting, would be similar to existing views of the Elverta Substation but would move the structures closer to El Rio Avenue. Direct views of the new substation and transmission poles would be available from Elverta Road and El Rio Avenue.

The project site would have a visual character similar to that of the existing conditions (i.e., substation with transmission poles). The project would not substantially change the quality and character of views from publicly accessible roads. By maintaining the character of the existing viewshed, views would not be substantially degraded.

The project is consistent with Sacramento County General Plan policies and zoning code for substations and transmission lines. According to the County of Sacramento General Plan, the replacement of the lattice style poles with monopoles would reduce the existing visual impact and result in a slight aesthetic improvement in the area. The project meets Sacramento County goals and requirements for setbacks and design.

The project would have a **less-than significant** impact on scenic vistas and the visual character and quality of public views, and no mitigation is required.

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

No Impact. There are no designated or eligible state or county scenic highway segments within 3 miles of the project site. The project would have ***no impact***, and no mitigation is required.

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

Less than Significant. Construction activities would occur during daylight hours and would not require nighttime lighting apart from occasional deliveries of equipment. The project would construct new sources of lighting and sources of glare; lighting is anticipated at the entry gates and various locations within the substation. Most substation lighting would be off during standard operating conditions, except on rare occasions when nighttime access is required for urgent repairs or inspections. All substation lighting would be oriented downward toward major equipment to minimize glare onto surrounding properties. Therefore, the project would have a ***less-than-significant*** impact related to light and glare, and no mitigation is required.

3.2 Agriculture and Forestry Resources

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
II. Agriculture and Forest Resources.				
<p>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997, as updated) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland.</p> <p>In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.</p> <p>Would the project:</p>				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.2.1 Environmental Setting

The project is located in a rural area of northeastern Sacramento County. Existing land uses in the vicinity of the proposed substation are primarily agricultural, industrial, and

rural residential. Surrounding Agricultural uses include rice, pasture, and unclassified crop (California Natural Resources Agency. 2021).

The substation site and transmission line work area are located on portions of APN 202-0090-001-000, 202-0090-024-000, and 202-0030-039-000. The parcels in which the proposed substation and retention basin are located on have a County General Plan land use designation of “*IR – Interim Agricultural Reserve*” and are zoned “*AR-5: Agricultural – Residential 5 acres*”. To construct the new substation, SMUD would acquire parcel 202-0090-024-000, which has a County General Plan land use designation of “*AG-RES: Agricultural – Residential*” and is zoned “*AR-5: Agricultural/Residential – 5 acres*”. The residential property contains livestock operations onsite. Parcel 202-0030-039-000, where transmission line work would occur, has a County General Plan land use designation of “*AG-CROP: Agricultural– Cropland*,” and is zoned “*AG-20: Agricultural – 20 acres*.”

As shown in Figure 3-1, the substation site and transmission line work area are located on parcels designated by the Farmland Mapping and Monitoring Program (FMMP) as Grazing Land, Urban and Built-up Land, and Other Land. “Other Land” is described by the FMMP as “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. However, these areas are not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (California Department of Conservation [DOC] 2018). Parcel 202-0030-055-000 located east of the transmission line easement, is designated as Farmland of Statewide Importance and Unique Farmland and may serve as access for transmission line work. These parcels are not subject to Williamson Act Contracts (Sacramento County 2023).

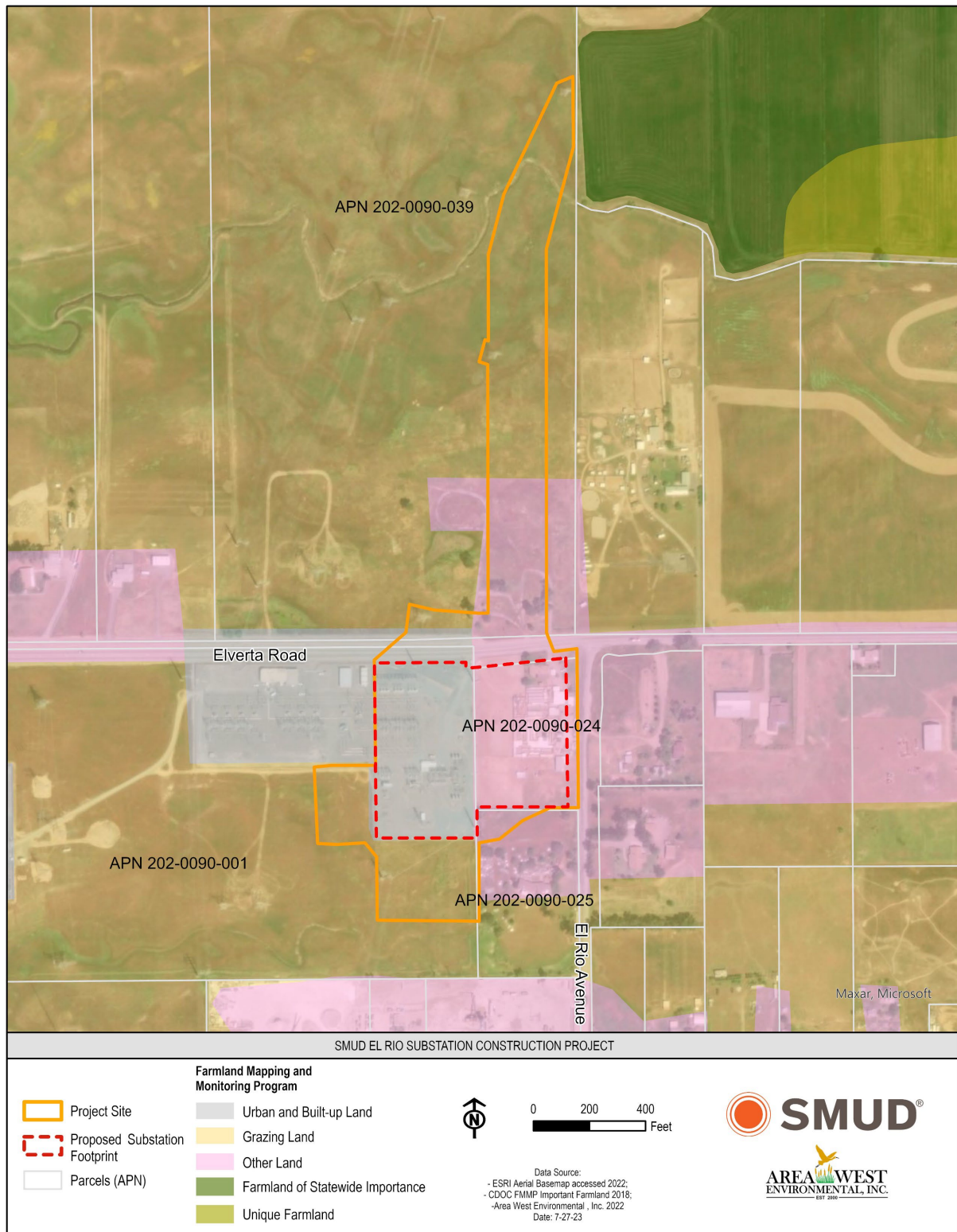


Figure 3-1. Farmland

3.2.2 Discussion

- 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?**

No Impact. The project would have no impact on agricultural use of parcels designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The substation site is not located on land designated either as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (DOC 2018). Parcels east of the transmission line work are designated Farmland of Statewide Importance or Unique Farmland, and although existing farm roads that cross these parcels may be used to access the northernmost transmission pole for restringing, the needed construction access would be temporary and would not convert these properties. Because implementation of the project would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use, there would be **no impact** and no mitigation is required.

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

No Impact. The proposed substation and retention basin are located on parcels zoned “IR – Interim Agricultural Reserve” and “AR-5: Agricultural – Residential 5 acres.” The proposed substation would not conflict with the existing zoning as substations are identified as a major utility and may be located in all zoning districts provided they comply with the design measures listed in Sacramento County Zoning Code Section 3.6.6.A (Sacramento County 2015). These measures include setback requirements; the project has been designed in compliance with those requirements. The project site and surrounding parcels are not under a Williamson Act contract. Thus, there would be **no impact** and no mitigation is required.

- 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?**

No Impact. The project site does not include provisions for timberland or forest land. There are no parcels surrounding the project site with zoning for forest land, timberland, or timberland zoned Timberland Production. Therefore, there would be **no impact** and no mitigation is required.

- 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?**

Less Than Significant. SMUD would acquire parcel 202-0090-024-000, which has a County General Plan land use designation as “*AG-RES: Agricultural – Residential*” and a FMMP designation as “Other Land.” The residential property includes livestock operations onsite. Conversion of this parcel to a substation would eliminate a small-scale livestock operation that is incidental to the residential land use. According to Policy AG-5 of the Sacramento County General Plan, mitigation is required only for the loss of local importance farmlands for projects resulting in the conversion of more than 50 acres. Therefore, the conversion of the small livestock operation on the 4.4-acre residential parcel would have a less-than-significant impact on local agricultural operations.

There is no forest land on or near the project site.

The project would not result in substantial conversion of farmland to non-agricultural use or conversion of forest land to non-forest use. Therefore, the project would result in a **less-than-significant impact**, and no mitigation is required.

3.3 Air Quality

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
III. Air Quality.				
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied on to make the following determinations.				
Are significance criteria established by the applicable air district available to rely on for significance determinations?	<input checked="" type="checkbox"/> Yes		<input type="checkbox"/> No	
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.3.1 Environmental Setting

Air quality in Sacramento County is regulated by several jurisdictions including the U.S. Environmental Protection Agency (US EPA), ARB, and SMAQMD. Each of these jurisdictions develops rules, regulations, and policies to attain the goals or directives imposed upon them through legislation.

The US EPA has established national ambient air quality standards (NAAQS) for six criteria air pollutants, which are known to be harmful to human health and the environment: carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter (which is categorized into particulate matter less than or equal to 10 microns in diameter [PM₁₀] and particulate matter less than or equal to 2.5 microns in diameter [PM_{2.5}]), and sulfur dioxide. The State of California has established the California ambient air quality standards (CAAQS) for these six pollutants, as well as for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. NAAQS and CAAQS were established to

protect the public from adverse health impacts caused by exposure to air pollution (USEPA 2023).

The designation of an area as in attainment, nonattainment, or unclassified, with respect to applicable standards is the responsibility of the ARB. An “attainment” designation for an area signifies that pollutant concentrations did not violate the applicable standard in that area. A “nonattainment” designation indicates that a pollutant concentration violated the applicable standard at least once. An “unclassified” designation signifies that the data does not support either an attainment or nonattainment designation.

The project site is located within the Sacramento Valley Air Basin (SVAB). Sacramento County is currently designated as nonattainment for both the federal and state ozone standards, the federal PM_{2.5} standard, and the state PM₁₀ standard. The region is designated as in attainment or being unclassifiable for all other NAAQS and CAAQS (ARB 2023).

SMAQMD is the local agency responsible for air quality planning and development of air quality plans in the project area. SMAQMD maintains an attainment plan for achieving the state and federal ozone standards that was updated and approved by the SMAQMD Board and the ARB in 2017. The air quality plan establishes strategies to achieve compliance with the NAAQS and CAAQS ozone standards in all areas within SMAQMD’s jurisdiction. There are currently no plans available for achieving the federal PM_{2.5} or state PM₁₀ standards.

SMAQMD has developed the Sacramento Regional 2008 NAAQS 8-Hour Ozone Attainment and Reasonable Further Progress Plan as an air quality plan, which presents comprehensive strategies to reduce reactive organic gases (ROG), nitrogen oxides (NO_x), PM₁₀, and PM_{2.5} emissions from stationary, area, mobile, and indirect sources to achieve attainment status of the NAAQS and CAAQS. The plan relies on projected population, employment, and vehicle miles traveled (VMT) growth from regional and local land use plans such as general plans or community plans to estimate population growth. Projects exceeding growth projections could increase VMT and mobile source emissions, conflicting with plan implementation. Such VMT increases beyond what’s projected in the Sacramento’s regional VMT modeling and SMAQMD’s regional air quality plan would significantly hinder SVAB’s ability to achieve CAAQS and NAAQS for all air pollutants.

Within California, there are additional regulated pollutants that pose a hazard to human health. These are broadly categorized as toxic air contaminants (TACs); these are regulated through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). At the local level, the SMAQMD has authority over stationary or industrial sources, and all projects that require air quality permits from the SMAQMD are evaluated for TAC emissions. Among the TACs identified by ARB, diesel-exhaust particulate matter (DPM), recently designated, is one of ARB’s highest priorities, with an aggressive plan to require cleaner diesel fuel and cleaner diesel engines and vehicles (ARB 2005).

Naturally-occurring asbestos, designated in 1986 by ARB, is located in many parts of California and is commonly associated with ultramafic rock and building materials. The project site is not located within an area identified as having a potential for naturally occurring ultramafic rock and serpentine soils, but asbestos-containing material (ACM) may be present in existing structures. If asbestos is determined to be present, the demolition of existing structures would be subject to regulatory requirements.

Methods

Emissions associated with the construction and long-term operation of the proposed project were calculated using the California Emissions Estimator Model (CalEEMod), version 2022.1.1.2 computer program. Methods and results of the analysis are presented in the Air Quality and Greenhouse Gas Impact Assessment for the SMUD El Rio Substation Project (Ambient Consulting 2023a).

Impact Thresholds

SMAQMD-recommended thresholds of significance are used to determine if localized and/or regional air quality emissions would adversely affect human health (*Guide to Air Quality Assessment in Sacramento County, SMAQMD 2020*). Project-generated emissions are considered significant if the project would:

- result in construction-generated emissions of NO_x exceeding 85 pounds per day (lbs/day), PM₁₀ exceeding 80 lbs/day, or PM_{2.5} exceeding 82 lbs/day;
- result in operational emissions of ROG exceeding 65 lbs/day, NO_x exceeding 65 lbs/day, PM₁₀ exceeding 80 lbs/day, or PM_{2.5} exceeding 82 lbs/day;
- result in carbon monoxide emissions that would violate or contribute substantially to concentrations that exceed the 1-hour CAAQS of 20 parts per million (ppm) or the 8-hour CAAQS of 9 ppm during construction and operations;
- expose any off-site sensitive receptor to a substantial incremental increase in TAC emissions that exceed 10 in one million for carcinogenic risk (i.e., the risk of contracting cancer) and/or a noncarcinogenic hazard index of 1.0 or greater; or
- create objectional odors affecting a substantial number of people.

Importantly, both the construction and operational thresholds for PM₁₀ and PM_{2.5}, as described above, assume the application of SMAQMD-recommended BMPs and the use of Best Available Control Technology (BACT) to minimize emission of PM₁₀ and PM_{2.5}. Without the application of BMPs and BACT, the threshold for PM₁₀ and PM_{2.5} during construction and operations is zero pounds per day.

3.3.2 Discussion

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

Less than Significant.

It is anticipated that operational activities associated with the project would include only occasional maintenance and would be roughly equivalent to those activities associated with the existing substation that the project is replacing. The project does not include land uses or operational emission sources that would result in new long-term employment opportunities, new housing, or substantial increases in operational vehicle trips considered in the plan. For these reasons, short-term construction and long-term operation of the proposed project would not conflict with or obstruct air quality planning efforts. As a result, this impact would be considered **less than significant**, and no mitigation is required.

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

Less than Significant with Mitigation Incorporated. As discussed above, the SVAB has been designated “non-attainment” for state ozone (1- and 8-hour) and particulate matter (PM₁₀) standards and is designated “non-attainment” for federal ozone 8-hour and particulate matter (PM_{2.5}).

Long-term Project Emissions

The long-term operation of the substation would not require permanent staff and would be operated by SMUD remotely. SMUD maintenance employees would visit approximately three times per month to conduct routine checks and maintenance. These ongoing activities would generate nominal air pollutant emissions and would not generate substantial emissions of criteria pollutants or precursors. Operational emissions would be roughly equivalent to the emissions generated by the existing substation that the project is replacing. In addition, substation operation would not be anticipated to involve the use of major stationary sources of criteria pollutants or precursors. As a result, the long-term impact would be considered **less than significant**.

Short-term Construction Emissions

Construction-generated emissions are of temporary duration, lasting only as long as construction activities occur, but have the potential to represent a significant air quality impact. Construction of the proposed project would result in the temporary generation of emissions associated with demolition, site grading, construction, paving, motor vehicle exhaust associated with construction equipment and worker trips, as well as the movement of construction equipment on unpaved surfaces. Short-term construction emissions would result in increased emissions of ozone-precursor pollutants (i.e., ROG

and NO_x) and emissions of PM. Emissions of ozone-precursors would result from the operation of on- and off-road motorized vehicles and equipment. Emissions of airborne PM are largely dependent on the amount of ground disturbance associated with site preparation activities and can result in increased concentrations of PM that can adversely affect nearby sensitive land uses.

Estimated maximum daily emissions associated with construction of the proposed project are presented in Table 3-1. Maximum emissions associated with construction would be approximately 48 lbs/day of NO_x, 4.9 lbs/day of PM₁₀, and 2.1 lbs/day of PM_{2.5}. Maximum annual emissions would be approximately 0.2 tons/year of PM₁₀ and 0.1 tons/year of PM_{2.5}.

Table 3-1. Daily Construction Emissions without Mitigation

Construction Activity	Emissions ¹ NO _x (lbs/day)	Emissions ¹ PM ₁₀ (lbs/day)	Emissions ¹ PM _{2.5} (lbs/day)	Emissions ¹ PM ₁₀ (tons/year)	Emissions ¹ PM _{2.5} (tons/year)
2025	48	4.9	2.1	0.2	0.1
2026	22.6	1.3	1.0	0.1	<0.1
2027	20.1	1.1	0.8	0.1	<0.1
Maximum Emissions ² :	48	4.9	2.1	0.2	0.1
SMAQMD Thresholds ³ :	85	0/80	0/82	0/14.6	0/15
Exceeds Thresholds?	NO	YES/NO	YES/NO	YES/NO	YES/NO

¹Emissions were quantified using the CalEEMod, v2020.1.1.2, computer program. Includes onsite and offsite sources. Does not include reductions in fugitive dust associated with compliance with SMAQMD's BMP. Totals may not sum due to rounding.

²Maximum daily emissions assumes some activities could potentially occur simultaneously on any given day.

³SMAQMD has established a zero emissions threshold for PM₁₀ and PM_{2.5} when projects do not implement SMAQMD-recommended BMPs.

Lbs/day = pounds per day; ton/year = tons per year; NO_x = oxides of nitrogen; PM₁₀ = respirable particulate matter (10 micrometers or less); PM_{2.5} = respirable particulate matter (2.5 micrometers or less)

Source: Ambient Consulting, 2023a. Air Quality & Greenhouse Gas Impact Assessment for SMUD El Rio Substation Project.

The project's projected maximum construction emissions do not exceed SMAQMD's daily or annual construction emission standards. However, SMAQMD predicates the particulate matter standard on adherence to their *Basic Construction Emission Control Practices and Best Management Practices*. Without the application of the SMAQMD's BMPs, this impact would be **potentially significant**. Mitigation Measure 3.3-1 would require that the project implement the SMAQMD's BMPs.

Mitigation Measure 3.3-1. Implement SMAQMD Emissions Controls and BMPs.

SMUD or the authorized contractor will adhere to the SMAQMD basic construction emissions control practices, including, but not limited to the measures listed below, and additional measures designed to limit DPM:

- *All disturbed areas, including storage piles that are not being actively used for construction purposes, shall be effectively stabilized of dust emissions using water, a chemical stabilizer or suppressant, or vegetative ground cover. Soil shall be kept moist at all times.*
- *All onsite unpaved roads and offsite unpaved access roads shall be effectively stabilized of dust emissions using water or a chemical stabilizer or suppressant.*
- *When materials are transported offsite, all material shall be covered, effectively wetted to limit visible dust emissions, or maintained with at least 2 feet of freeboard space from the top of the container.*
- *All operations shall limit or expeditiously remove the accumulation of project-generated mud or dirt from adjacent public streets at least once every 24 hours when operations are occurring.*
- *After materials are added to or removed from the surfaces of outdoor storage piles, the storage piles shall be effectively stabilized of fugitive dust emissions using sufficient water or a chemical stabilizer/suppressant.*
- *Onsite vehicle speeds on unpaved roads shall be limited to 15 mph.*
- *Wheel washers shall be installed for all trucks and equipment exiting unpaved areas, or wheels shall be washed to remove accumulated dirt before such vehicles leave the site.*
- *Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from adjacent project areas with a slope greater than 1%.*
- *Excavation and grading activities shall be suspended when winds exceed 20 mph.*
- *The extent of areas simultaneously subject to excavation and grading shall be limited, wherever possible, to the minimum area feasible.*
- *All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.*

- *Maintain all construction equipment in proper working condition according to manufacturer's specifications. Equipment will be checked by a certified mechanic and determined to be running in proper condition before it is operated.*
- *All on and off-road diesel equipment shall not idle when not in use. Signs shall be posted in the designated queuing areas and or job sites to remind drivers and operators of the 5-minute idling limit.*
- *Provide current certificate(s) of compliance for ARB's In-Use Off-Road Diesel-Fueled Fleets Regulation [California Code of Regulations, Title 13, sections 2449 and 2449.1].*
- *Diesel equipment meeting the ARB Tier 3 or higher emission standards for off-road heavy-duty diesel engines shall be used to the extent locally available.*
- *On-road heavy-duty equipment with model year 2010 engines or newer shall be used to the extent locally available.*
- *Diesel powered equipment shall be replaced by electric equipment whenever available.*
- *Equipment/vehicles using alternative fuels, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel, shall be used on-site where locally available.*
- *Catalytic converters shall be installed on gasoline-powered equipment, if available, and in accordance with manufacturer's recommendations.*

Significance After Mitigation

SMAQMD has established a zero emissions threshold for PM10 and PM2.5 when projects do not implement SMAQMD-recommended BMPs. Maximum construction emissions without mitigation fall below the threshold applicable to projects that implement SMAQMD-recommended BMPs (Table 3-1). Mitigation measure 3.3-1 mandates construction activities adhere to SMAQMD's Basic Construction Emission Control Practices. Therefore, construction-generated emissions would be considered to have a **less than significant impact**.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant with Mitigation Incorporated. As noted above, long-term operation of the substation would not be anticipated to result in substantial increases in mobile-source or stationary-source emissions, when compared to existing conditions in the project area.

Localized air quality impacts associated with the proposed project would be predominantly associated with short-term demolition and construction activities. Pollutants associated with earth moving, demolition and general constructing activities include asbestos, fugitive dust, and TACs.

Asbestos

Based on the California Department of Conservation maps depicting potential areas of naturally occurring asbestos (NOA), the project site is not located in or near an area that has been identified as having a potential for NOA.

Demolition activities have potential negative air quality impacts, including issues surrounding the proper handling, demolition, and disposal of ACM. ACM could be encountered during the demolition of existing buildings, particularly older structures constructed prior to 1970. Asbestos can also be found in various building products, including (but not limited to) utility pipes/pipelines (transit pipes or insulation on pipes).

The project's Phase I Environmental Site Assessment (see Section 3.9) evaluated the potential for ACM onsite. Based on the age of multiple buildings constructed onsite, the potential exists for ACM and lead-based paint (LBP) to be present. The proposed demolition of approximately 21,000 square feet of existing onsite structures may expose construction workers to contaminated dust emissions that contain hazardous constituents, including ACM and LBP. Impact on air quality and health due to handling, demolition, and disposal of ACMs and LBP is considered **potentially significant**.

Mitigation Measure 3.3-2. Survey, Remove, and Dispose of ACM and LBP.

The presence or absence of ACM and LBP will be verified by conducting a survey for these materials prior to demolition activities, and if present, they will be remediated prior to any renovation or demolition at the project site that involves the disturbance or potential disturbance of ACM or LBP, in accordance with applicable regulatory requirements, including requirements stipulated in the National Emission Standard for Hazardous Air Pollutants (40CFR61, Subpart M-Asbestos; NESHAP). These requirements include but are not limited to: 1) notification, within at least 10 business days of activities commencing, to the air quality management district, 2) an asbestos survey conducted by a Certified Asbestos Consultant, and, 3) applicable removal and disposal requirements of identified ACM. The SMAQMD is delegated authority by the USEPA to implement the Federal Asbestos NESHAP.

Significance After Mitigation

Mitigation Measure 3.3-2 would require an ACM and LBP survey prior to demolition activities, and if present, the materials would be remediated prior to any renovation or demolition consistent with applicable state and local regulations. The potential impact on air quality and health would be reduced to a **less than significant** level.

Fugitive Dust

Fugitive dust emissions would be associated with site preparation activities following demolition, including grading, and vehicle travel on unpaved and paved surfaces. Uncontrolled emissions of fugitive dust may also contribute to potential increases in nuisance impacts to nearby receptors. This impact is considered **potentially significant**. Construction generated fugitive dust, generally associated with PM₁₀, would be limited by implementation of SMAQMD construction BMPs.

TACs

Assuming that construction activities involving the use of diesel-fueled equipment, DPM, a designated TAC, would be produced. Health risks associated with DPM are primarily associated with potential cancer risks. Because the use of off-road heavy-duty diesel equipment would be temporary and episodic occurring over a relatively large area, and the highly dispersive properties of DPM, project construction would not expose sensitive receptors to substantial emissions of DPM in excess of applicable thresholds. However, short-term exposure to airborne particulates can result in irritation of eyes and the respiratory system and may affect sensitive individuals, including those suffering from asthma and other medical conditions. If uncontrolled, short-term emissions of PM could have a **potentially significant** localized air quality impact. These localized, short-term emissions would be reduced with the implementation of Mitigation Measure 3.3-1, which requires adherence to all applicable SMAQMD construction emissions control practices.

Mitigation Measure 3.3-1. Implement SMAQMD Emissions Controls and BMPs. (described above)

Significance After Mitigation

Mitigation Measure 3.3-1 would require compliance with SMAQMD's BMP's for the control of construction related emissions, including fugitive dust and DPM. The potential impact on air quality would be reduced to a **less than significant** level.

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

Less than Significant. The proposed project would not install equipment or require processes that would be considered major odor-emission sources. In addition, no known odor sources are within one mile of the project site. Construction of the proposed project would involve the use of a variety of gasoline or diesel-powered equipment that would emit exhaust fumes. Exhaust fumes, particularly diesel-exhaust, may be considered objectionable by some people. In addition, pavement coatings and architectural coatings used during project construction would also emit temporary odors. However, construction-generated emissions would occur intermittently throughout the workday and would dissipate rapidly with increasing distance from the source. As a result, short-term construction activities would not expose a substantial number of

people to frequent odorous emissions. For these reasons, potential exposure of sensitive receptors to odorous emissions would be considered ***less than significant***, and no mitigation is required.

3.4 Biological Resources

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
IV. Biological Resources.				
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.4.1 Environmental Setting

This section describes biological resources in the project site and evaluates potential impacts on such resources as a result of project implementation. To determine the

biological resources that may be subject to project impacts, the following data sources were reviewed:

- California Natural Diversity Database (CNDDDB) (CNDDDB 2023);
- California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants (CNPS 2023);
- U.S. Fish and Wildlife Service (USFWS) Information, Planning, and Consultation System (USFWS 2023a); and
- USFWS National Wetlands Inventory (USFWS 2023b).

Appendix B provides lists of special-status species and an evaluation of their potential to occur within the project site.

Biologists conducted a reconnaissance survey of the project site on April 12 and 13, 2023 and a follow up survey on June 9, 2023. An aquatic resources delineation was conducted during the April 2023 field surveys. A list of plant and wildlife species observed during field surveys is included in Appendix B.

Vegetation and Habitat Types

Vegetation and habitat types within the project site (Figure 3-2) include:

- developed,
- annual grassland,
- wetlands, and
- ephemeral stream.

The developed habitat consists of roadways, road shoulders, the existing Elverta Substation, the existing residence and associated out buildings at the corner of Elverta Road and El Rio Avenue, livestock paddocks, and other areas routinely disturbed by human activities.

The majority of the project site supports annual grassland. Dominant plants observed within the annual grassland include lesser quaking grass (*Briza minor*), medusa-head grass (*Elymus caput-medusae*), long-beak stork's-bill (*Erodium botrys*), rose clover (*Trifolium hirtum*), slender oat (*Avena Barbata*), wild oat (*Avena fatua*), soft brome (*Bromus hordeaceus*), and brome fescue (*Festuca bromoides*). A few scattered trees are present in the annual grassland community.

Two types of aquatic resources were observed within the project: wetlands and an ephemeral stream.

A total of eight wetlands were delineated within the project site (0.88 acre) and two additional wetlands were remotely mapped using aerial signatures in the un-accessible portion of the project site (0.01 acre). These wetlands were a mixture of vernal pool/swales and seasonal wetlands. Only the northern most and southern most wetlands in the project site contained water during the April 2023 field surveys. Dominate plants within these wetlands included perennial rye grass (*Festuca perennis*), hyssop loosestrife (*Lythrum hyssopifolia*), toad rush (*Juncus bufonius*), and waxy manna grass (*Glyceria declinate*). All wetland features identified in the project site contain the three parameters to qualify as a wetland (a dominance of hydrophytic vegetation, hydric soils, and wetland hydrology). Wetland features have the potential to provide habitat for federally and state-listed species including vernal pool fairy shrimp (*Branchinecta lynchi*), vernal pool tadpole shrimp (*Lepidurus packardii*), and listed plants.

The ephemeral stream in the northern portion of the project site collects stormwater during rain events, flowing east to west into a ponded area west of Sorento Road, approximately 0.45 mile west of the project site. The ponded area drains into Steelhead Creek which is a tributary to the Sacramento River. At the time of the April 2023 survey, the ephemeral stream contained approximately 1.5 feet of water. At the time of the June 2023 survey, the ephemeral stream was dry within the project site. The ephemeral stream occupies 0.060-acre of the project site. The ephemeral stream exhibits ordinary high water mark (OHWM) indicators.

A full list of observed plant species is included in Appendix B.

Special-Status Species

Special-status species are plants and animals that are legally protected under the federal Endangered Species Act (ESA), California Endangered Species Act (CESA), California Fish and Game Code, or local plans, policies, and regulations or that are otherwise considered sensitive by federal, state, or local resource conservation agencies. For this IS/MND, special-status species are defined as:

- species listed or proposed for listing as threatened or endangered under the ESA;
- species designated as candidates for listing as threatened or endangered under the ESA;
- species listed, proposed for listing, or candidates for listing as threatened or endangered under CESA;
- species listed as fully protected under the California Fish and Game Code;
- animals identified by the California Department of Fish and Wildlife (CDFW) as species of special concern (SSC);

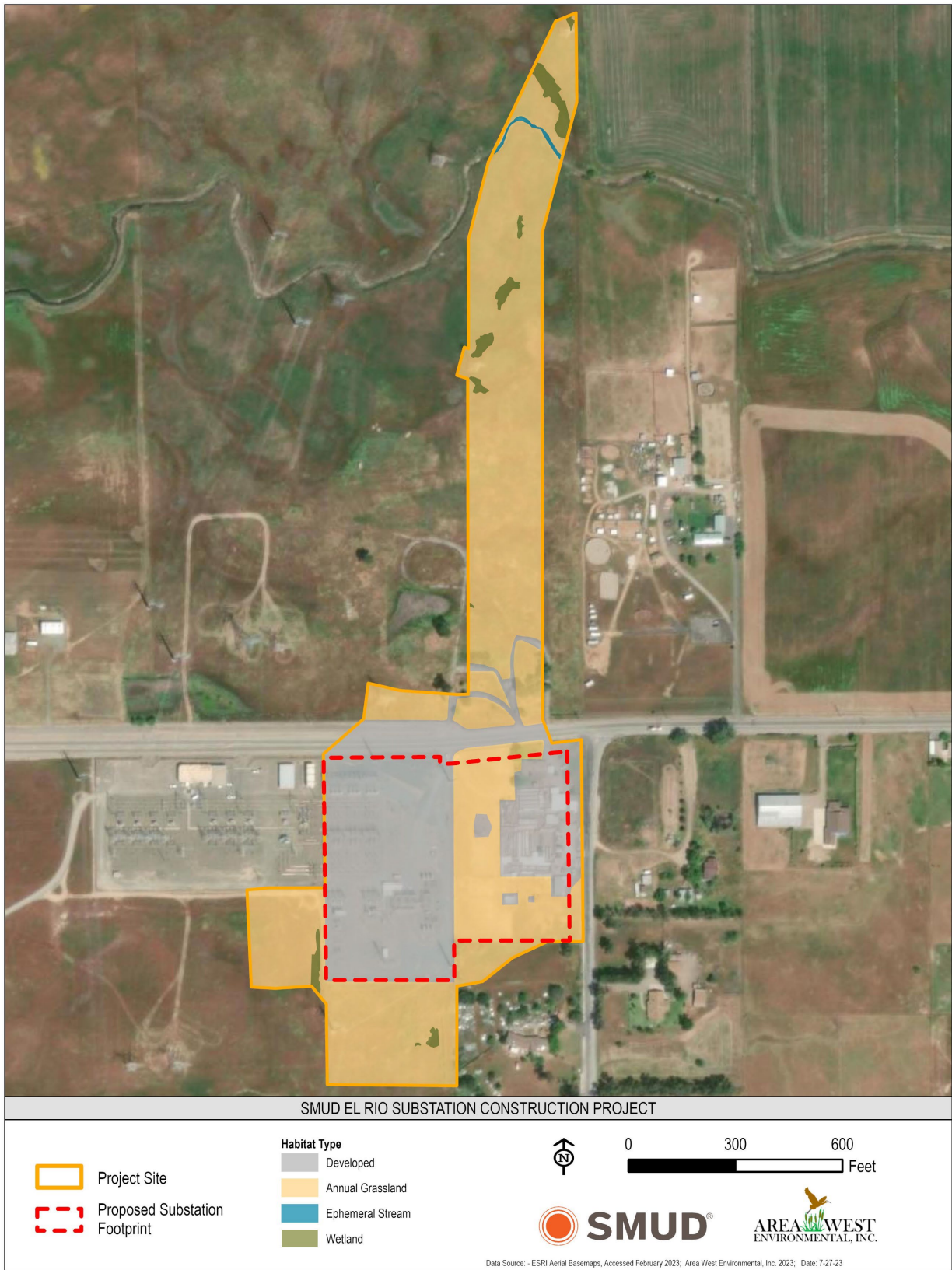


Figure 3-2. Vegetation Communities

- plants considered by CDFW to be “rare, threatened or endangered in California” and assigned California Rare Plant Ranks of 1A, presumed extinct in California; 1B, considered rare or endangered in California and elsewhere; 2A, presumed extinct in California but more common elsewhere; and 2B, considered rare or endangered in California but more common elsewhere;
- species considered a locally significant species—that is, species that are not rare from a statewide perspective but are rare or uncommon in a local context, such as in a county or region (CEQA Section 15125[c]), or that are so designated in local or regional plans, policies, or ordinances (State CEQA Guidelines Appendix G); and
- taxa (i.e., taxonomic categories or groups) that meet the criteria for listing even if they are not currently included on any list, as described in CCR Section 15380 of the State CEQA Guidelines.

Based on a review of existing data sources (CNDDDB 2023; CNPS 2023; USFWS 2023a), 12 special-status plant species and 17 special-status wildlife species have potential to occur in the project area (Appendix B). Species ranges and habitat requirements were further evaluated to determine potential for occurrence on the project site.

Area West Environmental, Inc. (AWE) biologists conducted botanical surveys in April and June 2023. The blooming periods for all special-status plant species with potential to occur were captured during these two survey windows. Suitable habitat was observed within the project area for 8 of the 12 special-status plant species with potential to occur. However, no special-status plant species were observed within the project area. Refer to Appendix B for additional detail.

Out of the 17 special-status wildlife species, 10 species are considered likely to occur in or immediately adjacent to the project site:

- Monarch butterfly (*Danaus plexippus*) (Federal candidate);
- Vernal pool fairy shrimp (Federal threatened);
- Vernal pool tadpole shrimp (Federal endangered);
- Western spadefoot (*Spea hammondi*) (SSC);
- Giant garter snake (*Thamnophis gigas*) (Federal and State threatened);
- Burrowing owl (*Athene cunicularia*) (SSC);
- Grasshopper sparrow (*Ammodramus savannarum*) (SSC);
- Swainson’s hawk (*Buteo swainsoni*) (State threatened)

- White-tailed kite (*Elanus leucurus*) (CDFW fully protected); and
- American badger (*Taxidea taxus*) (SSC).

3.4.2 Discussion

- 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 the U.S. Fish and Wildlife Service?**

Less than Significant with Mitigation Incorporated. The majority of the permanent ground disturbance associated with the project would occur within previously disturbed land, with the exception of the installation of the two or three new monopoles north of the proposed substation and the construction of the retention basin south of the existing substation. At the current stage of design, the location of the new monopoles has not been finalized. SMUD is designing the new monopole locations with the intent to avoid wetlands, which represent habitat for special-status species. However, SMUD may be unable to install replacement monopoles outside of wetland features due to spatial restrictions, resulting in a permanent loss of potential habitat. Although permanent project features would avoid sensitive habitats to the extent feasible, construction access to the new pole locations may require temporary access routes and ground disturbance within sensitive habitats for lattice tower removal and monopole installation. This impact assessment assumes that sensitive habitats (wetlands) that have potential to support sensitive species may be permanently or temporarily affected by new transmission pole installation.

As explained above, no special-status plants are expected to occur on the site. Therefore, the project would have no impact on special-status plant species.

The project has potential to adversely affect vernal pool fairy shrimp, vernal pool tadpole shrimp, western spadefoot, giant garter snake, burrowing owl, grasshopper sparrow, Swainson's hawk, white-tailed kite, nesting birds, and American badger. Potential impacts on these species are addressed below.

Vernal Pool Branchiopods

While no vernal pool fairy shrimp and vernal pool tadpole shrimp were observed within the project site during the April 2023 surveys, the vernal pool and swale features in the project site provide suitable habitat for these species. The project has been designed to avoid impacts to aquatic features to the greatest extent possible. However, the final locations of the new monopoles have not yet been determined. This analysis includes mitigation measures to offset permanent impacts on wetland features, if needed.

To gain access to the existing lattice towers that are proposed for removal and the locations of the new monopole tower installations, project vehicles and heavy

equipment may need to be driven through wetland features. This could cause compaction of the soil and disturb branchiopod cysts. Additionally, work activities adjacent to wetland features could cause indirect temporary impacts to habitat through sediment runoff into these features. The project would have a **potentially significant impact**, and mitigation measures are required.

Mitigation Measure 3.4-1: Avoid or Minimize Effects on Special-status Aquatic Species and Waters of the U.S. and State

- *All on-site construction personnel will receive worker environmental awareness training, which instructs workers regarding the presence of listed species and the importance of avoiding impacts to these species and their habitat.*
- *Access, egress, and ground-disturbing activities will be sited to avoid aquatic features to the extent possible. Where present, existing paved and unpaved roads will be used to access the work area.*
- *All work in or near potential aquatic species habitat will be performed in the dry season (approximately April 15 through October 15).*
- *Temporary fencing shall be placed along the boundary of the work areas to avoid and protect environmentally sensitive areas (waters of the U.S. and State, special-status species habitat) during construction activities. Fencing must be installed prior to the initiation of any vegetation removal, equipment staging, construction, or other project activity. Fencing will consist of temporary construction barrier fencing or silt fencing. The fencing will be checked regularly and maintained until all construction is complete.*
- *All temporarily disturbed areas will be returned to pre-project conditions upon completion of construction. Soil stabilization may include, but is not limited to, seeding with a native grass seed mix and/or planting native plants. These areas will be properly protected from washout and erosion using appropriate erosion control devices including coir netting, hydroseeding, and revegetation. The existing grades in temporary impact areas will be recontoured to existing conditions.*
- *Rubber matting, or similar equivalent, will be used where temporary access for heavy equipment is required through vernal pools and seasonal wetlands/swales.*
- *For pole installations in or within 250 feet of wetlands, the upper four inches of topsoil will be stockpiled separately on Visqueen or plastic sheets during excavations. The area between the pole and the pole hole will be backfilled with cement, and the upper portion will be backfilled with native soil commensurate with the topography and stratigraphy of the surrounding soil. When this topsoil is replaced, compaction shall be minimized to the extent*

consistent with utility standards. Areas of disturbed soil will be reseeded with a native seed mix.

- *For pole removal, clay (native or bentonite) will be used to fill the pole hole.*
- *No pesticides or herbicides will be applied within 250 feet of vernal pools.*

Mitigation Measure 3.4-2. Compensate for Permanent Impacts to Wetlands and Aquatic Species Habitat

If the new monopole locations result in permanent impacts on wetland features, the appropriate permits would be obtained and the USFWS would be consulted. As part of the consultation process, SMUD would prepare and implement a Compensatory Mitigation Plan for project impacts on wetlands and vernal pool branchiopods. The Compensatory Mitigation Plan may include, but is not limited to, the purchase of mitigation credits for vernal pool fairy shrimp and vernal pool tadpole shrimp from the SMUD Nature Preserve Mitigation Bank or an alternative USFWS-approved mitigation bank in accordance with USFWS guidance on mitigation ratios. This mitigation requirement may be refined or superseded by the USFWS and U.S. Army Corps of Engineers permit terms.

Significance after Mitigation

With implementation of Mitigation Measures 3.4-1 and 3.4-2, the impact to vernal pool branchiopods would be reduced to a ***less than significant*** level.

Western Spadefoot

While no western spadefoot individuals were observed within the project site during the April 2023 surveys, the wetland features in the project site do provide suitable habitat for this species. The project has been designed to avoid impacts to aquatic features to the greatest extent possible. However, the final locations of the new monopoles have not yet been determined. This analysis includes mitigation measures to offset permanent impacts on wetland features, which may provide suitable habitat for western spadefoot.

To gain access to the existing lattice towers that are proposed for removal and the proposed locations of the new monopole tower installations, project vehicles and heavy equipment may need to be driven through wetland features. This could cause direct impacts on western spadefoot individuals that may be present within or adjacent to these wetland features. Additionally, work activities adjacent to wetland features could cause indirect temporary impacts to habitat through sediment runoff into these features. As a result, the project impact would be ***potentially significant***, and mitigation is required.

Mitigation Measure 3.4-1: Avoid or Minimize Effects on Special-status Aquatic Species and Waters of the U.S. and State (described above)

Mitigation Measure 3.4-2. Compensate for Permanent Impacts to Wetlands and Aquatic Species Habitat (described above)

Mitigation Measure 3.4-3: Conduct Pre-construction Survey for Western Spadefoot

A biologist will conduct a survey no less than 7 days prior to the initiation of any ground disturbing activities within or adjacent to suitable habitat for western spadefoot. This survey will comprise walking transects while conducting visual encounter surveys within areas that will be subject to staging, vegetation clearing, grubbing, grading, cut and fill, or other ground disturbing activities. The survey will include wetlands and adjacent grassland. All potential habitat features in the project site, such as crevices and burrows western spadefoot often use, will be searched to the maximum extent practicable.

If western spadefoot are present within the project work limits (including their egg masses or tadpoles), then CDFW will be notified and additional avoidance and minimization measures will be implemented. Any special-status species observed will be allowed to voluntarily move outside of the work area on its own volition.

Significance after Mitigation

With implementation of Mitigation Measures 3.4-1, 3.4-2, and 3.4-3, the impact to western spadefoot would be reduced to a ***less-than-significant*** level.

Giant Garter Snake

When water is present, the ephemeral stream in the northern portion of the project site could provide suitable aquatic dispersal habitat for this species. The ephemeral stream lacks emergent vegetation cover required for foraging and escape cover; therefore, individuals of this species are unlikely to be in the project area for significant amounts of time. There are known occurrences of this species west of the project site in Steelhead Creek.

The new transmission monopoles would not be sited in the ephemeral stream. However, to gain access to the existing lattice towers proposed for removal and the new monopole towers, vehicles and heavy equipment may need to be driven across the ephemeral drainage. This could directly affect giant garter snake individuals that may be present within or adjacent to this feature. Ground disturbance within 200 feet of the ephemeral stream could adversely affect giant garter snake individuals using the area as upland refuge. Additionally, work activities adjacent to aquatic features could cause indirect temporary impacts to habitat through sediment runoff into these features. As a result, the project impact would be ***potentially significant***; mitigation is required.

Mitigation Measure 3.4-1: Avoid or Minimize Effects on Special-status Aquatic Species and Waters of the U.S. and State (described above)**Mitigation Measure 3.4-4: Avoid or Minimize Effects on Giant Garter Snake**

- *Avoid construction activities within 200 feet from the banks of giant garter snake aquatic habitat to the greatest extent feasible.*
- *Construction activity within 200 feet of giant garter snake aquatic habitat should be conducted between May 1 and October 1. This is the active period for giant garter snakes and direct mortality is lessened, because snakes are expected to actively move and avoid danger. If activities occur between October 2 and April 30 within 200 feet of giant garter snake habitat, SMUD will contact the USFWS Sacramento Fish and Wildlife Office to determine if additional measures are necessary to minimize and avoid take.*
- *Confine clearing to the minimal area necessary to facilitate construction activities. Flag and designate avoided giant garter snake habitat within or adjacent to the project site as Environmentally Sensitive Areas. This area should be avoided by all construction personnel.*
- *Construction personnel shall receive worker environmental awareness training. This training instructs workers to recognize giant garter snakes and their habitat(s).*
- *24 hours prior to construction activities, the project site should be surveyed for giant garter snakes. The survey of the project site should be repeated if a lapse in construction activity of two weeks or more has occurred. If a snake is encountered during construction, activities shall cease until appropriate corrective measures have been completed or it has been determined that the snake will not be harmed.*
- *Any dewatered habitat should remain dry for at least 15 consecutive days after April 15 and prior to excavating or filling of the dewatered habitat.*

Significance after Mitigation

With implementation of Mitigation Measures 3.4-1 and 3.4-4, the impact to giant garter snake would be reduced to a ***less-than-significant*** level.

Swainson's Hawk and Other Special-status Raptors and Nesting Birds

The mature trees within and adjacent to the project site have potential to provide suitable nesting habitat for Swainson's hawk, white-tailed kite, and other common raptors and nesting birds. The annual grassland within and adjacent to the project site provides suitable nesting habitat for burrowing owl, grasshopper sparrow, and other common nesting birds, and provides foraging habitat for raptors such as Swainson's hawk and white-tailed kite.

White-tailed kites generally nest within 0.5 mile of foraging habitat and are rarely found away from their preferred foraging habitats, which include alfalfa and other hay crops, irrigated pastures, sugar beets, and tomatoes (Erichsen et al. 1994; Dunk 1995; CDFW 2005). There are eight known occurrences of white-tailed kite within a 5-mile radius of the project site. All of these occurrences are southeast of the project, along Dry Creek near Del Paso.

Swainson's hawk nest sites are generally located within approximately two miles of suitable foraging habitat, which consists of alfalfa, disced fields, fallow fields, dryland pasture, beets, tomatoes, irrigated pasture, grains, other row crops, and uncultivated grasslands (Estep 1989, 2009). Although Swainson's hawks may forage 10 miles or more from their nest sites, foraging habitat within 1 mile of the nest is of primary importance, and reproductive success decreases for Swainson's hawks as distance from foraging habitat increases (Estep 1989; England et al. 1995, cited in Estep 2009; England et al. 1997). There are 15 known Swainson's hawk nests within 5 miles of the project site. Of these nests, none have been known to be active within the last 5 years.

Burrowing owl nest in natural burrows, such as ground squirrel burrows, and human-made structure like culverts. Burrowing owl prey on small mammals which are present within the project site. There are 12 known occurrences of burrowing owl within a 5-mile radius of the project site. The nearest occurrence is approximately 630 feet south of the project site.

Grasshopper sparrows nest on the ground in annual grassland and prey upon insects. There are no known occurrences of grasshopper sparrows within a 5-mile radius of the project site.

Project construction would remove several trees on the residential parcel east of the existing substation and therefore has the potential to result in direct removal of bird nests. Driving project vehicles and equipment through the annual grassland could also result in direct removal of bird nests. Additionally, construction activities occurring during the nesting season (between approximately February 1 and August 31), such as demolition, ground disturbance, and presence of construction equipment and crews, could generate noise and visual stimuli that may result in disturbance to active bird nests, if present, potentially resulting in nest abandonment. Nest abandonment may result in death of chicks or loss of eggs if the adult bird does not return to the nest. Nest abandonment would be considered a significant impact.

In addition to providing potential nesting sites for special-status birds and raptors, mature trees in the general project area could support nests of common raptors, including Cooper's hawk (*Accipiter cooperii*), red-tailed hawk (*Buteo jamaicensis*), and red-shouldered hawk (*Buteo lineatus*). In addition to common raptors, trees adjacent to the project site may also support other common nesting birds. The nests of common raptors and other common birds are protected under Sections 3503 and 3503.5 of the California Fish and Game Code. As a result, this impact would be **potentially significant**, and mitigation is required.

Mitigation Measure 3.4-5: Avoid or Minimize Effects on Nesting Swainson's Hawk, White-Tailed Kite, Grasshopper Sparrow, and Other Nesting Birds

The following measures shall be implemented to avoid or minimize loss of active Swainson's hawk, white-tailed kite, grasshopper sparrow, and other raptor nests:

- *If construction (including vegetation removal) would occur during the nesting season (between February 1 and August 31), an authorized project biologist/biological monitor shall conduct pre-construction nesting bird surveys to determine whether birds are nesting in the work area or within 0.25 mile for Swainson's hawk and 500 feet for all other nesting birds of the project site.*
- *The pre-construction nesting bird surveys will identify on-site bird species and any nest-building behavior. If no nesting Swainson's hawks are found on or within 0.25 mile of the project site or if no nesting birds are found on or within 500 feet of the project site during the pre-construction clearance surveys, construction activities may proceed as scheduled.*
- *If pre-nesting behavior is observed but an active nest of common nesting bird has not yet been established (e.g., courtship displays but no eggs in a constructed nest), a nesting bird deterrence and removal program will be implemented. Such deterrence methods include removal of the previous year's nesting materials and removal of partially completed nests in progress. After a nest is situated and identified with eggs or young, it is considered to be "active," and the nest cannot be removed until the young have fledged.*
- *If active Swainson's hawk nests are found within the survey area, the construction contractor shall avoid impacts on such nests by establishing a no-disturbance buffer around the nest. Monitoring of the nest by a qualified biologist during construction activities shall be required if the activity has the potential to adversely affect the nest. Based on guidance for determining a project's potential for affecting Swainson's hawks (Swainson's Hawk Technical Advisory Committee 2000), projects in urban areas have a low risk of adversely affecting nests greater than 600 feet from project activities. Therefore, 600 feet is anticipated to be the adequate buffer size for protecting nesting Swainson's hawks from disturbances associated with the project. However, the qualified biologist shall consult with CDFW to confirm the adequacy of the no-disturbance buffer and/or whether the buffer may be reduced based on the biologist's professional judgment.*
- *If an active white-tailed kite, grasshopper sparrow, or common bird species nest is found on or within 500 feet of the project site during construction, a "no-construction" buffer zone will be established around the active nest (usually a minimum radius of 50 feet for passerine birds and 500 feet for raptors) to minimize the potential for disturbance of the nesting activity. The project biologist/biological monitor will determine and flag the appropriate buffer size required, based on the species, specific activities being conducted, tolerances of the species, and the nest location. Project activities will resume in the buffer area*

when the project biologist/biological monitor has determined that the nest(s) is (are) no longer active or the biologist/biological monitor has determined that with implementation of an appropriate buffer, work activities would not disturb the bird's nesting behavior.

Mitigation Measure 3.4-6: Avoid or Minimize Effects on Burrowing Owls

The following measures shall be implemented to avoid or minimize effects to burrowing owl during construction of the proposed project:

- *Pre-construction surveys for burrowing owls would be completed before the project begins. A survey to determine presence or absence of burrowing owls may be performed at any time to facilitate passive relocation efforts, which must occur during the nonbreeding season (generally September 1 to January 31). In addition, a pre-construction survey would be conducted no more than 14 days prior to the initiation of any project activities, including vegetation removal, equipment staging, or construction. This survey would be conducted in all areas of potential habitat within the project area plus a 500-foot buffer and would follow the methods described in the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012) or an updated version of this document.*
- *If the biologist finds an active burrowing owl burrow, the biologist would establish a buffer around the site. The buffer location would be based on the CDFW Staff Report on Burrowing Owl Mitigation (2012) or at the distance which the biologist, in consultation with CDFW, determines that burrowing owls would not be harassed by the proposed project.*

Significance after Mitigation

With implementation of Mitigation Measures 3.4-5 and 3.4-6, the project would not result in disturbance to or loss of nesting birds. Therefore, the impact to nesting grasshopper sparrow, burrowing owl, Swainson's hawk, white-tailed kite, and other nesting birds would be reduced to a ***less-than-significant*** level.

American Badger

Though no American badger individuals or evidence of active den sites were observed within the project site, the annual grassland present provides suitable habitat, and the ground squirrels and other small rodents present provide a suitable prey base for this species. If American badger is present within the project site during project activities, there could be direct impacts to individuals. Grading and vegetation removal within the project site could directly affect denning or foraging American badger. Additionally, noise associated with construction activities involving heavy equipment operation could temporarily disturb any individuals denning nearby. As a result, the project impact would be ***potentially significant***, and mitigation is required.

Mitigation Measure 3.4-1: Avoid or Minimize Effects on Special-status Aquatic Species and Waters of the U.S. and State (described above)

Mitigation Measure 3.4-7: Conduct an American Badger Pre-construction Survey

A qualified biologist would conduct a preconstruction survey for American badger individuals and active dens in the project site and within a 250-foot buffer of the project site.

- *The preconstruction survey would be conducted no more than 14 days before the initiation of construction activities.*
- *For surveys in inaccessible areas, the biologist would use binoculars to scan any suitable denning substrate for potential individuals or dens.*
- *If no active dens are found during the preconstruction surveys, then no additional mitigation is required.*
- *If an active den is identified within the survey area, a no-disturbance buffer would be established around the nest/den to avoid disturbance of the denning mammal until a qualified biologist determines that the young have dispersed. The extent of these buffers would be determined by the biologist and would depend on the level of noise or construction disturbance, line-of-sight between the den and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers.*
- *If any non-denning individuals are observed in the survey area before or during construction, the species would be allowed to move out of harm's way on its own.*

Significance after Mitigation

With implementation of Mitigation Measures 3.4-1 and 3.4-7, the project would not result in disturbance to or loss of American badger. Therefore, the impact to American badger would be reduced to a ***less-than-significant*** level.

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

No Impact. The project site does not contain riparian habitat. Therefore, there would be ***no impact*** on riparian habitat. Sensitive natural communities include wetlands, which are discussed in question c).

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

Less than Significant with Mitigation Incorporated. The project site does not contain riparian habitat. Therefore, there would be no impact on riparian habitat. Sensitive natural communities include wetlands, discussed below. There are Waters of the U.S. and State (wetland features and an ephemeral stream) present in the project site (Figure 3-2). The project has been designed to avoid impacts to Waters of the U.S. and State to the greatest extent possible. At the current stage of design, the location of the new monopoles has not been finalized. SMUD is designing the new monopole locations with the intent to avoid wetlands, which represent habitat for special-status species. However, SMUD may be unable to install replacement monopoles outside of wetland features due to spatial restrictions, resulting in a permanent loss of state and federally protected wetlands. Although permanent project features would avoid wetlands to the extent feasible, construction access to the new pole locations may require temporary access routes and ground disturbance within wetlands for lattice tower removal and monopole installation, which could cause compaction of the soil. This impact assessment assumes that wetlands may be permanently or temporarily affected by new transmission pole installation.

Additionally, the project proposes to construct a stormwater retention basin just south of the southern edge of the existing substation. There is one wetland west and two wetlands southeast of the proposed retention basin. It is possible that the construction of the retention basin may affect the hydrology of the neighboring wetlands by diverting water that would otherwise flow into the wetland from the surrounding uplands. Based on existing topography and flow patterns, this indirect impact on nearby wetlands is not expected to be significant.

Work activities adjacent to wetland features may also cause indirect temporary impacts through sediment runoff into these features. As a result, the project would have a **potentially significant** impact on wetlands, and mitigation is required.

Mitigation Measure 3.4-1: Avoid or Minimize Effects on Special-status Aquatic Species and Waters of the U.S. and State (described above)

Mitigation Measure 3.4-2. Compensate for Permanent Impacts to Wetlands and Aquatic Species Habitat (described above)

Significance after Mitigation

With implementation of Mitigation Measures 3.4-1 and 3.4-2, the project would minimize disturbance to and compensate for loss of wetlands and Waters of U.S. and State. Therefore, the impact to Waters of U.S. and State would be reduced to a **less-than-significant** level.

- d) **Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?**

No impact. A search of CDFW's California Essential Habitat Connectivity and Missing Linkages in California Landscape data did not identify any designated essential habitat connectivity areas or missing linkages on the project site or in the immediate project vicinity. Additionally, the project area does not contain known wildlife nursery sites. Therefore, there would be **no impact**, and no mitigation is required.

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

No Impact. The project does not conflict with local policies or ordinances protecting biological resources.

The Sacramento County General Plan Public Facilities Element (1993, as amended) includes the following policies for siting electrical facilities:

PF-69. Cooperate with the serving utility to minimize the potential adverse impacts of energy production and distribution facilities to environmentally sensitive areas by, when possible, avoiding siting in the following areas:

- Wetlands.
- Permanent marshes.
- Riparian habitat.
- Vernal pools.
- Oak woodlands.
- Historic and/or archaeological sites and/or districts.

PF-92. Transmission lines should avoid to the greatest extent possible, cultural resources and biological resources such as wetlands, permanent marshes, riparian habitats, vernal pools, and oak woodlands. When routed through such areas, transmission lines should have maximum line spans and cross at the narrowest points which involve minimal cutting and cropping of vegetation, maintaining the drainage regime of wetland basins. Additionally, when feasible, such routes should be maintained to serve as biological dispersion corridors between areas of high biodiversity.

PF-93. Protect native and non-native bird populations by incorporating electrocution prevention measures into the design of transmission towers.

The project has been designed to avoid sensitive habitats, including wetlands and vernal pools, to the extent feasible. The project would include the removal of several trees within the parcel east of the existing substation that would be converted to substation use. These trees are not oak species and are not protected by the County tree ordinance. The project would not conflict with local policies and would result in ***no impact***; no mitigation is required.

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

No Impact. The project site is not located within the plan area of an adopted habitat conservation plan, natural community conservation plan or other applicable and approved habitat conservation plan. As a result, it would not conflict with the provisions of any such plan. Therefore, the project would result in ***no impact***, and no mitigation is required.

3.5 Cultural Resources

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
V. Cultural Resources.				
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.5.1 Environmental Setting

In March 2023, AWE contacted the North Central Information Center (NCIC) of the California Historical Resources Information System (CHRIS) located at California State University, Sacramento with a request for a records search. The purpose of this review is to determine whether any portion of the project area has been surveyed for cultural resources and whether there are known archaeological or historic-era resources in the immediate area. The NCIC provided the results of a record search dated March 10, 2023. The record search was requested for the proposed project site and within a quarter-mile radius of that location.

The literature search conducted by the NCIC includes:

- OHP Historic Properties Directory & Determinations of Eligibility (March 2023);
- California Register of Historic Places (2023);
- California Inventory of Historic Resources (1976) (requested, but none listed);
- historic maps: General Land Office maps for T10N R5E 1856 and 1866; USGS quadrangles 1902 and 1954 Fair Oaks, and 1911, 1950, 1951, 1967, and 1975 Rio Linda;
- local inventories (requested, but none listed); and
- previous reports of surveys within the quarter-mile search radius.

State and federal inventories have no list of historic properties eligible for either the State or Federal Registers of Historic Places within or adjacent to the project. The West Levee Natomas East Main Drainage Canal and the Union Pacific Railroad/Western Pacific Railroad are both located approximately ½ mile west of the project. They have both undergone Determinations of Eligibility for the National Register of Historic Places and have both been determined ineligible through the National Historic Preservation Act Section 106 process.

The NCIC identified ten archived reports within a quarter-mile radius of the project. Portions of the project site have been previously surveyed. Multiple cultural resource surveys have been completed along the current transmission line corridors serving the existing SMUD and WAPA Substations. Two surveys have been completed on property to the west and south of the current Elverta Substation.

The NCIC reported that there is one recorded resource within a quarter-mile radius of the project. The archaeological resource was an isolate found at the edge of the quarter-mile radius.

A Sacred Lands File search conducted by the Native American Heritage Commission (NAHC) reported that the project area is negative for Sacred Lands.

There are no known historic-era resources within a quarter-mile radius of the project site. The house at 604 Elverta Road was built in 1947. This home is typical of homes built in the region at that time. It does not meet the criteria as a historical resource since it does not exhibit distinctive architectural characteristics and is not associated with persons or events important to local, California, or national history.

A qualified archaeologist conducted a pedestrian survey on April 11 and June 30, 2023. Due to access restrictions, a portion of the proposed transmission line easement for the new monopoles was not surveyed. During the pedestrian survey, ground visualization varied from moderate in areas of annual grassland and herbaceous vegetation, to fair in areas with comparatively sparse ground cover, abundant rodent kick-back, or disturbance related to the transmission line poles. The study area was surveyed using 15-meter transects.

The study area is considered low sensitivity for the surface presence of indigenous materials as low-lying areas throughout the project site and vicinity were subjected to annual inundation until flood control measures were undertaken in the early 1900s. No surface cultural resources were located during the pedestrian field survey.

3.5.2 Discussion

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

No Impact. The records search and the pedestrian survey revealed no built-environment historical resources within the project site. Therefore, there would be *no impact* to historical resources, and no mitigation is required.

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

Less than Significant with Mitigation Incorporated. No historical or archaeological resources listed on or eligible for the California Register of Historical Resources, or that meet other criteria of significance under Section 15064.5, were identified within the project work limits. However, there remains the possibility that historical or archaeological resources may be found during ground disturbing activities associated with construction of the proposed project. It is possible that previously undiscovered resources could be found during ground disturbing activities. Potential significant impacts to previously undiscovered historic and/or archaeological resources would be avoided through implementation of Mitigation Measure 3.5-1.

Mitigation Measure 3.5-1: Worker Environmental Awareness and Cultural Respect Training and Procedures for Inadvertent Discovery of Cultural Resources

Prior to excavation or other subsurface disturbance activities, individuals conducting the work will be required to participate in Worker Environmental Awareness and Cultural Respect Training. Workers will be advised to watch for cultural resource materials. If workers observe any evidence of pre-contact cultural resources (freshwater shells, beads, bone tool remnants or an assortment of bones, soil changes including subsurface ash lens or soil darker “midden” in color than surrounding soil, lithic materials such as flakes, tools or grinding rocks, etc.), or historic cultural resources (adobe foundations or walls, structures and remains with square nails, refuse deposits or bottle dumps, often associated with wells or old privies), all ground-disturbing activity within 100 feet of the discovery must immediately cease and a qualified archaeologist must be consulted to assess the significance of the cultural materials. SMUD will be notified of the potential find and a qualified archeologist shall be retained to investigate its significance. If the qualified archaeologist determines the archaeological material to be Native American in nature, Mitigation Measure 3.18-1 shall be implemented. If the find is determined to be significant by the archaeologist (i.e., because it is determined to constitute a unique archaeological resource), the archaeologist shall work with SMUD to develop and implement appropriate procedures to protect the integrity of the resource and ensure that no additional resources are affected. Procedures could include but would not necessarily be limited to preservation in place, archival research, subsurface testing, or contiguous block unit excavation and data recovery.

Significance after Mitigation

Implementation of Mitigation Measure 3.5-1 would reduce potential impacts to archaeological resources discovered during project construction activities to a **less-than-significant** level.

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

Less than Significant with Mitigation Incorporated. There are no known past cemeteries or burials on the project site or immediate area. However, because earthmoving activities associated with project construction would occur, there is potential to encounter buried human remains or unknown cemeteries in areas with little or no previous disturbance. This impact would be potentially significant.

Mitigation Measure 3.5-2: Procedures for Discovery of Human Remains

If human remains are discovered, all work within a 100 feet of the find must immediately cease, and the local coroner must be contacted. Procedures for the discovery of human remains will be followed in accordance with provisions of the State Health and Safety Code, Sections 7052 and 7050.5 and the State Public Resources Code Sections 5097.9 to 5097.99. If the Coroner determines that the remains are those of Native American origin, the Coroner shall contact the Native American Heritage Commission (NAHC) and subsequent procedures shall be followed, according to State Public Resources Code Sections 5097.9 to 5097.99, regarding notification of the Native American Most Likely Descendant. Following the coroner's and NAHC's findings, SMUD and the NAHC-designated Most Likely Descendant shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed.

Significance after Mitigation

Implementation of Mitigation Measure 3.5-2 would reduce potential impacts related to human remains to a **less-than-significant** level.

3.6 Energy

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
VI. Energy.				
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.6.1 Environmental Setting

The energy production landscape in California is built on regional power systems composed of a diverse mix of natural gas, petroleum, hydroelectric, and nuclear generation resources, and alternative and renewable sources. SMUD’s power mix data from 2021 (SMUD 2021) describes most grid power coming from natural gas, large hydroelectric, and renewables (wind).

SMUD serves a population of 1.5 million over 900 square miles. Substations like the existing Elverta Substation are crucial components of the SMUD power delivery system. Using transformers, substations transfer power from the transmission system to the distribution system that serves a particular area. That is, the substation reduces the voltage from the large transmission lines and moves that reduced power into a system that powers residential and commercial customers.

3.6.2 Discussion

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

Less than Significant. The proposed El Rio Substation project would not produce power, nor is there a product created by the substation itself that would require energy use. The project would replace and upgrade aging equipment in order to more efficiently and reliably transfer and distribute power already available on the SMUD power distribution grid.

Project-related consumption or use of grid-sourced energy and gas and diesel fuel is largely associated with construction and decommissioning work. This would be a temporary expenditure of energy. Energy would be consumed during project

construction to operate and maintain construction equipment, transport construction materials, and remove old electrical equipment and related construction debris offsite. Fuel would also be consumed by construction worker commutes to the project site. This one-time energy expenditure required to decommission the existing substation and construct the project would be nonrecoverable. However, because the energy needs for project construction would be temporary and are essential for the project implementation, resulting in long-term energy efficiency, the consumption would not be considered excessive or wasteful.

Salvageable components would be removed for reuse; non-reusable materials would be recycled (e.g., concrete) or scrapped (metal). See Section 3.19 for discussion of CALGreen Code and compliance with construction waste stream reduction requirements.

Operation and maintenance of the substation would require a negligible amount of on-site electricity for integration of the substation elements, such as security lighting. Fuels would also be utilized periodically to maintain equipment during operation and would be used in vehicles related to employees travel. Project operation would generate minimal vehicle trips associated with ongoing operation and maintenance of the substation, which would not be notably greater than the existing vehicle trips accessing the project site. These vehicle trips by SMUD employees would be essential to ensuring that the new El Rio Substation is safe and functional. Therefore, the project would not result in an inefficient, wasteful, or unnecessary consumption of energy resources. This impact would be ***less than significant***, and no mitigation is required.

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

No Impact. As discussed above, the project would not result in the inefficient, wasteful, or unnecessary consumption of energy resources. Furthermore, the project would not involve the construction or installation of any new significant energy-consuming buildings, structures, or equipment. The proposed lighting and monitoring equipment in the control building would replace existing Elverta Substation lighting and monitoring equipment. All lighting would be LED and meet or exceed California building efficiency codes (Title 24).

The purpose of the project is to replace aging electrical equipment and would result in increased efficiency in transmitting energy between source and end destinations and an increase in electrical transmission capacity. With the capacity to increase electrical power transmission to neighborhoods, options for commercial scale solar are increased; in this way, the El Rio Substation project would keep SMUD on track to meeting the goals established in SMUD's 2030 Zero Carbon Plan (SMUD 2021a) and California clean air and pollution reduction goals (Senate Bill 350). The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The project would have ***no impact***, and no mitigation is required.

3.7 Geology and Soils

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
VII. Geology and Soils.				
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.7.1 Environmental Setting

The topography of the existing Elverta Substation site is flat (Figure 3-3). The proposed El Rio Substation site would consist of a portion of the existing site and the immediately adjacent parcel, APN 202-0090-024-000. The adjacent parcel, in its existing condition, is nearly flat and is developed with a residence and numerous outbuildings to accommodate livestock production. The project site is located on Section 19 of Township 10 North, Range 5 East of the Rio Linda U.S. Geological Survey 7.5-minute topographic quadrangle, Mount Diablo Baseline and Meridian. The centroid coordinates of the project site are 38° 42' 47.6784" North, -121° 28' 37.2216" West.

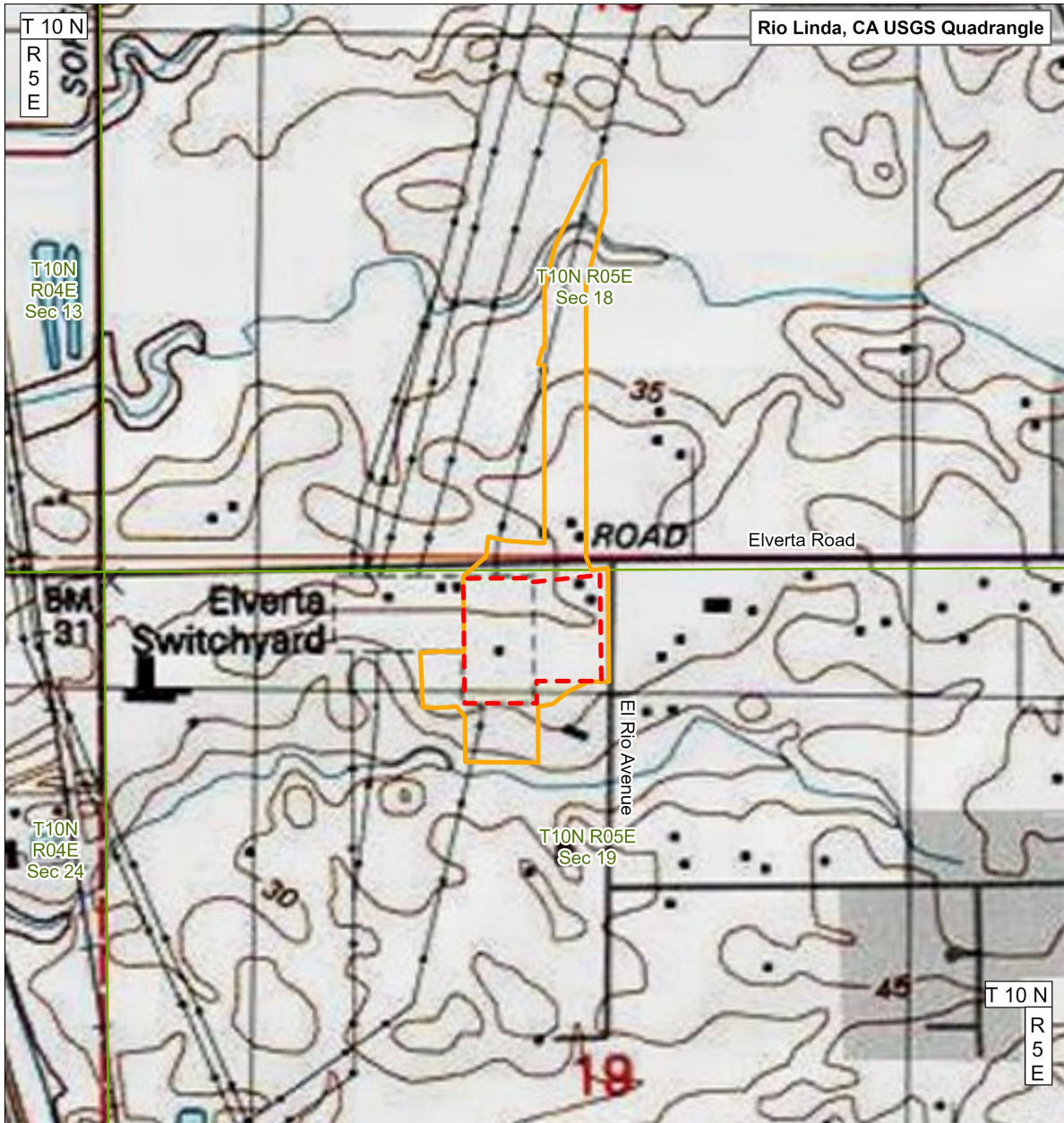
Geology and Soils

The Sacramento Valley forms the northern half of the Central Valley (or the Great Valley). Geologically, the Central Valley is a large basin of interbedded mud, silt, sand, and gravel thousands of feet deep overlies Sierran basement rocks. The Central Valley is bounded on the west by the Great Valley Fault Zone and the southern Coast Ranges and bounded on the east by the Sierra Nevada and the Foothills Fault Zone (SWRCB 2016).

Most of the surface of the Central Valley is covered with alluvial deposits, both Holocene and Pleistocene (Wagner, D.L., et al. 1981), that were transported by water from the newer mountain ranges, the Coast Ranges to the west and the Sierra Nevada to the east. Most of the Sacramento Valley is underlain with Pleistocene age geologic units, known originally as the Victor Formation (now divided into the Riverbank and Modesto Formations) and is described as composed of interbedded sand, silt and clay with lenses of gravel and includes meandering stream deposits composed of poorly sorted cobbles, gravel and sand (California Department of Water Resources [DWR] 1974).

Native soils within the proposed El Rio Substation area, as mapped by the Natural Resources Conservation Service's (NRCS) Web Soil Survey, consist of the San Joaquin soil series (Map Unit 211) (NRCS 2023) (Figure 3-4). This series is described as occurring on a flat to hummocky landscape at low elevations. The San Joaquin series is composed of sandy loam soils, moderately to well-drained underlain by a clay loam and hardpan. These soils formed in alluvium and derived from mixed, but dominantly granitic, rock sources; some soil areas within the lower slope unit are described as sticky and plastic with very slow permeability and are subject to rare or occasional flooding (NRCS1999). The San Joaquin soil series is a typical 'capping' soil occurring above quaternary deposits, including the Riverbank Formation, and is common to the San Joaquin and Central Valleys (Shelmon et al. 2000; Anderson, et al. 2018).

Native soils along the proposed layout line for the new transmission towers include both the San Joaquin Series soils and Hedge Series soils (Figure 3-4). The Hedge soil is mapped by the NCREC as Hedge Loam (Map Unit 157).



SMUD EL RIO SUBSTATION CONSTRUCTION PROJECT

The Project Site is located entirely within the Rio Linda, California USGS 7.5-minute quadrangle map. The Project Site occurs in Township 10 North, Range 05 East, Sections 18 and 19, Mount Diablo Meridian; and encompasses approximately 12.19 acres.

Coordinates for the center point of the Project Site (calculated in California State Plane Zone II, NAD 1983):
Latitude: 38.713238, Longitude: -121.476992

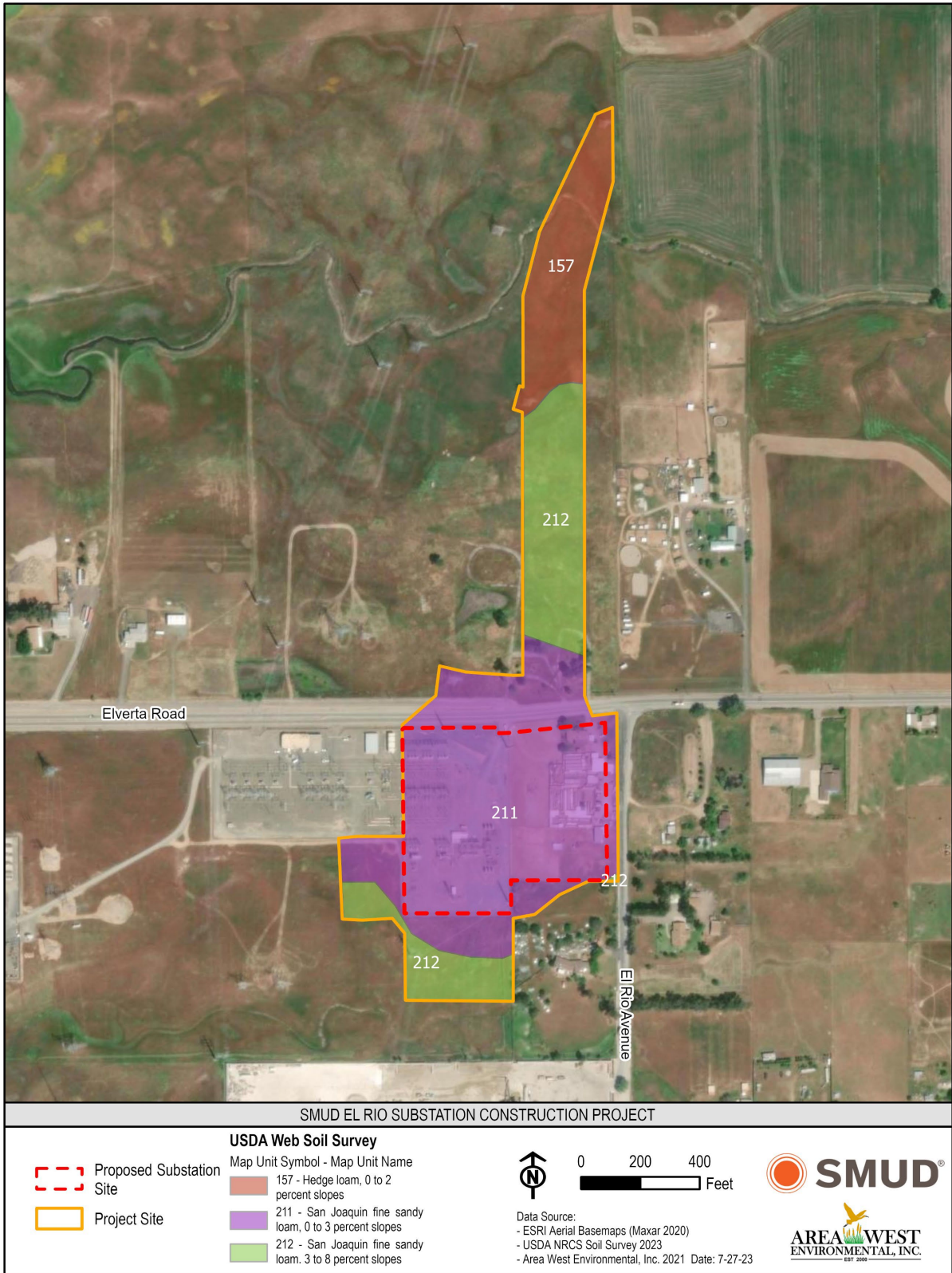
- Project Site
- Proposed Substation Footprint
- Township Range Section



Data Source:
- USA Topo Maps 2013; USGS 7.5-minute quadrangle maps; Public Land Survey System (PLSS); Date: 7/27/23

Document Path: D:\AWE\20-006AWE-006 El Rio Substation\ArcPro Projects\20-006-006 El Rio Substation\20-006-006 El Rio Substation.aprx

Figure 3-3. Topography



D:\AWE\20-006\AWE-006 El Rio Substation\ArcPro Projects\Soil\20-006-006 El Rio Soil Survey\20-006-006 El Rio Soil Survey.aprx

Figure 3-4. Soils

This soil type had previously been undistinguished from the San Joaquin series as it is similarly formed in alluvium, is derived from granitic rock sources, and has the familiar hard pan characteristic. The primary difference between the soil types is that the Hedge Loam is much more friable and is not described as highly plastic (NCRS 2003).

Paleontological Resources

The Society of Vertebrate Paleontology (SVP) has established guidelines for the identification, assessment, and mitigation of adverse impacts on nonrenewable paleontological resources which were approved through a consensus of professional paleontologists and reflect the currently accepted standard practices (SVP 2010). The guidelines are referenced herein as many federal, state, county, and city agencies have either formally or informally adopted the SVP's standard guidelines for the mitigation of adverse construction-related impacts on paleontological resources.

SVP outlined criteria for screening the paleontological potential of rock units and established assessment and mitigation procedures tailored to such potential (SVP 2010). A *High Potential* is generally assigned to rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered. Rocks units classified as having high potential for producing paleontological resources usually include sedimentary formations and some volcanoclastic formations (e.g., ashes), and some low-grade metamorphic rocks, sedimentary rock (middle Holocene and older, and various sandstones). A *Low Potential* is assigned to geologic units that are not known to have produced a substantial body of significant paleontological material or are, by scientific consensus, known to only preserve fossils in rare circumstances.

Alluvial deposits mapped in the project area are quaternary with both Holocene and Pleistocene strata. The depth of newer Holocene soils has been described in general terms as up to 150 feet thick toward the midpoint of the Central Valley (SWRCB 2016). Estimates specific to the Pleistocene, Victor (Riverbank) Formation are more conservative, estimating the Holocene layer to be between zero and 100 feet in thickness (0-30.5± m). The thickness is important because young alluviums, like the Holocene strata, generally consist of sediments too young to produce fossils (Kunkel and Upson 1960) whereas the Pleistocene strata, in particular the Riverbank Formation, often contributes fossils (Shelmon et al. 2000; Anderson, et al. 2018). At the Arco Arena site, approximately 5 miles to the southwest of the project site and underlain by the Riverbank Formation, construction excavation resulted in the recovery of mammal fossils starting at 11.5 feet below the valley floor. Most paleontological discoveries in the Sacramento area are a result of excavation (Anderson, et al. 2018).

The County of Sacramento recognizes the possibility of potentially significant undiscovered Paleontological Resources and includes specific policies for managing discretionary permits in the Conservation Element of the County's General Plan (Sacramento County 1993, as amended 2017):

- **CO-161.** As a condition of approval for discretionary projects, require appropriate mitigation to reduce potential impacts where development could adversely affect paleontological resources.
- **CO-162.** Projects located within areas known to be sensitive for paleontological resources, should be monitored to ensure proper treatment of resources and to ensure crews follow proper reporting, safeguards and procedures.

Seismicity

The closest quaternary fault to the project alignment with evidence of displacement is Dunnigan Hills Fault (approximately 21 miles to the west north of Woodland). An older, pre quaternary fault with no recognized displacement is the Willows Fault zone that is mapped by the California Geological Survey (CGS) as occurring approximate 0.9 miles to the east of the project site. In general, active faults are located along the margins of the valley (CGS,2015; Jennings and Bryant, 2010). According to the California Geological Survey Earthquake Shaking Potential for California, the Sacramento region generally experiences lower levels of infrequent shaking due to the regions distance from known, active faults. However, large magnitude earthquakes from those distant faults could still cause strong shaking (CGS 2016). The project site is not located in a designated State of California Seismic Hazard Zone for liquefaction, and is not identified by the Sacramento General Plan as an area of potential liquefaction (CGS 2021; Sacramento County 1993).

3.7.2 Discussion

- a) **Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:**
 - i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)**
 - ii) **Strong seismic ground shaking?**
 - iii) **Seismic-related ground failure, including liquefaction?**
 - iv) **Landslides?**

No Impact. No Alquist-Priolo Earthquake Fault Zones exist in Sacramento County (CGS 2015; CGS 2021). The project site is located in the Sacramento Valley, which has historically experienced a low level of seismic ground shaking. The California Geological Survey has identified the region as an area of low to moderately low earthquake shaking potential (CGS 2016). The project would be constructed in a manner consistent with the California Building Code (CBC) Title 24, which identifies specific design requirements to reduce damage from strong seismic ground shaking, ground failure.

Liquefaction, though possible under specific circumstances, is not mapped as a hazard in the Sacramento area. The project would not expose people or structures to adverse effects caused by the rupture of a known fault.

The project site is located within an area of low relief, having nearly flat terrain. Implementation of the project would involve grading and installation of drainage features within the project site. Because the project site is flat, slope stability, landslides do not present substantial hazards to people and property.

Consequently, the project would result in **no impact** related to known earthquake faults, strong seismic ground shaking, ground failure including liquefaction and landslides, and no mitigation is required.

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

Less than Significant. Ground disturbance is estimated to encompass a disturbed area of up to 10 acres with approximately 60,000 square feet of new impervious surface area. Excavation depths are estimated to be 9 to 12 feet for the retention basin, 20 to 25 feet for the electrical equipment component foundations, and up to 30 feet for the monopole foundations.

Construction of the project would include clearing and grading the adjacent parcel to create a level surface and excavation for project components and monopole installation. This activity may result in the short-term placement of soil in stockpiles during grading and excavation activities. Stockpiled soils would be exposed to wind and water erosion that could transport sediments onto adjacent parcels. Site-specific effects of erosion are generally limited to construction when stormwater runoff can carry sediment into local waterways or fugitive dust emissions. As part of the project, a SWPPP would be prepared (See Section 3.10). This plan would address the movement, relocation, staging, and use of soil stockpiles on the project site, and would include dust and erosion control measures related to the movement and use of stockpiles as well as track-out prevention measures and other stormwater pollution prevention controls. With the implementation of the required SWPPP and associated BMPs (see also Section 3.10), the impact would be **less than significant**, and no mitigation is required.

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

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

Less than Significant. The Natural Resource Conservation Service (NRCS) soil mapping describes project soil as composed of the San Joaquin Series and Hedge Loam. The San Joaquin Series may be considered an expansive soil due to the high clay content and association with shrink-swell potential.

The project site is not located in a known subsidence area as denoted by the DWR's 2017 Global Positioning System Survey of the Sacramento Valley (2018). However, there are soils present in the project area that exhibit the potential to subside because of their shrink-swell potential.

Prior to final design, SMUD would conduct a geotechnical engineering investigation and implement geotechnical recommendations in the final project design. The geotechnical engineering investigation, prepared by a licensed engineer, will evaluate the subsurface soil and geologic conditions underlying the proposed development areas (site soils, geologic conditions, groundwater, and other hazards) and, based on conditions encountered, will provide recommendations for design and construction methods, including reuse potential of existing soils. The geotechnical investigation would inform the project final design and construction plans so that, if needed, specific measures to manage expansive soils would be implemented. The project does not include housing or other land uses that would increase exposure of people to geologic risks. With compliance with geotechnical recommendations and building codes, the project would have a **less than significant impact** related to unstable or expansive soils, and no mitigation is required.

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

Less Than Significant Impact. A restroom would be constructed for SMUD employee use during project operations. The project is expected to install a septic system to support the planned restroom. The NCRS soil series may present difficulties for septic leach fields, however this is highly dependent on the system design and the site conditions. In compliance with the Sacramento County On-Site Wastewater Treatment Systems and Local Agency Management Program (Sacramento County 2015), the project would conduct soil sampling and percolation testing and meet siting requirements to obtain an approved septic permit.

During construction, the project would use portable restroom facilities that would be located where work is occurring. Portable restroom facilities would be regularly cleaned and maintained to comply with health and safety codes.

Compliance with existing environmental health regulations would ensure that the impact of the waste disposal systems (temporary and permanent) on the surrounding environment is **less than significant**, and no mitigation is required.

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

Less than Significant with Mitigation Incorporated. While a search of the University of California Museum of Paleontology (UCMP, ucmpdb.berkeley.edu) collections database did not identify any evidence of significant paleontological resources in the specific project area, most of the returned results (126 results total) are attributable to the Riverbank Formation. Since fossil vertebrates have been previously reported from this formation, the Riverbank Formation is considered to have high sensitivity for paleontological resources. Although the depositional conditions (depth at which the Pleistocene, Riverbank formation would occur) are unknown, there is a risk of encountering paleontological resources during construction. The project would have a **potentially significant** impact, and mitigation is required.

Mitigation Measure 3.7-1: Worker Environmental Awareness Training and Procedures for Inadvertant Discovery of Paleontological Resources

A Worker Environmental Awareness Training (WEAT) will be presented for all construction workers prior to the start of ground disturbing activities (including vegetation removal, grading, excavation, etc.). The training session shall discuss the recognition of the types of paleontological resources that could be encountered within the project site and the procedures to be followed if they are found. Documentation shall be retained demonstrating that all construction/decommissioning personnel attended the training.

SMUD will retain an on-call paleontologist to respond to potential finds during project construction. If potential paleontological resources are uncovered during on-site construction activities, all work must stop immediately within 100 feet of the find and a qualified paleontologist shall evaluate the deposits. The paleontologist will be responsible for assessing any evidence of paleontological resources encountered during construction. If the find is deemed significant, it should be salvaged by the paleontologist following the standards of the SVP (2010) and curated with a certified repository. Work in the area may resume after authorization is granted by SMUD's project manager in consultation with the paleontologist.

Significance after Mitigation

With implementation of Mitigation Measure 3.7-1, potential impacts to paleontological resources would be avoided or reduced to a **less than significant** level.

3.8 Greenhouse Gas Emissions

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
VIII. Greenhouse Gas Emissions.				
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.8.1 Environmental Setting

Various gases in the earth’s atmosphere, classified as atmospheric greenhouse gasses (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. Greenhouse gases, 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. Among the prominent GHGs contributing to the greenhouse effect are carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

GHG emissions from human activities have greatly increased GHG concentrations in the atmosphere and caused levels of warming far above natural levels, resulting in global climate change. In California, these activities are associated primarily with transportation (passenger vehicles and heavy-duty vehicles are top contributors), followed by industrial/manufacturing activities, electricity generation and consumption, residential and commercial on-site fuel use, and agriculture (including livestock) (ARB 2022).

The state of California is leading the nation in setting goals and regulating GHG reduction. The most notable of these is Assembly Bill (AB) 32 – California Global Warming Solutions Act of 2006 (AB 32), which requires that ARB adopt a quantified cap on GHG emissions representing 1990 emissions levels, disclose how it arrives at the cap, institute a schedule to meet the emissions cap, and develop tracking, reporting, and enforcement mechanisms to ensure that the state achieves reductions in GHG emissions necessary to meet the cap.

SMAQMD is the primary agency responsible for addressing air quality concerns in Sacramento County and has established quantitative significance thresholds for evaluating GHG emissions. For construction emissions generated by land development projects, the SMAQMD threshold is 1,100 metric tons per year of CO₂ equivalent (MTCO_{2e}) (SMAQMD 2020).

An Air Quality and Greenhouse Gas Impact Assessment was prepared for the project (Ambient Air Quality and Noise Consulting, 2023a) and provides a description of the existing setting related to climate change, a summary of the regulatory framework, and a quantitative analysis of GHG emissions associated with the project. These results are summarized below.

3.8.2 Discussion

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

Less than Significant. Project operation would not generate substantial GHG emissions because operational activities would be limited to occasional and infrequent monitoring and maintenance that would be equivalent to the emissions generated by the existing substation. However, the project would generate GHGs during construction from the use of heavy-duty off-road construction equipment and vehicle use for worker commutes.

Estimated increases in GHG emissions associated with the construction of the proposed project were modeled using CalEEMod. Table 3-2 presents results of the modeling conducted.

Table 3-2. Construction-related Greenhouse Gas Emissions

Construction Year	Activities	GHG Emissions (MTCO _{2e} /year)	Exceeds Threshold of 1,100 MTCO _{2e} ?
Year 1		669	No
Year 2		263	No
Year 3		180	No

Yearly GHG emissions for construction would not exceed the 1,100 MTCO_{2e}/year threshold established by SMAQMD. This impact would be **less than significant**, and no mitigation is required.

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

No Impact. Plans, policies, and regulations adopted for the purpose of reducing GHG emissions are developed with the purpose of reducing cumulative emissions related to

long-term operational emissions. The project would not generate substantial GHG emissions during operations. Construction-related GHG emissions would be finite and would not exceed SMAQMD's threshold for construction emissions, which were established in order to support statewide GHG emission targets. Additionally, the project would improve the electricity distribution infrastructure, which would help to further reduce community-wide GHG emissions. For these reasons, the proposed project would not conflict with local or state GHG-reduction planning efforts. There would be ***no impact***, and no mitigation is required.

3.9 Hazards and Hazardous Materials

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

3.9.1 Environmental Setting

The existing Elverta Substation uses limited amounts of SF₆, a common insulating gas for high-voltage electrical systems. Use of SF₆ at the existing substation complies with ARB regulations for reduction of SF₆ emissions. As part of substation operations and maintenance activities, SMUD monitors existing substation equipment to accurately and

immediately identify any SF₆ leaks and immediately repair leaks that are discovered. SMUD is also an active member of the SF₆ Emission Reduction Partnership, which focuses on reducing emissions of SF₆ from transmission and distribution sources. The Elverta Substation also contains a propane tank that serves the existing telecommunications tower within the substation.

The State Water Resources Control Board's GeoTracker website provides data relating to leaking underground storage tanks (LUSTs) and other types of soil and groundwater contamination, along with associated cleanup activities. The GeoTracker website identifies LUST incidents that occurred at the WAPA-owned substation located at 736 Elverta Road, immediately west of the SMUD Elverta Substation and at the adjacent WAPA Elverta Maintenance facility located at 7940 Sorento Road. The WAPA-owned substation record at 736 Elverta Road describes a 1986 release of oil from a LUST, resulting in polychlorinated biphenyls (PCBs) and total petroleum hydrocarbons (TPH) soil contamination; soil cleanup activities concluded and the case was closed in 1992 (case number 340681; SWRCB,2023). The other WAPA record at 7940 Sorento Road describes a 1997 gasoline release from an underground storage tanks (UST) with potential for groundwater contamination; the case was closed in 2017 following extensive groundwater testing and reporting. Post-closure site management requirements include notification prior to change in land use, development, or subsurface work (case number 341148; SWRCB,2023). These LUST incidents have both been closed, having received letters of No Further Action required from the Sacramento County Environmental Management Department confirming completion of site investigation and remedial actions (SWRCB 2023; California Department of Toxic Substances Control's [DTSC] 2023).

The DTSC EnviroStor website, which provides data related to hazardous materials spills and cleanups, did not identify additional hazards related to any cleanup sites on or near the project site (DTSC 2023).

No schools are located within one-quarter mile of the project site. The project site is located within the Twin Rivers Unified School District. The closest school to the project site is the Elverta Elementary School, located 0.65 miles east of the project site at 7900 Eloise Avenue.

The nearest airports are the privately owned Freedom Field located approximately 3 miles northeast of the project site and the public use airstrip Rio Linda Airport located approximately 3 miles southeast of the project site. The Sacramento International Airport is located approximately 6 miles to the west, southwest of the project site.

The project site is located in a local responsibility area that is not mapped as a very high fire hazard severity zone (California Department of Forestry and Fire Protection [CAL FIRE] 2008).

3.9.2 Discussion

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

Less than Significant. Construction activities would involve the use of hazardous materials, such as fuels, gasoline, and oil. These materials would primarily be contained within construction equipment but may also be stored on site or transported to the site and may be replenished or disposed of periodically. The use and storage of these materials during construction could potentially expose and adversely affect workers, the public, or the environment through improper handling or use, accident, environmentally unsound disposal methods, fire, explosion, or other emergencies. Exposure to hazardous materials may result in adverse health or environmental effects.

The California Highway Patrol and California Department of Transportation are responsible for enforcing regulations related to the transportation of hazardous materials on local roadways, and the use of these materials is regulated by DTSC, as outlined in CCR Title 22. SMUD and its construction contractors would be required to comply with the California Environmental Protection Agency's (CalEPA) Certified Unified Program Agencies (CUPA), which protects Californians from hazardous waste and hazardous materials by ensuring consistency throughout the state regarding the implementation of administrative requirements, permits, inspections, and enforcement at the local regulatory level. Regulated activities would be managed by the Sacramento County Environmental Management Department (EMD), CUPA, and in accordance with the regulations included in the Unified Program (e.g., hazardous materials release response plans and inventories, California Uniform Fire Code hazardous material management plans and inventories). Compliance with these regulations would reduce the potential for accidental release of hazardous materials during project construction.

Because the project would disturb greater than 1 acre of land, it also would be subject to the requirements of the Construction General Permit (CGP). As described in Section 3.10 Hydrology and Water Quality, this permit requires preparation and implementation of a SWPPP which includes good site housekeeping measures, including protocols for proper storage, capture, and disposal of hazardous materials.

Operation of the project would involve minimal transport, use, and disposal of hazardous waste. Similar to the existing substation, the proposed El Rio Substation would use limited amounts of SF₆. Use of the proposed switchgear equipment would comply with recordkeeping, reporting, and leakage emission limit requirements in accordance with ARB regulations for reduction of SF₆ emissions. As part of substation operations and maintenance activities, SMUD would monitor existing substation equipment to accurately and immediately identify any SF₆ leaks and immediately repair leaks that are discovered.

Also similar to the existing substation, the El Rio Substation would utilize a highly refined mineral oil within transformers and other components. While the oil is not toxic, secondary containment and/or diversionary structures or equipment would be integrated into the project design, as feasible, to prevent an oil discharge. After the substation has been in

operation for an extended period of time, the transformer oil would require filtering. Impurities in the filtrate would either be removed and recycled or disposed of in accordance with federal, state, and local hazardous waste disposal requirements.

Due to the battery system which would be located inside the control building or in an enclosure in the substation and amount of SF₆ that would be onsite, a Hazardous Materials Business Plan (HMBP) would be required. While there are exceptions, a HMBP is generally required if operation of the project includes the handling or storage of hazardous materials equal to or greater than the minimum reportable quantities. These quantities are 55 gallons for liquids, 500 pounds for solids and 200 cubic feet (at standard temperature and pressure) for compressed gases (CalEPA 2023).

The project also may be subject to the US Environmental Protection Agency (USEPA) Spill Prevention, Control and Countermeasure (SPCC) rule, which requires preparation and implementation of an SPCC plan, including identification and implementation of appropriate secondary containment measures designed to contain oil releases from the transformers. The SPCC criteria include facilities that store greater than 1,320 gallons of oil and have a reasonable expectation of a discharge to water (USEPA 2022). SMUD's existing SPCC Plan would be revised to incorporate the proposed EI Rio Substation.

The project would maintain the existing propane tank, which would continue to serve the existing telecommunications tower. The project would not store or use additional fuels or chemicals onsite.

Project operation would comply with USEPA's SPCC and CalEPA's CUPA programs and are subject to Occupational Safety and Health Administration (OSHA) and California Division of Occupational Safety and Health (Cal/OSHA) regulations, which include requirements for the protection of worker health and safety. Compliance with these programs would include procedures that identify methods and techniques to minimize the exposure of the public and workers to potential hazardous materials during all phases of project construction and operation.

The project would be required to comply with existing laws and regulations regarding the transportation, use, and disposal of hazardous materials. These regulations are specifically designed to protect the public health and the environment and must be adhered to during project construction and operation. Because the project would comply with applicable regulations, the impact would be ***less than significant***, and no mitigation is required.

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

Less than Significant with Mitigation Incorporated. Construction of the project would involve use, transport, storage, and disposal of hazardous materials, including, but not limited to, diesel fuel, gasoline, and lubrication oil. These materials would primarily be contained within construction equipment, but may also be stored on-site and

transported to and from the site. Use of these materials could potentially result in accidental spills that could release hazardous materials into the environment.

As described in Section 3.10 Hydrology and Water Quality, the project would be required to obtain coverage under the CGP, which requires preparation and implementation of a SWPPP. The SWPPP would include good site housekeeping measures for proper storage and management of hazardous materials, as well as spill prevention, control, and counter-measures. Implementation of the SWPPP would greatly reduce the potential for construction activities to result in accidental releases of hazardous materials.

The proposed project would be expanding onto adjacent property to the east and south of the existing substation. Recent and historical aerial photographs suggest surface dumping of unknown materials has occurred on the parcel to the east. Hazardous materials contamination in rural areas is more typically associated with activities such as agricultural processing and domestic disposal. SMUD completed a Phase I Environmental Site Assessment (ESA Phase 1) for the parcel to the east to identify potential environmental risks to the property, such as current or historic operations that are known or suspected to have used hazardous substances or petroleum products during onsite operations (Brown and Caldwell, 2023). The Phase I ESA did not identify any recognized environmental conditions indicating known contamination or the potential for the subsurface to have been impacted by contamination (either from the subject property or possibly from an offsite source).

The project's ESA Phase I evaluated the potential for ACM and LBP onsite. Based on the age of multiple buildings constructed onsite, the potential exists for ACM and LBP to be present. Demolition activities have potential negative air quality impacts, including issues surrounding the proper handling, demolition, and disposal of ACM (see Section 3.3). The proposed demolition of approximately 21,000 square feet of existing onsite structures may expose construction workers to contaminated dust emissions that contain hazardous constituents, including ACM and LBP. Impact on air quality and health due to handling, demolition, and disposal of ACMs and LBP is considered ***potentially significant***.

During earth moving activities, water would be applied uniformly and lightly throughout the site to provide adequate control of nuisance dust. As discussed in Section 3.3, Air Quality, the SWPPP would satisfy the requirements of the Fugitive Dust Rule 403 to reduce PM emissions. This rule would also limit the amount of contaminated dust emitted by the project to the extent feasible, thus reducing the potential for inhalation of contaminated soils associated with the site.

In compliance with state and federal regulations (SWPPP, Cal/OSHA, OSHA, HMBP, and SPCC) accidental releases of hazardous materials during construction of the project would be unlikely to occur. Should a release occur, potential impacts on the public and the environment would be minimized. While the potential to encounter contaminated soil or groundwater is considered low, this impact would be ***potentially significant***.

Mitigation Measure 3.3-2. Survey, Remove, and Dispose of ACM and LBP
(described in Section 3.3 above)

Mitigation Measure 3.9-1: Manage Accidental Discovery of Hazardous Materials

If contaminated soils or potentially hazardous items are discovered during earth moving activities, all ground-disturbing activities within 50 feet shall be halted until a qualified SMUD employee or SMUD representative can assess the conditions on the site. SMUD will notify the appropriate agency (e.g., Sacramento County EMD) to determine if it is appropriate to rebury the potentially hazardous materials. If it is determined that the hazardous material cannot be re-incorporated into the project site, it shall be hauled by a qualified hauler to an appropriate waste disposal facility.

Significance after Mitigation

Mitigation Measure 3.3-2 would require an ACM and LBP survey prior to demolition activities, and if present, the materials would be remediated prior to any renovation or demolition consistent with state and local regulations. The potential impact on air quality and health would be reduced to a **less than significant** level.

With implementation of Mitigation Measure 3.9-1, requiring that construction employees stop work in the event that suspicious soils or items are uncovered, the potential exposure risks would be reduced to a **less than significant** level.

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

No Impact. As described above, the closest school to the project site is the Elverta Elementary School, located 0.65 miles east of the project site at 7900 Eloise Avenue. Haul routes to and from the project site would be exiting from State Route 99 at West Elverta Road, located more than 3 miles west of the project site, and there are no schools located between State Route 99 and the project site. Compliance with existing laws and regulations regarding the transportation, use, and disposal of hazardous materials would protect the public health and the environment during construction of the project and use of the haul routes. Construction and operation of the project would not emit hazardous emissions within one-quarter mile of a school. There would be **no impact**, and no mitigation is required.

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?

Less than Significant with Mitigation Incorporated. Construction of the project would involve soil excavation, and thus could encounter soil contaminants that may have migrated from the LUST locations near the project site. This could potentially expose construction workers, the public, or the environment to hazards. However, measures for

detection, testing, and proper handling and disposal of potentially contaminated soils encountered during construction would avoid or substantially minimize any potential impacts from contaminated soils from known or unknown hazardous materials sources. While the potential to encounter contaminated soils from the previous LUST sites is considered low, this impact would be **potentially significant**.

Mitigation Measure 3.9-1: Manage Accidental Discovery of Hazardous Materials
(Described above)

Significance after Mitigation

Implementation of Mitigation Measure 3.9-1 would minimize potential for accidental release into the environment or a substantial hazard to the public. Thus, this impact would be reduced to a **less than significant** level.

- 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?**

No Impact. The nearest airports are the privately owned Freedom Field located approximately 3 miles northeast of the project site and the public use airstrip Rio Linda Airport located approximately 3 miles southeast of the project site. The Rio Linda overflight zone extends 5,000 feet from the airport, which does not include the project site. The Sacramento International Airport is located approximately 6 miles to the west, southwest of the project site. Review of the Sacramento International Airport land use compatibility plan indicates the project site is located approximately 1,000 feet east of the airport influence area. The project site is not located within an airport land use plan or within 2 miles of any public or public use airport. There would be **no impact**, and no mitigation is required.

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

Less than Significant. West Elverta Road is a main thoroughfare for the area and provides the most direct access to State Route 99. Elverta Road is a collector for State Route 99, identified as a potential evacuation route by the City of Sacramento Flood Depth & Emergency Evacuation Route (City of Sacramento 2015). The project would be developed on a private parcel with staging located away from public roads.

Construction of the project would involve operation and temporary storage of large construction equipment, excavation and hauling of excavated material, and transport and storage of construction materials. The substation would be constructed on a private parcel with staging located away from public roads. Because the project does not propose traffic control to stop, reroute, or block traffic during construction, project construction would not interfere with vehicle movement on public roadways and would not impede emergency response or evacuation procedures.

During normal operations, the project would be operated remotely and continuously in the same way the Elverta Substation was operated. There would be no onsite employees; onsite maintenance and inspection visits would occur approximately three times per month. Operational vehicle trips associated with project maintenance would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. There would be **less than significant impact** to emergency vehicle access or evacuation procedures, and no mitigation is required.

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

Less than Significant. The project site is not located within a designated very high fire hazard severity zone in a local responsibility area (CAL FIRE 2008). The project would involve use of combustion-engine construction equipment, as well as storage of potentially flammable materials, such as fuel or lubricating oil. Construction activities could potentially provide a spark or ignition source, or introduce materials that could combust or burn at high intensity if exposed to a heat source. Heat or sparks from a vehicle or hot work activities could ignite dry vegetation and cause fires. As such, construction activities could increase the risk of initiating a wildland fire.

Other than initial vegetation clearing activities, construction activities would be confined to areas that have been cleared of vegetation, including access roads and work areas. Vehicles and equipment would primarily use existing roads to access work areas, all of which would be cleared of vegetation to reduce fire potential.

While the use of fuels and construction equipment could pose a risk to fire ignition, the potential to result in a wildland fire is low because of the location and condition of the project site. Therefore, the impact related to the exposure of people or structures to the risk of loss, injury, or death involving wildland fires would be **less than significant**, and no mitigation is required.

3.10 Hydrology and Water Quality

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

3.10.1 Environmental Setting

Surface Water

The project site is located in the largest river basin in California, the Sacramento River Basin, and its tributaries cover approximately 27,000 square miles (National Marine Fisheries Service [NMFS] 2023). The project is located in the Upper Steelhead Creek watershed, an area of approximately 17,354 acres that is bounded by the constructed Natomas-East-Main Drainage Canal (aka Steelhead Creek) to the west, the Curry Creek drainage to the north, and the Dry Creek Drainage to the South.

The major rivers in the area, the American River and the Sacramento River, are over 6.5 miles away. There are several unnamed creeks in the Upper Steelhead Creek watershed, with the closest mapped by the National Wetlands Inventory (NWI) as a Riverine waterbody 380 feet south of the proposed substation (Figure 3-5). Approximately 0.5 miles to the north of Elverta Road and the proposed El Rio Substation is an unnamed tributary to the Natomas-East Main Drainage Canal.

Additional NWI features include a freshwater pond and emergent wetland areas located approximately 290 feet north of the substation and two emergent wetland features mapped over 300-feet west and south of project (Figure 3-5). As described in Section 3.4, there are wetlands in the project vicinity that are not mapped by the NWI (Figure 3-2).

Water Quality

The Lower American River from the Nimbus Dam in Folsom to the confluence with the Sacramento River, the Lower Sacramento River, and Natomas-East-Main Drainage Canal (aka Steelhead Creek) are listed as impaired waterways under the Clean Water Act, Section 303(d) (SWRCB 2022). The Lower American River is listed as impaired for: Insecticides (Pyrethroids, Bifenthrin), PCBs, Indicator Bacteria (*E. coli*), Mercury, Temperature, and Unknown Toxicity. The Natomas-East-Main Drainage Canal (aka Steelhead Creek) is listed as impaired for: Indicator Bacteria, Mercury, PCBs, and Trash. The Lower Sacramento River is listed as impaired for: Insecticides and Pesticides (Chlordane, DDT [Dichlorodiphenyltrichloroethane], and Dieldrin), Mercury, PCBs, Temperature, and Unknown Toxicity.

There are adopted Total Maximum Daily Load (TMDL) quantities for Pyrethroids and Mercury and/or Methylmercury associated with the major waterways in the project vicinity (SWRCB 2022). These TMDLs and other regional prohibitions for pollutants are identified in the Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board, Central Valley Region (RWQCB 2019).

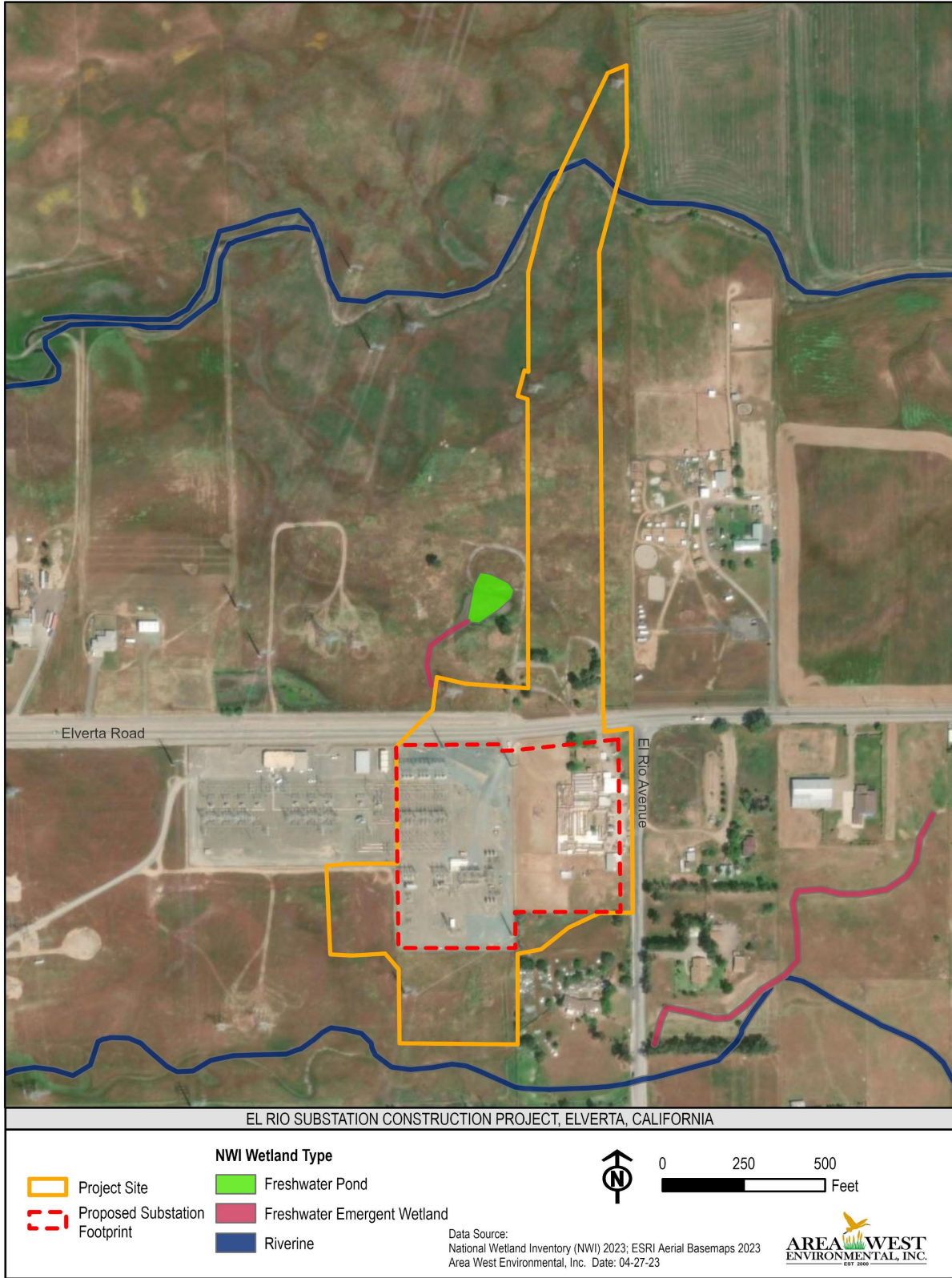


Figure 3-5. National Wetland Inventory Features

The SWRCB and regional water boards like the Central Valley RWQCB use water quality surveillance programs and cleanup and enforcement options as tools in achieving regulatory water quality objectives. However, one of the most important tools of the SWRCB in achieving the goal of protecting water resources is prevention of water quality impairment. A common means of prevention is through the issuance of National Pollutant Discharge Elimination System (NPDES) permits, waste discharge requirements (WDRs), discharge prohibitions, and other discharge restrictions. The national permit system only applies to certain surface water discharges. WDRs are called for by California Water Code, Section 13260, et seq. The WDRs system can be applied more liberally than the Federal NPDES and are used to control any type of discharge to ground or surface waters.

In California, the SWRCB is fully authorized by the USEPA to administer the NPDES permit program. The SWRCB regulates stormwater discharge related to construction activities (a NPDES program area) through the statewide stormwater general permit for construction activity (Order 2009-0009-DWQ). This permit, known as the CGP, is applicable to all construction activities that could cause off-site stormwater discharge and would disturb one acre or more.

Groundwater Basin; Groundwater

The Sustainable Groundwater Management Act (SGMA) was adopted in September 2014 with implementation beginning January 1, 2015. Uncodified legislative findings of SGMA state that properly managed groundwater resources help protect communities, farms, and the environment against prolonged dry periods and climate change, thereby preserving water supplies for existing and potential beneficial uses. The project site overlays the Sacramento Valley–North American Subbasin (NASb). The DWR has designated this subbasin as a high-priority groundwater basin under the SGMA, with most ‘priority points’ being awarded due to recorded decline in water levels and a rise in population (DWR 2020). The high-priority designation requires the adoption of a groundwater sustainability plan or submittal of an alternative plan.

There are two DWR monitoring wells in the vicinity of the project. One well (SCWA_SGA_007) is located 0.8 miles to the east of the project in close proximity to Elverta Road and the Natomas East Drainage Canal. Data from the last 10 years shows a high-water table 13 feet below the ground surface and a low water table 32 feet below the ground surface. The other well near the project site (SGA_MW01) is located 0.68 miles to the north, northeast near the intersection of Rio Linda Avenue and Elwyn Avenue. Data from the last 10 years shows a high-water table 32 feet below the ground surface and a low water table 65 feet below the ground surface. Hydrographs for the 2022 water year published in the North American Subbasin’s annual report estimate the ground water level at approximately 20-feet above sea level (GEI Consultants 2023). SMUD will complete a geotechnical investigation to confirm groundwater depths at the substation site before final design.

Water Use

There is a well on the existing Elverta Substation parcel. Wells in Sacramento County are permitted by the Sacramento County Environmental Management Department. The project area is served by the local water district, RLECWD, which secures water from 11 groundwater wells with limited inputs from surface waters.

Flooding

The majority of the project site is located in an area of minimal flood hazard; however, the southern portion of the project site, where the storm water retention basin is proposed, is in an area of 0.2 percent annual chance flood hazard (Figure 3-6). To the north, the existing transmission towers and their proposed monopole replacements would be located in a special flood hazard area as identified on the Federal Emergency Management Agency (FEMA) flood map (panel number 06067C0053J; FEMA 2015). Neither the existing poles, nor the monopole replacements would be located in a mapped floodway. Maximum flood depth maps indicate the project area would not be inundated under Sacramento River and American River 200-year flood and levee breach scenarios (City of Sacramento 2016).

3.10.2 Discussion

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

Less than Significant. Construction of the project would not significantly degrade surface water. The construction of the new El Rio Substation would require grading APN 202-0090-024-000, approximately 4.4 acres. This construction activity is therefore subject to the requirements and conditions of the NPDES program and the CGP. An important component of the CGP is the development and implementation of a SWPPP and subsequent tracking. A SWPPP is a site-specific plan in which potential pollution sources (slope erosion, track-out, wind dispersal, oil leaks, etc.) are identified and specific BMPs are developed and implemented to prevent water pollution. SMUD would submit a notice of intent and prepare a SWPPP that specifies BMPs to minimize water quality degradation during construction. SMUD would be required to implement the SWPPP and adhere to permit conditions during construction activities, thereby reducing potential impacts to surface water to a less than significant level.

Project operations would not have significant potential to degrade surface or groundwater quality. Runoff during project operations would be captured in the planned retention basin. The stormwater retention basin would be constructed south of the existing Elverta Substation in accordance with site drainage design requirements. In order to offset impacts from the increased amount of non-permeable surfaces (anticipated to be approximately 60,000 square feet), the proposed on-site retention basin would collect storm water in the basin, allowing pollutants to be captured by vegetation, slowing runoff velocity and allowing soil percolation.

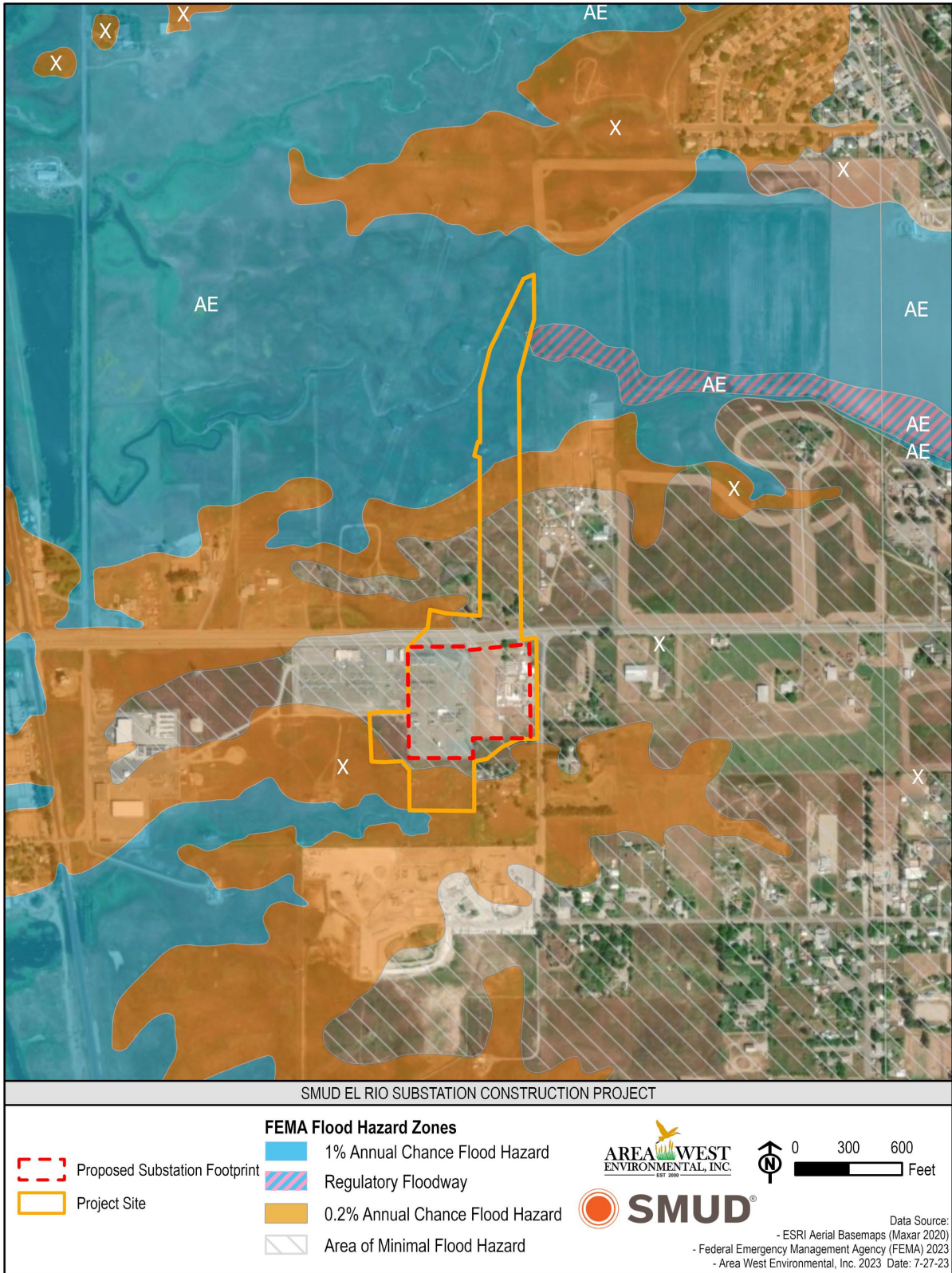


Figure 3-6. FEMA Flood Hazard Zones

The project would have a septic system; the system would be engineered and permitted such that all infiltration and setback requirements would be observed.

Because excavation depths for project components and monopoles would reach up to 30 feet below grade, there would be potential to encounter groundwater during construction. Wet excavation can be dangerous for equipment operators and construction workers and can result in surface or ground water contamination. The project would require a site-specific analysis of potential groundwater levels as part of the Geotechnical Engineering Investigation Report prepared for the project. Should this analysis indicate that the project would encounter groundwater during construction, the project would prepare a Construction Dewatering Plan that would describe dewatering strategies and applicable water quality protection measures to protect groundwater and surrounding surface waters from potential contamination. If construction site dewatering is required, the Construction Dewatering Plan will specify that pumped water shall not be discharged into any waters of the state. Should dewatering occur, the project is likely to qualify for coverage as a Low Threat Discharge under SWRCB's Water Quality Order 2003-0003-DWQ, which permits small and/or temporary dewatering projects (i.e., excavations during construction).

Since the project would be designed and constructed in compliance with regulatory requirements for surface and groundwater quality, this impact would be ***less than significant***, and no mitigation would be required.

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

Less Than Significant. The project would not increase demand for water supply or otherwise affect groundwater supplies. Construction water use would be limited to dust control and hand washing stations for construction employees. The water would be provided by the contractor using a licensed water carrier. Water use during construction would be limited in volume and duration, and would not affect groundwater supplies.

Operationally, the project restroom would provide employees a restroom facility that could be used when employees are on site (average of three times per month); SMUD does not expect an increase in the number of employees or frequency of employee site visits for the proposed substation above existing conditions. The restroom facilities would be constructed using low flow technologies to conserve water. Water for the restroom would be provided through an authorized connection to the RLECWD system or use of the existing onsite well. During project operations, the use of the restroom by SMUD employees would result in a negligible demand on water resources and would not have a measurable impact on groundwater supply.

The project would incorporate a retention basin to capture storm water runoff and, in that way, facilitate onsite groundwater recharge.

Project implementation would not substantially decrease groundwater supplies or interfere with groundwater recharge. As a result, this impact would be **less than significant**, and no mitigation is required.

- c) **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:**
- i) **Result in substantial on- or offsite erosion or siltation;**
 - ii) **Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;**
 - iii) **Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or**
 - iv) **Impede or redirect flood flows?**

Less than Significant. The substation has been designed so on-site runoff would be collected into an underground storm drain pipe system and a stormwater retention basin. There is potential for the basin to capture water beyond the intended runoff (sheet flow), but due to the very low slope in the area, and the proposed placement of the basin adjacent to the existing substation, the amount of intercepted sheet flow is expected to be negligible.

In addition, the proposed substation and electrical infrastructure is located within an area with minimal flood risk as identified on FEMA flood maps (FEMA 2015; Figure 3-6). The substation would not be subject to significant flood hazards. The proposed storm water retention basin would have some potential to experience flooding (0.2% annual chance of flood); as a retention basin, this project feature would not be adversely affected. To the north of the substation, two to three proposed monopoles would replace two lattice poles on a new alignment. These monopoles would be located in an area of special flood hazard but would not be located in a floodway and would not be a significant impediment to flood flows.

The project would not affect the existing hydrology or increase runoff to a degree that would result in substantial on- or off-site erosion or siltation, result in flooding off-site, exceed the capacity of existing or planned stormwater drainage systems, or impede or redirect flood flows. This impact would be **less than significant**, and no mitigation is required.

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

No Impact. The project site is at an inland location that is outside of any ocean-related tsunami zones. The site is separated from the American River and the Sacramento River by multiple flood control levees and is not identified as an area of significant risk of

flooding. Thus, the project would not be at risk of flood, seiche, tsunamis, or the release of pollutants from inundation. There would be **no impact**, and no mitigation is required.

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

Less than Significant. In June of 1998, the Board of Supervisors adopted the Rio Linda and Elverta Community Plan (RLECP). The RLECP specifies policies that address water quality and are applicable to the project:

- **PF10/ DR-2** Potential cumulative impacts to water quality resulting from construction activities within the Rio Linda and Elverta Community Plan area shall be mitigated through the enforcement of all appropriate ‘Best Management Practices’ and other requirements under the NPDES program.

As discussed under (a), above, the project includes implementation of a SWPPP and the construction of a storm runoff retention basin. The SWPPP would prevent sedimentation and other potential surface water pollution that may occur during project construction. The project would not result in a potentially significant impact on groundwater and would not obstruct a sustainable groundwater management plan. This impact would be **less than significant**, and no mitigation is required.

3.11 Land Use and Planning

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XI. Land Use and Planning.				
Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.11.1 Environmental Setting

In June of 1998, the Board of Supervisors adopted the RLECP. The guiding principles of this plan include the following:

- Retain the rural character of the communities.
- Maintain agricultural and agricultural-residential uses.

Surrounding land uses include agricultural, industrial, and scattered residential. The substation site and transmission line work area are located on portions of APN 202-0090-001-000, 202-0090-024-000, and 202-0030-039-000. The parcels in which the proposed substation and retention basin are located on have a County General Plan land use designation of “*IR – Interim Agricultural Reserve*” and are zoned “*AR-5: Agricultural – Residential 5 acres*”. To construct the new substation, SMUD would acquire parcel 202-0090-024-000, which has a County General Plan land use designation of “*AG-RES: Agricultural – Residential*” and is zoned “*AR-5: Agricultural/Residential – 5 acres*”. The residential property contains livestock operations onsite. Parcel 202-0030-039-000, where transmission line work would occur, a County General Plan land use designation of “*AG-CROP: Agricultural– Cropland,*” and is zoned “*AG-20: Agricultural – 20 acres*” (Sacramento County 2023).

The RLECP identified an urban development area in eastern Elverta. The urban development area, or the Elverta Specific Plan, encompasses 1,755 acres of land located approximately 1.5-miles east of the proposed El Rio Substation. The Elverta Specific Plan is primarily residential in character: it includes urban residential uses and agricultural-residential uses with a total holding capacity of up to 4,950 units; commercial uses; office/professional uses; schools; parks; open spaces; and detention facilities, trails, powerline corridor and major roads (Sacramento County 2007). The

RLECP identified the objective of provision of adequate energy facilities and services for all areas of the community.

3.11.2 Discussion

a) Physically divide an established community?

No Impact. The proposed project is expanding an existing facility and would have no impact on an established community. The closest community to the proposed substation site is the rural residents on the east side of El Rio Avenue. The proposed project does not introduce new travel corridors or other facilities that could divide the established community. Therefore, the proposed project would have **no impact**.

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

No Impact. Implementation of the proposed project would result in the expansion of an existing energy facility. The Sacramento County 2030 General Plan Public Facilities Element Section VIII: Energy Facilities sets forth a number of policies with the goal of appropriately siting energy facilities that efficiently and safely produce and distribute energy to Sacramento County residents without compromising environmental quality or human health. Public Facility (PF) policies applicable to the proposed project are presented in Table 3 -3.

Table 3-3. Sacramento County General Plan Energy Facility Polices

PF #	Sacramento County Public Facility Element Policy
PF-67	<p>Cooperate with the serving utility in the location and design of production and distribution facilities so as to minimize visual intrusion problems in urban areas and areas of scenic and/or cultural value including the following:</p> <ul style="list-style-type: none"> • Recreation and historic areas. • Scenic highways. • Landscape corridors. • State or federal designated wild and scenic rivers. • Visually prominent locations such as ridges, designated scenic corridors, and open viewsheds. • Native American sacred sites.
PF-68	<p>Cooperate with the serving utility in the location and design of energy production and distribution facilities in a manner that is compatible with surrounding land uses by employing the following methods when appropriate to the site:</p> <ul style="list-style-type: none"> • Visually screen facilities with topography and existing vegetation and install site-appropriate landscaping consistent with surrounding land use zone development standards where appropriate, except where it would adversely affect access to utility facilities, photovoltaic performance or interfere with power generating capability. • Provide site-compatible landscaping.

PF #	Sacramento County Public Facility Element Policy
	<ul style="list-style-type: none"> • Minimize glare through siting, facility design, nonreflective coatings, etc. except for the use of overhead conductors. • Site facilities in a manner to equitably distribute their visual impacts in the immediate vicinity.
PF-69	Cooperate with the serving utility to minimize the potential adverse impacts of energy production and distribution facilities to environmentally sensitive areas by, when possible, avoiding siting in the following areas: <ul style="list-style-type: none"> • Wetlands. • Permanent marshes. • Riparian habitat. • Vernal pools. • Oak woodlands. • Historic and/or archaeological sites and/or districts
PF-70	Cooperate with the serving utility so that energy production and distribution facilities shall be designed and sited in a manner so as to protect the residents of Sacramento County from the effects of a hazardous materials incident.
PF-85	To minimize visual impacts and protect the county's visual and aesthetic resources new bulk substations should be located in industrial and non-retail commercial areas when possible. To further minimize visual intrusion and potential land use conflicts, substations shall be enclosed with site-appropriate security fence in concert with a landscaped setback along all public street frontages.
PF-89	Wherever feasible, utilize existing transmission poles to accommodate new overhead transmission lines. If practical, existing and future transmission corridors should be shared by more than one utility company subject to the Northern California Joint Pole Agreement.
PF-92	Transmission lines should avoid to the greatest extent possible, cultural resources and biological resources such as wetlands, permanent marshes, riparian habitats, vernal pools, and oak woodlands. When routed through such areas, transmission lines should have maximum line spans and cross at the narrowest points which involve minimal cutting and cropping of vegetation, maintaining the drainage regime of wetland basins. Additionally, when feasible, such routes should be maintained to serve as biological dispersion corridors between areas of high biodiversity.
PF-93	Protect native and non-native bird populations by incorporating electrocution prevention measures into the design of transmission towers.
PF-96	Locate transmission facilities in a manner that maximizes the screening potential of topography and vegetation
PF-97	Utilize monopole construction, where practicable, to reduce the visual impact on a corridor's middle and distant views.

The project would not result in potentially significant impacts to human health or the quality of the environment. If the recommended mitigation measures are followed, the

proposed substation would constitute an appropriately sited energy facility that efficiently and safely produces and distributes energy to Sacramento County residents.

The parcels in which the proposed substation would be located on are zoned “IR – Interim Agricultural Reserve” and “AR-5: Agricultural – Residential 5 acres”. The proposed substation would not conflict with the existing zoning as substations are identified as a major utility and may be located in all zoning districts provided they comply with the design measures listed in Sacramento Zoning Code Section 3.6.6.A. (Sacramento County 2015).

3.6.6.A. Utility and Public Service Facility Uses, Major

1. Transmission Facilities of SMUD

c. Advisory for Other Permitting Requirements

(ii) Substations should be designed and constructed in such a manner as to minimize off-site visual and noise impacts. Planted or landscaped setbacks of at least 25 feet should be provided on all public street frontages of the parcel. For rights-of-way with PUPFs, planted or landscaped setbacks of at least 31 feet should be provided on all public street frontages of the parcel.

(iii) For rights-of-way with public utilities, public facilities easements, substations should be designed and constructed in such a manner as to minimize off-site visual and noise impacts. Planted or landscaped setback of at least 31 feet should be provided on all public street frontages of the parcel.

The substation design includes setbacks and landscaping consistent with Sacramento County’s design standards. The proposed project is consistent with applicable County General Plan and Zoning policies, would not result in the creation of a new land use that is inconsistent with current zoning, and would not conflict with plans, policies, or regulations adopted for avoiding or mitigating environmental effects. Therefore, the project would have ***no impact***, and no mitigation is required.

3.12 Mineral Resources

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XII. Mineral Resources.				
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.12.1 Environmental Setting

The proposed project is located in the northwestern portion of Sacramento County. Principal mineral resources in Sacramento County include construction aggregates (sand and gravel) and natural gas. Natural gas production areas are located in the southwestern extent of the county and aggregate deposits are located south of the American River (Sacramento County 1993). There are no mineral resource extractions activities near the project site.

Under the State Mining and Reclamation Act, areas containing economically significant mineral deposits are classified and mapped. The project site is not classified as an area that is likely to contain substantial mineral deposits (DOC 2018).

3.12.2 Discussion

- a) **Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**
- b) **Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?**

No Impact. The project site is not located near known mineral extraction activities or primary production areas of the county (Sacramento County 1993). The project site is not classified as an area that is likely to contain substantial mineral deposits (DOC 2018), so implementing the project would not result in the loss of known mineral resources that would be of value to the region or residents of the state. Therefore, there would be **no impact** and no mitigation is required.

3.13 Noise

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XIII. Noise.				
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.13.1 Environmental Setting

The project site is generally surrounded by agricultural and rural agricultural parcels with low housing density. The nearest residences are located approximately 240 feet from the southern project site boundary, and approximately 260 feet east of the project site.

A Noise Impact Report was prepared for the project (Ambient Air Quality and Noise Consulting 2023b) and is summarized in this section.

Acoustic Fundamentals

Acoustics is the scientific study that evaluates the perception, propagation, absorption, and reflection of sound waves. Sound is a mechanical form of radiant energy transmitted by a pressure wave through a solid, liquid, or gaseous medium. Sound that is loud, disagreeable, unexpected, or unwanted is generally defined as noise. Exposure to noise may result in physical damage to the auditory system, which may lead to gradual or traumatic hearing loss. Non-auditory behavioral effects of noise on humans are primarily subjective effects, such as annoyance, nuisance, and dissatisfaction, which lead to interference with activities such as communication, sleep, and learning.

The noise descriptors used in this section include:

Decibel (dB)	A unitless measure of sound on a logarithmic scale, which indicates the squared ratio of sound pressure amplitude to referenced sound pressure amplitude. The reference pressure is 20 micro-pascals.
A-Weighted Decibel (dBA)	An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
Energy Equivalent Noise Level (L_{eq})	The energy mean (average) noise level. The instantaneous noise levels during a specific period of time in dBA are converted to relative energy values. From the sum of the relative energy values, an average energy value (in dBA) is calculated.
Minimum Noise Level (L_{min})	The minimum instantaneous noise level during a specific period of time.
Maximum Noise Level (L_{max})	The maximum instantaneous noise level during a specific period of time.
Day-Night Average Noise Level (DNL or L_{dn})	The 24-hour L_{eq} with a 10 dBA “penalty” for noise events that occur during the noise-sensitive hours between 10:00 p.m. and 7:00 a.m. In other words, 10 dBA is “added” to noise events that occur in the nighttime hours to account for increased sensitivity to noise during these hours.
Community Noise Equivalent Level (CNEL)	The CNEL is similar to the L_{dn} described above, but with an additional 5 dBA “penalty” added to noise events that occur between the hours of 7:00 p.m. to 10:00 p.m. The calculated CNEL is typically approximately 0.5 dBA higher than the calculated L_{dn} .

Noise Regulations

Human annoyance, activity interference, sleep disruption, and land use compatibility determinations are typically based on the use of the cumulative noise exposure metrics that were first developed in the 1970s. The cumulative noise exposure metric (expressed as CNEL or L_{dn}) is currently the only noise metric for which there is a substantial body of research data and regulatory guidance defining the relationship between noise exposure, people’s reactions, and land use compatibility.

State of California Office of Planning and Research’s *General Plan Guidelines* (2017), which recommend an interior noise level of 45 dB CNEL/ L_{dn} as the maximum allowable interior noise level sufficient to permit “normal residential activity”.

The Sacramento County General Plan and Municipal Code draw upon existing state and federal standards to provide statutory Noise Control standards designed to protect people from excessive noise exposure. Generally, in residential zones of unincorporated Sacramento County, maximum exterior noise levels shall not exceed 55

decibels (dBA) between the hours of 7am to 10pm and 50 dBA between the hours of 10pm and 7am. These noise limits may be adjusted for, or exemptions may apply to certain activities.

The County has not adopted noise standards that apply to short-term construction activities (or residential area maintenance activities); these activities are generally considered exempt from the noise standards provided they occur between the daytime hours of 6:00 a.m. to 8:00 p.m., Monday through Friday, and 7:00 a.m. to 8:00 p.m. on Saturday and Sunday (Sacramento County 2023). Based on screening noise criteria commonly recommended by federal agencies, construction activities would generally be considered to have a potentially significant impact if average-hourly daytime noise levels would exceed 80 dBA L_{eq} at noise-sensitive land uses, such as residential land uses (Federal Transit Authority [FTA] 2018).

Ground Vibration

While noise is generally defined as sound that is loud, disagreeable, or unexpected, 'sound,' is essentially mechanical energy transmitted in the form of a wave because of a disturbance or vibration. Similar to auditory vibrations, ground borne vibrations can result in physical damage to existing infrastructure and cause annoyance, nuisance, and dissatisfaction, which lead to interference with activities such as communication, sleep, and learning.

To address the human response to ground vibration, the California Department of Transportation (Caltrans) published the Transportation and Construction Vibration Manual (Caltrans 2020) that provides general guidance on vibration issues associated with construction and operation of projects in relation to the potential for structural damage and human perception (see Table 3-4).

Table 3-4. Caltrans Recommendations Regarding Levels of Vibration Exposure

Potential Impact	Transient Sources	Continuous/ Frequent Intermittent Sources
Structure and Condition	Maximum Vibration Level (in/sec ppv)	Maximum Vibration Level (in/sec ppv)
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 structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5
Human Response	Maximum Vibration Level (in/sec ppv)	Maximum Vibration Level (in/sec ppv)
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.1
Severe	2.0	0.4

The vibration levels are based on peak particle velocity in the vertical direction for continuous vibration sources, which includes most construction activities.

Source: Caltrans 2020

Notes: in/sec = inches per second; PPV = peak particle velocity.

Ambient Noise – Project Site

An ambient noise measurement survey was conducted by Ambient Air Quality and Noise Consulting on April 26, 2023, using a Larson Davis Model LxT Type I sound-level meter. To document the existing noise environment in the project vicinity, three short-term (i.e., 10-minutes) noise measurements noise measurement were conducted at three locations near the project site; two measurement locations (ST-2 and ST-3) were near on Elverta Road and one measurement location was on El Rio Avenue near the Elverta Road intersection. As noted in Table 3-5, measured short-term daytime average-hourly noise levels in the project area generally range from approximately 62

dBA L_{eq} to approximately 75 dBA L_{eq} . Noise levels in the area were dominated by vehicular traffic traveling along El Rio Avenue and Elverta Road.

Table 3-5. Short-Term Noise Measurement Data

Measurement Location	Measurement Location Description	Major Noise Sources	Noise Level (dBA)	Noise Level (dBA)
			L_{eq}	L_{max}
ST-1	Adjacent to eastern El Rio Avenue, approximately 340 feet south of Elverta and El Rio intersection.	Cement trucks, farm animals, overhead commercial jet flights	61.8	79.3
ST-2	Adjacent to northern Elverta Road, approximately 585 feet west of Elverta and El Rio intersection.	Traffic, overhead commercial jet flight, electrical corona	65.9	77.3
ST-3	Adjacent to southern Elverta Road, approximately 1,120 feet east of Elverta and Sorento intersection.	Traffic	74.6	91.0

ST=short-term

Source: Ambient Air Quality and Noise Consulting 2023b

3.13.2 Discussion

- 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 in other applicable local, state, or federal standards?**

Less than Significant. The project would result in temporary increases in noise levels during construction and long-term operational noise.

Construction-Related Noise

Construction-related noise would result from the use of heavy-duty equipment for excavation, demolition, material hauling and deliveries, auguring, crane operations, cement trucks, and water trucks for dust suppression (See Table 2-1 for a list of anticipated construction equipment). Construction noise would be short-term and temporary, and operation of heavy-duty construction equipment would be intermittent throughout the day during construction.

With regard to residential land uses, noise levels associated with construction activities would not exceed the 80 dBA L_{eq} threshold commonly recommended by federal agencies (FTA 2018). However, activities occurring during the more noise-sensitive

evening and nighttime hours (i.e., 8:00 p.m. to 6:00 a.m.) are of increased concern. Because exterior ambient noise levels typically decrease during the evening and nighttime hours, as community activities (e.g., commercial activities, vehicle traffic) decrease, construction activities performed during these more noise-sensitive periods of the day can result in increased annoyance and potential sleep disruption for occupants of nearby residential dwellings. For these reasons, noise-generating construction activities would be considered to have a **potentially significant** impact.

Mitigation Measure 3.13-1. Limit Construction Noise

The following measures shall be implemented to reduce short-term construction noise impacts:

- Construction activities shall be limited to between the hours of 6 a.m. and 8 p.m., Monday through Friday, and 7 a.m. to 8 p.m. on Saturdays, where practicable. Construction activities would be prohibited on Sundays and legal holidays. Haul truck operations shall be limited to these same hourly restrictions.
- Construction equipment shall be properly maintained and equipped with exhaust mufflers and engine shrouds in accordance with manufacturers' recommendations.
- To the extent locally available, electrified, or alternatively powered construction equipment shall be used.
- Construction equipment staging areas shall be located at the furthest distance possible from nearby noise-sensitive land uses (residences).
- Stationary noise sources such as generators, pumps, and pavement crushers, shall be located at the furthest distance possible from noise-sensitive uses.

Significance after Mitigation

With implementation of the construction noise measures in Mitigation Measure 3.13-1, the project would have a **less than significant** noise impact during construction.

Operations-Related Noise

Long-term noise impacts associated with the proposed substation, similar to the existing substation, would be primarily associated with the operation of onsite transformers, cooling units, and corona noise from the off-site transmission lines. The noise assessment prepared for the project determined that if all noise sources operate simultaneously, predicted exterior noise levels at the nearest residential outdoor activity area would be approximately 48 dBA Leq/L50. Assuming an average exterior-to-interior noise reduction of 20 dBA, predicted interior noise levels at the nearest residence would be 28 dBA Leq/L50. Predicted noise levels would be lower than Sacramento County's exterior daytime/nighttime noise standards of 55/50 dBA Leq/L50 and interior noise standard of 35 dBA Leq/L50.

Similarly, predicted noise levels would be lower than the California guidelines (2017), which recommend an interior noise level of 45 dB Ldn as the maximum allowable interior noise level sufficient to permit “normal residential activity”.

Therefore, because project operational-related noise would not exceed existing state or county thresholds, which are designed to protect human health, the impact from long-term operations-related noise would be considered ***less than significant*** and no mitigation is required.

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

Less than Significant. No major stationary sources of groundborne vibration were identified in the project area that would result in the long-term exposure of proposed onsite land uses to unacceptable levels of ground vibration. In addition, the proposed project would not involve the use of any major equipment or processes that would result in potentially significant levels of ground vibration that would exceed the standards at nearby existing land uses.

Construction activities associated with the proposed project would require the use of various tractors, trucks, and jackhammers that could result in intermittent increases in groundborne vibration levels. However, the use of major groundborne vibration-generating construction equipment/processes (i.e., blasting, pile driving) is not required for construction of the new substation and associated facilities.

As identified in the Noise Assessment (Ambient Air Quality and Noise Consulting 2023b), groundborne vibration levels generated by construction equipment would be approximately 0.21 in/sec ppv, or less, at 25 feet. This would be perceptible to humans, but not strongly perceptible or severe (Table 3-4). Given that the nearest existing residential structures are located approximately 250 feet from the project site, they would be expected to experience a greatly diminished vibration level (approximately 0.011 inches per second ppv); this level is considered barely perceptible by humans (Table 3-4); standard homes are generally only evaluated for potential structural damage at a level of 0.5 in/sec ppv or higher.

In addition, haul trucks traveling along project area roadways may result in perceptible increases in vibration levels. However, these vibration levels would be transient and instantaneous events, which would be typical of existing vibrations along the roadway network. Based on measurements conducted by Caltrans, on-road heavy-duty trucks would not generate substantial increases in groundborne vibration that would be expected to exceed commonly applied criteria for structural damage or annoyance (Caltrans 2020). The impact on humans and structures from groundborne vibration or noise would be considered ***less than significant***, and no mitigation is required.

- 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?**

No Impact. The project site is not located within two miles of a public airport or private airstrip. The nearest airport is Sacramento McClellan Airport, which is located approximately 4 miles south of the project site. The project site is not located within the 65 dBA CNEL contour of this airport. As a result, the project site is not subject to high levels of aircraft noise. The project would not result in exposure of on-site workers to excessive aircraft noise levels. There would be **no impact**, and no mitigation is required.

3.14 Population and Housing

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XIV. Population and Housing.				
Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.14.1 Environmental Setting

The project site is located in northeastern Sacramento County, west of the census-designated place of Elverta, California. Surrounding land uses include agricultural, industrial, and scattered residential residences. A single-family residence is located east of the project site, as well as several homes located on the east side of El Rio Avenue. Elverta had a population of 5,435 in 2020 and has experienced little population change since the 2010 census (US Census Bureau 2021).

3.14.2 Discussion

- 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)?**

No Impact. The proposed project would not generate jobs that could lead to population growth. Construction of the proposed project is expected to generate few jobs over the construction period. The majority of these jobs are expected to be filled by the local labor pool. Furthermore, long-term operation of the proposed project would require minimal staffing for purposes of ongoing maintenance and repairs. Substation maintenance would occur on a regular basis from two to four times per month for internal inspections and four times per year for perimeter maintenance. Major maintenance would occur about once every three years. Therefore, from the perspective of job generation, construction of the proposed project would not induce population growth as a result of construction or operation activities.

Implementation of the proposed project would result in the construction and operation of a replacement substation that would step down power to serve existing customers within SMUD’s existing service area. One of the purposes of the proposed project is to

meet current and future energy demand within SMUD's service area, which includes all of Sacramento County. SMUD's primary purpose is to supply electrical energy to customers in the Sacramento area. The construction and operation of the proposed project would not induce population growth; rather, it would maintain the electrical service system and accommodate the electrical service needs of growth that is already expected due to planned development. Therefore, the project is not considered to be "growth inducing," as defined by CEQA.

Because jobs associated with construction of the proposed substation would be staffed by local labor pools and the facility would be used for SMUD's existing service area, the project would not result in unplanned population growth, either directly or indirectly. **No impact** would occur, and no mitigation is required.

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

Less Than Significant. One home would be displaced as a result of project construction. The single-family home and associated livestock operations at 604 Elverta Road would be acquired and demolished to construct the new substation. SMUD will compensate the homeowner consistent with relocation assistance policies in the Uniform Relocation Act and the Civil Rights Act, and as codified in California Government Code Section 7260 – 7277. These policies provide for fair, uniform, and equitable treatment of residents and property owners displaced by projects undertaken by a public entity. If the project is approved, SMUD would negotiate in good faith with the property owner.

The project would not displace substantial numbers of people or housing, so the impact is **less than significant**, and no mitigation is required.

3.15 Public Services

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XV. Public Services.				
Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.15.1 Environmental Setting

The project site is located in the rural northeastern portion of Sacramento County. The substation site is bound by Elverta Road to the north and El Rio Avenue to the east. Rural residences are located east and south of the project site along El Rio Avenue. Directly to the west of the substation is a WAPA-owned substation. For the project site, public services are provided by a variety of service districts and other public agencies as described below.

Fire Protection Services

Sacramento Metropolitan Fire District provides fire protection and emergency rescue services in the project area. Sacramento Metropolitan Fire Station No. 116 is located at 7995 Elwin Avenue, approximately 0.5 miles east of the project site. Additionally, Sacramento Metropolitan Fire Station No. 117 is located approximately 3 miles east of the project area at 7961 Cherry Brock Drive (Sacramento Metro Fire 2023).

Police Protection Services

The Sacramento County Sheriff's North Division District 1 is responsible for providing police protection services to the community of Elverta, including the project site. The Sacramento County Sheriff's North Division is based at Garfield Station, located at 5510 Garfield Avenue Sacramento, California, approximately 10.2 miles southeast of the project site (Sacramento County Sheriff's Office 2023).

Schools

The project site is located within the Twin Rivers Unified School District. The closest school to the project site is the Elverta Elementary School, located approximately 0.65 miles east of the project site at 7900 Eloise Avenue (Sacramento County Office of Education 2022).

Parks and Other Public Facilities

The project site is within the Rio Linda Elverta Recreation and Park District. The park nearest to the project site is Westside park, located at 6601 West 2nd Street, Rio Linda, approximately 1.9 miles from the project. Babe Best Park is also located approximately 1.9 miles from the project at 7525 10th Street, Rio Linda. Gibson Ranch park, 355-acres in size, is the largest park in the Elverta area and is located approximately 3.8 miles east of the project. The Sacramento Northern Bike Trail is located approximately 0.7 mile east of the project site (Sacramento County 2020).

3.15.2 Discussion

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

Fire and Police protection?

No Impact. Implementation of the project would not increase demand for Sacramento Fire Department fire protection services or Sacramento County Sheriff services, because the project would not generate new residents, which is the driving factor for these services, nor would it result in a significant net increase in structures on the project site that could result in a significant increase in calls for service. Because the project would not increase demand for fire and police protection services, no construction of new or expansion of existing fire and police service facilities would be required. Therefore, there would be **no impact**, and no mitigation is required.

School, Parks, or Other Public Facilities?

No Impact. The project would not provide new housing, so it would not generate new students in the community or result in an increase in employment opportunities that could indirectly contribute new students to the local school district. The project would not result in additional residents that could necessitate new or expanded park facilities. No other public facilities in the project area could be affected by implementation of the project. Therefore, there would be ***no impact***, and no mitigation is required.

3.16 Recreation

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XVI.Recreation.				
Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.16.1 Environmental Setting

The project site is within the Rio Linda Elverta Recreation and Park District. The park nearest to the project site is Westside Park, located at 6601 West 2nd Street in Rio Linda, approximately 1.9 miles from the project site. Babe Best Park is also located approximately 1.9 miles from the project at 7525 10th Street in Rio Linda (Sacramento County 2020). Gibson Ranch Park, 355-acres in size, is the largest park in the Elverta area and is located approximately 3.8 miles east of the project site (Sacramento County 2023). The Sacramento Northern Bike Trail, which parallels Rio Linda Boulevard, is located approximately 0.7 mile east of the project site.

3.16.2 Discussion

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

No Impact. The project does not include new development that could increase the use of existing parks or recreational facilities. Therefore, there would be **no impact**, and no mitigation is required.

- b) **Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?**

No Impact. The project does not include new development that could necessitate new or expanded recreational facilities. Therefore, there would be **no impact**, and no mitigation is required.

3.17 Transportation

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

3.17.1 Environmental Setting

The project site can be accessed from the west via State Route 99 at the Elverta Road Interchange, from the south via I-80 at the Raley Boulevard interchange, and from the east via I-80 at the Antelope Road interchange (Figure 3-7). Elverta Road is a two-lane rural road that connects the census-designated places of Elverta and Antelope to State Route 99. Sacramento County traffic counts on Elverta Road near Sorento Road estimate average daily traffic on Elverta Road as 7,330 vehicles (Sacramento County 2023). El Rio Avenue is a two-lane rural road used for local traffic for residents and the ABC Ready-Mix concrete batch plant. Current access to the substation site is obtained through gated driveways on Elverta Road.

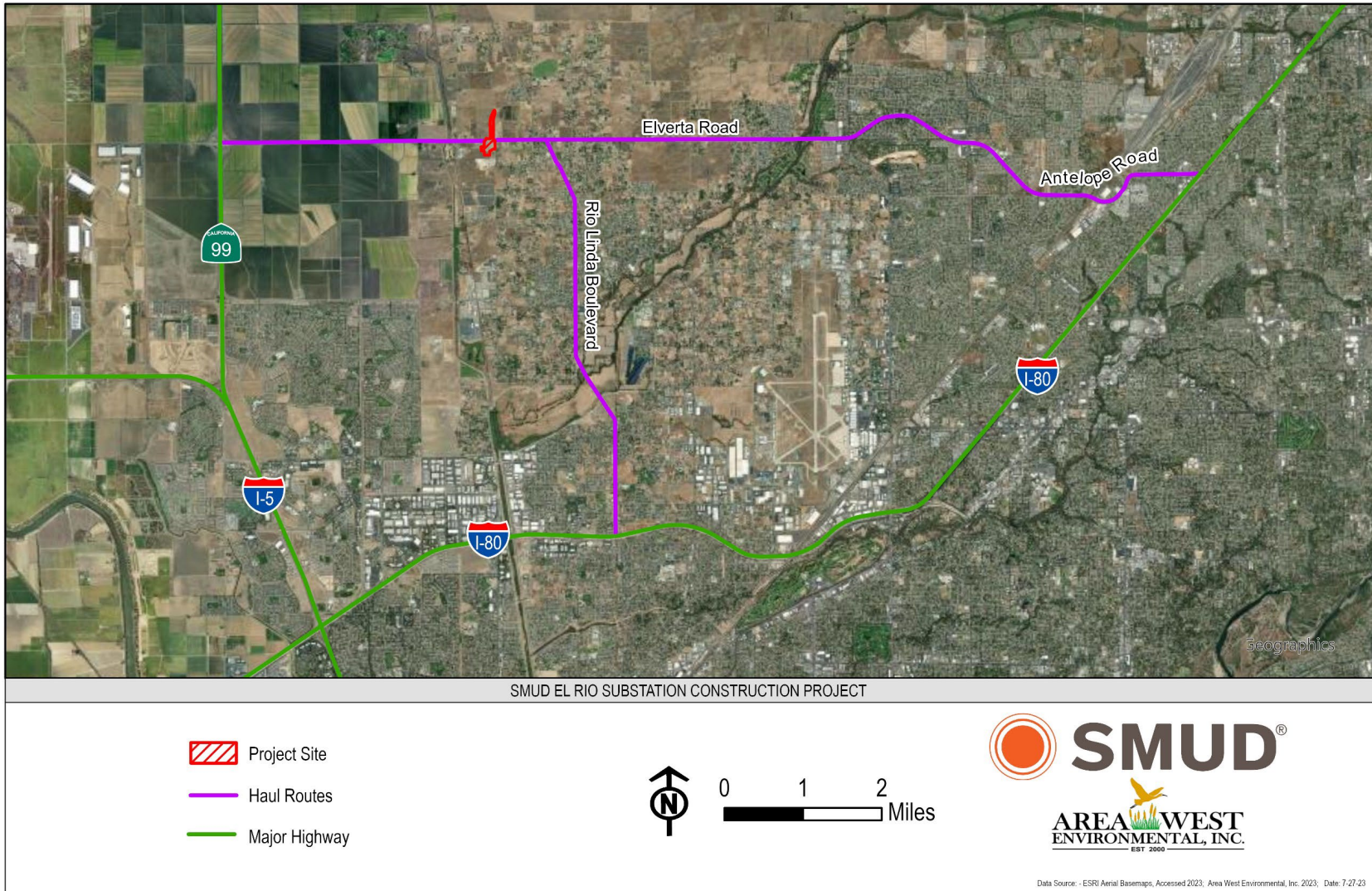


Figure 3-7. Potential Haul Routes for Construction Access

3.17.2 Discussion

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

No Impact. The project would not conflict with plans and policies related to the circulation system. The project would not modify existing roadways, transit facilities, pedestrian or bicycle facilities. Neither Elverta Road nor El Rio Avenue at the project location are indicated as priority pedestrian improvements (Sacramento County 2007). The project would not create new housing or otherwise increase demand for transportation facilities beyond what is already planned by local agencies. There would be **no impact**, and no mitigation is required.

b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3(b), which pertains to vehicle miles travelled?

Less than Significant. The project would not create a significant increase in VMT. It would not add capacity to existing roadways nor would it create new housing or businesses that stimulate regional VMT.

Temporary construction activities would result in temporary increases in vehicle trips associated with worker commutes and equipment and materials delivery. The conservative estimate for the project is 700 truck deliveries for gravel and asphalt, 867 truck trips for export and import of fill, and 360 deliveries for equipment over the 30-month construction period. Figure 3-7 shows the potential haul routes that would likely be used during construction.

During operations, the new substation would be operated in a manner identical to that of the existing substation. Maintenance and operation of the substation would not increase vehicle trips or VMT over existing conditions.

Because the project would not change the amount of development projected for the area, would be consistent with the population growth and vehicle miles traveled projections in regional and local plans, and would result in only a temporary increase in vehicle miles traveled during construction, this impact would be **less than significant**, and no mitigation is required.

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

Less Than Significant. The project proposes to add an additional access driveway from Elverta Road and access driveway from El Rio Ave. All new access driveways would require encroachment permits from Sacramento County and conformance to driveway design standards (Sacramento County 2018). The substation is not a public

facility and there is no public ingress or egress. Neither the temporary increase in truck traffic onto the project site during construction, nor the ongoing intermittent use of the new proposed access driveways would have a significant impact on the circulation system or roadway safety. The project does not involve substantial changes in road geometry or incompatible uses. Therefore, the impact is ***less than significant***, and no mitigation is required.

d) Result in inadequate emergency access?

No Impact. With the added access to the substation sties, emergency responders would have adequate access to the project in case of a fire or other emergency.

During construction, the project would install temporary signage alerting drivers to the potential for tuck traffic entering and exiting the substation. The project does not propose traffic control to stop, reroute, or block traffic. There would be ***no impact*** for emergency providers, and no mitigation is required.

3.18 Tribal Cultural Resources

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XVIII. Tribal Cultural Resources.				
Has a California Native American Tribe requested consultation in accordance with Public Resources Code Section 21080.3.1(b)?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
Would the project cause a substantial adverse change in the significance of a Tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.18.1 Environmental Setting

The United Auburn Indian Community (UAIC), Shingle Springs Band of Miwok Indians (SSBMI), Lone Band of Miwok, and Wilton Rancheria are federally recognized Tribes comprised of both Miwok and Maidu (Nisenan) Indians and are traditionally and culturally affiliated with the proposed project area. Although boundaries with neighboring Tribes were often fluid and overlapping, traditional Nisenan territory extended from the southern boundary beginning below the Consumnes River, north to Gold Lake then west along ridges and canyons to the south fork of the Feather River, then southwest to the Sacred Mountain, 'Estom Yanim (Marysville Buttes), and from the west bank of the Sacramento River east to Kyburz. Today, many descendants of Nisenan still reside on lands once inhabited by their ancestors or on lands set aside for Tribal communities by the federal government in California which may or may not have been traditionally inhabited by their ancestors. The Tribes possess the expertise concerning Tribal cultural resources in the area and are contemporary stewards of their culture and the landscapes. These Tribal communities represent a continuity and endurance of their ancestors by maintaining their connection to their history and culture. It is the Tribe's goal to ensure the preservation and continuance of their cultural heritage for current and future generations.

Under PRC section 21080.3.1 and 21082.3, SMUD must consult with Tribes traditionally and culturally affiliated with the project area that have requested formal notification and responded with a request for consultation (PRC 21080.3.1(b)). Consultation is deemed concluded when the parties agree to measures to mitigate or avoid a significant effect on a Tribal cultural resource when one is present (PRC 21080.3.2 (b)(1)) or when a party concludes that mutual agreement cannot be reached (PRC 21080.3.2(b)(2)). Mitigation measures agreed on during the consultation process must be included in the environmental document.

Tribal Consultation

On March 21, 2023, SMUD sent notification letters, as required by PRC 21080.3.1(d), to the four Native American Tribes that had previously requested such notifications: Wilton Rancheria, UAIC, SSBMI, and Lone Band of Miwok Indians. The notification included a brief description of the proposed project and its location. UAIC responded that they were unaware of any Tribal cultural resources in or adjacent to the project area and requested their unanticipated discoveries measure be incorporated as mitigation. SSBMI and Wilton Rancheria responded requesting consultation.

SMUD held a field consultation meeting a representative from Wilton Rancheria on April 13, 2023. The Wilton Rancheria representative was present during a portion of the cultural resources survey conducted by the AWE project archaeologist. SMUD has been coordinating with SSBMI, and consultation is ongoing.

The Sacred Lands File search conducted by the NAHC reported that the project area is negative for Sacred Lands.

3.18.2 Discussion

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

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

Less than Significant with Mitigation Incorporated. The identification of Tribal cultural resources for this project by UAIC, SSBMI, and Wilton Rancheria included a review of pertinent literature and historic maps, and a records search using Tribal historic records and information databases. These Tribal databases are composed of areas of oral history, ethnographic history, and places of cultural and religious significance, including Sacred Lands that are submitted to the NAHC.

The resources shown in this region also include previously recorded indigenous resources identified through the CHRIS NCIC as well as historic resources and survey

data. The UAIC reviewed the proposed project site within their database and declined consultation – UAIC requested the standard mitigation measure for inadvertent discoveries to be included for this proposed project. A field assessment was conducted on April 13, 2023 by Wilton Rancheria using a meandering pedestrian survey across the proposed project area.

Under the California Register of Historical Resources (CRHR) criterion for a historical resource, the proposed project would not affect unique ethnic cultural values or religious, sacred uses as the consultation from NAHC did not turn up any sacred lands files. However, in the event Tribal cultural resources are found within the proposed project site during construction, the standard mitigation measure for inadvertent discoveries has been included to ensure this impact is ***less-than significant***.

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

Less than Significant with Mitigation Incorporated. Consultation with UAIC, Wilton Rancheria and SSBMI revealed no known Tribal cultural resources on the project site as defined in PRC Section 21074; however, the area is potentially sensitive for unknown Tribal cultural resources. Therefore, it is possible that yet-undiscovered Tribal cultural resources could be encountered or damaged during ground-disturbing construction activities. This impact would be ***potentially significant***, and mitigation is required.

Mitigation Measure 3.18-1: Worker Environmental Awareness and Cultural Respect Training and Procedures for Discovery of Potential Tribal Cultural Resources

All construction personnel must receive Tribal Cultural Resources Sensitivity and Awareness Training (Worker Environmental Awareness Program [WEAP]), including field consultants and construction workers. The WEAP shall be developed in coordination with interested Native American Tribes.

The WEAP shall be conducted before any project-related construction activities begin at the project site. The WEAP will include relevant information regarding sensitive cultural resources and Tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The WEAP will also describe appropriate avoidance and impact minimization measures for cultural resources and Tribal cultural resources that could be located at the project site and will outline what to do and who to contact if any potential cultural resources or Tribal cultural resources are encountered. The WEAP will emphasize the requirement for confidentiality and culturally appropriate treatment of any discovery of significance to Native Americans and will discuss appropriate behaviors and responsive actions, consistent with Native American

Tribal values. The training may be done in coordination with the project archaeologist.

All ground-disturbing equipment operators shall be required to receive the training and sign a form that acknowledges receipt of the training.

During excavation or other substantial subsurface disturbance activities, all construction personnel must follow procedures and the direction of archeologists and Tribal monitors if any cultural resource materials are observed.

Mitigation Measure 3.18-2: Spot Check Monitoring for Tribal Cultural Resources

SMUD shall invite representatives of Wilton Rancheria and SSBMI to periodically inspect the active areas of the project, including any soil piles, trenches, or other disturbed areas. Wilton Rancheria and SSBMI shall be notified at least 48 hours prior to start of construction.

Mitigation Measure 3.18-3: Unanticipated Discovery of Tribal Cultural Resources

If any suspected Tribal cultural resources are discovered during ground disturbing construction activities, including midden soil, artifacts, cultural belongings, chipped stone, exotic rock (nonnative), or unusual amounts of baked clay, shell, or bone, all work shall pause within 100 feet of the find. Consulting Tribe(s) shall be immediately notified and shall determine if the find is a Tribal cultural resource (pursuant to PRC section 21074). The Tribal representative will make recommendations for further evaluation and treatment, as necessary. Preservation in place is the preferred alternative, and every effort must be made to preserve the resources in place, including through project redesign. Culturally appropriate treatment may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, and returning objects to a location within the project area where they will not be subject to future impacts. Curation of Tribal cultural resources is not considered appropriate or respectful; materials would not be permanently curated, unless approved by the consulting Tribe. Treatment that preserves or restores the cultural character and integrity of a Tribal cultural resource may include Tribal monitoring, culturally appropriate recovery of cultural objects, and reburial of cultural objects or cultural soil.

Mitigation Measure 3.5-2: Procedures for Discovery of Human Remains (Described in Section 3.5, Cultural Resources)

Significance after Mitigation

Implementation of Mitigation Measure 3.18-1, 3.18-2, 3.18-3, and 3.5-2 would reduce impacts to Tribal cultural resources to a **less than significant** level.

3.19 Utilities and Service Systems

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XIX. Utilities and Service Systems.				
Would the project:				
a) Require or result in the relocation or construction of construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.19.1 Environmental Setting

The project site includes the existing Elverta Substation. Constructed in 1954, the existing substation, is located on 5.5 acres, which are under easement to SMUD from the WAPA. The existing SMUD Elverta Substation consists of an outdoor switchyard including:

- three 230kV transmission lines;
- five 230kV circuit breakers;
- one 230/115kV 150MVA transformer;

- one 230/69kV 224MVA transformer;
- five 69kV transmission lines;
- eight 69kV circuit breakers; and
- two 69kV, 25MVAR capacitor banks.

Overhead transmission and distribution lines connect to the existing substation.

Water

The RLECWD provides water supply to residents and businesses in the project vicinity. RLECWD secures water from 11 groundwater wells, and there is an 8-inch distribution line on Elverta Road (RLECWD 2014). There is a well on the existing Elverta Substation parcel.

Storm Water

There are no municipal storm water or drainage structures at the project site.

Wastewater

The project is located outside of the Sacramento Area Sewer District. Septic systems are used by local residents and businesses. The project site does not have and would not require municipal wastewater, or municipal stormwater drainage facilities.

Solid Waste

Most solid waste in the Sacramento area is disposed at the Kiefer Landfill, which is permitted to accept municipal solid waste, construction and demolition debris, green materials, and other nonhazardous designated debris. The Kiefer Landfill has a permitted throughput of 10,815 tons per day, a remaining capacity of approximately 4.1 million cubic yards, and an expected closure date of 2064.

3.19.2 Discussion

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

Less than Significant. The project is not served by municipal stormwater, wastewater treatment, stormwater drainage, natural gas, or telecommunication facilities and therefore would not cause significant environmental effects related to the provision of these facilities.

The project would use the existing water well at the Elverta Station or connect to the RLECWD to provide water supply for the proposed restroom. If the new El Rio Substation parcel does not have a connection to the RLECWD, and a new connection is required, ground disturbance impacts would limit to excavation to lay connecting lines and surface repair. No significant impact would be associated with this physical connection.

The project includes stormwater drainage improvements to accommodate increased storm water runoff from approximately 2 acres of new impervious surface area. The installation of the retention basin and the on-site stormwater drainage system is evaluated throughout this document as a project component.

Similarly, the project represents the expansion of electric utility transfer capacity; the environmental impacts associated with this expansion are addressed by this document. This is a utility project that includes the construction of a new El Rio 69-115-230kV substation, and the subsequent dismantling of the existing Elverta 69-115-230kV substation. During substation construction, electrical lines that cross the construction area would be temporarily re-routed using a line built to bypass the construction area (referred to as a “shoo-fly”); the poles would remain in their current location and the line would be restrung after substation and retention basin construction is complete. In addition to upgrading the substation equipment, the project would also include the removal of two existing lattice transmission towers to the north of the substation, to be replaced with two to three new steel monopole towers. The monopole towers would be installed on a new alignment and would tie the proposed substation into the existing grid. Once the line is strung on the new monopoles, the lattice towers would be dismantled and removed. Following the tie in of the new poles and the energization of the proposed substation, the existing Elverta Substation would be decommissioned and outdated substation equipment dismantled and removed from the site. Construction and decommissioning would be timed to ensure minimal disruption for electrical customers.

The project does not include land use development that would require the construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities. The changes to utility infrastructure associated with the project would be modest and would not cause significant environmental effects. Therefore, the impact is ***less than significant***, and no mitigation is required.

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

Less than Significant. Project construction would require water for hand washing and dust suppression activities; water would be provided by a licensed water transport company and would be a temporary condition. Project operations would require new water supply for the restroom. The existing water well on the Elverta Station would be used to secure water for the project. Alternatively, an authorized connection to the RLECWD system would be approved, consistent with their Water Master Plan (2014).

The project's impact to water supplies would be ***less than significant***, and no mitigation is required.

- c) **Result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?**

No impact. The project would construct a restroom that would be served by an onsite waste water treatment system. There would be ***no impact*** to a wastewater treatment provider or community served by the provider, and no mitigation is required.

- 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) **Fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste?**

Less than Significant. The project would generate solid waste during construction activities and during the decommissioning of the existing substation. Project construction and decommissioning would require clearing the expansion site of existing pavement, concrete, and outdated electrical equipment. Project construction of the new substation would generate various construction-period wastes, including scrap lumber, finishing materials, and various metals, and other recyclable and non-recyclable construction-related wastes.

Compliance with the updated 2022 CALGreen Code (24 CCR Part 11) would result in a reduction of construction waste and demolition debris and increase recycling. The CALGreen Code requires that 100% reuse/recycling of trees, stumps, rocks, and associated vegetation and soils resulting primarily from land clearing and an overall minimum of 65% of the waste stream be salvaged or recycled. Consistent with this requirement, soils excavated from the new substation site would be stockpiled and reused onsite where possible. Implementation of the CALGreen Code would significantly reduce construction-related waste. Landfilled waste would be delivered to facilities that have a large volume of landfill capacity available to serve the project during construction.

During project operations, employees would generate waste (food packaging, restroom paper towels, etc.). It is anticipated that SMUD would integrate the new restroom facility and control room into an existing facilities maintenance schedule. Any solid waste generated during project operation would be incidental. Waste removal is expected to occur during scheduled maintenance visits.

Because the proposed project would comply with all statutes and regulations related to solid waste and sufficient landfill capacity would be available to accommodate solid waste disposal needs for the proposed project, this impact would be ***less than significant***, and no mitigation is required.

3.20 Wildfire

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XX. Wildfire.				
Is the project located in or near state responsibility areas or lands classified as high fire hazard severity zones?	<input type="checkbox"/> Yes		<input checked="" type="checkbox"/> No	
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require the installation 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.20.1 Environmental Setting

The project site is located within a Local Responsibility Area that is designated as a Non-Very High Fire Hazard Severity Zone (CAL FIRE 2008). The project site is primarily surrounded by annual grassland and industrial land uses. Sacramento Metropolitan Fire District provides fire protection and emergency rescue services in the project area. Sacramento Metropolitan Fire Station No. 116 is located at 7995 Elwin Avenue, approximately 0.5 miles east of the project site. Additionally, Sacramento Metropolitan Fire Station No. 117 is located approximately 3 miles east of the project area (Sacramento Metro Fire 2023).

3.20.2 Discussion

- 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 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?**

No Impact. The project would not exacerbate wildfire risks because the project site is not located within a high or very high wildfire hazard zone and would not expose people or structures to wildfire risks. Construction equipment would be stored away from vegetation that could provide fire fuel if ignited. In addition, vegetation would be removed or trimmed on the project site, as needed, to ensure that construction activities do not increase risks associated with wildfires. Thus, the project would not affect the potential for wildfires to ignite or spread within areas surrounding the project site. There would be **no impact**, and no mitigation is required.

3.21 Mandatory Findings of Significance

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XXI.Mandatory Findings of Significance.				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.21.1 Discussion

- 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 an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?**

Less than Significant with Mitigation Incorporated. As discussed in Section 3.4, “Biological Resources,” of this IS/MND, the project has potential to adversely affect special status species, including the Western Spadefoot, Giant Garter Snake, Burrowing Owl, American Badger, Swainson’s Hawk, White-Tailed Kite, Grasshopper Sparrow, and Other Nesting Birds. Potentially significant impacts would be reduced to a less than significant level with implementation of Mitigation Measures 3.4-3 through 3.4-7. The project also has the potential to impact important habitat areas, including vernal pools

and seasonal wetlands/swales and the species found therein. Potentially significant impacts would be reduced to a less-than-significant level with implementation of Mitigation Measures 3.4-1 and 3.4-2.

As discussed in Section 3.5, “Cultural Resources,” while no cultural resources were identified as occurring within the proposed substation footprint, proposed ground-disturbing activity for project construction could result in the disturbance of undiscovered archaeological materials or remains. Mitigation Measures 3.5-1 and 3.5-2 would reduce potential impacts to archaeological resources and/or human remains discovered during project construction activities to a **less than significant** level by requiring construction worker training, and, in the case of a discovery, preservation options (including data recovery, mapping, capping, or avoidance) and proper curation if significant artifacts are recovered. Similarly, in Section 3.18, “Tribal Cultural Resources,” proposed ground-disturbing activity for project construction could result in the disturbance of undiscovered Tribal cultural resources. Mitigation Measures 3.18-1 would reduce potential impacts to Tribal cultural resources discovered during project construction activities to a **less than significant** level by requiring construction worker training, and, in the case of a discovery, preservation options or other options, including reburial or culturally appropriate recovery, mapping, capping, or avoidance).

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

Less than Significant. The project is not growth inducing and impacts would primarily be related to construction activities. Project impacts would be individually limited due to the temporary and site-specific nature of the potential impacts. Potential short-term, cumulative impacts would only occur if construction of the proposed project occurred simultaneously with other projects in the area, which is not anticipated. Therefore, project impacts would not combine with the impacts of other cumulative projects to result in a cumulatively considerable impact on the environment as a result of project implementation. Therefore, this impact would be **less than significant**.

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

Less than Significant with Mitigation Incorporated. The project would have potentially significant impacts related to air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, and Tribal cultural resources. However, all of these impacts would be reduced to less than significant levels with incorporation of the mitigation measures included in the respective section discussions above. No other direct or indirect impacts on human beings were identified in this IS/MND. Therefore, this impact would be **less than significant**.

4.0 ENVIRONMENTAL JUSTICE EVALUATION

4.1 Introduction

At present, there are no direct references to the evaluation of environmental justice (EJ) as an environmental topic in the Appendix G Environmental Checklist, CEQA statute, or State CEQA Guidelines; however, requirements to evaluate inconsistencies with general, regional, or specific plans (State CEQA Guidelines Section 15125[d]) and determine whether there is a “conflict” with a “policy” “adopted for the purpose of avoiding or mitigating an environmental effect” (Environmental Checklist Section XI[b]) can implicate EJ policies. As additional cities and counties comply with Senate Bill (SB) 1000 (2016), which requires local jurisdictions to adopt EJ policies when two or more general plan elements are amended, environmental protection policies connected to EJ will become more common.

“Environmental Justice” is defined in California law as the fair treatment and meaningful involvement of people of all races, cultures, incomes, and national origins with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies (California Government Code Section 30107.3[a]). “Fair treatment” can be defined as a condition under which “no group of people, including racial, ethnic, or socioeconomic group, shall bear a disproportionate share of negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies” (USEPA 2011).

SMUD created the Sustainable Communities Initiative, which encompasses the framework of EJ, to help bring environmental equity and economic vitality to all communities in SMUD’s service area with special attention to historically underserved neighborhoods. The initiative focuses on the development of holistically sustainable neighborhoods through partnerships and collaboration. The goal of this effort is to ensure the advancement of prosperity in the Sacramento region regardless of zip code or socioeconomic status by focusing on equitable access to mobility, a prosperous economy, a healthy environment, and social well-being. To support the initiative, SMUD teams are working internally and with community partners to improve equitable access to healthy neighborhood environments, energy efficiency programs and services, environmentally friendly transit modes (including electric vehicles), and energy-related workforce development and economic development prospects. To the extent these goals seek to avoid environmental impacts affecting vulnerable communities, the State CEQA Guidelines already require consideration of whether a proposed project may conflict with goals that support sustainable communities. The following analysis has been provided by SMUD, as a proactive evaluation in excess of CEQA requirements, to identify any localized existing conditions to which the project, as proposed, may worsen adverse conditions and negatively impact the local community, and identify the need for implementation of additional site or local considerations, where necessary.

Environmental justice issues are being considered in this CEQA document to help inform decision makers about whether the project supports SMUD’s goal of helping to

advance environmental justice and economic vitality to all communities in SMUD's service area with special attention to historically underserved neighborhoods.

4.2 Regulatory Context

California legislation, state agency programs, and guidance have been issued in recent years that aim to more comprehensively address EJ issues, including SB 1000 (2016), SB 535 (2012) and AB 1550 (2016), AB 617 (2017), the California Department of Justice Bureau of Environmental Justice, the California Communities Environmental Health Screening Tool (CalEnviroScreen), and the Governor's Office of Planning and Research's (OPR's) 2020 General Plan Guidelines, Environmental Justice Element. In particular, SB 1000 has provided an impetus to more broadly address EJ; coupled with the existing requirements of CEQA, it is now time to elevate the coverage of significant environmental impacts in the context of EJ in environmental documents. These other bills have also provided the necessary policy direction to address EJ under CEQA.

4.2.1 Senate Bill 1000

SB 1000, which was enacted in 2016, amended California Government Code Section 65302 to require that general plans include an EJ element or EJ-related goals, policies, and objectives in other elements of general plans with respect to disadvantaged communities (DACs) beginning in 2018. The EJ policies are required when a city or county adopts or revises two or more general plan elements and the city or county contains a DAC. EJ-related policies must aim to reduce the disproportionate health risks in DACs, promote civic engagement in the public decision-making process, and prioritize improvements that address the needs of DACs (CCR Section 65302[h]). Policies should focus on improving the health and overall well-being of vulnerable and at-risk communities through reductions in pollution exposure, increased access to healthy foods and homes, improved air quality, and increased physical activity.

4.2.2 Senate Bill 535 and Assembly Bill 1550

Authorized by the California Global Warming Solutions Act of 2006 (AB 32), the cap-and-trade program is one of several strategies that California uses to reduce GHGs that cause climate change. The state's portion of the cap-and-trade auction proceeds are deposited in the Greenhouse Gas Reduction Fund (GGRF) and used to further the objectives of AB 32. In 2012, the California Legislature passed SB 535 (de Leon), directing that 25 percent of the proceeds from the GGRF go to projects that provide a benefit to DACs. In 2016, the legislature passed AB 1550 (Gomez), which now requires that 25 percent of proceeds from the GGRF be spent on projects located in DACs. The law requires the investment plan to allocate (1) a minimum of 25 percent of the available moneys in the fund to projects located within and benefiting individuals living in DACs; (2) an additional minimum of 5 percent to projects that benefit low-income households or to projects located within, and benefiting individuals living in, low-income communities located anywhere in the state; and (3) an additional minimum of 5 percent either to projects that benefit low-income households that are outside of, but within 0.5

mile of, DACs, or to projects located within the boundaries of, and benefiting individuals living in, low-income communities that are outside of, but within 0.5 mile of, DACs.

4.2.3 Assembly Bill 617

AB 617 of 2017 aims to help protect air quality and public health in communities around industries subject to the state's cap-and-trade program for GHG emissions. AB 617 imposes a new state-mandated local program to address nonvehicular sources (e.g., refineries, manufacturing facilities) of criteria air pollutants and toxic air contaminants. The bill requires ARB to identify high-pollution areas and directs air districts to focus air quality improvement efforts through the adoption of community emission reduction programs in these identified areas. Currently, air districts review individual stationary sources and impose emissions limits on emitters based on best available control technology, pollutant type, and proximity to nearby existing land uses. This bill addresses the cumulative and additive nature of air pollutant health effects by requiring communitywide air quality assessment and emission reduction planning, called a community risk reduction plan in some jurisdictions. ARB has developed a statewide blueprint that outlines the process for identifying affected communities, statewide strategies to reduce emissions of criteria air pollutants and toxic air contaminants, and criteria for developing community emissions reduction programs and community air monitoring plans.

4.2.4 California Department of Justice's Bureau of Environmental Justice

In February 2018, California Attorney General Xavier Becerra announced the establishment of a Bureau of Environmental Justice within the Environmental Section at the California Department of Justice. The purpose of the bureau is to enforce environmental laws, including CEQA, to protect communities disproportionately burdened by pollution and contamination. The bureau accomplishes this through oversight and investigation and by using the law enforcement powers of the Attorney General's Office to identify and pursue matters affecting vulnerable communities.

In 2012, then Attorney General Kamala Harris published a fact sheet, titled "Environmental Justice at the Local and Regional Level," highlighting existing provisions in the California Government Code and CEQA principles that provide for the consideration of EJ in local planning efforts and CEQA. Attorney General Becerra cites the fact sheet on his web page, indicating its continued relevance.

4.2.5 California Communities Environmental Health Screening Tool

CalEnviroScreen Version 4.0 is a mapping tool developed by the Office of Environmental Health Hazards Assessment (OEHHA) to help identify low-income census tracts in California that are disproportionately burdened by and vulnerable to multiple sources of pollution. It uses environmental, health, and socioeconomic information based on data sets available from state and federal government sources to produce scores for every census tract in the state. Scores are generated using 20 statewide indicators that fall into four categories: exposures, environmental effects,

sensitive populations, and socioeconomic factors. The exposures and environmental effects categories characterize the pollution burden that a community faces, whereas the sensitive populations and socioeconomic factors categories define population characteristics.

CalEnviroScreen prioritizes census tracts, based on their combined pollution burden and population characteristics score, from low to high. A percentile for the overall score is then calculated from the ordered values. The California Environmental Protection Agency has designated the top 25 percent of highest scoring tracts in CalEnviroScreen (i.e., those that fall in or above the 75th percentile) as DACs, which are targeted for investment proceeds under SB 535, the state's cap-and-trade program.

4.2.6 Governor's Office of Planning and Research's 2020 Updated EJ Element Guidelines

OPR published updated General Plan Guidelines in June 2020 that include revised EJ guidance in response to SB 1000. OPR has also published example policy language in an appendix document along with several case studies to highlight EJ-related policies and initiatives that can be considered by other jurisdictions. Section 4.8 of the General Plan Guidelines contains the EJ guidance. The guidelines offer recommendations for identifying vulnerable communities and reducing pollution exposure related to health conditions, air quality, project siting, water quality, and land use compatibility related to industrial and large-scale agricultural operations, childcare facilities, and schools, among other things. It provides many useful resources, including links to research, tools, reports, and sample general plans.

4.3 Sensitivity of Project Location

4.3.1 Community Description

As part of its Sustainable Communities Initiative, SMUD created and maintains the Sustainable Communities Resource Priorities Map 2.0,¹ which reflects several data sets related to community attributes that SMUD uses to identify historically underserved communities. One of the key components of the map is the California Communities Environmental Health Screening Tool (CalEnviroScreen Version 4.0), which identifies communities facing socioeconomic disadvantages or health disadvantages such as multiple sources of pollution. The Sustainable Communities Resource Priorities map provides an analysis of current data sets to indicate areas ranging from low to high sensitivity and can be used to describe the relevant socioeconomic characteristics and current environmental burdens of the project area. This map analyzes current data to indicate the local areas most likely to be underserved or in distress from environmental burdens, lack of community development, income, housing, employment opportunities,

¹ The Sustainable Communities Resource Priorities Map is Available: <https://smud.maps.arcgis.com/apps/MapJournal/index.html?appid=1a42c034497c47b0b3c3c84f10c7d541>.

transportation, and more. SMUD has determined that it would evaluate EJ effects for projects located in, adjacent to, or proximate to (e.g., within 500 feet of) a high-sensitivity area as shown on the Sustainable Communities Resource Priorities Map or located in a census tract with a CalEnviroScreen score of 71 percent or greater. The map was launched in 2020 and updated in December 2022.

The project site is located in a medium-low (on a scale of low, medium-low, medium, medium-high, and high) sensitivity area per the Sustainable Communities Resource Priorities Map (SMUD 2022). The nearest high-sensitivity area is located more than 5 miles south of the project site in Del Paso Heights.

The project site is located within the census tract of 6067007206, which received an overall CalEnviroScreen score of 35, indicating that the area is not substantially burdened by vulnerabilities due to environmental pollutants. The results for each indicator range from 0-100 and represent the percentile ranking of census tract 6067007206 relative to other census tracts.

The CalEnviroScreen score is driven by environmental conditions such as multiple potential exposures to pollutants and adverse environmental conditions caused by pollution, and high health and socioeconomic vulnerability to pollution. The pollution burden of the project census tract received a score of 19, with the most significant indicators being ozone and pesticides. These exposures and consequent environmental conditions caused by pollution are expected in this area due to the current land uses which includes agricultural fields. The population characteristics of the project census tract that contribute to the community's pollution burden and vulnerability received a score of 49, with the most significant indicators being cardiovascular disease, asthma, and low birth weight.

Additional indicators were utilized by the Sustainable Communities Resource Priorities Map in identifying and targeting communities with a greater sensitivity to social, economic, and environmental vulnerabilities. These other sources, which are used as tools for targeting economic development, indicated that the project site is not located in an Opportunity Zone, a Sacramento Promise Zone, or designated as a Disadvantaged Community by state Senate Bill 535. Additionally, the project site is not designated as an area with consistent high rates of poor health outcomes on the Health Equity index by Be Healthy Sacramento and the Healthy Sacramento Coalition, or designated by the Health Resources & Services Administration (HRSA) as a Medically Underserved Area or as having a Medically Underserved Population.

The project site is located in a medium sensitivity area for social vulnerability as designated by the Centers for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry (CDC/ATSDR) Social Vulnerability Index (SVI), which identifies areas with a population that is highly vulnerable and susceptible to harm from exposure to a hazard, and its ability to prepare for, respond to, and recover from hazards. The medium sensitivity is driven by a relatively higher percentage of institutionalized persons and outdoor workers, as well as a lower percentage of tree canopy cover and households with air conditioning.

4.3.2 Environmental Conditions

This discussion references the analysis conducted in the Environmental Checklist of the IS/MND and provides additional detail with respect to the current environmental conditions in the project area. The focus of this discussion is on environmental justice issues relevant to the project.

- **Aesthetics:** The visual characteristics of the project site and adjacent uses are an existing substation, rural residential, undeveloped agricultural, and some industrial land uses. The area immediately surrounding the project site is relatively flat and open. The project area does not include a scenic vista or designated scenic highway.
- **Air Quality:** The project site is located in Sacramento County, which is currently designated as nonattainment for both the federal and state ozone standards, the federal PM_{2.5} standard, and the state PM₁₀ standard. The region is designated as in attainment or being unclassifiable for all other NAAQS and CAAQS (ARB 2023). Air quality in Sacramento County is influenced by a variety of factors, including topography, local and regional meteorology. The project site is located in an area with nearby industrial uses, including the ABC Ready-Mix concrete batch plant.
- **Cultural Resources:** There are no known cultural resources on or immediately adjacent to the project site.
- **Energy:** The project area is served by SMUD, which offers the Greenergy program with electricity generated by 100 percent renewable and carbon free resources.
- **Greenhouse Gas Emissions and Climate Change Vulnerabilities:** GHG emissions in the region are associated primarily with transportation (passenger vehicles and heavy-duty vehicles are top contributors), followed by industrial/manufacturing activities, electricity generation and consumption, residential and commercial on-site fuel use, and agriculture (including livestock) (ARB 2022). As the climate changes, the project area would likely be subject to increased heat stress and increased risk of flooding.
- **Hazards and Hazardous Materials:** A historical release of PCBs with potential soil contamination at the WAPA-operated substation adjacent to the project site was cleaned up and closed in 1992, and a release of gasoline with potential groundwater contamination occurred at the adjacent WAPA-operated maintenance facility and was cleaned up and closed in 2017 following extensive groundwater testing and reporting. Based on the age of the buildings located onsite, the potential exists for ACM and LBP. Existing industrial operations in the vicinity of the project site are conducted in accordance with applicable regulations related to on-site operations and transport and storage of materials.

- **Noise:** Noise sources in the project area include vehicle and rail traffic, as well as noise associated with nearby industrial operations. Sensitive receptors (i.e., residences) are located adjacent to the south of the project site, across El Rio Avenue to the east of the project site, and across Elverta Road to the northwest of the project site.
- **Public Services:** Public services such as police and fire protection are available in the area.
- **Recreation:** The project site is within the Rio Linda Elverta Recreation and Park District. The park nearest to the project site is Westside Park, located at 6601 West 2nd Street, Rio Linda, California, approximately 1.9 miles from the project site. Babe Best Park is also located approximately 1.9 miles from the park at 7525 10th Street, Rio Linda, California. The Sacramento Northern Bike Trail is located approximately 0.7 mile east of the project site.
- **Transportation:** The project area includes paved roads, but no bicycle facilities, pedestrian sidewalks, or directly accessible public transit access points (e.g., light rail, bus, and train). Public transportation is not available in the project area.
- **Tribal Cultural Resources:** There are no known Tribal cultural resources on or immediately adjacent to the project site.
- **Utilities:** The project area is serviced by SMUD for electricity and water is provided by the RLECWD or private water wells. No sewer service is available in the project area.

4.4 Evaluation of the Project's Contribution to a Community's Sensitivity

The project consists of constructing and operating a new 230-115-69kV substation that would replace the existing Elverta Substation. Following installation of all project features and decommissioning and removal of the existing substation, the new substation would operate in a manner substantially similar to existing conditions. The project's contributions to the community's sensitivity are as follows:

- **Aesthetics:** Direct public views of the proposed substation development would be limited to Elverta Road and El Rio Avenue, with more distant and/or indirect views from East Levee Road and the Union Pacific Railroad. There would be temporary and minor modification of views in the project area during construction activities due to the presence of construction equipment. The replacement substation and associated transmission towers would not introduce a new substantial visual element and would not change the character and quality of existing views. Impacts to public viewers is considered less than significant.
- **Air Quality:** Excavation and general construction activities would be required during project construction. This would result in emissions of DPM and fugitive

dust at the project site, as discussed in Section 3.3., Air Quality. Considering the highly dispersive properties of diesel PM, the relatively low mass of diesel PM emissions that would be generated at any single place during project construction, and the relatively short period during which diesel-PM-emitting construction activities would take place, construction-related TACs would not expose sensitive receptors to an incremental increase in cancer risk that exceeds 10 in one million. Soil stabilization and dust suppression activities would be used as part of the SWPPP and would satisfy the requirements of Fugitive Dust Rule 403, set forth by SMAQMD, which would minimize emissions of PM₁₀ and PM_{2.5}. These measures would be consistent with the best management practices and best available control technology practices required by SMAQMD. Demolition activities have the potential for negative air quality impacts, including issues surrounding the proper handling, demolition, and disposal of ACM and LBP. A survey to identify ACM and LBP would be conducted prior to demolition activities, and if present, the materials would be remediated prior to any renovation or demolition consistent with state and local regulations.

- **Cultural Resources:** The project would not affect known cultural resources. Mitigation measures identified in Section 3.5 would be implemented to reduce, to the extent feasible, significant impacts to any inadvertent discoveries.
- **Energy:** The project would not affect access to electricity because electrical service would be maintained throughout construction. Temporary use of grid-sourced energy and other fuel consumption would be associated with construction and decommissioning work. Operation and maintenance of the substation would require a negligible amount of on-site electricity and periodic utilization of fuels.
- **Greenhouse Gas Emissions and Climate Change Vulnerabilities:** Project operation would not generate substantial GHG emissions. The project would generate less-than-significant volumes of GHGs during construction from the use of heavy-duty off-road construction equipment and vehicle use for worker commutes. The project would not worsen the area's flooding vulnerabilities because it would not affect the area's topography or levee system.
- **Hazards and Hazardous Materials:** The use and handling of hazardous materials during construction would be conducted in a manner consistent with existing regulations, including CCR Title 27. All old equipment would be decommissioned properly to prevent emissions of SF₆ and the contained SF₆ gas would be either recycled or destroyed (USEPA 2018). Similar to the existing substation, limited amounts of SF₆ would be used in the operation of the new substation. Usage of SF₆ would comply with recordkeeping, reporting, and leakage emission limit requirements in accordance with ARB regulations for reduction of SF₆ emissions.

- **Noise:** Noise would be generated during construction, but it would be temporary. No substantial increases in ambient noise levels at sensitive receptors in the area would occur.
- **Public Services:** As the majority of construction activities would occur on private property, the project would not interrupt or otherwise affect the provision of public services to the area. The project would not increase the demand for fire or police protection services.
- **Recreation:** The project would not affect any parks or recreational opportunities.
- **Transportation:** The project would not affect existing roadways, public transit access points, or bike lanes.
- **Tribal Cultural Resources:** The project would not affect known Tribal cultural resources. Mitigation measures identified in Sections 3.18 would be implemented to reduce, to the extent feasible, significant impacts to any inadvertent discoveries.
- **Utilities:** The project would not adversely affect provision of utilities to existing and future uses in the project area. The project is intended to ensure continued and reliable electrical service within the Elverta/Rio Linda area, and no interruption or reduction in service capacity would occur as a result of the project.

As described for each environmental resource area, the project would not contribute to the community's current sensitivity.

4.5 Summary of Environmental Justice Assessment

Per SMUD's Sustainable Communities Resource Priorities Map which reflects several data sets related to community attributes that SMUD uses to identify historically underserved communities, the project site is located in a medium-low sensitivity area (SMUD 2022). The project does not have the potential to affect the community and/or worsen existing adverse environmental conditions. Therefore, ***no existing environmental justice conditions would be worsened*** as a result of the project.

Although the project would not worsen existing environmental justice conditions, as a leader in building healthy communities, one of SMUD's Sustainable Communities goals is to help bring environmental equity and economic vitality to all communities. By investing in underserved neighborhoods and working with community partners, SMUD is part of a larger regional mission to deliver energy, health, housing, transportation, education and economic development solutions to support sustainable communities. The following Sustainable Communities programs sponsored by SMUD serve the project area.

- **Sierra Nevada Journeys:** With an investment from SMUD's Sustainable Communities, Sierra Nevada Journeys is conducting a community needs

assessment in order to develop culturally relevant education materials. This information will be shared with SMUD and other local partners and will be used to develop curriculum that is pertinent to historically marginalized communities as well as inclusive of Black, Indigenous, and People of Color. The new curriculum will be deployed through Sierra Nevada Journeys' Classroom Unleashed Program. More than 50 percent of the students they serve are from low-income families and 61 percent are students of color. This program is available to students in the nearby Twin Rivers Unified School District which encompasses Rio Linda.

- Sacramento Food Bank (Rio Linda Site): As a recipient of SMUD's Shine Award, the Sacramento Food Bank plans to install a Pelican wireless system to support the food bank site located and serving the Rio Linda community. The Pelican wireless system is an energy management tool that would allow the food bank to control the climate of their facility.
- SMUD is a community partner with the Community Resource Project which provides health-related services, energy and weatherization housing improvements, and utility assistance to those in need throughout Sacramento County with a location in North Highlands. Community Resource Project improves opportunities for people in need through energy efficiency, health education, and career development.
- SMUD partners with the Sacramento Tree Foundation to provide free shade trees to beautify neighborhoods and improve air quality throughout Sacramento County.
- SMUD offers Energy HELP to assist qualified customers who cannot pay their bill due to financial hardship and who are at risk of having their power turned off. 100 percent of contributions go directly to pay a recipient's electric bill through partnerships with community charities.
- SMUD offers the Energy Careers Pathways program which brings education, workforce development and renewable energy to underserved communities in Sacramento County.

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Appendix A

MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION MONITORING AND REPORTING PROGRAM

The Initial Study / Mitigated Negative Declaration (IS/MND) for the SMUD El Rio Substation project has evaluated the potential environmental impacts associated with the construction and operation of a new substation and associated transmission pole/line work and the decommissioning and removal of outdated equipment at the existing Elverta Substation. As a result of this evaluation, 14 mitigation measures were identified that, if carried out as planned, will reduce potential environmental impacts from potentially significant to less than significant levels.

State Assembly Bill AB 3180 was enacted by the California State Legislature in 1988 to provide a mechanism to ensure that mitigation measures adopted through the CEQA process are implemented in a timely manner and in accordance with the terms of project approval.)s are required to adopt a monitoring and reporting program designed to ensure compliance during project implementation.

To ensure that these mitigation measures are implemented as approved and in a timely manner, a mitigation Monitoring and Reporting Program (MMRP) has been developed. Compliance with the MMRP was legislated with California Assembly Bill 3180 in 1988 and is represented in CEQA section 21081.6. The MMRP is meant to provide a concise and organized method for the lead agency, other public agencies, and the community to determine compliance. The MMRP also, importantly, serves as a valuable tool for the project proponent as they work to fulfill their obligations to the community and the environment.

In the MMRP below, the following components are identified:

Mitigation Measure	This column provides the text of the mitigation measure
Timing	This column identifies the time frame in which the mitigation will be implemented
Responsible for Implementation	This column identifies the entity or person(s) that will carry out the mitigation.
Responsible for Verification	This column identifies the entity that assumes the overall responsibility for confirming compliance with each specific mitigation.
Form of Verification	This column identifies the method in which compliance with the mitigation will be communicated to the responsible party.
Verification	This column is to be dated and signed by the person/s identified at 'Responsible for Verification' to indicate that the requirements of the mitigation measure have been met.

3.3 Air Quality

Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified	Remarks
<p><u>Mitigation Measure 3.3-1. Implement SMAQMD Emissions Controls and BMPs.</u></p> <p><i>SMUD or the authorized contractor will adhere to the Sacramento Metropolitan Air Quality Management District (SMAQMD) basic construction emissions control practices, including, but not limited to the measures listed below, and additional measures designed to limit DPM:</i></p> <ul style="list-style-type: none"> <i>• All disturbed areas, including storage piles that are not being actively used for construction purposes, shall be effectively stabilized of dust emissions using water, a chemical stabilizer or suppressant, or vegetative ground cover. Soil shall be kept moist at all times.</i> <i>• All onsite unpaved roads and offsite unpaved access roads shall be effectively stabilized of dust emissions using water or a chemical stabilizer or suppressant.</i> <i>• When materials are transported offsite, all material shall be covered, effectively wetted to limit visible dust emissions, or maintained with at least 2 feet of freeboard space from the top of the container.</i> <i>• All operations shall limit or expeditiously remove the accumulation of project-generated mud or dirt from adjacent public streets at least once every 24 hours when operations are occurring.</i> <i>• After materials are added to or removed from the surfaces of outdoor storage piles, the storage piles shall be effectively stabilized of fugitive dust emissions</i> 	<p>Before Construction</p> <p>During Construction</p> <p>After construction</p>	<p>Authorized Construction Contractor</p>	<p>SMUD</p>	<p>Site Inspection</p>		

Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified	Remarks
<p><i>using sufficient water or a chemical stabilizer/suppressant.</i></p> <ul style="list-style-type: none"> • <i>Onsite vehicle speeds on unpaved roads shall be limited to 15 mph.</i> • <i>Wheel washers shall be installed for all trucks and equipment exiting unpaved areas, or wheels shall be washed to remove accumulated dirt before such vehicles leave the site.</i> • <i>Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from adjacent project areas with a slope greater than 1 %.</i> • <i>Excavation and grading activities shall be suspended when winds exceed 20 mph.</i> • <i>The extent of areas simultaneously subject to excavation and grading shall be limited, wherever possible, to the minimum area feasible.</i> • <i>All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.</i> • <i>Maintain all construction equipment in proper working condition according to manufacturer's specifications. Equipment will be checked by a certified mechanic and determined to be running in proper condition before it is operated.</i> • <i>All on and off-road diesel equipment shall not idle when not in use. Signs shall be posted in the</i> 						

Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified	Remarks
<p><i>designated queuing areas and or job sites to remind drivers and operators of the 5-minute idling limit.</i></p> <ul style="list-style-type: none"> • <i>Provide current certificate(s) of compliance for CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation [California Code of Regulations, Title 13, sections 2449 and 2449.1].</i> • <i>Diesel equipment meeting the ARB Tier 3 or higher emission standards for off-road heavy-duty diesel engines shall be used to the extent locally available.</i> • <i>On-road heavy-duty equipment with model year 2010 engines or newer shall be used to the extent locally available.</i> • <i>Diesel powered equipment shall be replaced by electric equipment whenever available.</i> • <i>Equipment/vehicles using alternative fuels, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel, shall be used on-site where locally available.</i> • <i>Catalytic converters shall be installed on gasoline-powered equipment, if available, and in accordance with manufacturer's recommendations.</i> 						
<p><u>Mitigation Measure 3.3-2. Survey, Remove, and Dispose of ACM and LBP</u></p> <p><i>The presence or absence of asbestos-containing material (ACM) and lead-based paint (LBP) will be verified by conducting a survey for these materials prior to demolition activities, and if present, they will be remediated prior to any renovation or demolition at the project site that involves the disturbance or potential</i></p>	Before Construction	Authorized Construction Contractor	SMUD	Construction Contractor will provide results of ACM and LBP testing. &		

Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified	Remarks
<i>disturbance of ACM or LBP, in accordance with applicable regulatory requirements, including requirements stipulated in the National Emission Standard for Hazardous Air Pollutants (40CFR61, Subpart M-Asbestos; NESHAP). These requirements include but are not limited to: 1) notification, within at least 10 business days of activities commencing, to the air quality management district, 2) an asbestos survey conducted by a Certified Asbestos Consultant, and, 3) applicable removal and disposal requirements of identified ACM. The SMAQMD is delegated authority by the United States Environmental Protection Agency (USEPA) to implement the Federal Asbestos NESHAP.</i>				Site Inspection		

3.4 Biological Resources

Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified	Remarks
<p><u>Mitigation Measure 3.4-1: Avoid or Minimize Effects on Special-status Aquatic Species and Waters of the U.S. and State</u></p> <ul style="list-style-type: none"> All on-site construction personnel will receive worker environmental awareness training, which instructs workers regarding the presence of listed species and the importance of avoiding impacts to these species and their habitat. Access, egress, and ground-disturbing activities will be sited to avoid aquatic features to the extent possible. 	<p>Before Construction (training, ESA fence installation)</p> <p>During Construction (work windows and soil salvage)</p> <p>After Construction (restoration of disturbed area)</p>	Authorized Construction Contractor	SMUD	<p>Construction Contractor will advise SMUD in writing that the environmental training has been completed.</p> <p>&</p> <p>Site Inspection</p>		

<p><i>Where present, existing paved and unpaved roads will be used to access the work area.</i></p> <ul style="list-style-type: none"> • <i>All work in or near potential aquatic species habitat will be performed in the dry season (approximately April 15 through October 15).</i> • <i>Temporary fencing shall be placed along the boundary of the work areas to avoid and protect environmentally sensitive areas (waters of the U.S. and State, special-status species habitat) during construction activities. Fencing must be installed prior to the initiation of any vegetation removal, equipment staging, construction, or other project activity. Fencing will consist of temporary construction barrier fencing or silt fencing. The fencing will be checked regularly and maintained until all construction is complete.</i> • <i>All temporarily disturbed areas will be returned to pre-project conditions upon completion of construction. Soil stabilization may include, but is not limited to, seeding with a native grass seed mix and/or planting native plants. These areas will be properly protected from washout and erosion using appropriate erosion control devices including coir netting, hydroseeding, and/or revegetation. The existing grades in temporary impact areas will be recontoured to existing conditions.</i> • <i>Rubber matting, or similar equivalent, will be used where temporary access for heavy equipment is required through vernal pools and seasonal wetlands/swales.</i> • <i>For pole installations in or within 250 feet of wetlands, the upper four inches of topsoil will be stockpiled separately on Visqueen or plastic sheets during excavations. The area between the pole and the pole hole will be backfilled with cement, and the upper portion will be backfilled with native soil commensurate with the topography and stratigraphy of the surrounding soil. When this topsoil is replaced, compaction shall be minimized to the extent consistent</i> 						
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Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified	Remarks
<p><i>with utility standards. Areas of disturbed soil will be reseeded with a native seed mix.</i></p> <ul style="list-style-type: none"> <i>For pole removal, clay (native or bentonite) will be used to fill the pole hole.</i> <i>No pesticides or herbicides will be applied within 250 feet of vernal pools.</i> 						
<p><u>Mitigation Measure 3.4-2. Compensate for Permanent Impacts to Wetlands and Aquatic Species Habitat</u></p> <p><i>If the new monopole locations result in permanent impacts on wetland features, the appropriate permits would be obtained and the USFWS would be consulted. As part of the consultation process, SMUD would prepare and implement a Compensatory Mitigation Plan for project impacts on wetlands and vernal pool branchiopods. The Compensatory Mitigation Plan may include, but is not limited to, the purchase of mitigation credits for vernal pool fairy shrimp and vernal pool tadpole shrimp from the SMUD Nature Preserve Mitigation Bank or an alternative USFWS-approved mitigation bank in accordance with USFWS guidance on mitigation ratios. This mitigation requirement may be refined or superseded by the USFWS and U.S. Army Corps of Engineers permit terms.</i></p>	Before Construction	SMUD	SMUD	Completion of Compensatory Mitigation Plan and receipt of 404 permit, if applicable		
<p><u>Mitigation Measure 3.4-3: Conduct Pre-Construction Survey for Western Spadefoot</u></p> <p><i>A biologist will conduct a survey no less than 7 days prior to the initiation of any ground disturbing activities within or adjacent to suitable habitat for western spadefoot. This survey will comprise walking transects while conducting visual encounter surveys within areas</i></p>	Before Construction	SMUD Biologist	SMUD	The project biologist will submit a summary of the pre-construction survey results to SMUD and		

Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified	Remarks
<p><i>that will be subject to staging, vegetation clearing, grubbing, grading, cut and fill, or other ground disturbing activities. The survey will include wetlands and adjacent grassland. All potential habitat features in the project site, such as crevices and burrows western spadefoot often use, will be searched to the maximum extent practicable.</i></p> <p><i>If western spadefoot are present within the project work limits (including their egg masses or tadpoles), then CDFW will be notified and additional avoidance and minimization measures will be implemented. Any special-status species observed will be allowed to voluntarily move outside of the work area on its own volition.</i></p>				CDFW, as appropriate.		
<p><u>Mitigation Measure 3.4-4: Avoid or Minimize Effects on Giant Garter Snake</u></p> <ul style="list-style-type: none"> <i>Avoid construction activities within 200 feet from the banks of giant garter snake aquatic habitat to the greatest extent feasible.</i> <i>Construction activity within 200 feet of giant garter snake aquatic habitat should be conducted between May 1 and October 1. This is the active period for giant garter snakes and direct mortality is lessened, because snakes are expected to actively move and avoid danger. If activities occur between October 2 and April 30 within 200 feet of giant garter snake habitat, SMUD will contact the USFWS Sacramento Fish and Wildlife Office to determine if additional measures are necessary to minimize and avoid take.</i> <i>Confine clearing to the minimal area necessary to facilitate construction activities. Flag and designate avoided giant garter snake habitat within or adjacent to</i> 	<p>Before Construction</p> <p><i>(habitat flagging, training, pre-construction surveys)</i></p> <p>During Construction</p> <p><i>(work windows and agency contact)</i></p>	<p>Authorized Construction Contractor</p> <p>&</p> <p>SMUD Biologist</p>	SMUD	The project biologist will submit a summary of environmental training and pre-construction survey results to SMUD.		

Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified	Remarks
<p><i>the project site as Environmentally Sensitive Areas. This area should be avoided by all construction personnel.</i></p> <ul style="list-style-type: none"> <i>Construction personnel shall receive worker environmental awareness training. This training instructs workers to recognize giant garter snakes and their habitat(s).</i> <i>24 hours prior to construction activities, the project site should be surveyed for giant garter snakes. The survey of the project site should be repeated if a lapse in construction activity of two weeks or more has occurred. If a snake is encountered during construction, activities shall cease until appropriate corrective measures have been completed or it has been determined that the snake will not be harmed.</i> <i>Any dewatered habitat should remain dry for at least 15 consecutive days after April 15 and prior to excavating or filling of the dewatered habitat.</i> 						
<p><u>Mitigation Measure 3.4-5: Avoid or Minimize Effects on Nesting Swainson’s Hawk, White-Tailed Kite, Grasshopper Sparrow, and Other Nesting Birds</u></p> <ul style="list-style-type: none"> <i>The following measures shall be implemented to avoid or minimize loss of active Swainson’s hawk, white-tailed kite, grasshopper sparrow, and other raptor nests:</i> <i>If construction (including vegetation removal) would occur during the nesting season (between February 1 and August 31), a SMUD project biologist/biological monitor shall conduct pre-construction nesting bird surveys to determine whether birds are nesting in the</i> 	<p><i>If construction is planned between February 1 and August 31:</i></p> <p>Before Construction</p>	SMUD Biologist	SMUD	The project biologist will submit a summary of the pre-construction survey results to SMUD.		

Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified	Remarks
<p><i>work area or within 0.25 mile for Swainson’s hawk and 500 feet for all other nesting birds of the project site.</i></p> <ul style="list-style-type: none"> <i>• The pre-construction nesting bird surveys will identify on-site bird species and any nest-building behavior. If no nesting Swainson’s hawks are found on or within 0.25 mile of the project site or if no nesting birds are found on or within 500 feet of the project site during the pre-construction clearance surveys, construction activities may proceed as scheduled.</i> <i>• If pre-nesting behavior is observed but an active nest of common nesting bird has not yet been established (e.g., courtship displays but no eggs in a constructed nest), a nesting bird deterrence and removal program will be implemented. Such deterrence methods include removal of the previous year’s nesting materials and removal of partially completed nests in progress. After a nest is situated and identified with eggs or young, it is considered to be “active,” and the nest cannot be removed until the young have fledged.</i> <i>• If active Swainson’s hawk nests are found within the survey area, the construction contractor shall avoid impacts on such nests by establishing a no-disturbance buffer around the nest. Monitoring of the nest by a qualified biologist during construction activities shall be required if the activity has the potential to adversely affect the nest. Based on guidance for determining a project’s potential for affecting Swainson’s hawks (Swainson’s Hawk Technical Advisory Committee 2000), projects in urban areas have a low risk of adversely affecting nests greater than 600 feet from project activities. Therefore, 600 feet is anticipated to be the adequate buffer size for protecting nesting Swainson’s hawks from disturbances associated with the project. However, the qualified biologist shall consult with CDFW to confirm the adequacy of the no-disturbance buffer and/or</i> 						

Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified	Remarks
<p><i>whether the buffer may be reduced based on the biologist's professional judgment.</i></p> <ul style="list-style-type: none"> <i>If an active white-tailed kite, grasshopper sparrow, or common bird species nest is found on or within 500 feet of the project site during construction, a "no-construction" buffer zone will be established around the active nest (usually a minimum radius of 50 feet for passerine birds and 500 feet for raptors) to minimize the potential for disturbance of the nesting activity. The project biologist/biological monitor will determine and flag the appropriate buffer size required, based on the species, specific activities being conducted, tolerances of the species, and the nest location. Project activities will resume in the buffer area when the project biologist/biological monitor has determined that the nest(s) is (are) no longer active or the biologist/biological monitor has determined that with implementation of an appropriate buffer, work activities would not disturb the bird's nesting behavior.</i> 						
<p><u>Mitigation Measure 3.4-6: Avoid or Minimize Effects on Burrowing Owls</u></p> <p><i>The following measures shall be implemented to avoid or minimize effects to burrowing owl during construction of the proposed project:</i></p> <ul style="list-style-type: none"> <i>Pre-construction surveys for burrowing owls would be completed before the project begins. A survey to determine presence or absence of burrowing owls may be performed at any time to facilitate passive relocation efforts, which must occur during the nonbreeding season (generally September 1 to January 31). In addition, a pre-construction survey would be conducted no more than 14 days prior to the initiation of any project activities, including vegetation removal, equipment staging, or construction. This survey would be conducted in all areas of potential habitat within the project area plus a 500-foot buffer and would follow the methods described in the CDFW</i> 	Before Construction	SMUD Biologist	SMUD	The project biologist will submit a summary of the pre-construction survey results to SMUD.		

Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified	Remarks
<p><i>Staff Report on Burrowing Owl Mitigation (CDFW 2012) or an updated version of this document.</i></p> <ul style="list-style-type: none"> <i>If the biologist finds an active burrowing owl burrow, the biologist would establish a buffer around the site. The buffer location would be based on the CDFW Staff Report on Burrowing Owl Mitigation (2012) or at the distance which the biologist, in consultation with CDFW, determines that burrowing owls would not be harassed by the proposed project.</i> 						
<p><u>Mitigation Measure 3.4-7: Conduct an American Badger Pre-construction Survey</u></p> <p><i>A qualified biologist would conduct a preconstruction survey for American badger individuals and active dens in the project site and within a 250-foot buffer of the project site.</i></p> <ul style="list-style-type: none"> <i>The preconstruction survey would be conducted no more than 14 days before the initiation of construction activities.</i> <i>For surveys in inaccessible areas, the biologist would use binoculars to scan any suitable denning substrate for potential individuals or dens.</i> <i>If no active dens are found during the preconstruction surveys, then no additional mitigation is required.</i> <i>If an active den is identified within the survey area, a no-disturbance buffer would be established around the nest/den to avoid disturbance of the denning mammal until a qualified biologist determines that the young have dispersed. The extent of these buffers would be determined by the biologist and would depend on the level of noise or construction disturbance, line-of-sight between the den and the disturbance, ambient levels</i> 	<p>Before Construction</p>	<p>SMUD Biologist</p>	<p>SMUD</p>	<p>The project biologist will submit a summary of the pre-construction survey results to SMUD.</p>		

Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified	Remarks
<p><i>of noise and other disturbances, and other topographical or artificial barriers.</i></p> <ul style="list-style-type: none"> <i>If any non-denning individuals are observed in the survey area before or during construction, the species would be allowed to move out of harm's way on its own.</i> 						

3.5 Cultural Resources

Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified	Remarks
<p><u>Mitigation Measure 3.5-1: Worker Environmental Awareness and Cultural Respect Training and Procedures for Inadvertent Discovery of Cultural Resources</u></p> <p><i>Prior to excavation or other subsurface disturbance activities, individuals conducting the work will be required to participate in Worker Environmental Awareness and Cultural Respect Training. Workers will be advised to watch for cultural resource materials. If workers observe any evidence of pre-contact cultural resources (freshwater shells, beads, bone tool remnants or an assortment of bones, soil changes including subsurface ash lens or soil darker "midden" in color than surrounding soil, lithic materials such as flakes, tools or grinding rocks, etc.), or historic cultural resources (adobe foundations or walls, structures and remains with square nails, refuse deposits or bottle dumps, often associated with wells or old privies), all ground-disturbing activity within 100 feet of the discovery must immediately cease and a qualified archaeologist must be consulted to assess the significance of the cultural materials. SMUD will be notified of the potential find and a qualified</i></p>	<p>Before Construction <i>(training)</i></p> <p>During Construction <i>(discovery)</i></p>	Authorized Construction Contractor	SMUD	<p>Construction Contractor will advise SMUD in writing that the environmental training has been completed.</p> <p>Construction Contractor will advise SMUD ASAP by phone of any discovery.</p>		

Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified	Remarks
<p><i>archeologist shall be retained to investigate its significance. If the qualified archaeologist determines the archaeological material to be Native American in nature, Mitigation Measure 3.18-1 shall be implemented. If the find is determined to be significant by the archaeologist (i.e., because it is determined to constitute a unique archaeological resource), the archaeologist shall work with SMUD to develop and implement appropriate procedures to protect the integrity of the resource and ensure that no additional resources are affected. Procedures could include but would not necessarily be limited to preservation in place, archival research, subsurface testing, or contiguous block unit excavation and data recovery.</i></p>						
<p><u>Mitigation Measure 3.5-2: Procedures for Discovery of Human Remains</u></p> <p><i>If human remains are discovered, all work within a100 feet of the find must immediately cease, and the local coroner must be contacted. Procedures for the discovery of human remains will be followed in accordance with provisions of the State Health and Safety Code, Sections 7052 and 7050.5 and the State Public Resources Code Sections 5097.9 to 5097.99. If the Coroner determines that the remains are those of Native American origin, the Coroner shall contact the Native American Heritage Commission (NAHC) and subsequent procedures shall be followed, according to State Public Resources Code Sections 5097.9 to 5097.99, regarding notification of the Native American Most Likely Descendant. Following the coroner's and NAHC's findings, SMUD and the NAHC-designated Most Likely Descendant shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed.</i></p>	<p>During Construction (discovery)</p>	<p>Authorized Construction Contractor</p>	<p>SMUD</p>	<p>Construction Contractor will advise SMUD ASAP by phone of any discovery.</p>		

3.7 Geology and Soils (Paleontology)

Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified	Remarks
<p><u>Mitigation Measure 3.7-1: Worker Environmental Awareness Training and Procedures for Inadvertant Discovery of Paleontological Resources</u></p> <p><i>A Worker Environmental Awareness Training (WEAT) will be presented for all construction workers prior to the start of ground disturbing activities (including vegetation removal, grading, excavation, etc.). The training session shall discuss the recognition of the types of paleontological resources that could be encountered within the project site and the procedures to be followed if they are found. Documentation shall be retained demonstrating that all construction/ decommissioning personnel attended the training.</i></p> <p><i>SMUD will retain an on-call paleontologist to respond to potential finds during project construction. If potential paleontological resources are uncovered during on-site construction activities, all work must stop immediately within 100 feet of the find and a qualified paleontologist shall evaluate the deposits. The paleontologist will be responsible for assessing any evidence of paleontological resources encountered during construction. If the find is deemed significant, it should be salvaged by the paleontologist following the standards of the SVP (2010) and curated with a certified repository. Work in the area may resume after authorization is granted by SMUD's project manager in consultation with the paleontologist.</i></p>	<p><i>Before Construction (training)</i></p> <p><i>During Construction (discovery)</i></p>	<p><i>Authorized Construction Contractor</i></p>	<p><i>SMUD</i></p>	<p><i>Construction Contractor will advise SMUD in writing that the training has been completed. Construction Contractor will advise SMUD ASAP by phone of any discovery.</i></p>		

3.9 Hazards and Hazardous Materials

Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified	Remarks
<p><u>Mitigation Measure 3.9-1: Manage Accidental Discovery of Hazardous Materials</u></p> <p><i>If contaminated soils or potentially hazardous items are discovered during earth moving activities, all ground-disturbing activities within 50 feet shall be halted until a qualified SMUD employee or SMUD representative can assess the conditions on the site. SMUD will notify the appropriate agency (e.g., Sacramento County EMD) to determine if it is appropriate to rebury the potentially hazardous materials. If it is determined that the hazardous material cannot be re-incorporated into the project site, it shall be hauled by a qualified hauler to an appropriate waste disposal facility.</i></p>	<p><i>During Construction (discovery)</i></p>	<p><i>Authorized Construction Contractor</i></p>	<p>SMUD</p>	<p><i>Construction Contractor will advise SMUD ASAP by phone of any discovery.</i></p>		

3.13 Noise

Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified	Remarks
<p><u>Mitigation Measure 3.13-1. Limit Construction Noise</u></p> <p><i>The following measures shall be implemented to reduce short-term construction noise impacts:</i></p> <ul style="list-style-type: none"> <i>Construction activities shall be limited to between the hours of 6 a.m. and 8 p.m., Monday through Friday, and 7 a.m. to 8 p.m. on Saturdays, where practicable. Construction activities would be prohibited on Sundays and legal holidays. Haul truck operations shall be limited to these same hourly restrictions.</i> 	<p>During Construction</p>	<p>Authorized Construction Contractor</p>	<p>SMUD</p>	<p>Site Inspection</p>		

Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified	Remarks
<ul style="list-style-type: none"> • Construction equipment shall be properly maintained and equipped with exhaust mufflers and engine shrouds in accordance with manufacturers' recommendations. • To the extent locally available, electrified, or alternatively powered construction equipment shall be used. • Construction equipment staging areas shall be located at the furthest distance possible from nearby noise-sensitive land uses (residences). • Stationary noise sources such as generators, pumps, and pavement crushers, shall be located at the furthest distance possible from noise-sensitive uses. 						

3.18 Tribal Cultural Resources

Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified	Remarks
<p><u>Mitigation Measure 3.18-1: Worker Environmental Awareness and Cultural Respect Training and Procedures for Discovery of Potential Tribal Cultural Resources</u></p> <p>All construction personnel must receive Tribal Cultural Resources Sensitivity and Awareness Training (Worker Environmental Awareness Program [WEAP]), including field consultants and construction workers. The WEAP shall be developed in coordination with interested Native American Tribes.</p> <p>The WEAP shall be conducted before any project-related construction activities begin at the project site. The WEAP will include relevant information regarding</p>	<p>Before Construction (training)</p> <p>During Construction (discovery)</p>	Authorized Construction Contractor	SMUD	<p>Construction Contractor will advise SMUD in writing that the training has been completed.</p> <p>Construction Contractor will advise SMUD ASAP by</p>		

Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified	Remarks
<p><i>sensitive cultural resources and Tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The WEAP will also describe appropriate avoidance and impact minimization measures for cultural resources and Tribal cultural resources that could be located at the project site and will outline what to do and who to contact if any potential cultural resources or Tribal cultural resources are encountered. The WEAP will emphasize the requirement for confidentiality and culturally appropriate treatment of any discovery of significance to Native Americans and will discuss appropriate behaviors and responsive actions, consistent with Native American Tribal values. The training may be done in coordination with the project archaeologist.</i></p> <p><i>All ground-disturbing equipment operators shall be required to receive the training and sign a form that acknowledges receipt of the training.</i></p> <p><i>During excavation or other substantial subsurface disturbance activities, all construction personnel must follow procedures and the direction of archeologists and Tribal monitors if any cultural resource materials are observed.</i></p>				phone of any discovery.		
<p><u>Mitigation Measure 3.18-2: Spot Check Monitoring for Tribal Cultural Resources</u></p> <p><i>SMUD shall invite representatives of Wilton Rancheria and Shingle Springs Band of Miwok Indians (SSBMI) to periodically inspect the active areas of the project, including any soil piles, trenches, or other disturbed areas. Wilton Rancheria and SSBMI shall be notified at least 48 hours prior to start of construction.</i></p>	During Construction	SMUD	SMUD	Site Inspection		
<p><u>Mitigation Measure 3.18-3: Unanticipated Discovery of Tribal Cultural Resources</u></p> <p><i>If any suspected Tribal cultural resources are discovered during ground disturbing construction activities, including</i></p>	During Construction (discovery)	Authorized Construction Contractor	SMUD	Construction Contractor will advise SMUD ASAP by		

Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified	Remarks
<p><i>midden soil, artifacts, cultural belongings, chipped stone, exotic rock (nonnative), or unusual amounts of baked clay, shell, or bone, all work shall pause within 100 feet of the find. Consulting Tribe(s) shall be immediately notified and shall determine if the find is a Tribal cultural resource (pursuant to PRC section 21074). The Tribal representative will make recommendations for further evaluation and treatment, as necessary. Preservation in place is the preferred alternative, and every effort must be made to preserve the resources in place, including through project redesign. Culturally appropriate treatment may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, and returning objects to a location within the project area where they will not be subject to future impacts. Curation of Tribal cultural resources is not considered appropriate or respectful; materials would not be permanently curated, unless approved by the consulting Tribe. Treatment that preserves or restores the cultural character and integrity of a Tribal cultural resource may include Tribal monitoring, culturally appropriate recovery of cultural objects, and reburial of cultural objects or cultural soil.</i></p>				phone of any discovery		

Appendix B

BIOLOGICAL RESOURCES INFORMATION



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To:
Project Code: 2023-0058491
Project Name: El Rio Substation Construction Project

March 21, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2))

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/birds/policies-and-regulations.php>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

PROJECT SUMMARY

Project Code: 2023-0058491
Project Name: El Rio Substation Construction Project
Project Type: Utility Infrastructure Maintenance
Project Description: Utilities construction project in Elverta, CA
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@38.7160808,-121.47631093170219,14z>



Counties: Sacramento County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

REPTILES

NAME	STATUS
Giant Garter Snake <i>Thamnophis gigas</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482	Threatened

AMPHIBIANS

NAME	STATUS
California Tiger Salamander <i>Ambystoma californiense</i> Population: U.S.A. (Central CA DPS) There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate
Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850	Threatened

CRUSTACEANS

NAME	STATUS
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp <i>Lepidurus packardi</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPAC USER CONTACT INFORMATION

Agency: Area West Environmental, Inc.

Name: Becky Rozumowicz

Address: 6248 Main Avenue, Suite C

City: Orangevale

State: CA

Zip: 95662

Email: frontdesk@areawest.net

Phone: 9169873362

From: zminervini-zick@areawest.net
To: ["nmfs.wcra.specieslist@noaa.gov"](mailto:nmfs.wcra.specieslist@noaa.gov) El
Subject: Rio Substation Development Project
Date: Tuesday, March 7, 2023 3:41:00 PM
Attachments: image

El Rio Substation Development Project

Quad Name **Rio Linda**

Quad Number **38121-F4**

ESA Anadromous Fish

SONCC Coho ESU (T) -

CCC Coho ESU (E) -

CC Chinook Salmon ESU (T) -

CVSR Chinook Salmon ESU (T) - **X**

SRWR Chinook Salmon ESU (E) - **X**

NC Steelhead DPS (T) -

CCC Steelhead DPS (T) -

SCCC Steelhead DPS (T) -

SC Steelhead DPS (E) -

CCV Steelhead DPS (T) - **X**

Eulachon (T) -

sDPS Green Sturgeon (T) -

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat -

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat -

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat -

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat - **X**

Eulachon Critical Habitat -

sDPS Green Sturgeon Critical Habitat -

ESA Marine Invertebrates

Range Black Abalone (E) -

Range White Abalone (E) -

ESA Marine Invertebrates Critical Habitat

Black Abalone Critical Habitat -

ESA Sea Turtles

- East Pacific Green Sea Turtle (T) -
- Olive Ridley Sea Turtle (T/E) -
- Leatherback Sea Turtle (E) -
- North Pacific Loggerhead Sea Turtle (E) -

ESA Whales

- Blue Whale (E) -
- Fin Whale (E) -
- Humpback Whale (E) -
- Southern Resident Killer Whale (E) -
- North Pacific Right Whale (E) -
- Sei Whale (E) -
- Sperm Whale (E) -

ESA Pinnipeds

- Guadalupe Fur Seal (T) -
- Steller Sea Lion Critical Habitat -

Essential Fish Habitat

- Coho EFH -
- Chinook Salmon EFH - **X**
- Groundfish EFH -
- Coastal Pelagics EFH -
- Highly Migratory Species EFH -

MMPA Species (See list at left)

ESA and MMPA Cetaceans/Pinnipeds

**See list at left and consult the NMFS Long Beach office
562-980-4000**

- MMPA Cetaceans -
- MMPA Pinnipeds -



Zoe Minervini-Zick | Analyst/Biologist I | 916.987.3362 | zminervini-zick@areawest.net

6248 Main Avenue, Suite C, Orangevale, CA 95662 | areawest.net | Follow us on [Facebook](#)



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad IS (Rio Linda (3812164) OR (Citrus Heights (3812163) OR (Roseville (3812173) OR (Carmichael (3812153) OR (Sacramento West (3812155) OR (Taylor Monument (3812165) OR (Pleasant Grove (3812174) OR (Verona (3812175) OR (Sacramento East (3812154))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Accipiter cooperii</i> Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
<i>Acipenser medirostris pop. 1</i> green sturgeon - southern DPS	AFCAA01031	Threatened	None	G2T1	S1	
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S1S2	SSC
<i>Alkali Meadow</i> Alkali Meadow	CTT45310CA	None	None	G3	S2.1	
<i>Alkali Seep</i> Alkali Seep	CTT45320CA	None	None	G3	S2.1	
<i>Ammodramus savannarum</i> grasshopper sparrow	ABPBXA0020	None	None	G5	S3	SSC
<i>Andrena subapasta</i> An andrenid bee	IIHYM35210	None	None	G1G2	S1S2	
<i>Aquila chrysaetos</i> golden eagle	ABNKC22010	None	None	G5	S3	FP
<i>Archoplites interruptus</i> Sacramento perch	AFCQB07010	None	None	G1	S1	SSC
<i>Ardea alba</i> great egret	ABNGA04040	None	None	G5	S4	
<i>Ardea herodias</i> great blue heron	ABNGA04010	None	None	G5	S4	
<i>Astragalus tener var. ferrisiae</i> Ferris' milk-vetch	PDFAB0F8R3	None	None	G2T1	S1	1B.1
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<i>Balsamorhiza macrolepis</i> big-scale balsamroot	PDAST11061	None	None	G2	S2	1B.2
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
<i>Branchinecta mesovallensis</i> midvalley fairy shrimp	ICBRA03150	None	None	G2	S2S3	
<i>Buteo regalis</i> ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
<i>Buteo swainsoni</i> Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Chloropyron molle ssp. hispidum</i> hispid salty bird's-beak	PDSCR0J0D1	None	None	G2T1	S1	1B.1
<i>Cicindela hirticollis abrupta</i> Sacramento Valley tiger beetle	IICOL02106	None	None	G5TH	SH	
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	IICOL48011	Threatened	None	G3T2T3	S3	
<i>Downingia pusilla</i> dwarf downingia	PDCAM060C0	None	None	GU	S2	2B.2
<i>Dumontia oregonensis</i> hairy water flea	ICBRA23010	None	None	G1G3	S1	
<i>Egretta thula</i> snowy egret	ABNGA06030	None	None	G5	S4	
<i>Elanus leucurus</i> white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
<i>Elderberry Savanna</i> Elderberry Savanna	CTT63440CA	None	None	G2	S2.1	
<i>Emys marmorata</i> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<i>Fritillaria agrestis</i> stinkbells	PMLIL0V010	None	None	G3	S3	4.2
<i>Gonidea angulata</i> western ridged mussel	IMBIV19010	None	None	G3	S1S2	
<i>Gratiola heterosepala</i> Boggs Lake hedge-hyssop	PDSCR0R060	None	Endangered	G2	S2	1B.2
<i>Great Valley Cottonwood Riparian Forest</i> Great Valley Cottonwood Riparian Forest	CTT61410CA	None	None	G2	S2.1	
<i>Hibiscus lasiocarpus var. occidentalis</i> woolly rose-mallow	PDMAL0H0R3	None	None	G5T3	S3	1B.2
<i>Hydrochara rickseckeri</i> Ricksecker's water scavenger beetle	IICOL5V010	None	None	G2?	S2?	
<i>Juncus leiospermus var. ahartii</i> Ahart's dwarf rush	PMJUN011L1	None	None	G2T1	S1	1B.2
<i>Juncus leiospermus var. leiospermus</i> Red Bluff dwarf rush	PMJUN011L2	None	None	G2T2	S2	1B.1
<i>Lasiurus cinereus</i> hoary bat	AMACC05032	None	None	G3G4	S4	
<i>Laterallus jamaicensis coturniculus</i> California black rail	ABNME03041	None	Threatened	G3T1	S1	FP
<i>Legenere limosa</i> legenere	PDCAM0C010	None	None	G2	S2	1B.1



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Lepidurus packardii</i> vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G4	S3	
<i>Linderiella occidentalis</i> California linderiella	ICBRA06010	None	None	G2G3	S2S3	
<i>Melospiza melodia pop. 1</i> song sparrow ("Modesto" population)	ABPBXA3013	None	None	G5T3?Q	S3?	SSC
<i>Northern Claypan Vernal Pool</i> Northern Claypan Vernal Pool	CTT44120CA	None	None	G1	S1.1	
<i>Northern Hardpan Vernal Pool</i> Northern Hardpan Vernal Pool	CTT44110CA	None	None	G3	S3.1	
<i>Northern Volcanic Mud Flow Vernal Pool</i> Northern Volcanic Mud Flow Vernal Pool	CTT44132CA	None	None	G1	S1.1	
<i>Nycticorax nycticorax</i> black-crowned night heron	ABNGA11010	None	None	G5	S4	
<i>Oncorhynchus mykiss irideus pop. 11</i> steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	
<i>Oncorhynchus tshawytscha pop. 11</i> chinook salmon - Central Valley spring-run ESU	AFCHA0205L	Threatened	Threatened	G5T2Q	S2	
<i>Oncorhynchus tshawytscha pop. 7</i> chinook salmon - Sacramento River winter-run ESU	AFCHA0205B	Endangered	Endangered	G5T1Q	S2	
<i>Orcuttia viscida</i> Sacramento Orcutt grass	PMPOA4G070	Endangered	Endangered	G1	S1	1B.1
<i>Pogonichthys macrolepidotus</i> Sacramento splittail	AFCJB34020	None	None	G3	S3	SSC
<i>Progne subis</i> purple martin	ABPAU01010	None	None	G5	S3	SSC
<i>Riparia riparia</i> bank swallow	ABPAU08010	None	Threatened	G5	S2	
<i>Sagittaria sanfordii</i> Sanford's arrowhead	PMALI040Q0	None	None	G3	S3	1B.2
<i>Spea hammondi</i> western spadefoot	AAABF02020	None	None	G2G3	S3S4	SSC
<i>Spirinchus thaleichthys</i> longfin smelt	AFCHB03010	Candidate	Threatened	G5	S1	
<i>Symphotrichum lentum</i> Suisun Marsh aster	PDASTE8470	None	None	G2	S2	1B.2
<i>Taxidea taxus</i> American badger	AMAJF04010	None	None	G5	S3	SSC
<i>Thamnophis gigas</i> giant gartersnake	ARADB36150	Threatened	Threatened	G2	S2	
<i>Vireo bellii pusillus</i> least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S2	

Record Count: 60

Search Results

12 matches found. Click on scientific name for details

Search Criteria: CRPR is one of [1A:1B:2A:2B] , 9-Quad include [3812163:3812173:3812153:3812155:3812165:3812164:3812174:3812175:3812154]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	CA RARE PLANT RANK	LOWEST ELEVATION (FT)	HIGHEST ELEVATION (FT)	CA ENDEMIC
<i>Astragalus tener</i> var. <i>ferrisiae</i>	Ferris' milk-vetch	Fabaceae	annual herb	Apr-May	None	None	1B.1	5	245	Yes
<i>Balsamorhiza macrolepis</i>	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	None	None	1B.2	150	5100	Yes
<i>Chloropyron molle</i> ssp. <i>hispidum</i>	hispid salty bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	Jun-Sep	None	None	1B.1	5	510	Yes
<i>Downingia pusilla</i>	dwarf downingia	Campanulaceae	annual herb	Mar-May	None	None	2B.2	5	1460	
<i>Gratiola heterosepala</i>	Boggs Lake hedge-hyssop	Plantaginaceae	annual herb	Apr-Aug	None	CE	1B.2	35	7790	
<i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i>	woolly rose-mallow	Malvaceae	perennial rhizomatous herb (emergent)	Jun-Sep	None	None	1B.2	0	395	Yes
<i>Juncus leiospermus</i> var. <i>ahartii</i>	Ahart's dwarf rush	Juncaceae	annual herb	Mar-May	None	None	1B.2	100	750	Yes
<i>Juncus leiospermus</i> var. <i>leiospermus</i>	Red Bluff dwarf rush	Juncaceae	annual herb	Mar-Jun	None	None	1B.1	115	4100	Yes
<i>Legenere limosa</i>	legenere	Campanulaceae	annual herb	Apr-Jun	None	None	1B.1	5	2885	Yes
<i>Orcuttia viscida</i>	Sacramento Orcutt grass	Poaceae	annual herb	Apr-Jul(Sep)	FE	CE	1B.1	100	330	Yes
<i>Sagittaria sanfordii</i>	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	None	None	1B.2	0	2135	Yes
<i>Symphotrichum lentum</i>	Suisun Marsh aster	Asteraceae	perennial rhizomatous herb	(Apr)May-Nov	None	None	1B.2	0	10	Yes

Showing 1 to 12 of 12 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2023. Rare Plant Inventory (online edition, v9.5). Website <https://www.rareplants.cnps.org> [accessed 16 February 2023].

Table B-4a. Special-status Plant Species with Potential to Occur in the Vicinity of the Project

Common and Scientific Name	Legal Status ¹ Federal/State/ CNPS	Distribution	Habitat Association	Identification Period	Potential to Occur ²	Rationale ³
Ferris' milk-vetch <i>Astragalus tener</i> <i>var. ferrisiae</i>	--/--/1B.1	Butte, Colusa, Glenn, Solano, Sutter, Yolo, Yuba counties.	Meadows and seeps (vernally mesic), Valley and foothill grassland (subalkaline flats). Elevational range: 5-245 feet.	April - May	None	While vernal wetlands and grassland occur within the survey area, subalkaline flats do not. Botanical surveys conducted in April 2023, during the identification period for this plant, did not identify this species within the survey area.
Big-scale balsamroot <i>Balsamorhiza</i> <i>macrolepis</i>	--/--/1B.2	Alameda, Butte, Colusa, Lake, Mariposa, Napa, Placer, Santa Clara, Solano, Sonoma, Tehama counties.	Chaparral, cismontane woodland, valley and foothill grassland (sometimes serpentinite). Elevational range: 150-5,100 feet.	March - June	None	The grassland within the survey area may be suitable for this species. However, botanical surveys conducted in April 2023, during the identification period for this plant, did not identify this species within the survey area.
Hispid salty bird's-beak <i>Chloropyron mole</i> <i>ssp. hispidum</i>	--/--/1B.1	Alameda, Kern, Merced, Placer, Solano counties.	Alkali areas in meadows, seeps, playas, and valley and foothill grassland. Elevational range: 5-510 feet.	June - September	None	While grassland does occur within the survey area, alkaline conditions do not. Additionally, this species is not known to occur in Sacramento County.

Common and Scientific Name	Legal Status ¹ Federal/State/ CNPS	Distribution	Habitat Association	Identification Period	Potential to Occur ²	Rationale ³
Dwarf Downingia <i>Downingia pusilla</i>	--/--/2B.2	Merced, Mariposa, Napa, Placer, Sacramento, Solano, Sonoma, Stanislaus, Tehama, Yuba counties.	Valley and foothill grassland (mesic), vernal pools. Elevational range: 5-1,460 feet.	March - May	None	The grassland and vernal pools within the survey area may be suitable for this species. However, botanical surveys conducted in April 2023, during the identification period for this plant, did not identify this species within the survey area.
Boggs Lake hedge-hyssop <i>Gratiola heterosepala</i>	--/SE/1B.2	Fresno, Lake, Lassen, Madera, Mendocino, Merced, Modoc, Placer, Sacramento, San Joaquin, Shasta, Siskiyou, Solano, Sonoma, Tehama counties.	Clay soil in marshes and swamps (lake margins), Vernal pools. Elevational range: 35-7,790 feet.	April - August	None	The vernal pools within the survey area may be suitable for this species. However, botanical surveys conducted in April 2023, during the identification period for this plant, did not identify this species within the survey area.
Woolly rose-mallow <i>Hibiscus lasiocarpus var. occidentalis</i>	--/--/1B.2	Butte, Contra Costa, Colusa, Glenn, Sacramento, San Joaquin, Solano, Sutter, Yolo counties.	Marshes and swamps (freshwater). Often in riprap on sides of levees in marshes and swamps. Elevational range: 0-395 feet.	June - September	None	No suitable habitat was observed within the survey area. Botanical surveys conducted in June 2023, during the identification period of this plant, did not identify this species within the survey area.

Common and Scientific Name	Legal Status¹ Federal/State/ CNPS	Distribution	Habitat Association	Identification Period	Potential to Occur²	Rationale³
Ahart's dwarf rush <i>Juncus leiospermus</i> <i>var. ahartii</i>	--/--/1B.2	Butte, Calaveras, Placer, Sacramento, Tehama, Yuba counties.	Freshwater wetlands, valley and foothill grassland (mesic), and wetland-riparian. Elevational range: 100-750 feet.	March - May	None	The grassland and vernal pools within the survey area may be suitable for this species. However, botanical surveys conducted in April 2023, during the identification period for this plant, did not identify this species within the survey area.
Red Bluff dwarf rush <i>Juncus leiospermus</i> <i>var leiospermus</i>	--/--/1B.1	Butte, Placer, Shasta, Tehama counties.	Chaparral, Cismontane woodland, Meadows and seeps, Valley and foothill grassland, Vernal pools. Elevational range: 115-4,100 feet.	March - June	None	The grassland and vernal pools within the survey area may be suitable for this species. However, botanical surveys conducted in April 2023, during the identification period for this plant, did not identify this species within the survey area.
Legenere <i>Legenere limosa</i>	--/--/1B.1	Alameda, Lake, Monterey, Napa, Placer, Sacramento, San Joaquin, San Mateo, Santa Clara, Shasta, Solano, Sonoma, Stanislaus, Tehama, Yuba counties.	Vernal Pools. Elevational range: 5-2,885 feet.	April - June	None	The vernal pools within the survey area may be suitable for this species. However, botanical surveys conducted in April 2023, during the identification period for this plant, did not identify this species within the survey area.

Common and Scientific Name	Legal Status¹ Federal/State/ CNPS	Distribution	Habitat Association	Identification Period	Potential to Occur²	Rationale³
Sacramento Orcutt grass <i>Orcuttia viscida</i>	FE/SE/1B.1	Sacramento county.	Vernal Pools. Elevational range: 100-330 feet.	April - July (September)	None	The vernal pools within the survey area may be suitable for this species. However, botanical surveys conducted in April 2023, during the identification period for this plant, did not identify this species within the survey area.
Sanford's arrowhead <i>Sagittaria sanfordii</i>	--/--/1B.2	Butte, Del Norte, El Dorado, Fresno, Kings, Los Angeles, Madera, Marin, Mariposa, Merced, Napa, Orange, Sacramento, San Bernardino, San Joaquin, San Mateo, Santa Clara, Shasta, Solano, Sutter, Tehama, Tulare, Ventura, Yuba counties.	Marshes and swamps (shallow freshwater). Elevational range: 0-2,135 feet.	May-October (November)	None	The ephemeral drainage in the northern portion of the survey area may provide marginal habitat. However, botanical surveys conducted in June 2023, during the identification period for this plant, did not identify this species within the survey area.
Suisin Marsh aster <i>Symphyotrichum lentum</i>	--/--/1B.2	Contra Costa, Napa, Sacramento, San Joaquin, Solano, Yolo counties.	Marshes and swamps (brackish, freshwater). Elevational range: 0-10 feet.	(April) May-November	None	Suitable habitat is not present within the survey area. Botanical surveys conducted in April 2023 did not identify this species within the survey area.

¹ Status explanations:

-- = no listing.

Federal

FE = listed as endangered under the federal Endangered Species Act.

State

SE = listed as endangered under the California Endangered Species Act.

California Native Plant Society

1B = List 1B species: rare, threatened, or endangered in California and elsewhere.

2B = List 2B species: rare, threatened, or endangered in California but more common elsewhere.

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)

² Definitions for the Potential to Occur:

None: No suitable habitat present within the biological study area.

Low: Minimal or marginal quality habitat in the biological study area.

Moderate: Suitable habitat occurs within the biological study area.

High: Biological study area provides desirable habitat for species and there is a very high probability for its occurrence.

Present: Species was observed within the biological study area.

³ Rationale includes an effects determination under the FESA for all federally listed species.

Table B-4b. Special-status Wildlife Species with the Potential to Occur within the Vicinity of the Project

Common and Scientific Name	Legal Status ¹ Federal/State	Distribution	Habitat Requirements	Potential to Occur	Rationale ²
Monarch butterfly <i>Danaus plexippus</i>	FC/--	Overwinter in central to southern California coastal region.	California overwintering habitat including eucalyptus, Monterey pines, and Monterey cypresses. Milkweed is the sole food source for larvae.	Moderate	The survey area is within the early breeding zone for this species. Woolly milkweed (<i>Asclepias vestita</i>) was observed within northern portion of the survey area during the June 2023 survey.
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	FT/--	Central Valley and surrounding foothills below 457 meters elevations.	Dependent on elderberry shrubs (host plant) as a food plant; potential habitat is shrubs with stems 1 inch in diameter within Central Valley.	None	No elderberry shrubs observed within the survey area.
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	FT/--	Central Valley, Central and South Coast Ranges from Tehama County to Santa Barbara County; isolated populations also in Riverside County.	Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	High	The vernal pools within the survey area provide suitable habitat for this species. Additionally, there are known occurrences of this species directly adjacent to the survey area.
Vernal pool tadpole shrimp <i>Lepidurus packardii</i>	FE/--	Central Valley from Shasta County south to Merced County.	Vernal pools, vernal lakes, and other seasonal wetlands. Pools commonly found in grass-bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	High	The vernal pools within the survey area provide suitable habitat for this species. Additionally, there are known occurrences of this species near the survey area (within 5 miles).
California central valley steelhead (DPS) <i>Oncorhynchus mykiss</i>	FT/--	The Sacramento and San Joaquin Rivers and their tributaries, excluding San Francisco and San Pablo Bays and their tributaries, and coastal marine waters off California.	Central Valley rivers and streams. Spawns in small streams where cool, well-oxygenated water is available year round.	None	No suitable aquatic habitat within the survey area.

Common and Scientific Name	Legal Status¹ Federal/State	Distribution	Habitat Requirements	Potential to Occur	Rationale²
Central valley spring-run Chinook salmon <i>Oncorhynchus tshawytscha</i>	FT/ST	The Sacramento and San Joaquin Rivers.	Adult numbers depend on pool depth and volume, amount of cover, and proximity to gravel. Water temps >27 C are lethal to adults.	None	No suitable aquatic habitat within the survey area.
Green sturgeon-southern DPS <i>Acipenser medirostris pop. 1</i>	FT/--	Adults present year-round along the California Coast from Monterey Bay to the Oregon border. Adults/subadults occur in the Humboldt Bay and San Francisco Bay and Delta during the summer and fall. Spawn in the Sacramento, Feather, and possibly the Yuba rivers.	Adult and subadults habitat include marine and estuarine waters. Spawning habitat includes cool, deep, swift flowing river reaches over gravel and cobble bottoms.	None	No suitable aquatic habitat within the survey area.
Longfin smelt <i>Spirinchus thaleichthys</i>	FC/ST	Historically found in the San Francisco Estuary and the Sacramento/San Joaquin Delta (Bay-Delta), Humboldt Bay, and the estuaries of the Eel River and Klamath River.	Euryhaline, nektonic & anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15-30 parts per thousand but can be found in completely freshwater to almost pure seawater.	None	No suitable aquatic habitat within the survey area.
Sacramento perch <i>Archoplotes interruptus</i>	--/SSC	Sacramento-San Joaquin, Pajaro and Salinas River drainages and Clear Lake in Lake County.	Historically found in the sloughs, slow-moving rivers, and lakes of the Central Valley. Prefers warm water. Aquatic vegetation is essential for young. Tolerates wide range of physio-chemical water conditions.	None	No suitable aquatic habitat within the survey area.

Common and Scientific Name	Legal Status ¹ Federal/State	Distribution	Habitat Requirements	Potential to Occur	Rationale ²
<p>Sacramento River winter-run Chinook salmon <i>Oncorhynchus tshawytscha</i></p>	FE/SE	Sacramento River and its tributaries	Stream reaches with plentiful cold, clean water that will protect embryos and juveniles from the warm ambient summer conditions. Require water temperatures between 42.5 and 57.5 degrees Fahrenheit.	None	No suitable aquatic habitat within the survey area.
<p>Sacramento splittail <i>Pogonichthys macrolepidotus</i></p>	--/SSC	Once found throughout the Central Valley, from Redding to Tulare Lake and beyond. Today, splittail have a smaller range—around the Sacramento River Delta, Suisun Bay, Suisun Marsh, Napa River, Petaluma River, and other parts of the San Francisco Estuary, while spawning on upstream floodplains and channel edges.	Splittail depend both on brackish-water rearing habitats in the San Francisco Estuary and on floodplain and river-edge spawning habitats immediately above the estuary. They spawn on submerged annual vegetation in flooded areas or along the edges of rising rivers.	None	No suitable aquatic habitat within the survey area.
<p>California tiger salamander <i>Ambystoma californiense</i></p>	FT/ST	In the Coastal region, populations are scattered from Sonoma County in the northern San Francisco Bay Area to Santa Barbara County (up to elevations of 1067 meters), and in the Central Valley and Sierra Nevada foothills from Yolo to Kern counties (up to 610 meters).	Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding. Central California tiger salamander have been reported to migrate up to 1.3 miles between upland habitat and breeding ponds (Orloff 2007).	None	While the grassland and vernal pools within the survey area would provide suitable upland and aquatic habitat for this species, the survey area is outside of this species geographical range. The nearest CNDDDB occurrence of this species is approximately 24 miles to the southwest of the survey area.

Common and Scientific Name	Legal Status ¹ Federal/State	Distribution	Habitat Requirements	Potential to Occur	Rationale ²
Western spadefoot <i>Spea hammondi</i>	--/SSC	Ranges from near Redding south throughout the Central Valley, and its associated foothills, through the South Coast Ranges into coastal California south of the Transverse mountains and west of the Peninsular mountains, into northwest Baja California.	Occurs primarily in grassland habitats but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	Moderate	The grassland and vernal pools within the survey area provide suitable upland and aquatic habitat for this species.
Giant garter snake <i>Thamnophis gigas</i>	FT/ST	Predominantly found in the Sacramento Valley. There are a few recent sightings in the San Joaquin Valley.	Marshes, sloughs, ponds, small lakes, small streams and other waterways including rice fields with tall vegetation growing in and near the water.	Low	When water is present, the ephemeral stream in the northern portion of the survey area could provide suitable aquatic dispersal habitat for this species. The ephemeral stream lacks emergent vegetation cover required for foraging and escape cover. There are known occurrences of this species west of the survey area in Steelhead Creek.
Western pond turtle <i>Emys marmorata</i>	--/SSC	Populations extend throughout the coast and central valley of California.	Thoroughly aquatic turtle. Found in ponds, marshes, rivers, streams and irrigation ditches with aquatic vegetation, below 1,829 meters in elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat within 0.5 km from water for egg-laying.	None	There is no suitable aquatic habitat for this species within the survey area.

Common and Scientific Name	Legal Status ¹ Federal/State	Distribution	Habitat Requirements	Potential to Occur	Rationale ²
Bank swallow <i>Riparia riparia</i>	--/ST	Riparian and other lowland habitats in California west of the deserts during the spring-fall period.	Requires vertical banks or cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean for nesting site.	None	No suitable nesting habitat within the survey area.
Burrowing owl <i>Athene cunicularia</i>	--/SSC	Grasslands in the central valley and eastern California.	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Moderate	There is suitable habitat for this species within the grassland in the survey area. Ground squirrel burrows and several larger burrows were observed within the grassland in the survey area.
California black rail <i>Laterallus jamaicensis coturniculus</i>	--/ST and FP	Tidal salt marshes of the northern San Francisco Bay region and freshwater marshes in the foothills of the Sierra Nevada, and in the Colorado River Area.	Inhabits freshwater marshes, wet meadows, and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	None	No suitable nesting habitat observed within the survey area.
Golden eagle <i>Aquila chrysaetos</i>	--/FP	Concentrated in the Central Valley and coastal valleys, as well as foothills and mountains throughout California.	Cliffs and escarpments or tall trees for nesting; annual grasslands, chaparral, and oak woodlands with plentiful medium and large-sized mammals for prey.	None	No suitable nesting habitat within the survey area.

Common and Scientific Name	Legal Status ¹ Federal/State	Distribution	Habitat Requirements	Potential to Occur	Rationale ²
<p>Grasshopper sparrow <i>Ammodramus savannarum</i></p>	<p>--/SSC</p>	<p>Humboldt, Del Norte, Shasta, Siskiyou, Mendocino, Trinity, and Tehama counties south, west of the Cascade–Sierra Nevada axis and southeastern deserts, to San Diego County, from sea level to 4900 ft, as in the San Jacinto Mountains.</p>	<p>Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs and scattered shrubs. Loosely colonial when nesting.</p>	<p>Moderate</p>	<p>Suitable nesting habitat for this species was observed within the survey area.</p>
<p>Least Bell's vireo <i>Vireo bellii pusillus</i></p>	<p>FE/SE</p>	<p>Southern California, mostly notably in San Diego and Riverside counties.</p>	<p>Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 610 meters. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.</p>	<p>None</p>	<p>No suitable nesting habitat within the survey area.</p>
<p>Purple martin <i>Progne subis</i></p>	<p>--/SSC</p>	<p>Widely distributed. Found in eastern North America, the Rocky Mountains, the Sonoran Desert, Central Mexico, and Pacific Coast states and provinces, the purple martin occurs in foothill and mountainous areas of California as a summer resident and migrant, primarily from mid-March to late September.</p>	<p>Spring and summer resident in forest and woodland areas at low to intermediate elevations throughout much of the state. They are selective about nesting site, preferring low canopy cover at the nest height. Depending on aerial insects for food, they are most abundant large wetlands and other water bodies.</p>	<p>None</p>	<p>No suitable nesting habitat within the survey area.</p>

Common and Scientific Name	Legal Status ¹ Federal/State	Distribution	Habitat Requirements	Potential to Occur	Rationale ²
Song sparrow (“Modesto” Population) <i>Melospiza melodia pop.1</i>	--/SSC	Restricted to California, where it is locally numerous in the Sacramento Valley, Sacramento–San Joaquin River Delta, and northern San Joaquin Valley.	Dense vegetation required for cover. Affinity for emergent freshwater marshes dominated by tules (<i>Scirpus</i> spp.) and cattails (<i>Typha</i> spp.) as well as riparian willow (<i>Salix</i> spp.) thickets. They nest in riparian forests of Valley Oak (<i>Quercus lobata</i>) with an understory of blackberry (<i>Rubus</i> spp.).	None	No suitable nesting habitat within the survey area.
Swainson’s hawk <i>Buteo swainsoni</i>	--/ST	The Central Valley and Great Basin provide the species its core habitat in California. Scattered populations are also known in the Antelope Valley, some inner coastal valleys, portions of the Sierra foothills.	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	Moderate	There are marginally suitable nesting trees in the northern portion of the survey area. There are over 10 known CNDDDB occurrences of this species in a 5-mile radius of the survey area.
Tricolored blackbird <i>Agelaius tricolor</i>	--/ST	Colonies patchily distributed throughout the Central Valley, particularly in the Coast Ranges and on the coastal slope. Large colonies have also been observed in the Toledo Pit, Riverside County.	Freshwater marsh, swamp, and wetlands. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	None	No suitable nesting habitat within the survey area.

Common and Scientific Name	Legal Status¹ Federal/State	Distribution	Habitat Requirements	Potential to Occur	Rationale²
Western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	FT/SE	Isolated patches along rivers in the Sacramento Valley.	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	None	No suitable nesting habitat within the survey area.
White-tailed kite <i>Elanus leucurus</i>	--/FP	Coastal and valley lowlands throughout California.	Rolling foothills and valley margins with scattered oaks & river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Moderate	There are marginally suitable nesting trees in the northern portion of the survey area. There are over 5 known CNDDDB occurrences of this species in a 5-mile radius of the survey area.
American badger <i>Taxidea taxus</i>	--/SSC	Occurs throughout California where habitat is present, except in northwestern coastal California.	Permanent resident of most uncultivated, open stage shrub, forest and herbaceous habitats with friable soils for digging burrows. Badgers feed primarily on fossorial species, such as burrowing mammals like pocket gophers and ground squirrels.	Moderate	Suitable habitat occurs within the survey area. Ground squirrel burrows and several larger burrows were observed within the grassland in the survey area.

¹ **Status explanations:**

-- = no listing.

Federal

FE = listed as endangered under the federal Endangered Species Act.

FT = listed as threatened under the federal Endangered Species Act.

FC = Candidate to be listed under the federal Endangered Species Act.

State

SE = listed as endangered under the California Endangered Species Act.

ST = listed as threatened under the California Endangered Species Act.

SSC = CDFW Species of Special Concern

² Definitions for the Potential to Occur:

None: No suitable habitat present within the biological study area.

Low: Minimal or marginal quality habitat in the biological study area.

Moderate: Suitable habitat occurs within the biological study area.

High: Biological study area provides desirable habitat for species and there is a very high probability for its occurrence.

Present: Species was observed within the biological study area.

Table B-2 Plant Species Observed at the El Rio Substation Site During April and June 2023 Surveys

Scientific Name	Common Name	Family	Nativity	Wetland Indicator Status (Arid West Region)
<i>Aira caryophyllea</i>	Common silver-hair grass	Poaceae	Naturalized	FACU
<i>Amaranthus albus</i>	Tumbleweed	Amaranthaceae	Naturalized	FACU
<i>Amsinckia intermedia</i>	Common fiddleneck	Boraginaceae	Native	--
<i>Amsinckia menziesii</i>	Common fiddleneck, small-flowered fiddleneck	Boraginaceae	Native	--
<i>Asclepias vestita</i>	Woolly milkweed	Apocynaceae	Native	--
<i>Avena barbata</i>	Slender wild oat	Poaceae	Naturalized	--
<i>Avena fatua</i>	Wild oat	Poaceae	Naturalized	--
<i>Briza minor</i>	Lesser quaking grass, small quaking grass	Poaceae	Naturalized	FAC
<i>Brodiaea minor</i>	Small brodiaea	Themidaceae	Native	--
<i>Bromus hordeaceus</i>	Soft brome, soft chess	Poaceae	Naturalized	FACU
<i>Capsella bursa-pastoris</i>	Shepherd's-purse	Brassicaceae	Naturalized	FACU
<i>Castilleja attenuata</i>	Valley tassels	Orobanchaceae	Native	--
<i>Cerastium glomeratum</i>	Sticky mouse-ear chickweed	Caryophyllaceae	Naturalized	UPL
<i>Collinsia sparsiflora</i>		Plantaginaceae	Native	--
<i>Convolvulus arvensis</i>	Bindweed, orchard morning-glory	Convolvulaceae	Naturalized	--
<i>Cynodon dactylon</i>	Bermuda grass	Poaceae	Naturalized	FACU
<i>Dichelostemma capitatum</i>	Bluedicks	Themidaceae	Native	FACU
<i>Elymus caput-medusae</i>	Medusa-head grass	Poaceae	Naturalized	--
<i>Epilobium torreyi</i>	Brook willowherb	Onagraceae	Native	FACW
<i>Erodium botrys</i>	Long-beak stork's-bill	Geraniaceae	Naturalized	FACU
<i>Erodium brachycarpum</i>		Geraniaceae	Naturalized	--
<i>Erodium cicutarium</i>	Redstem filaree	Geraniaceae	Naturalized	--
<i>Eschscholzia californica</i>	California poppy	Papaveraceae	Native	--
<i>Festuca bromoides</i>	Brome six-weeks grass, brome fescue	Poaceae	Naturalized	FACU
<i>Festuca myuros</i>	Rat-tail six-weeks grass	Poaceae	Naturalized	FACU
<i>Festuca perennis</i>	Perennial rye grass, Italian ryegrass	Poaceae	Naturalized	FAC
<i>Galium aparine</i>	Sticky-willy, goose grass	Rubiaceae	Native	FACU
<i>Galium tricornerum</i>	Rough corn bedstraw	Rubiaceae	Naturalized	--
<i>Helminthotheca echioides</i>	Akan asante, bristly ox-tongue	Asteraceae	Naturalized	FAC
<i>Hordeum murinum</i> subsp. <i>leporinum</i>	Wall barley, hare barley	Poaceae	Naturalized	FACU
<i>Juncus balticus</i> subsp. <i>ater</i>	Baltic rush	Juncaceae	Native	FACW
<i>Juncus bufonius</i>	Toad rush	Juncaceae	Native	FACW
<i>Juncus capitatus</i>	Leafy-bract dwarf rush	Juncaceae	Naturalized	FACU
<i>Lactuca serriola</i>	Prickly wild lettuce	Asteraceae	Naturalized	FACU

<i>Leontodon saxatilis</i>	Lesser hawkbit, hairy hawkbit	Asteraceae	Naturalized	FACU
<i>Limnanthes alba</i>	Slender meadowfoam, white meadowfoam	Limnanthaceae	Native	FACW
<i>Linum bienne</i>		Linaceae	Naturalized	--
<i>Logfia gallica</i>	Daggerleaf cottonrose	Asteraceae	Naturalized	UPL
<i>Lupinus bicolor</i>	Miniature lupine	Fabaceae	Native	--
<i>Lythrum hyssopifolia</i>	Hyssop Loosestrife	Lythraceae	Naturalized	--
<i>Plagiobothrys fulvus</i> var. <i>campestris</i>	Field popcornflower	Boraginaceae	Native	--
<i>Plagiobothrys stipitatus</i> var. <i>stipitatus</i>	Stalked popcorn-flower, showy Great Valley popcornflower	Boraginaceae	Native	FACW
<i>Poa annua</i>	Annual blue grass	Poaceae	Naturalized	FAC
<i>Ranunculus bonariensis</i> var. <i>trisepalus</i>	Carter's buttercup	Ranunculaceae	Native	OBL
<i>Ranunculus muricatus</i>	Spiny-fruit buttercup	Ranunculaceae	Naturalized	FACW
<i>Raphanus raphanistrum</i>	Jointed charlock	Brassicaceae	Naturalized	--
<i>Rumex crispus</i>	Curly dock	Polygonaceae	Naturalized	FAC
<i>Salsola australis</i>		Chenopodiaceae	Naturalized	--
<i>Senecio vulgaris</i>	Old-man-in-the-spring, common groundsel	Asteraceae	Naturalized	FACU
<i>Trifolium dubium</i>	Suckling clover, little hop clover	Fabaceae	Naturalized	UPL
<i>Trifolium hirtum</i>	Rose clover	Fabaceae	Naturalized	--
<i>Triglochin scilloides</i>	Flowering-quillwort	Juncaginaceae	Native	OBL
<i>Triphysaria eriantha</i> subsp. <i>eriantha</i>		Orobanchaceae	Native	--
<i>Veronica peregrina</i> subsp. <i>xalapensis</i>	Neckweed, purslane speedwell	Plantaginaceae	Native	OBL
<i>Vicia sativa</i>	Garden vetch	Fabaceae	Naturalized	FACU
<i>Vicia villosa</i> subsp. <i>villosa</i>		Fabaceae	Naturalized	--