

Board of Directors Meeting Agenda

Date: December 14, 2023

Time: 5:30 p.m.

Location: SMUD Headquarters Building, Auditorium
6201 S Street, Sacramento, California

AGENDA

SACRAMENTO MUNICIPAL UTILITY DISTRICT BOARD OF DIRECTORS MEETING SMUD HEADQUARTERS BUILDING AUDITORIUM – 6201 S STREET SACRAMENTO, CALIFORNIA

Remote Telephonic Location:
2005 Kalia Road
Honolulu, HI 96815

December 14, 2023 – 5:30 p.m.

Virtual Viewing or Attendance:

Live video streams (view-only) and indexed archives of meetings are available at:
http://smud.granicus.com/ViewPublisher.php?view_id=16

Zoom Webinar Link: [Join SMUD Board of Directors Meeting Here](#)

Webinar/Meeting ID: 160 332 6533

Passcode: 608966

Phone Dial-in Number: 1-669-254-5252 or 1-833-568-8864 (Toll Free)

Verbal Public Comment:

Members of the public may provide verbal public comment by:

- Registering in advance of a meeting by sending an email to PublicComment@smud.org, making sure to include the commenter's name, date of the meeting, and topic or agenda item for comment. Microphones will be enabled for virtual or telephonic attendees at the time public comment is called and when the commenter's name is announced.
- Completing a sign-up form at the table outside of the meeting room and giving it to SMUD Security.
- Using the "Raise Hand" feature in Zoom (or pressing *9 while dialed into the telephone/toll-free number) during the meeting at the time public comment is called. Microphones will be enabled for virtual or telephonic attendees when the commenter's name is announced.

Written Public Comment:

Members of the public may provide written public comment on a specific agenda item or on items not on the agenda (general public comment) by submitting comments via email to PublicComment@smud.org or by mailing or bringing physical copies to the meeting. Comments will not be read into the record but will be provided to the Board and placed into the record of the meeting if received within two hours after the meeting ends.

Call to Order.
a. Roll Call.

1. Approval of the Agenda.
2. Committee Chair Reports.
 - a. Committee Chair report of December 13, 2023, Finance and Audit Committee
 - b. Committee Chair report of December 13, 2023, Policy Committee

Item 5 was reviewed by the November 7, 2023, Finance and Audit Committee. Items 6 through 10 were reviewed by the December 13, 2023, Finance and Audit Committee. Item 11 was reviewed by the December 13, 2023, Policy Committee. Items 12a and 12b were reviewed by the November 7, 8, and 14, 2023, Finance and Audit Committee.

Comments from the public are welcome when these agenda items are called.

Consent Calendar:

3. Approve Board member compensation for service rendered at the request of the Board (pursuant to Resolution 23-06-02) for the period of November 16, 2023, through December 14, 2023.
4. Approval of the minutes of the meeting of November 16, 2023.
5. Adopt **SMUD's Pay Schedule** and **Special Compensation** items for employees pursuant to California Code of Regulations, Title 2, sections 570.5 and 571(b). **Finance and Audit Committee 11/7. (Jose Bodipo-Memba)**
6. Ratify the submittal of SMUD's **Connected Clean PowerCity** project application to the **Department of Energy (DOE)** for the **Grid Resilience and Innovation Partnerships (GRIP)** grant and authorize the Chief Executive Officer and General Manager to negotiate and execute in the name of Sacramento Municipal Utility District a **GRIP** grant recipient contract with **DOE** as well as all grant documents, including, but not limited to, applications, agreements, amendments and requests for payment, necessary to facilitate grant participation. **Finance and Audit Committee 12/13. (Lora Anquay and Suresh Kotha)**
7. Authorize submission of a grant application for a **California Department of Forestry and Fire Protection (CAL FIRE) California Investments Wildfire Prevention Grants Program (Grant)** and authorize the Chief Executive Officer and General Manager to negotiate and execute in the name of Sacramento Municipal Utility District a **CAL FIRE Grant** recipient contract as well as all **Grant** documents, including, but not limited to, applications, agreements, amendments and requests for payment, necessary to facilitate **Grant** participation. **Finance and Audit Committee 12/13. (Lora Anquay)**
8. Authorize the Chief Executive Officer and General Manager to award a sole source contract to **Itron Networked Solutions, Inc.** to purchase hardware, software, and professional services to enhance the **Advanced Metering Infrastructure (AMI)** platform for a one-year term in the amount of \$15 million, plus applicable taxes and fees. **Finance and Audit Committee 12/13. (Jennifer Davidson)**

9. Authorize the Chief Executive Officer and General Manager to execute the **Temporary Central Valley Project (CVP) Water Transfer Reimbursement Agreement (Agreement)** between SMUD and the **City of Roseville** for the transfer of up to 2,000 acre-feet per year of water for an approximately three-year period from December 1, 2023, through February 28, 2026, and to take such other actions as may be necessary to implement the **Agreement**. **Finance and Audit Committee 12/13. (Lora Anquay)**

10. Authorize the Chief Executive and Officer and General Manager to enter into Master Services Agreements and finalize terms and conditions with **Arrow Construction, Henkels and McCoy West, LLC, Kiewit Transmission Services, Inc., and Wilson Utility Construction Company** for substation construction services for a contract term of five years from December 21, 2023, to December 20, 2028, for a total aggregate contract not-to-exceed amount of \$200 million. **Finance and Audit Committee 12/13. (Frankie McDermott)**

11. Accept the monitoring report for **Strategic Direction SD-11, Public Power Business Model**. **Policy Committee 12/13. (Laura Lewis)**

* * * * *

Discussion Calendar:

12. Adopt the following:
 - a. **2024 Budget** which, among other things, establishes:
 - An Operations and Maintenance Budget of \$1,386.1 million (including Public Goods Charge of \$67.9 million);
 - A Debt Service budget of \$202.3 million;
 - A Capital and Reserve Budget of \$555 million; and
 - Authorized contingencies.

 - b. Declaration of Intent to Issue Debt to create \$400 million of additional bonding authority to reimburse for qualifying capital expenditures, and Official Intent to reimburse for 2024 and 2023 capital expenditures from bond proceeds, which is required to maintain tax-exempt financing capability.

Finance and Audit Committee 11/7, 11/8, and 11/14. (Jennifer Davidson)

Presenter: Jennifer Restivo

13. Discuss possible merit increase to the Chief Executive Officer and General Manager’s base salary and/or performance bonus, pursuant to the Chief Executive Officer and General Manager’s employment contract. **Closed Session 10/17 and 11/8. (President Sanborn)**

Presenter: President Sanborn

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Public Comment:

14. Items not on the agenda.

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Board and CEO Reports:

- 15. Directors' Reports.
- 16. President's Report.
- 17. CEO's Report.
 - a. Board Video

Summary of Board Direction

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FOLLOWING ADJOURNMENT OF THE FOREGOING SMUD BOARD OF DIRECTORS MEETING, THE SPECIAL MEETINGS OF THE FOLLOWING JOINT POWERS AGENCIES WILL CONVENE:

**NORTHERN CALIFORNIA GAS AUTHORITY NUMBER 1
SACRAMENTO MUNICIPAL UTILITY DISTRICT FINANCING AUTHORITY
NORTHERN CALIFORNIA ENERGY AUTHORITY**

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Board Committee Meetings and Special Meetings of the Board of Directors are held at the SMUD Headquarters Building, 6201 S Street, Sacramento

December 13, 2023	Finance and Audit Committee and Special SMUD Board of Directors Meeting	Auditorium*	6:00 p.m.
December 13, 2023	Policy Committee and Special SMUD Board of Directors Meeting	Auditorium	Immediately following the Finance and Audit Committee and Special SMUD Board of Directors Meeting scheduled to begin at 6:00 p.m.
January 16, 2024	Finance and Audit Committee and Special SMUD Board of Directors Meeting	Auditorium	6:00 p.m.
January 17, 2024	Policy Committee and Special SMUD Board of Directors Meeting	Auditorium	6:00 p.m.

**The Auditorium is located in the lobby of the SMUD Headquarters Building, 6201 S Street, Sacramento, California.*

Regular Meetings of the Board of Directors are held at the SMUD Headquarters Building, 6201 S Street, Sacramento

January 18, 2024

Auditorium*

6:00 p.m.

**The Auditorium is located in the lobby of the SMUD Headquarters Building, 6201 S Street, Sacramento, California.*

Members of the public shall have up to three (3) minutes to provide public comment on items on the agenda or items not on the agenda, but within the jurisdiction of SMUD. The total time allotted to any individual speaker shall not exceed nine (9) minutes.

Members of the public wishing to inspect public documents related to agenda items may click on the Information Packet link for this meeting on the smud.org website or may call 1-916-732-7143 to arrange for inspection of the documents at the SMUD Headquarters Building, 6201 S Street, Sacramento, California.

ADA Accessibility Procedures: Upon request, SMUD will generally provide appropriate aids and services leading to effective communication for qualified persons with disabilities so that they can participate equally in this meeting. If you need a reasonable auxiliary aid or service for effective communication to participate, please email Toni.Stelling@smud.org, or contact by phone at 1-916-732-7143, no later than 48 hours before this meeting.

RESOLUTION NO. _____

**BE IT RESOLVED BY THE BOARD OF DIRECTORS
OF THE SACRAMENTO MUNICIPAL UTILITY DISTRICT:**

That this Board hereby approves Board member compensation for service rendered at the request of the Board (pursuant to Resolution 23-06-02) for the period of November 16, 2023, through December 14, 2023.

Sacramento, California

November 16, 2023

The Board of Directors of the Sacramento Municipal Utility District met in regular session simultaneously in the Auditorium of the SMUD Headquarters Building at 6201 S Street, Sacramento, and via virtual meeting (online) at 6:00 p.m.

Roll Call:

Presiding: President Sanborn

Present: Directors Fishman, Herber, Kerth, and Tamayo

Absent: Directors Rose and Bui-Thompson

Present also were Paul Lau, Chief Executive Officer and General Manager; Laura Lewis, Chief Legal & Government Affairs Officer and General Counsel and Secretary, other members of SMUD's executive management; and SMUD employees and visitors.

Director Fishman shared the 2030 Climate Action Tip.

President Sanborn called for approval of the agenda. Vice President Herber moved for approval of the agenda, Director Tamayo seconded, and the agenda was approved by a vote of 5-0, with Directors Rose and Bui-Thompson absent.

President Sanborn announced that a portion of the CEO Report would now be given.

Paul Lau, Chief Executive Officer and General Manager, reported on the following item:

- 1) **Patent - Residential Energy Diagnostics.** I am excited to start off tonight's meeting by recognizing three well-deserving SMUD employees! We have Lucas Krall, a Senior Strategic Business Planner in Customer & Community Services and Jeff Paull and Yareli Herrera, Energy Advisors from the Zero Carbon Energy Solutions, team with us tonight. Lucas, Jeff and Yareli worked on a project that was awarded the 7th patent in SMUD's history. They collaborated to invent a unique meter data analysis

algorithm that will now be protected by the patent. This intellectual property developed for use at SMUD can also potentially be licensed for use by others. The patented tool is called "Residential Energy Diagnostics," and it is an advanced set of data mining methodologies that takes SMUD's smart meter data and applies machine learning clustering algorithms, statistical regression models and various engineering spec thresholds. As a result, they are able to disaggregate residential load profiles and can identify heating, ventilation and air conditioning (HVAC) and other large equipment malfunctions by identifying usage anomalies and patterns over time. This tool was developed as a direct result of feedback from customers in our Value for What You Pay surveys. Customers said, 'If you want to be our trusted energy advisor, then please help us identify problems and find solutions.' Tonight, we are proud to recognize this amazing accomplishment. I would like to now invite Lucas, Jeff and Yareli up to the front of the room to receive their plaques and take a group photo. Thank you again for bringing your brilliant and innovative ideas to SMUD. We appreciate all you do for SMUD!

Director Kerth, Chair, presented the report on the Finance and Audit Committee meeting held on November 14, 2023.

Director Kerth presented the report on the Energy Resources & Customer Services Committee meeting held on November 14, 2023.

Director Tamayo, Chair, presented the report on the Policy Committee meeting held on November 15, 2023.

President Sanborn then called for public comment for items on the agenda, but none were forthcoming.

President Sanborn then addressed the consent calendar consisting of Items 3 through 11. Director Fishman moved for approval of the consent calendar, Director Tamayo seconded, and Resolution Nos. 23-11-02 through

23-11-09 were approved by a vote of 5-0, with Directors Rose and Bui-Thompson absent.

RESOLUTION NO. 23-11-02

**BE IT RESOLVED BY THE BOARD OF DIRECTORS
OF THE SACRAMENTO MUNICIPAL UTILITY DISTRICT:**

That this Board hereby approves revised Board member compensation for service rendered at the request of the Board (pursuant to Resolution 23-06-02) for the period of October 1, 2023, through October 15, 2023.

Approved: November 16, 2023

INTRODUCED: DIRECTOR FISHMAN				
SECONDED: DIRECTOR TAMAYO				
DIRECTOR	AYE	NO	ABSTAIN	ABSENT
SANBORN	X			
ROSE				X
BUI-THOMPSON				X
FISHMAN	X			
HERBER	X			
KERTH	X			
TAMAYO	X			

RESOLUTION NO. 23-11-03

**BE IT RESOLVED BY THE BOARD OF DIRECTORS
OF THE SACRAMENTO MUNICIPAL UTILITY DISTRICT:**

That this Board hereby approves Board member compensation for service rendered at the request of the Board (pursuant to Resolution 23-06-02) for the period of October 16, 2023, through November 15, 2023.

Approved: November 16, 2023

INTRODUCED: DIRECTOR FISHMAN				
SECONDED: DIRECTOR TAMAYO				
DIRECTOR	AYE	NO	ABSTAIN	ABSENT
SANBORN	X			
ROSE				X
BUI-THOMPSON				X
FISHMAN	X			
HERBER	X			
KERTH	X			
TAMAYO	X			

RESOLUTION NO. 23-11-04

WHEREAS, the **California Energy Commission (CEC)** amended **Load Management Standard (LMS)** regulation became effective in April 2023, establishing new requirements for large utilities, including the two largest publicly owned utilities (POUs); and

WHEREAS, the goal of the regulation is to encourage the use of energy at off-peak hours, encourage the control of peak loads to improve system efficiency and reliability, lessen or delay the need for new capacity, and reduce fossil fuel consumption and greenhouse gas emissions; and

WHEREAS, to achieve these goals, the **LMS** regulation requires the Large POU's to evaluate the design and implementation of hourly marginal cost-based rates and if, based upon the evaluation, the utilities do not propose dynamic rates, they must evaluate the implementation of programs that allow customers to automatically respond to price signals available in the **CEC's** centralized database; and

WHEREAS, the **LMS** regulation requires the utilities to apply to their rate-approving bodies for approval of hourly marginal cost-based rates and/or to offer load flexibility programs allowing customers to automatically respond to price signals available in the **CEC's** centralized database, if such rates and/or programs are determined to materially reduce peak load; and

WHEREAS, the **LMS** regulation contains additional requirements for providing access to price signals and information about the benefits of reducing peak loads; and

WHEREAS, POU's may modify or delay the requirements in the **LMS** regulation and adopt a more technologically feasible, equitable, safe or cost-effective way to achieve the requirements after making findings based on the evaluation, as detailed in their compliance plan; and

WHEREAS, in accordance with **LMS** regulations, staff submitted the **2023 SMUD Load Management Standard Compliance Plan (Plan)** to the Board on September 29, 2023; and

WHEREAS, the **Plan** describes how SMUD will meet the goals and requirements of the regulation and includes evaluation of dynamic hourly rates and programs; and

WHEREAS, the **Plan** was presented at the publicly noticed Board Energy Resources & Customer Services Committee and Special SMUD Board of Directors meeting on October 18, 2023; and

WHEREAS, the **Plan** reflects staff's assessment, evaluation, and conclusions; and

WHEREAS, if adopted by the Board, the **Plan** must be submitted to the **CEC; NOW, THEREFORE**,

**BE IT RESOLVED BY THE BOARD OF DIRECTORS
OF THE SACRAMENTO MUNICIPAL UTILITY DISTRICT:**

Section 1. This Board adopts the **2023 SMUD Load Management Standard Compliance Plan (Plan)** substantially in the form set forth in **Attachment A** hereto and made a part hereof.

Section 2. This Board cannot at this time determine that new dynamic hourly rates and/or programs would materially reduce peak load for any customer class relative to SMUD's current and planned rates and load flexibility programs and pilots.

Section 3. Staff is directed to file the **Plan** with the **California Energy Commission**.

Section 4. The Chief Executive Officer and General Manager, or his designee, is authorized to make future changes to the SMUD **Plan** that, in his prudent judgment: (a) further the primary purpose of the SMUD **Plan**; and (b) are intended to provide a net benefit to SMUD.

Approved: November 16, 2023

INTRODUCED: DIRECTOR FISHMAN				
SECONDED: DIRECTOR TAMAYO				
DIRECTOR	AYE	NO	ABSTAIN	ABSENT
SANBORN	X			
ROSE				X
BUI-THOMPSON				X
FISHMAN	X			
HERBER	X			
KERTH	X			
TAMAYO	X			

Load Management Standard Compliance Plan

September 29, 2023

A Sacramento Municipal Utility District Publication

Load Management Standard Compliance Plan

September 29, 2023

Prepared by: Sacramento Municipal Utility District's

Revenue Strategy Department

Under the direction of: Paul Lau, CEO & General Manager

1	Executive Summary	5
2	Introduction	7
2.1	About SMUD	7
2.1.1	SMUD’s Zero Carbon Plan	7
2.1.2	Role of Load Flexibility	8
2.1.3	SMUD’s ADMS/DERMS Platform	8
2.2	Load Management Standards	8
2.2.1	SMUD’s Compliance Plan Roadmap	9
2.2.2	SMUD’s Compliance Plan Administration	10
3	Access to Price Signals	12
3.1	Publication of Machine-Readable Rates in MIDAS.....	12
3.1.1	Upload of time-dependent rates.....	12
3.1.2	Provide RINs to Customers.....	13
3.1.3	Statewide RIN Access Tool.....	13
4	Dynamic Rates.....	15
4.1	Overview of Current Time-Dependent Rates.....	15
4.1.1	Residential Rates	15
4.1.2	Commercial and Industrial (C&I) Time of Day Rates	17
4.1.3	Agricultural Time of Day (TOD) Rate	17
4.2	SMUD’s Rate Development Process.....	17
4.2.1	Strategic Direction on Competitive Rates	17
4.2.2	Rate Design and Implementation.....	18
4.3	Evaluation of New Dynamic Rates	21
4.3.1	Cost Effectiveness Evaluation	21
4.3.2	Equity	28
4.3.3	Technological Feasibility.....	29
4.3.4	Benefits to the Grid and Customers.....	32
4.3.5	Compliance Approach	35
5	Load Flexibility Programs	36
5.1	Overview of SMUD Load Flexibility Programs.....	36
5.1.1	Residential Programs.....	37
5.1.2	Nonresidential Programs.....	38
5.2	Evaluation of Programs	40

5.2.1	Cost-Effectiveness	40
5.2.2	Equity	43
5.2.3	Technological Feasibility.....	44
5.2.4	Benefits to the Grid and Customers.....	45
5.2.5	Compliance Approach	46
6	Public Information Program	47
6.1	SMUD’s Communications Approach	47
6.2	Current Outreach and Marketing.....	47
6.3	Compliance Approach	50
7	Delay and Modification of Compliance Requirements	51
7.1	Providing RINs to Customers.....	51
7.2	Statewide RIN Access Tool	51
7.2.1	Development of Statewide Tool.....	51
7.2.2	Implementation of Statewide Tool.....	52
7.3	Dynamic Rates.....	52
7.4	Dynamic Response Load Flexibility Programs	53
7.4.1	Identification of Cost-Effective Load Flexibility Programs	53
7.4.2	Voluntary Participation in Cost-Effective Load Flexibility Programs.....	53
Appendix A	55

1 Executive Summary

The goal of the California Energy Commission's (CEC) Load Management Standard (LMS) regulation, which went into effect in April of 2023, is to: 1) encourage the use of energy at off-peak hours; 2) promote load flexibility; 3) encourage the control of daily and seasonal peak loads to improve electric system efficiency and reliability; 4) lessen or delay the need for new electrical capacity; and, 5) reduce fossil fuel consumption and greenhouse gas emissions.

To accomplish these goals, the LMS regulation requires California's Large Investor Owned Utilities (IOUs), Large Publicly Owned Utilities (POUs), defined as SMUD and the Los Angeles Department of Water and Power, and Large Community Choice Aggregators (CCAs) to develop and propose rate structures that change at least hourly based upon marginal costs. If, after performing an evaluation, a utility determines not to propose new rates because offering such rates to its customers would not materially reduce peak load, the utility must offer cost-effective load flexibility programs, including programs that allow its customers to automatically respond to hourly or sub-hourly marginal cost-based rates, marginal prices, or greenhouse gas (GHG) signals from the CEC-maintained Market Informed Demand Automation Server (MIDAS) database, where the utility determines such programs would materially reduce peak load.

Each utility must develop a compliance plan describing how they will meet the various requirements of the LMS regulation. The POUs and CCAs may delay or modify compliance with such requirements if they can show that despite good faith effort, the regulatory requirements must be modified to provide a more technologically feasible, equitable, safe, or cost-effective way to achieve the LMS regulation goals.

SMUD strongly supports the intent and goals of the LMS regulation and is working towards similar goals through our ambitious 2030 Zero Carbon Plan, where we are striving to eliminate all carbon emissions from our power supply by 2030. Reducing peak load through price signals like our time-based rates, has proven to be highly effective at reducing system peak, stress on the grid, carbon emissions, and saving customers money. SMUD is actively pursuing additional methods of achieving these goals through new programs and industry-leading pilots, which are helping us understand how we can most effectively partner with customers with behind-the-meter devices in a way that maximizes the resource and is supportive of our customer experience.

SMUD's compliance plan (Plan) includes considerations of the specified marginal cost-based rate structures and programs, as described in the LMS regulation, and evaluates each with respect to cost-effectiveness, equity, technological feasibility, benefits to the grid and to customers. In this filing, SMUD will meet the objectives of the LMS regulation with our existing time-dependent rates, and our current and planned portfolio of load flexibility programs.

Based on SMUD's evaluation, we cannot conclude that implementing complex new rate structures that change at least hourly by January 1, 2026, would result in material reductions in peak load reduction relative to SMUD's existing time-dependent rates and programs, or be cost effective. This is, in large part, because SMUD's existing rates, coupled with our current and planned load flexibility programs and pilots, capture a substantial portion of the available load shift benefits from SMUD's customers. In addition, implementation of unfamiliar and complex rate structures without sufficient testing and refinement of the new rate designs would likely result in low customer adoption, further limiting

realization of any potential added load shift benefits. Similarly, SMUD's evaluation cannot conclude that implementing new programs that allow for automated response to MIDAS signals would result in incremental reductions in peak load or be cost-effective, relative to SMUD's current and planned load flexibility programs and pilots.

In this Plan SMUD sets forth, based on the evaluation of dynamic rates and programs that follow, what it has determined to be a more cost-effective, customer centric and technologically feasible way for SMUD to, in good faith, achieve the LMS regulation goals. Accordingly, SMUD will continue offering our time-dependent rates and current and planned load flexibility programs, and reevaluate the specified rate and program designs in the next update of our Plan, informed by the results from our pilots. While new dynamic rates and new programs with automated response to MIDAS are not required where they have not been demonstrated to materially reduce peak load, SMUD sets forth in this Plan how the LMS requirements are modified to provide its more cost-effective, customer centric and technologically feasible solution.

SMUD's Plan was submitted to the SMUD Board within six months of April 1, 2023, and was adopted by the SMUD Board in a duly noticed public meeting on November 16, 2023. This decision was made by SMUD's Board acting as its rate-approving body. SMUD will review the Plan every three years following adoption, and material Plan updates will be submitted to the SMUD Board for approval. This Plan will be filed with the CEC.

2 Introduction

2.1 About SMUD

SMUD is a not-for-profit, publicly owned, electric utility (POU) headquartered in Sacramento, California. As a POU, SMUD is governed by a seven-member popularly elected Board of Directors (Board) that determines policy and appoints the Chief Executive Officer and General Manager who is responsible for SMUD’s overall management and operations. Responsibility for the development and implementation of this Plan is delegated to SMUD’s Chief Strategy Officer.

SMUD’s service area covers approximately 900 square miles and includes parts of Sacramento County, and small adjoining portions of Placer and Yolo Counties. The service area includes Sacramento, the State Capital, and the populous areas to the northeast and south of the City of Sacramento, and the agricultural areas to the north and south. In total, SMUD serves a population of approximately 1.5 million and has four (4) distinct customer classes – residential, commercial & industrial, agricultural, and street lighting & traffic signals (lighting). The default rate for all SMUD customers, with the exception of lighting and agricultural customers, are marginal cost-based time-dependent rates. This includes SMUD’s successful residential Time-of-Day (TOD) rate which encourages customers to reduce their electricity use between 5 p.m. and 8 p.m. All of SMUD’s rate schedules are posted on SMUD’s website ([Rate Information \(smud.org\)](https://www.smud.org)).

As a POU, SMUD’s Board is its rate-approving body. The Board has authority to establish rates and charges for all SMUD services, and such rates are not subject to oversight by other governmental agencies, federal, state or local. SMUD engages in a comprehensive and robust public process prior to adopting new or revised rates and service regulations. This 3-month public process includes media and public outreach at various community events. The process kicks-off with notice published in the local papers and release of a report detailing the proposed rate changes together with the expected impacts to customer bills. As part of this process, SMUD holds two public workshops, a public hearing and conducts a final Board vote on the rate proposal.

2.1.1 SMUD’s Zero Carbon Plan

In July 2020, SMUD’s Board declared a climate emergency and adopted a resolution calling for SMUD to take significant and consequential actions to reduce its carbon footprint by 2030. On April 28, 2021, the Board approved SMUD’s 2030 Zero Carbon Plan (the “Zero Carbon Plan”). The Zero Carbon Plan is SMUD’s roadmap to completely eliminating Greenhouse Gas (GHG) emissions from our electricity supply by 2030, while maintaining reliable service and affordable rates. To achieve these goals, the Zero Carbon Plan focuses on four main areas: natural gas generation repurposing; proven clean technologies; new technologies and business models, including load flexibility; and financial impacts and options. We are partnering with our customers, communities, and a wide range of stakeholders to ensure that our entire community has the opportunity to benefit from a carbon-free economy.

As we pursue our Zero Carbon Plan, SMUD is committed to keeping electric service affordable and rate increases at or below the rate of inflation. To accomplish this, the Zero Carbon Plan estimates the need for SMUD to realize sustained annual savings. SMUD currently plans to achieve these sustained annual

savings by exploring the implementation of operational savings strategies, leveraging innovative approaches including load flexibility, and pursuing partnership and grant opportunities.

2.1.2 Role of Load Flexibility

Enabling load flexibility is a key strategy in achieving SMUD's Zero Carbon Plan goals. Load flexibility programs support reduced carbon emissions, reduce the need for new peak resources, help SMUD manage and operate the system, and save customers money. SMUD is focused on fully utilizing our intermittent resources when they are available and reducing peak usage at times when such resources are scarce. The Zero Carbon Plan forecasts that customer-owned resources and SMUD customer-focused programs will contribute between 364 and 1,325 MW of capacity to SMUD's grid by 2030, and as such, SMUD is leaning in on programs and learning from cutting-edge pilots to maximize cost-effective resources that can be achieved through partnership with our customers.

2.1.3 SMUD's ADMS/DERMS Platform

To support the expansion of load flexibility resources and their critical role in supporting our Zero Carbon Plan, SMUD has made, and continues to make, significant investments in technology to enable distributed energy resource (DER) integration. In 2022, after years of planning, SMUD deployed our Advanced Distribution Management System (ADMS) and initial phase of our Distributed Energy Resource Management (DERMS) platform technology. With these two systems online and working together, SMUD will shift from a one-way centralized distribution system to a two-way decentralized distribution system that allows us to manage and optimize distributed energy resources that include battery storage, demand response programs, smart thermostats, connected appliances, electric vehicles (EVs) and more.

SMUD is currently building out DERMS functionality and continuing to evaluate device partners and aggregators that can integrate product offerings into DERMS. In the next few years, SMUD anticipates that our DERMS system will enable full DER integration across bulk and distribution system value streams. These include, but are not limited to, advanced distribution system management applications, scheduling DERs based on economic and reliability considerations, scheduling DER Virtual Power Plants (VPPs) into electricity markets, and integrating with aggregator platforms that allow customers to participate in programs that control and leverage behind-the-meter DERs to respond to grid needs.

2.2 Load Management Standards

The CEC's LMS regulation encourages shifting electricity use from times of day when it is expensive and polluting to times when it is cheaper and cleaner. Load management, or demand flexibility, can save customers money on their energy bills, reduce greenhouse gas emissions, and help strengthen the resiliency of the electricity grid. Load management is defined as "any utility program or activity that is intended to reshape deliberately a utility's load duration curve" (Public Resources Code, section 25132). Also known as demand management and load flexibility, load management reduces the need for new large electrical generation and backup generation devices. It is also a key strategy to ensure a reliable grid, keep energy costs down, integrate renewable energy resources, and reduce greenhouse gas (GHG) emissions. The intent of load management standards is to encourage electricity customers to shift electricity demand away from high demand periods, when peaking power plants and other polluting generators are in use, to times when lower-cost clean electricity is available.

Amendments to the LMS regulation became effective in April 2023. These amendments require the largest investor and publicly owned utilities, and community choice aggregators, to give all customers access to rates and programs that provide the information needed to optimize their energy use. Specifically, the revised LMS regulation requires Large POUs, defined as SMUD and the Los Angeles Department of Water and Power, to develop “marginal cost-based rates or public programs” with “marginal cost” defined as “the change in current and future electric system cost that is caused by a change in electricity supply and demand during a specified time interval at a specified location,” and the calculation of total marginal cost prescribed as:

“the sum of the marginal energy cost, the marginal capacity cost (generation, transmission, and distribution), and any other appropriate time and location dependent marginal costs, including the locational marginal cost of associated greenhouse gas emissions, on a time interval of no more than one hour. Energy cost computations shall reflect locational marginal cost pricing as determined by the associated balancing authority, such as the Los Angeles Department of Water and Power, the Balancing Authority of Northern California, or other balancing authority. Marginal capacity cost computations shall reflect the variations in the probability and value of system reliability of each component (generation, transmission, and distribution)”.

In this Plan, SMUD uses the term “dynamic rates” or “dynamic price signals” to capture the idea of responding to these marginal cost signals on an hourly or sub-hourly basis.

2.2.1 SMUD’s Compliance Plan Roadmap

Section 1623.1(c) requires SMUD, along with the other regulated entities, to prepare a compliance plan consistent with the LMS requirements. Following is a roadmap identifying where each regulatory requirement is addressed within SMUD’s LMS Plan.

Regulation Section	Requirement	Plan Section
§1623.1(c)	Within three months of regulation effective date, upload existing time-dependent rates to the MIDAS database	3.1
§1623.1(a)(1)	Within six months of regulation effective date, develop and submit compliance plan addressing how SMUD plans to comply with LMS requirements, and including evaluation of marginal cost-based rates and programs, to SMUD’s Board. The plan must be considered for adoption within 60 days after submission.	2.2.2.1
§1623.1(a)(3)(A)	Submit compliance plan to CEC within 30 days of adoption of the plan. Respond to requests for additional information and/or recommendations with 90 days.	2.2.2.2
§1623(c)	Within one year of regulation effective date, provide customers access to their Rate Identification Numbers (RIN) on billing statements and in online accounts using both text and QR	3.1.2

§1623(c)	Within 18 months of regulation effective date, develop and submit to the CEC, in conjunction with the other obligated utilities, a single statewide standard tool for authorized rate data access by third parties, and the terms and conditions for using the tool. Upon CEC approval, maintain and implement the tool.	3.1.3
§1623.1(b)(3)	Within 18 months of regulation effective date, submit to the CEC a list of load flexibility programs deemed cost effective by SMUD. The portfolio of programs must provide at least one option to automate response to MIDAS signals for each customer class where SMUD’s Board has determined such a program would materially reduce peak demand.	5.2.5.1
§1623.1(a)(3)(C)	Submit annual reports to the CEC demonstrating implementation of plan, as approved by the Board	2.2.2.4
§1623.1(b)(2)	Within two years of the regulation effective date, submit at least one marginal cost-based rate to Board for approval for any customer class(es) where such a rate will materially reduce peak load.	4.3.5
§1623.1(b)(2)	Within three years of the regulation effective date, offer customers voluntary participation in either a marginal cost-based rate, if approved by the Board, or a cost-effective load flexibility program	4.3.5 and 5.2.5.2
§1623.1(b)(5)	Conduct a public information program to inform and educate affected customers why marginal cost-based rates or load flexibility programs and automation are needed, how they will be used, and how these rates and programs can save customers money	6.3
§1623.1(a)(1)(C)	Review the plan at least once every 3 years after the plan is adopted and submit a plan update to the Board if there is a material change	2.2.2.3

2.2.2 SMUD’s Compliance Plan Administration

2.2.2.1 *Plan development and Board approval process*

Section 1623.1(a) requires each Large POU to submit to its rate-approving body a compliance plan that is consistent with the applicable requirements of the LMS regulation. The plan must be submitted within six months of the regulation effective date, which is October 1, 2023, and must be considered for adoption by the rate-approving body in a duly noticed public meeting within 60 days of submission.

This Plan meets the requirements of the CEC regulation, Section 1623.1(a). The description of how SMUD complies with each of the elements is provided in the subsequent sections. The Plan was submitted to the Board prior to October 1, 2023, and presented to the SMUD Board at duly noticed meetings on October 18 and November 16, 2023. The SMUD Board approved this Plan by resolution XX.

2.2.2.2 CEC review process

Section 1623.1(a)(3) specifies that, upon adoption by the POU rate approving-body, the plan must be submitted to the CEC Executive Director within 30 days for review. Note that the SMUD Board is the sole authority to approve rates; in this regulatory proceeding, the CEC's role is limited to determining whether the plan that the SMUD Board has adopted complies with the regulation.

Following the Plan presentation and adoption by the SMUD's Board on November 16, 2023, the Plan will be submitted to the CEC by December 16, 2023, for review. Any requests for additional information or recommended changes will be addressed and a written response submitted to the CEC within 90 days as required in the regulation.

2.2.2.3 Triennial plan review

Section 1623.1(a)(1)(C) requires each Large POU to review its compliance plan at least once every three years. Where there is a material change to the factors considered in evaluating marginal cost-based rates and programs, the Large POU must submit a plan update to its rate-approving body. Material revisions to the plan shall follow the same process as the initial plan approval.

This Plan will be reviewed by SMUD every three years following the date of adoption and material Plan updates will be submitted to the SMUD Board for approval. This Plan and any approved material updates will be duly submitted to the CEC.

2.2.2.4 Annual reporting

Section 1623.1(a)(3)(C) requires each Large POU to submit to the CEC Executive Director demonstrating implementation of its Load Management Standards compliance plan. Each POU must submit the initial report one year after adoption of the plan by the POU's rate-approving body, and annually thereafter.

SMUD will timely submit annual reports to the CEC Executive Director describing the implementation of this Plan.

3 Access to Price Signals

3.1 Publication of Machine-Readable Rates in MIDAS

The CEC developed the MIDAS database alongside the LMS regulation for the purpose of allowing customers and automation service providers to link flexible loads to a machine-readable database of rates and other grid signals to automate demand flexibility. The LMS regulation requires the obligated utilities to populate rate information into MIDAS and take steps to facilitate access to MIDAS signals for customers and their authorized third parties. This section of SMUD’s Plan describes how SMUD will meet these requirements.

3.1.1 Upload of time-dependent rates

Section 1623.1(c) requires each Large POU to upload existing time-dependent rates to the CEC’s MIDAS database within three months of the regulation effective date, which is July 1, 2023. As part of the MIDAS upload process, each rate must be assigned a Rate Identification Number (RIN). The RIN is used to uniquely identify the rate in the CEC’s MIDAS database. When provided a RIN, the MIDAS database will return information about the rate and any associated marginal signals to which the customer may automate response.

Large POUs are also required to upload new time-dependent rates, or changes to existing rates, prior to the effective date of that rate. The time-dependent rates uploaded to the MIDAS database must include all applicable time-dependent cost components, including generation, distribution, and transmission.

3.1.1.1 Existing rates uploaded to MIDAS

On June 30, 2023, SMUD staff successfully uploaded the 75 rate permutations of our time-dependent residential and non-residential rates. A list of our current time-dependent rates and their RINs can be found in Appendix A.

A message of success was returned for each rate file loaded to MIDAS. SMUD also performed random retrieval of rates as a second point of confirmation to the successful rate upload and to validate accuracy of rates recorded in MIDAS. SMUD has provided some feedback and suggestions to the CEC to improve the rate upload experience, including removal or increase of data set limits, token valid periods and file loading features.

3.1.1.2 Future rate uploads

Going forward, SMUD will upload rates as needed to reflect rate changes. SMUD will also upload new rates as new time-dependent rates or rate components are developed. SMUD will follow a process similar to that successfully used for our initial upload in June 2023. Staff will create rate files in csv format, convert them to XML format and load them to MIDAS through the application programming interface (API).

Rate uploads for each rate permutation may take place annually, or quarterly where constrained by MIDAS’ 50,000 per rate ValueData group limits. Rates with more dynamic rate changes, such as SMUD’s Critical Peak Pricing rate, may be uploaded more frequently during the summer months.

SMUD is working toward solutions that will streamline the upload process of its time-dependent rates to MIDAS to provide resource savings and more fully utilize potential MIDAS capabilities.

3.1.2 Provide RINs to Customers

Section 1623(c)(4) requires each Large POU to provide customers access to their RIN(s) on customer billing statements and online accounts using both text and quick response (QR) or similar machine-readable digital code. This access must be provided within one year of the regulation effective date, which is April 1, 2024.

3.1.2.1 Implementation plan

Currently, SMUD issues electricity charges on two different billing statements, the Customer Bill and the Collective Bill. The Customer Bill is the standard presentment of electricity billing statements to customers. The Collective Bill is the presentment issued to customers who have multiple accounts that elect to receive their electricity bills mailed together. Customers also have access to billing statements through their protected on-line accounts.

SMUD plans to make the RINs available in text and QR form on both the Customer Bill and the Collective Bill statements on or before April 1, 2024. This will allow customers to access their RIN on the billing statement received by mail or accessed online.

Existing billing statement designs are not structured to support this additional information. SMUD is working with its bill print vendor to identify and implement solutions that are cost effective and easily understood by the customer.

To prevent costly and confusing bill redesign changes, SMUD plans to leverage the existing bill layout and designs to present the RIN text and QR code for both the Customer Bill and Collective Bill statements. SMUD has entered into an agreement with our bill print vendor to update applications to generate QR codes for Collective Bill statements, determine the best location to place QR codes and encode the RIN code within the specific QR code. Staff also plans to procure professional services in the fourth quarter of 2023 to support developments for the Customer Bill statements. These services will include programming changes to update Customer Bill files with RINs and QR codes.

Based on vendor's scope of work and estimated completion timeframes, SMUD anticipates including RIN text and QR codes on customer billing statements starting on or before the April 2024 billing cycle.

3.1.2.2 Remediation of potential delays

A technical review of both the Collective Bill and Customer Bill design structure will be performed to determine best placement of RIN text and a QR code on the bill. If the review shows that placement of the RIN information on the bills will require a bill redesign, presentment of QR codes on billing statements will be delayed and only the RIN in text form will be available on the bill by April 1, 2024. A full bill redesign evaluation would be needed to explore bill redesign options, cost, and new timing for making RINs available in QR code on the bills.

3.1.3 Statewide RIN Access Tool

Section 1623(c) requires the Large IOUs, Large POUs, and Large CCAs to collaboratively develop a single statewide standard tool for authorized rate data access by third parties, along with a single set of terms and conditions for third parties using the tool. The tool must do all of the following:

- Provide the RIN(s) for the rate(s) applicable to a customer’s premises.
- Provide any RIN(s) for the rate(s) to which the customer is eligible to be switched.
- Provide estimated average or annual bill amounts based on the customer’s current rate and any other rate(s) for the customer is eligible to be switched if such calculation tools already exist.
- Enable authorized third parties, upon direction and consent of the customer, modify the customer’s applicable rate, to be reflected in the next billing cycle.

The tool must also incorporate reasonable and applicable cybersecurity measures, minimize enrollment barriers, and be accessible in a digital, machine-readable format according to best practices and standards.

The tool must be submitted to the CEC for approval within 18 months of the regulation effective date, which is October 1, 2024. Once the tool is approved by the CEC, each Large IOU, Large POU, and Large CCA must implement and maintain the tool.

3.1.3.1 Statewide tool development

SMUD will collaborate with the other regulated parties to meet the regulatory requirements by October 1, 2024. Once our Plan is approved by our Board, SMUD expects that our subject matter experts will be more fully available to engage in this effort.

At the time of this filing, SMUD has committed staff to join the working group to collaborate with other utilities for the development of a statewide tool for third party access. SMUD is in the process of compiling its internal infrastructure needs and business requirements to prepare for the working group discussions.

SMUD participated in a working group meeting held on September 20, 2023, and is currently awaiting input from the other utilities about the scope, funding, and coordination for the project. As a POU, SMUD does not earn a rate of return on its infrastructure investments. Any costs incurred by SMUD associated with developing this Statewide tool would be spread among all SMUD customers. If additional funding were needed, other work would need to be delayed or cancelled to absorb unplanned costs associated with the statewide tool beyond staffing and internal operational resources.

3.1.3.2 Implementation of statewide tool

In order to implement the statewide tool, once approved, SMUD’s internal infrastructure must be updated to integrate and support the tool. SMUD is unable to specifically identify the full scope of integration work until the final tool is designed and approved by the CEC. Concurrent with the development process, however, SMUD is reviewing its internal infrastructure and scheduling budget requests. Implementation projects will be added to SMUD’s annual work prioritization process. While SMUD anticipates complying with this requirement, any delays in development of the tool could result in implementation delays. Similarly, if the costs of integrating the tool result in an undue hardship to SMUD or its customers, SMUD may seek to delay or modify compliance with this requirement. Certain events could also cause a delay in implementation because resources would have to be used elsewhere. Some examples could include an emergency rate action or a climate related event, such as the storms experienced in January 2023.

4 Dynamic Rates

The LMS regulation identifies dynamic hourly or sub-hourly rates as a central tool for achieving the goals of encouraging off-peak energy usage, encouraging control of daily and seasonal peak loads, lessening, or delaying the need for new electrical capacity, and reducing fossil fuel consumption and associated GHGs. Section 1623.1(b)(2) of the regulation directs the Large POU's to seek approval from their Boards for at least one dynamic rate for each customer class for which its rate-approving body determines such rate will materially reduce peak load. The application must be submitted within two years of the regulation effective date, or by April 1, 2025. Approved rates would be implemented the following year, or by April 1, 2026, in accordance with section 1623.1(b)(4).

Section 1623.1(a)(1) first requires each Large POU to evaluate, as part of its compliance plan, the cost effectiveness, equity, technological feasibility, benefits to the grid, and benefits to customers, of dynamic rates for each customer class. After evaluating such rates, the Large POU may instead propose and evaluate specified programs and/or delay or modify compliance with the LMS requirements.

This section of SMUD's Plan provides an overview of SMUD's current time-dependent rates, describes SMUD's rate development process, and addresses the requirement to evaluate the implementation of dynamic rates on the timeframes specified in the LMS regulation.

4.1 Overview of Current Time-Dependent Rates

SMUD currently offers at least one marginal cost-based time-dependent rate to nearly all of our customers. As previously described, SMUD has four customer classes: residential; commercial and industrial (C&I); agricultural; and lighting. With the exception of lighting and unmetered customers, all customers have access to Time-of-Day (TOD) rates. Excluding lighting and unmetered customers, 96% of our customers are on TOD rates. Some customers have access to additional time-dependent rate options based on enabling devices and technology. Moreover, SMUD's time-dependent rates are not the only mechanism we use to encourage customer peak load shift; as further described in Section 5, we offer several load flexibility programs that incorporate time-varying marginal cost-based signals and are developing new pilot offerings, some of which test response to different price signals.

Following is a summary of our time-dependent rates currently available to customers.

4.1.1 Residential Rates

SMUD's residential TOD rate is the standard rate for our residential customers. Customers with enabling devices also have the opportunity to participate in two additional time-dependent rates: our Critical Peak Pricing (CPP) and our Electric Vehicle (EV) rate adder.

4.1.1.1 Standard Time-of-Day (TOD) Rate

Under SMUD's residential TOD rate, customers pay different rates depending on the season, day, and hours of energy use. During the summer months (June 1 through September 30), there are three rate periods: Peak (weekdays 5 pm – 8 pm), Mid-Peak (weekdays 12 pm – 5 pm and 8 pm – 12 am), and Off-Peak (weekdays 12 am – 12 pm, weekends, and holidays). In the non-summer months (October 1 – May

31), there are two rate periods: Peak (weekdays 5 pm – 8 pm) and Off-Peak (weekdays 12 pm – 5 pm and 8 pm – 12 am, weekends, and holidays). These time periods were selected because they best aligned with highest peak loads and marginal electricity prices, while also being simple and easy for customers to understand.

SMUD’s residential TOD was implemented between the fall of 2018 and spring of 2019 following an extensive pilot study, SmartPricing Options, and has been extremely successful. Currently, approximately 97% of our residential customers are enrolled in the rate. The high adoption and retention of this rate has yielded significant benefits for SMUD and our customers. We estimate an annual peak load reduction of 4-8% (75-130 MW) attributable to the residential TOD rate, corresponding to approximately 12,000 tonnes of avoided GHG emissions and approximately \$11-16 million in commodity cost savings.

4.1.1.2 Optional Critical Peak Pricing (CPP) Rate

SMUD’s residential TOD rates are designed to provide price signals to customers to let them know when conserving energy is most beneficial and will save them money. However, these price signals are designed for conditions seen on days with average energy use, not for those few hours during the year when the demand for energy is so high it puts stress on the grid, such as during a heat wave. To address the costs and environmental impact of those few hours, SMUD began offering the Critical Peak Pricing (CPP) rate in June 2022 for customers that participate in qualifying device automation programs.

The CPP rate builds off the residential TOD rate structure, with several key pricing differences. Participating customers receive a per-kWh discount for Mid-Peak and Off-Peak prices during the summer months and pay a fixed per-kWh price premium for usage during a program event. SMUD can call program events during any hour of the day during summer months, up to 50 hours per summer and no more than once per day, and the events may span multiple time-of-day periods. The event prices and discounts are posted on SMUD’s website and may be updated annually to respond to changes in market conditions and customer enrollments.

Customers participating in the CPP rate must enroll in a qualifying SMUD program that allows for automatic adjustments of enrolled devices. SMUD’s programs also further customer participation through an upfront signup reward or an incentive toward the purchase of enabling technology.

This rate will be evaluated for effectiveness in the first quarter of 2024. Depending on the results of the evaluation, we could adjust the CPP rate discount and premium to stay current with costs and promote more customer participation, if needed.

4.1.1.3 Optional EV Rate

SMUD offers an EV rate adder to the residential TOD rate structure that is available for owners of plug-in EVs. Under this adder, customers can receive an additional 1.5¢ per kWh credit for charging EVs between midnight and 6 a.m. every day, all year long. This shifts the plug-in EV charging load to lower usage hours when it costs SMUD less to serve the customer, reduces the possibility of overloading local distribution transformers, and helps reduce the need for additional generation, transmission, and distribution capacity. Approximately half of all SMUD EV customers have enrolled in this rate. Separate from our EV rate option, SMUD is piloting a Managed EV Charging program, which is discussed further in Section 5.1.1.5

4.1.2 Commercial and Industrial (C&I) Time of Day Rates

SMUD's C&I customer class includes all commercial and industrial customers. Within this customer class, individual tariffs are available based on customer load size. SMUD's current C&I TOD rates are available to all commercial and industrial customers, except those that are unmetered. The rates are similar in concept to the residential TOD, except the rate periods differ. During the summer, there are two rate periods: Peak (weekdays 4 pm – 9 pm) and Off-Peak (weekdays 9 pm – 4 pm, weekends, and holidays). During the non-summer months, the rate periods are Peak (weekdays 4 pm – 9 pm), Off-Peak Saver (weekdays, weekends, and holidays 9 am – 4 pm), and Off-Peak (all other hours).

SMUD has offered time-dependent rates to C&I customers for decades, and our customers have adapted to the rates and price signals that the rates provide. In 2019, SMUD's Board approved a rate restructure that included changing the TOD rate periods to better reflect marginal cost-based pricing signals, a higher price per kWh when electricity is most expensive to provide, and a lower price when it costs less. This realignment gives customers the opportunity to manage their usage and bills while helping reduce peak energy use and the need to buy power from less environmentally sustainable sources.

SMUD began implementing these changes to our C&I TOD customers at the end of 2021 and the full rollout was completed in the first quarter of 2022. Staff will be evaluating the effectiveness of our newly restructured C&I rates within the next year.

4.1.3 Agricultural Time of Day (TOD) Rate

SMUD also offers a TOD rate for agricultural customers. During the summer months (May through October), the Peak period is 7 am – 10 am and 5 pm – 8 pm on weekdays. In the winter months (November through April), the Peak period is 2 pm – 8 pm on weekdays. All other hours are considered Off-Peak, including holidays and weekends.

4.2 SMUD's Rate Development Process

4.2.1 Strategic Direction on Competitive Rates

The rate development process at SMUD is guided by our Board policy, first adopted in 2003 and most recently revised in 2021. SMUD's Strategic Direction 2, Competitive Rates (SD-2) includes the following objectives:

- Establish rate targets that are 18% below Pacific Gas and Electric (PG&E) system average rates and at least 10% below PG&E published rates for each customer class.
- Be competitive with other local utilities on a system average rate basis.
- Reflect the cost of energy when it is used or exported to the grid.
- Reduce consumption during periods of high system demand.
- Encourage energy efficiency, conservation and carbon reduction.
- Encourage cost-effective and environmentally beneficial DER.
- Minimize the rate of change in the transition from one rate design to another.
- Provide customers flexibility and choices.

- Be as simple and easy to understand as possible.
- Address the needs of people with low incomes and severe medical conditions.
- Equitably allocate costs across and within customer classes.

When designing rates, SMUD must balance all of these competing objectives – many of which are reflected in the objectives of the LMS regulation. While our direction includes developing marginal cost-based rates that reflect the cost of energy and reduce consumption during peak demand, it also requires us to consider customer experience, such as by ensuring rates are as simple and easy to understand as possible and avoiding abrupt transitions in rate design or bills.

4.2.2 Rate Design and Implementation

Consistent with our SD-2 guidance, SMUD takes deliberate measures to ensure that any new rate we develop will be successful, effective, and accepted by our customers. This includes conducting pilots to determine the effectiveness of different rate options and improve upon customer experience prior to adopting and implementing new rates. It also includes iteratively developing and executing on communications and outreach strategies, new educational tools, rate comparison reports, and any technology or billing system enhancements that are needed to ensure that the implementation of a new rate, once designed, is smooth and successful.

While, in practice, this can be a lengthy and costly process, SMUD attributes the success of current time-dependent rates, including high customer acceptance and consistent load shift benefits, to our careful and comprehensive approach to planning, implementation, and customer experience. In addition, even after rate implementation, SMUD continues to monitor the effectiveness of our rates with respect to shifting peak load.

To illustrate this process, following summarizes the development and implementation of SMUD’s two current time-dependent residential rates.

4.2.2.1 *SmartPricing Options Pilot*

In summer 2012 and 2013, SMUD conducted a comprehensive SmartPricing Options¹ (SPO) pilot, which evaluated the impacts of time-based rates, enabling technology, and recruitment methods on energy consumption and peak demand, as part of our broader Consumer Behavior Study. The SPO pilot tested three time-varying pricing plans (time of use with a 4 pm – 7 pm peak, critical peak pricing, and a combination of both) and two recruitment strategies (opt-in or default). The pilot included a seven-month recruitment period and over a year and half of planning before the pricing plans took effect.

The results of the study, released in September 2014, showed that both experimental TOD and CPP rates were effective, but customers preferred the experimental TOD rate by about 2 to 1 given the choice. The pilot and study were so successful that it became a national and international resource used by laboratories and universities to conduct research on time-of-day rates and behavioral studies.

¹ The SPO pilot was a component of SMUD’s Consumer Behavior Study. See the final evaluation dated Sep 5, 2014. <https://www.smud.org/-/media/Documents/Corporate/About-Us/Energy-Research-and-Development/research-SmartPricing-options-final-evaluation.ashx>

4.2.2.2 Residential TOD

Based on the successful results of the SPO pilot, SMUD decided to pursue the development of TOD rates. However, significant additional planning and development was needed to ensure we could successfully roll out the rates with positive customer acceptance and maximal efficacy. At the time of rollout, SMUD was the only utility in the state to plan and roll out standard TOD rates for all its residential customers. Eventually, and given the success story from SMUD, the California Public Utilities Commission (CPUC) ordered the IOUs to follow the same trend with the adoption of time-based rates for their residential customers. SMUD was a pioneer in rate design and our success was the result of several years of planning after the SPO pilot was concluded.

In 2016, SMUD introduced an optional time-of-day rate (4 pm – 7 pm peak) for all residential customers, with the goal to test systems and processes before the actual roll out of the standard TOD rate. Planned implementation was phased over two years, starting with a small subset of residential customers. This staging allowed staff time to provide customers with education on time-of-use rates, develop new customer tools, and upgrade systems and processes needed to prepare for a larger number of customers transitioning to the rate.

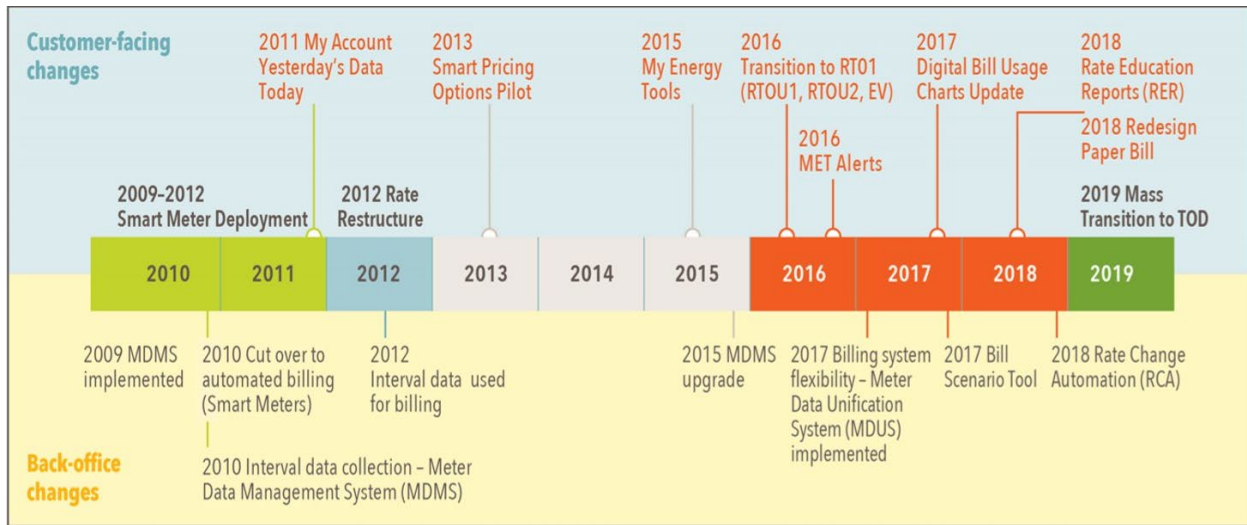
Concurrently, SMUD staff performed research and analysis to refine the rate in support of developing a future standard for all residential customers. The results of this analysis shifted the peak period to 5 pm – 8 pm to better align with the highest peak loads and marginal costs. The rate design was also influenced by the feedback received from the community and subject matter experts in the industry to balance a number of rate principles and customer experience.

SMUD's Board approved the standard TOD rate in 2017 and SMUD began another staged rollout beginning in late 2018 and completing in 2019. Based on our experience with the pilots and the optional TOD rate, SMUD developed additional customer tools, including an interactive TOD cost estimator, redesigned the billing experience, developed and launched a phased marketing campaign with simple, easy-to-understand messages, and undertook targeted outreach efforts. The education and marketing campaign was the most comprehensive campaign we have ever conducted in the transition from one rate design to another and was key to the successful completion of that milestone.

Each year since full residential TOD implementation, the results with respect to enrollment, peak load reduction, and carbon reduction have met or exceeded expectations based on the pilot. SMUD attributes the continued success of our residential TOD rates to the time invested testing and refining rates, educational tools, and attention to the customer experience. In addition, the TOD implementation process reaffirmed our understanding that rate simplicity and customer engagement and satisfaction drives the adoption and ultimate success of a rate.

Below is a timeline outlining some of the key milestones leading up to the implementation of SMUD's residential TOD rate, starting with the deployment of enabling technology that preceded the SPO pilot.

Figure 1 – Residential TOD Planning and Implementation Timeline



4.2.2.3 Critical Peak Pricing (CPP)

The results of the SPO pilot showed that a CPP rate with an underlying time-of-day rate structure could achieve an overall load reduction of 20.9% during event hours. However, the development of this optional rate followed both the successful implementation of our residential TOD rate structure and the increased availability of enabling technology, such as programmable thermostats and battery storage, that would allow customers to respond automatically or manually to event signals.

SMUD’s Board approved the optional CPP rate in 2021, and SMUD began offering it in June 2022 for customers that participate in qualifying programs. SMUD does extensive outreach to encourage customers to choose the CPP rate, and for customers already on the CPP rate, we run individual reports and reach out to customers to help them identify ways they can save money by changing the way they use energy. As noted previously, SMUD plans to review the rate in 2024.

4.2.2.4 C&I Rate Development

In 2019, the SMUD Board authorized restructuring the C&I rates, which re-aligned the time-of-day periods with marginal cost signals, aligned variable rate components to fixed rate components to reflect costs, and simplified pricing structure across rate categories to improve customer experience when moving from one rate to the next. To improve customer experience, we limited bill impacts to no more than 5% for 95% of customers. Stated another way, only 5% of customers could have bill impacts greater than 5% as a result of the rate restructure. To accomplish this while still meeting the goals of the restructure, we implemented the restructure over the course of up to eight years, depending on the rate category. SMUD identified the customers with bill impacts larger than 5% and conducted additional outreach to these customers about the new rates, the associated benefits, and potential impacts. SMUD worked with these customers to identify solutions to manage the impacts, including education and participation in a program to help them reduce costs through energy efficiency upgrades or other means.

SMUD is still implementing steps of the multi-year rate transition. The full rate transition for our smallest commercial customers will be completed in year 2028, which includes the gradual implementation of demand charges to encourage load reduction. Consistent with prior rate transitions, SMUD is currently

working on the rate education and outreach plan for the successful implementation of this component of the rate change which begins in 2024.

4.3 Evaluation of New Dynamic Rates

This section evaluates the cost-effectiveness, equity, technological feasibility, and benefits of dynamic rates for each customer class, consistent with the requirements of the LMS regulations. For purposes of this evaluation, SMUD will assume that these rates would be implemented on the schedule specified in the LMS regulation, which includes applying for approval of dynamic rates by April 1, 2025, and offering voluntary participation in those rates to all customers by April 1, 2026, where such a rate is determined to materially reduce peak load.

SMUD's evaluation detailed below cannot yet conclude that proposing and implementing dynamic rates on this schedule would be cost effective or provide incremental benefits relative to SMUD's existing rates and programs. This is, in large part, due to the significant load shift benefits that SMUD already receives, and uncertainties related to the level of incremental load shift potential, customer response to market price risks, and customer acceptance of a complex new rate design. Based on the results of this evaluation, SMUD plans to defer the proposal and adoption of new dynamic rates at this time. SMUD will reevaluate dynamic rates with the benefit of additional information from our CPP and C&I rate evaluations and our pilot programs in the next update of our Plan.

4.3.1 Cost Effectiveness Evaluation

The first evaluation factor specified in the section 1623.1(a)(1)(A) is cost effectiveness. SMUD will qualitatively estimate the costs and benefits to SMUD, and thereby to our customers, that are associated with new dynamic rates for each rate class. This approach is necessary because, as of the time of the preparation of this first Plan, SMUD does not have data to support a full quantitative analysis.

To assess cost effectiveness, it is necessary to consider the costs associated with designing, implementing, and maintaining new rates for each customer class, as well as the ongoing benefits associated with implementation. To demonstrate cost effectiveness, the expected benefits for each rate must exceed the costs of implementation.

Typically, when assessing the cost-effectiveness of a new rate, such as TOD, SMUD would conduct a comprehensive pilot study to test and gather data on different rate options, which would likely require several years and a multimillion-dollar investment. SMUD believes it is necessary to conduct our own pilots, rather than rely on the results other utilities' studies, to accurately estimate costs and benefits because customers respond differently given differences in weather conditions, local economy, local energy policies, and other factors. SMUD has not conducted such a pilot on dynamic rate options and thus does not have supporting data on estimated implementation costs or benefits. Some of SMUD's pilots are testing responses to price signals, which could help inform assessments of potential costs and benefits, but results are not yet available. As a result, SMUD's evaluation of cost effectiveness is based on qualitative assessments. SMUD anticipates exploring opportunities to expand data access and/or refine estimates to inform future updates of our Plan.

4.3.1.1 *Estimated Costs*

Implementing new rates for all customer classes, particularly rates that are far more complex than any other currently available rate, would require significant investment in planning, customer education and marketing, and technology development. SMUD has identified several cost categories associated with implementing dynamic rates:

- *Rate design costs* would include the costs of initial market research, implementing pilots to test rate options, and analyzing the results of those pilots to refine the final design. Once the pilot is complete and analyzed, the final rate recommendation needs to be designed. In the event of a new rate recommendation, a rate action would be needed for it to be approved, adding to the costs.
- *Setup costs* include one-time costs like Information Technology (IT) system updates to enable settlement over new intervals, data integration, updating the bill presentment to reflect these intervals, and developing new or updating existing customer tools. For example, when SMUD implemented our residential TOD rate, we designed tools to allow customers to view their cost and usage history, set high bill alerts, and receive home energy reports in order to help them understand the impacts associated with the rate. Having tools available for customers to self-service and monitor their costs and usage will be important for success with hourly rates, which would be significantly more complex and volatile than TOD rates.
- *Recruitment and retention costs* include marketing and enrollment costs. For example, prior to rolling out our standard residential TOD rate, SMUD spent over two years educating residential customers through an extensive, phased marketing campaign and targeted outreach in a variety of languages. This effort was successful both due to the significant time and funds invested and, crucially, TOD had the benefit of a simple and easy-to-understand message – avoid energy usage from 5 pm to 8 pm. Shifting to complex hourly rates while maintaining a positive customer experience – which is key for adoption and longer-term retention of the rate – will require informing and educating customers to become savvy users that, at minimum, understand and can monitor hourly rate and temperature trends that may significantly impact their bills.

At this time, SMUD anticipates the above costs to make a dynamic rate available are fixed and do not vary by load, electricity usage or enrollment level. While SMUD does not currently have pilot results to inform implementation costs, we estimate needing significant resources to develop, implement, and maintain hourly rates for residential, C&I, agricultural, and traffic signal customers.² For example, SMUD estimates that implementing our residential and C&I TOD rates cost a combined \$16 million. Depending on the scope of the costs, implementing complex new rates could necessitate a rate increase to bring in additional revenue.

4.3.1.2 *Estimated Benefits*

This section describes the potential benefits associated with implementing new dynamic rates and the estimated realization of incremental benefits based on design effectiveness, adoption levels, and additional load shift capacity available to be captured.

² SMUD generally categorizes street lighting and traffic signals in the same rate class; however, only street lighting is expressly exempt from the LMS regulation.

4.3.1.2.1 Potential Benefits

SMUD has identified the primary financial benefits of new dynamic rates as:

- Avoided capacity costs resulting from a reduction in the need for new capacity additions or resource adequacy procurement.
- Avoided energy costs resulting from shifting demand from higher-cost periods to lower-cost periods.

Secondary benefits can also flow from the realization of avoided capacity and energy purchase needs. For example, to the extent that load shifting reduces the need for new capacity and wholesale energy purchases during peak periods, these reductions can also contribute to:

- Avoided transmission in the form of reduced need for capacity investments to deliver energy during peak periods.
- Avoided GHG compliance costs associated with a reduction in generating or purchasing energy from fossil fueled resources that may otherwise be tapped to serve load during peak periods.
- Improved air quality, public health, and environmental outcomes associated with a reduction in operations of fossil fueled resources.

While the last category of benefits does not accrue directly to SMUD, they provide value to our community and society more broadly.

4.3.1.2.2 Realization of Benefits

As a vertically integrated utility, SMUD anticipates that the greatest potential direct financial benefits would derive from avoided capacity costs. However, the realization of any of the above-identified benefits from new dynamic rates is highly dependent on several factors:

- The effectiveness of the rate design in shifting customer usage patterns.
- The operational value of the load shift.
- The adoption levels of the new rates.
- The customer experience on the new rate.
- The incremental available load shift potential relative to SMUD's existing time-dependent rates and load flexibility programs.

In addition, with respect to avoided GHG compliance costs and improved air quality, public health, and environmental outcomes, the realization of benefits also depends on the relative utilization of fossil fueled resources to serve peak load versus periods of lower demand.

Following is a discussion of each factor's expected effect on the benefits attributable to developing new dynamic rates.

4.3.1.2.2.1 Estimated Design Effectiveness

Effective rate design is necessary to achieve predictable load shift during the most valuable hours. The risk of not having sufficient generation, which spurs the need for new capacity additions or resource adequacy procurement, is typically concentrated in a small number of hours each year when serving peak load is most challenging. Accordingly, to realize any avoided capacity benefits, it is vitally important that a new rate design can achieve consistent and meaningful load reductions during those hours. Reducing

energy purchases during peak periods relies on consistent shift in demand patterns, although some benefits can still be realized through less dependable load shift.

Time to develop and test the effectiveness of rate design options will be especially important when shifting to a complex new rate structure that could include several price signal changes within a peak period or even within an hour. Part of the reason that SMUD's TOD rates are so successful is because they are simple and easy to understand. If customers do not understand the signals or the time periods during which they are provided, their response may not be predictable, leading to reduced efficacy and potentially adverse bill impacts. In addition, SMUD has not yet studied whether the issuance of multiple real-time price signals to our customers over a peak period would result in material benefits relative to a single signal for the peak period. As described previously, SMUD's typical rate development process includes multiple steps, including market research, testing the effectiveness of different rate options through pilots, analyzing the results, and considering refinements before proposing a rate. Completing these steps can exceed five years but is important to ensure that the rate sends the right signals and understand customers' response.

The LMS regulation directs Large POUs to propose new dynamic rates for every customer class to our Board by April 1, 2025. That timeline does not provide sufficient time for SMUD to design a pilot, test responses to different rate options, and analyze the results for even one rate class. Without the results of a pilot study that tests these options for each customer class, SMUD cannot conclude that a complex new rate design would result in any incremental, dependable load shift or ensure a positive customer experience for any of SMUD's customers.³

4.3.1.2.2.2 Estimated Adoption Level

The estimated adoption level of new hourly dynamic rates directly affects the magnitude, and thus value, of load shift benefits. Based on the information currently available, SMUD anticipates that dynamic rates rolled out to customers by April 1, 2026, would likely have low adoption and retention levels. SMUD's assumption is based on several key factors, including the uncertainty in bill impacts from complex new rate structures, the time needed to educate customers to promote a positive experience, and the cost and limited accessibility of enabling behind-the-meter automation technology.

- *Bill impacts.* Bill savings are a significant driver for customer rate adoption. The predictability of bill impacts gives customers the assurance of how they can leverage a rate to see bill savings. SMUD's current rate structures help serve as a hedge against price shock and uncertainty for our customers. SMUD locks in prices for most of our expected energy needs and passes on only the limited remaining market exposure to customers over the course of a year, reducing the impact to customer bills. With dynamic rates, customers take on the full risk of price fluctuations, which may not be sustainable long term.

SMUD has previously offered real-time pricing rates, which had low customer acceptance. For example, in 1995, SMUD implemented an experimental real time pricing rate for commercial customers as part of an economic retention measure. The rate was available for three years and no customers opted in. While the rate offered the customers more control over their bills, the hourly pricing risk outweighed the benefits, so no customers were enrolled on the rate during those three

³ SMUD does not expect a new dynamic hourly rate would create any load shift for traffic signal customers, as this load is not sensitive to price signals.

years. Subsequently, SMUD tested another version of real time rates for commercial customers beginning in 1998. The new real time rate had two parts – billing of a baseline usage quantity by time period priced at stable time of use rates, and billing of incremental load above the baseline at real time prices. The new rate better managed the potential risk of real time pricing by applying real time prices to the variances above or below the customer’s baseline. In 1999, SMUD made modifications to the rate and adopted the price for zone NP15 (DAPX MCP NP15) as the real time pricing. However, the rate enrollment was not successful due to the inherent risk from the real time pricing rates. While some customers did opt into the rate, once prices started to rise due to the energy crisis in the early 2000s, customers were not able to avoid significantly higher bills, no longer wanted to participate in the real time pricing rate and switched back to the standard time-dependent rates at that time. Eventually, SMUD stopped offering the real time rate options.

While the landscape has changed significantly since the early 2000s, SMUD anticipates that many customers would still be hesitant to accept the added price risk that can lead to unpredictable and high bills, similar to the experience we observed with our past real time pricing options, and what was observed in Texas in the winter of 2021 when prices spiked due to an extreme winter storm⁴. Based on our prior experience, we also expect that retention would fall fast after price spikes or energy crises.

- *Customer understanding.* One method of mitigating the uncertainty of bill impacts from new dynamic rates is to fully educate and inform customers. SMUD has embraced a culture of delivering the best possible customer experience when transitioning customers from one rate structure to another or when offering optional rates. As part of this, we provide the opportunity for customer input from focus groups and market research so we can increase customer comfort levels as we develop any future rates.

However, limited time to engage and educate customers on new complex hourly rates, and the potential benefits and risks associated with participation, may lead to confusion about bill impacts and low uptake. Our experience with offering real-time rates in the late 1990s and early 2000s taught us that the proper evaluation of rate pilots, testing alternate new programs, and strong education and marketing campaigns are necessary prior to proposing and implementing new rates. Customer experience is a priority for SMUD, and negative experiences may have a deterrence effect both on current and future initiatives, plus unintended negative impacts to our brand.

- *Technology availability.* Realizing the benefits of dynamic rates is dependent on customers’ ability to access and embrace enabling technology. SMUD’s Zero Carbon Plan includes multiple strategies to significantly increase customer adoption of those devices that are able to automate load reductions, especially with equity considerations in mind. However, there are still challenges and uncertainties associated with tapping into those devices for grid services, as further discussed in Section 4.3.3.2. SMUD expects that limited adoption of the needed technology would translate to limited benefits from dynamic rates, and accessibility of customer-owned automated devices that allow for response to hourly or sub-hourly signals is a near-term constraint.

<https://www.npr.org/sections/live-updates-winter-storms-2021/2021/02/21/969912613/after-days-of-mass-outages-some-texas-residents-now-face-huge-electric-bills>

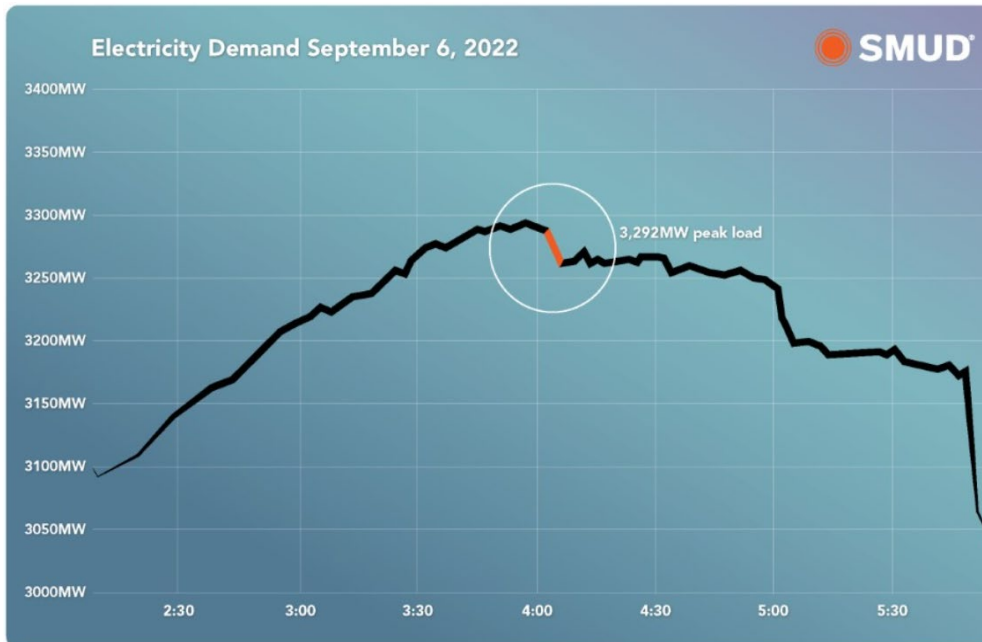
4.3.1.2.2.3 Estimated Incremental Load Shift Capability

As noted previously, the primary potential benefits of dynamic rates are based on reducing the need for new capacity additions and associated avoided wholesale energy costs, which may carry additional benefits associated with reduced transmission costs, reduced GHG compliance costs, and improved air quality, public health, and environmental outcomes. SMUD's existing time-dependent rates and load flexibility programs are likewise designed to capture these same benefits, but on a less granular timeframe and without relying solely on a real-time market price mechanism. They are also designed to create a customer-friendly experience that is simple and easy-to-understand, and have been supported with extensive customer outreach and education. Any incremental benefits associated with implementing dynamic rates rely on achieving incremental load shift relative to SMUD's existing rates and programs. Following summarizes the current load shift capability of SMUD's rates and programs and potential incremental load shift opportunities.

- *Existing load shift capability.* SMUD's residential TOD rate was designed around expected hourly marginal costs and has consistently reduced peak load by 4-8% year after year since implementation, reducing grid stress and resulting in significant financial benefits. Currently, we estimate the combined energy and capacity savings from residential TOD is approximately \$11-\$16 million annually. SMUD also offers a variety of load flexibility and demand response programs that allow customers to respond to signals that incorporate day-ahead marginal prices, weather, and grid conditions. These programs complement our TOD rate structure and provide SMUD additional load shift benefit on a day-ahead basis and, in some cases, on a same-day basis for emergency scenarios. SMUD's programs and pilots are discussed further in Section 5.

To illustrate the current load shift benefits provided by SMUD's time-dependent rates and programs, the chart below shows SMUD's system load on September 6, 2022. The region experienced 10 straight days of extreme heat and Sacramento reached an all-time high temperature of 116°F on that day. There is a clear reduction in load from our demand response programs starting around 4 pm, and load declined as customers were responding to TOD price signals from 5 – 8 pm. The benefits from our existing TOD rates and load flexibility programs is evident. This consistent load reduction on our peak days allows us to reduce our long-term resource adequacy requirements and save on energy costs. The chart shows that significant load reduction was observed on that day due to the combination of demand response, TOD rates, load curtailment agreements, and customer education.

Figure 2 – Load Reduction Observed on September 6, 2022



- *Incremental load shift benefits.* While SMUD is piloting more dynamic price signals to devices to dispatch those devices as part of our programs, SMUD has not yet conducted pilots to evaluate more complex dynamic rate options in which hourly market price risk is passed directly to the customers. However, based on our current time-dependent rates and the trajectory of our load flexibility programs, which can be dispatched on a day-ahead and/or emergency basis, SMUD anticipates that a new dynamic hourly rate would need to result in consistent load shift in response to rapidly changing prices (5- to 10-minute timeframe) in the real-time market to generate any incremental load shift benefits. Without the benefit of pilot results, and given the inherent complexity of new dynamic rates, the risk of adverse bill impacts, and the existence of more customer-friendly rates and programs, SMUD cannot conclude that such rates would be likely to result in incremental load shift benefits.

4.3.1.3 Discussion

Based on the information we currently have available, SMUD’s evaluation cannot conclude that implementing dynamic rates for any customer class on the LMS regulation timeline would be cost effective, especially in light of the benefits SMUD already experiences from our existing time-dependent rates and load flexibility programs and pilots. While dynamic rates have the potential to provide benefits over what we are already receiving from current rates and programs, there are significant uncertainties both in the magnitude of this potential and our ability to realize it based on design efficacy, how customers would react to hourly market risks, and expected adoption levels. SMUD anticipates that developing dynamic rates would result in significant costs and could require a rate increase to bring additional revenue to develop and implement the rates. Without testing a pilot and performing a comprehensive analysis similar to what we did in the Smart Pricing Pilot, SMUD cannot confirm the costs of rate development, the estimated benefits, or whether those benefits would be likely to offset the costs. SMUD also anticipates the cost of setting up a dynamic rate pilot will be nearly as high as

developing a program for passing through dynamic rates. In addition, given our experience with passing hourly price risk to customers in the late 1990's, if after incurring the costs to develop dynamic rates no customers remain on the rate after experiencing bill increases, SMUD's rate development costs will become sunk costs. Given the benefits and success of our current TOD rates and load flexibility programs and pilots, we don't see a need to take this risk at this time.

SMUD will continue to gather information to inform evaluation of future rate and program design. We are taking a measured approach by first testing dynamic rate signals to devices in its load flexibility pilots and compensating customers through programmatic payments, which will help SMUD assess the opportunities without subjecting customers to the volatility of dynamic pricing. As more data becomes available from these pilots, SMUD anticipates exploring additional cost-effectiveness analyses and/or enhancements to the estimates provided here.

4.3.2 Equity

The second criterion by which to evaluate dynamic rates is equity. Since SMUD does not currently have pilot study data to support quantifying load shift and bill impacts for different customer groups, SMUD will qualitatively evaluate the equity impacts of these rates by considering customers' ability to benefit directly and indirectly from the rates.

4.3.2.1 Equitable Access to Direct Benefits

The ability to directly benefit from a dynamic rate depends on several factors, such as access to enabling technology, ability to shift load away from high-cost periods, and ability to benefit from the rate and absorb potential bill shocks.

- *Technology access.* The ability to participate in a dynamic rate hinges upon customers' access to technology with specific characteristics that enables response to hourly or sub-hourly price signals. Currently, the high upfront cost of this technology may pose a limitation, particularly for lower income customers. In addition, customers that rent or lease their home or business may face additional constraints with respect to securing permission for technology installations. To help address these barriers, SMUD offers different incentive programs and has developed strategies within its Community Impact Plan, and is also seeking grant funding to append to SMUD's investment to help further broaden access.
- *Rapid, flexible load shift ability.* The ability to quickly shift load away from high price periods will affect whether participating customers can directly benefit from a dynamic rate. As market signals would be dynamic with potentially very large changes in prices between hours, customers that cannot or do not adopt and/or utilize and embrace enabling technology could see very large bill impacts.
- *Ability to absorb potential bill shocks.* Participating customers in a dynamic rate run the risk of bill shocks if they are unable to shift load away from high price hours. SMUD anticipates that lower income customers and small businesses, who face greater barriers in implementing enabling technology, would be most exposed and least able to absorb potential bill shocks.

By contrast, SMUD's TOD rates provide customers the opportunity to save money without requiring specific technology or exposure to market risks and bill shocks if load is not sufficiently flexible. Similarly, SMUD's programs are designed to ensure that participating customers see predictable, consistent benefits, while ensuring cost-effectiveness relative to the value of the resource.

4.3.2.2 *Equitable Access to Indirect Benefits*

As previously described in Section 4.3.1.2.1, dynamic rates may offer benefits to all of SMUD's customers, to the extent such rates reduce overall capacity costs, contribute to reliability, and reduce reliance on fossil fueled resources. These benefits could serve as a downward pressure on rates and result in improved air quality, public health, and environmental outcomes, and are accessible to all of SMUD's customers. However, as discussed in Section 4.3.1.2.2, SMUD is unable to conclude at this time that dynamic rates implemented on the LMS regulation timeframe would yield incremental benefits, particularly considering that we are already receiving a large share of those benefits from existing TOD rates and programs.

4.3.2.3 *Discussion*

Based on the information currently available, SMUD's evaluation cannot conclude that implementing dynamic rates would result in any incremental equity benefits. At this time, the availability of such rates is likely to disproportionately benefit higher-income customers, early adopters of technology and businesses that own their property, have upfront capital to purchase enabling technology, and can absorb the risk of bill shocks. In addition, while SMUD's entire customer base could potentially benefit from the any incremental avoided system costs and improved air quality, public health, and environmental outcomes, the magnitude and uncertainty of these benefits are uncertain, which is why we are conducting pilots. Currently, 97% of our low-income customers are on TOD rates and some our low-income customers are participating in our new load flexibility pilots and programs. We would not anticipate this level of acceptance and adoption of dynamic, hourly or sub-hourly rates from low-income customers.

4.3.3 Technological Feasibility

The third evaluation factor for dynamic rates is technological feasibility. SMUD's evaluation assesses the technological feasibility of implementing dynamic rates for all customers on the schedule specified in the LMS regulations. SMUD's evaluation considers the feasibility of both the internal technology systems needed to support implementation of dynamic rates and to the external customer technology that is needed to enable response to hourly or sub-hourly signals.

4.3.3.1 *SMUD's Technology Systems*

The primary internal technology systems needed to support dynamic rates are advanced metering infrastructure (AMI), SMUD's Customer Relationship Management software, and SMUD's billing system software (SAP ECC). SMUD also relies on internal and external software from third parties to develop customer educational tools and provide functionality to communicate with and control enabling technologies. Following is a feasibility assessment of each technology component:

- *Meters.* SMUD's meters are capable of providing hourly and sub-hourly interval data for all our customers, though some would currently require reprogramming to provide sub-hourly interval data. Additional network infrastructure would also be required. Moving to sub-hourly interval data significantly increases the amount of data transmitted over the AMI network. To avoid disruptions and maintain system performance, an assessment of the AMI network communication infrastructure would be required to identify additional equipment to be installed to support the increased volume.
- *Billing system.* SMUD estimates that our billing system, with implementation of the necessary system configuration, is technologically capable of generating customer bills utilizing hourly or

sub-hourly settlement data. However, SMUD anticipates it will be necessary to develop enhancements to SMUD's online tools and services to help customers understand the rate changes and minimize confusion.

- *Customer educational tools and control.* As noted previously, updating existing customer tools and developing new tools would be key to supporting a positive customer experience when implementing dynamic rates. Some of our existing tools and our current enabling technology controls are managed by external vendors, which SMUD will engage to assess the technological feasibility of and timeframes necessary to modify tools to support dynamic rates.
- *Information Technology Roadmap.* SMUD has developed a roadmap for its next generation AMI Platform, which includes increasing levels of analytic transformation and enablement of use cases to support near real time customer insights and advanced DER functionality and control, leading to distributed intelligence and grid edge controls that will support achievement of our Zero Carbon Plan and is consistent with intended benefits under the LMS regulation. This includes continuing to implement additional functionality for DERMS, deploying new meters with increased granularity of data (5 minute Commercial, 15 minute Residential) as we replace AMI meters that will be reaching the end of their useful life and supporting systems to leverage the increased data. SMUD is also currently in the initial stages of a major software update to our main enterprise application software from SAP. These major technology projects would need to be carefully coordinated with any IT enhancements necessary to communicate, bill, manage, and educate customers on dynamic rates.

In sum, SMUD anticipates that our internal technology systems, with the necessary infrastructure deployments and system configuration implementations, are technologically capable of supporting dynamic rates. SMUD's IT Roadmap includes additional enhancements, upgrades, and additional functionality that will be needed to ensure the optimal benefits realization of dynamic controls and a positive customer experience.

4.3.3.2 *Enabling Customer Technology*

Realizing the potential incremental benefits of dynamic rates depends on customer participation and the widespread availability of devices and technology that can support real time response to hourly or sub-hourly price signals. Currently, technology with this kind of capability is being piloted and evaluated by SMUD through programs to consider customer response and long term commitment to their response under these programs, which will inform us on how we can utilize them for resource adequacy and electric system emergencies and consequently how we should approach scale. Following is a list of common load flexibility technologies in SMUD's service area which SMUD currently includes in our programs, along with their capabilities and constraints. SMUD anticipates these same technologies participating in our current programs would be needed to respond to new dynamic rates.

- *Smart thermostats.* Wi-fi enabled smart thermostats are currently by far the most widely adopted load flexibility technology. These devices are able to receive and respond to dispatch signals within 15-30 minutes; however, doing so could end up sacrificing customer comfort, as market price signals may not allow time for the home to precool. SMUD currently relies on day-ahead and/or more real time marginal costs and system conditions to inform the dispatch of resources in our load flexibility programs.
- *Battery energy storage systems.* Battery energy storage systems are being adopted with increasing frequency by both residential and non-residential customers, particularly as an add-on to solar PV

installations. Batteries have much greater ability to be dispatched on short notice, and SMUD views these as critical to creating load flexibility resources to reach our Zero Carbon Plan. SMUD is proactively seeking to accelerate this adoption and reduce the payback period for solar + storage deployments through financial incentives. SMUD is currently offering initial incentives of up to \$2,500 per premises coupled with ongoing capacity payments to promote storage adoption and allow utility dispatch to leverage the storage resource. However, the current adoption rates are relatively low, and it will likely be years before storage is affordable for a majority of SMUD customers.

- *Two-way air conditioning (AC) switches.* Air conditioning (AC) switches are one of the oldest distributed resource technologies and have been deployed since the 1970s. SMUD currently has upwards of 35,000 customers enrolled in its ACLM program, also known as PeakCorps. SMUD has begun to replace existing AC switches with more advanced two-way AC switches that provide data back to SMUD and have increased functionality through its recently launched PeakConserve Program. SMUD is also increasing accessibility by providing participation options for customers that have barriers such as lack of internet access. While SMUD expects these new switches to open up new functionality relative to the older technologies, this program is still in pilot stage at this time.
- *Electric Vehicles (EVs).* EVs are an emerging source of load flexibility across the SMUD system, and the rate of customer adoption is increasing. There is significant potential for further growth given SMUD and statewide goals for zero emissions vehicles by 2030. SMUD recently launched a pilot to test the efficacy of sending hourly price signals to participating EVs via telematics and compensating the customer through a quarterly payment. Specifically, SMUD simulates the modeled hourly prices based on energy supply and locational capacity we expect to experience once SMUD achieves its zero-carbon goal and large-scale transportation electrification. The learnings from this pilot will inform how SMUD rolls out a full-scale managed charging program later in 2024-2025. SMUD hopes to demonstrate and refine use cases such as to mitigate overload of service transformers, consume excess low-cost renewable energy, and reduce system peak impact.

SMUD's existing programs and new pilot programs will inform our understanding of how we can most effectively engage with customers with behind-the-meter devices, considering different technologies, customer needs and preferences, and other factors. SMUD anticipates these new offerings, along with our existing programs, will help increase the acceptance and adoption levels of enabling technologies as well as testing their response to utility signals and dispatch.

SMUD is piloting and testing a host of new technologies that we anticipate scaling for wider adoption over the next three years. How hourly price signals may play a role in these opt-in new programs and offerings is still being evaluated, the results of which will also inform future consideration of dynamic rates.

4.3.3.3 Discussion

Based on the information currently available, SMUD believes the technology exists to implement some level of dynamic rates on the LMS timeframe. However, the capabilities of enabling behind-the-meter device technology, along with the impacts on customer experience, are still being tested. SMUD believes that reassessing the technological feasibility of dynamic rates after we have results from our pilot

programs would better inform the likelihood of positive customer acceptance and material load shift benefits.

SMUD anticipates that our internal systems, with the necessary infrastructure deployments and system configuration implementations, are technically capable of processing settlements for dynamic hourly rate data, but additional time to enhance the billing experience, develop customer tools, and enhance our DER functionality and control would create a better experience, improve the likelihood of acceptance of the new rates, and support improved realization of both customer and grid benefits in alignment with LMS desired outcomes. In addition, SMUD anticipates that the penetration of enabling device automation technology will increase with time and decreasing device costs, expanding the potential for load shift benefits.

4.3.4 Benefits to the Grid and Customers

The final two criteria for evaluating dynamic rates are benefits to the grid and benefits to customers. SMUD is evaluating these factors together because many grid benefits also have pass-through benefits to customers.

Following is a summary of anticipated grid and customer benefits associated with implementation of new dynamic rates on the timeframe specified in the LMS regulation. SMUD's evaluation of each benefit considers the expected effectiveness of the rate design, the expected adoption rate, and the incremental benefits relative to SMUD's existing time-dependent rates and load flexibility programs. The realization of each benefit depends, in significant part, on whether dynamic rates would result in material load shift relative to SMUD's existing time-dependent rates and programs. However, as discussed in Section 4.3.1.3, SMUD is unable to conclude, based on the information currently available, that implementing dynamic rates at this time would yield incremental load shift benefits.

- *Avoided capacity needs.* Realizing the incremental benefits of avoided capacity costs, in the form of reduced need to construct new generation capacity or procure resource adequacy (RA), depends significantly on an effective rate design that delivers meaningful, dependable load shift in response to hourly or sub-hourly signals. Shifting demand away from peak periods also has the potential to relieve grid strain and contribute to reliability. As further discussed in Section 4.3.1.2.2.3, SMUD is unable to conclude that implementing dynamic rates would result in incremental capacity cost savings, given the uncertainty around design effectiveness, adoption levels, and the magnitude of load shift potential beyond the benefits already provided by SMUD's time-dependent rates and load flexibility programs.
- *Avoided energy purchase costs.* Similarly, realizing the incremental benefits of avoided energy costs relies on a rate design that effectively encourages customers to shift from high-cost (high GHG) periods to lower cost (low GHG) periods. This allows for more efficient use of cheaper solar energy when it is generated and reduces the higher costs of energy associated with serving peak load. However, as further discussed in Section 4.3.1.2.2.3, SMUD cannot conclude that implementing dynamic rates would result in incremental avoided energy costs.
- *Avoided transmission needs.* As many of the DER programs are still in pilot, how they and rate designs impact the need for various transmission services is still uncertain. Because SMUD cannot conclude that dynamic rates would result in incremental avoided capacity costs on the implementation schedule specified in the LMS regulation, it cannot conclude that any

transmission cost savings are likely to materialize.

- *Avoided GHG costs.* To the extent that dynamic rates can shift energy use from time periods in which fossil fueled resources serve load to time periods with greater renewable energy generation, there is the potential for reduced costs to SMUD (and thereby our customers) associated with the cost of GHG emissions. SMUD incurs GHG compliance costs associated with operating our thermal power plants and some out-of-state energy imports. In addition, the cost of carbon is incorporated into the price of any energy that we purchase through CAISO markets. Reducing our own thermal operations and/or limiting market purchases when the grid has a greater carbon intensity can save costs for SMUD and our customers.

However, any incremental GHG cost savings depend on the realization of incremental reductions in capacity needs and/or in energy purchases during high-cost/high-emitting periods. Because SMUD is unable to conclude that implementing dynamic rates would result in material incremental load shift, any GHG cost savings benefits are also uncertain. In addition, as SMUD pursues implementation of our Zero Carbon Plan and removes carbon from our power supply, we anticipate increasingly less difference between the GHG emissions profiles of resources serving our customers during the peak and in periods of lower demand.

- *Improved air quality, public health, and environmental outcome.* As with avoided GHG cost savings, the potential air quality, public health, and environmental benefits associated with dynamic rates depends on such rates reducing the capacity needs or energy purchases during time periods when the grid has a higher carbon intensity. However, as discussed above, SMUD cannot conclude that a material incremental increase in these benefits will accrue on the timeline specified in the LMS regulation. In addition, as noted above, the difference in the emissions profile of resources serving load at times of peak or load demand should decrease as SMUD implements its Zero Carbon Plan.
- *Customer bill impacts.* With dynamic rates, customers have the potential to save money by shifting their usage out of the most expensive hours. However, there are risks to dynamic rates, even if customers can largely rely on device automation to manage their demand. SMUD locks in prices for most of the power we anticipate needing, effectively providing a hedge for customer energy costs, as described previously. With dynamic rates, customers take on the full risk of market price fluctuations, which could have severe impacts on customer bills especially during times of extreme market volatility. There will be times when prices are high for an extended period of time, such as in December 2022. During such times, customers may not be able to rely on their enabling technology or adjust their usage enough to prevent excessively large bills. Residential customers cannot simply stop using electricity, nor can commercial customers stop operating for an extended period of time to avoid a large electric bill driven by spikes in energy prices.

To illustrate this, the table below shows the North Path 15 (NP-15) average monthly market prices during daytime hours (7 a.m. – 10 p.m.) and nighttime hours (10 p.m. – 7 a.m.). A significant price increase can be seen in December, when prices are approximately double summer peak prices and up to five times greater than summer off-peak prices. The impact of these price increases would have been significant for customers on a dynamic hourly rate.

Table 1 – 2022 Average Monthly Market Prices (NP-15)

Month	Avg. Daytime Price (\$/MWh)	Avg. Nighttime Price (\$/MWh)
January	\$ 54.89	\$ 50.17
February	\$ 48.43	\$ 46.58
March	\$ 48.09	\$ 45.24
April	\$ 63.40	\$ 63.44
May	\$ 67.86	\$ 65.06
June	\$ 77.34	\$ 68.66
July	\$ 80.59	\$ 67.34
August	\$ 104.93	\$ 87.21
September	\$ 130.24	\$ 96.46
October	\$ 73.36	\$ 65.75
November	\$ 93.51	\$ 88.70
December	\$ 271.06	\$ 256.14

Source: 2022 Day ahead NP-15 average prices.

- Customer experience.* As described previously, SMUD staff balances multiple SD-2 objectives when designing rates, including “reflect the cost of energy when it is used” with “be as simple and easy to understand as possible.” While dynamic rates would reflect the cost of energy at the time it is used, they would also be very complex and difficult for customers to understand, as customers are not experts in energy market dynamics. The likely result of this complexity is confusion and potential negative bill impacts, particularly if there is also insufficient time for SMUD to fully educate customers on the potential benefits and risks of marginal cost-based rates. This, in turn, adversely impacts acceptance, retention, and benefits associated with the rate, and the erosion of trust can hinder future load shift efforts as well.

4.3.4.1 Discussion

Based on the information currently available, SMUD’s evaluation is unable to conclude that implementing dynamic rates on the timeframe specified in the LMS would yield material incremental benefits to the grid or to SMUD’s customers. Currently, SMUD’s time-dependent rates and load flexibility programs are designed to capture a significant portion of potential peak load shift benefits. Any incremental benefits associated with dynamic rates that enable response on sub-hourly signals are uncertain.

Moreover, relative to SMUD’s current time dependent rates and programs, dynamic rates could adversely affect customer experience and bills. Premature introduction of dynamic rates may cause confusion and shift market price risk from SMUD onto our customers, creating a poor customer experience that may hinder adoption of both the new rate and longer-term load flexibility initiatives. SMUD’s current time-dependent rates offer customers the ability to save money through a simple, easy-to-understand rate structure and do not require specific technology to use. In fact, the success of SMUD’s TOD rates, as previously noted, can be attributed largely to its simple, easy-to-understand message, our careful testing and refinement of both rate options and customer experience, and our significant outreach and education efforts. A rushed implementation of a complex and untested dynamic hourly rate structure is unlikely to result in any positive benefits to SMUD or our customers.

4.3.5 Compliance Approach

Based on the results of this evaluation, SMUD plans to continue offering our time-dependent rates, including reviewing our C&I rates and our residential CPP rate for effectiveness within the next year. SMUD also plans to continue expanding our load flexibility programs and pilots that will help us better understand how best we can engage with behind-the-meter customer devices. From these learnings, SMUD may consider developing a pilot rate offering dynamic pricing to one or more customer classes in the future.

SMUD will defer developing and proposing adoption of new dynamic rates beyond April 1, 2025, and offering voluntary participation in any such rates beyond April 1, 2026. Based on the information currently available, SMUD cannot conclude that proposing and implementing dynamic rates as proposed in the LMS schedule cited above would result in material incremental reductions in peak load; be cost-effective; yield equity benefits; be technologically feasible; or yield any cost savings or emissions-related benefits for SMUD and our customers. Moreover, the risks of premature implementation include adversely impacting participating customers' bills, overall experience, and SMUD's image and reputation.

At this time, SMUD plans to revisit the timeline for proposing and implementing dynamic rates no later than the triennial review of our LMS Plan. At such time, we will also consider updates to our evaluations of cost-effectiveness, equity, technological feasibility, benefits to the grid, and benefits to customers.

5 Load Flexibility Programs

The LMS regulation recognizes that load flexibility programs may provide an alternative pathway to achieve the objectives of encouraging off-peak energy usage, controlling peak load to improve reliability and system efficiency, lessening, or delaying the need for new capacity, and reducing fossil fuel consumption.

Section 1623.1(a)(1)(B) requires each Large POU to propose and evaluate programs that enable automated responses to marginal cost-based signals for each customer class, if the Large POU does not propose the development of marginal cost-based rates. The programs must be evaluated based on cost effectiveness, equity, technological feasibility, benefits to the grid, and benefits to customers.

Section 1623.1(b)(3) requires each Large POU to submit a list of cost-effective MIDAS-integrated load flexibility programs to the CEC Executive Director by October 1, 2024. The portfolio of load flexibility programs must provide at least one option to automate response to MIDAS signals (that indicate, for example, hourly marginal cost-based rates, marginal prices, or hourly or sub-hourly GHG emissions) for every customer class where such a program is determined by its rate-approving body to materially reduce peak load.

Finally, each Large POU is required to offer customers, by April 1, 2026, voluntary participation in a dynamic hourly rate, if approved by its rate-approving body, or a cost-effective MIDAS-integrated load flexibility program identified according to with Section 1623.1(b)(3).

This section of SMUD's Plan provides an overview of SMUD's current load flexibility programs and addresses the requirement to evaluate and propose specified programs on the timeframes set forth in the LMS regulation. It also addresses the requirement to submit a list of cost-effective MIDAS-integrated load flexibility programs to the CEC.

5.1 Overview of SMUD Load Flexibility Programs

Load flexibility is a key strategy in helping SMUD achieve our Zero Carbon Plan, particularly in enabling our customers to be part of the solution. As such, we have developed and are piloting a number of leading edge options for our customers.

In recent years, SMUD has focused on expanding our existing programs and piloting new load management offerings because they are simple, effective, flexible, and allow for us to make rapid progress in unlocking peak load reduction potential. We have also worked to innovate with technology and software providers to advance functionality that will allow for broad participation and help us maximize potential resources, optimized for customer and grid needs. When SMUD designs programs, we can tailor the programs to specific customer segments or needs to maximize responsiveness beyond just price alone. We can identify where the need is and how we can design the program to have the greatest potential for mutual benefit, since programs must provide benefits to both the customer and SMUD to be effective. To that end, we are piloting multiple approaches and the learning from these pilots will inform future program designs and the technology needed to scale adoption.

SMUD currently offers a portfolio of load flexibility programs with a diversity of enabling technologies, and different tiers of engagement in order to provide options that best fit with each customer segment's needs. The portfolio includes at least one load flexibility program offering for our residential, C&I, and agricultural customer classes.

Following is a list of current and planned program offerings, including several pilots that are being tested for reliability, load reduction and customer adoption.

5.1.1 Residential Programs

5.1.1.1 *My Energy Optimizer (MEO) Partner*

SMUD's MEO Partner program is SMUD's fastest growing load flexibility program. It leverages the high adoption rate of smart thermostats in our territory and provides both upfront and ongoing annual incentives to customers with qualifying smart thermostats who agree to have their thermostat setpoint raised during periods of high demand. Participating customers may also enroll in the CPP rate, discussed in Section 4.2.2.3. In addition to scaling more rapidly than many other utilities, SMUD is currently testing novel approaches to the way these thermostats are dispatched to maximize their contribution to reliability within SMUD territory. Day-ahead marginal prices represent one of several factors that contribute to device dispatch, including forecasted weather and grid conditions.

5.1.1.2 *My Energy Optimizer Partner +*

MEO Partner+ is SMUD's premier residential Virtual Power Plant (VPP) program and the first program of its kind in California. Eligible participants can receive a \$250/kWh upfront incentive, up to \$2,500, for allowing SMUD to control their behind-the-meter battery storage system throughout the entire year using Swell's VPP Control system. Participants also receive ongoing quarterly payments for allowing SMUD to use their battery capacity for myriad grid needs. Batteries are available for dispatch any time except from 10 am – 3 pm, ensuring they are fully charged with solar energy. Batteries may be dispatched a maximum of 30 events per month, or 240 events per year. Just like all of SMUD's load flexibility programs, MEO Partner+ batteries are dispatched by SMUD based on factors that include, but are not limited to, day-ahead marginal prices. This program design provides SMUD's solar + storage customers a meaningful path to value for their investment while creating a maximally flexible resource for SMUD to utilize throughout the year. Developed as a true market transformation program, the incentive decreases gradually over 5 years to align with the expected reduction in battery storage costs over time.

5.1.1.3 *PeakCorps*

PeakCorps is SMUD's legacy air conditioning load management (ACLM) program, originally implemented in the 1970s. Currently there are upwards of 35,000 customers enrolled in program, which utilizes one-way AC switches. This program allows SMUD to maintain reliability during emergency situations by allowing a SMUD installed device to turn off the AC unit when reduction of the overall amount of electricity being used during an emergency is necessary. Resources are dispatched only during critical periods where there is extreme demand on the electricity grid.

The legacy ACLM switches are unable to respond to hourly price signals; however, SMUD is in the process of transitioning this program to PeakConserve (described below) and replacing the switches with those that have more advanced capabilities.

5.1.1.4 PeakConserve

PeakConserve is an updated ACLM program that offers customers a \$50 sign-up bonus and an additional post-season annual bonus for agreeing to the installation of a two-way switch to allow for cycling of their air conditioning compressor during summer periods of high demand. The new switches utilize SMUD's mesh meter network to communicate, negating the need for additional communication systems or customer WiFi, which broadens our customer base that can participate in load management programs. Broadening potential participation also improves equity given populations that cannot afford or do not have internet access, and addresses technology barriers for some that cannot or will not use smart thermostats.

During conservation days, when supply of resources is expected to be limited and market prices are very expensive, SMUD sends a signal to cycle off participating air conditioners up to 40 minutes an hour to help flatten demand and keep prices of electricity down. SMUD anticipates a maximum of 15 conservation events each summer, depending on grid conditions. Day-ahead marginal prices are a factor that contribute to the automated dispatch of participating devices.

5.1.1.5 Managed Electrical Vehicle Charging

SMUD anticipates that, over the next 3-7 years, EVs will represent the majority of the load flexibility potential in our territory. In order to determine the highest value approach to managing EV load, SMUD is currently piloting a residential EV managed charging program with multiple vendors and manufacturers. This pilot is testing the ability of EVs to respond to simulated day-ahead hourly price signals modeled on projected future system needs as renewables penetration dramatically increases. While the price signals sent to EVs via telematics are dynamic and change on an hourly basis, customers are not financially exposed to these price fluctuations and are instead paid via a traditional incentive framework.

The learnings from this pilot will inform how SMUD rolls out a full-scale managed charging program later in 2024-2025. SMUD hopes to demonstrate and refine use cases such as mitigation of service transformer overloading, consuming excess low-cost renewable energy, and reducing system peak impacts.

5.1.2 Nonresidential Programs

5.1.2.1 PowerDirect

PowerDirect is a summer-only automated demand response (ADR) program is available to C&I and agricultural customers. The program initiates pre-programmed building controls that are chosen and implemented by the customer, such as thermostat setpoints. In exchange for reducing load, customers are paid a capacity payment based upon their demand commitment. The PowerDirect ADR system has been in effect for approximately 10 years and connects directly to participating customer's energy management, lighting and heating, ventilation and air conditioning (HVAC) systems to automatically scale back energy use. Program response has reduced peak load on days the grid is most stressed and marginal costs are highest.

5.1.2.2 Commercial Virtual Power Plant (Under development)

SMUD is in the process of developing a load flexibility program for commercial customers with behind-the-meter batteries. The program will include enrollment and ongoing incentives to customers, based on

enrolled capacity, for allowing SMUD to automate their battery’s response to dispatch signals. SMUD envisions this program operating in a similar fashion to MEO Partner+, described above.

5.1.2.3 Commercial Vehicle to Grid

In addition to managed electric vehicle charging, SMUD is conducting a number of activities testing out Vehicle to Grid bi-directional charging (V2X) capabilities. V2X has the opportunity to provide substantial resources in the future given the expected trajectory of vehicle electrification as part of our Zero Carbon Plan and statewide policy. Currently, SMUD is piloting V2X technology on school buses in partnership with a local school district, which is assessing the school bus’s ability to respond to a combination of TOD, CPP, and event-based price signals. Light duty V2X fleet technical testing is also underway at SMUD, and a plan to pilot utility-managed V2X within a commercial fleet and for workplace charging is currently proposed and will expand to residential as CEC listed products become available.

5.1.2.4 Key Program Metrics

SMUD's goal is to develop load flexibility programs and pilots that allow us to leverage customer resources to avoid building for example 473 MW power plant by 2030. The following table lists SMUD’s current and planned load flexibility programs and their expected impact in 2030; as these programs demonstrate their ability to serve as more cost-effective investments compared to utility scale resources, contributions could be substantially higher.

Table 2 – List of Current and Planned Load Flexibility Programs

Load Flexibility Program	Segment	Technology	Capacity in MWs (2030)
My Energy Optimizer Partner	Residential	Wi-fi thermostats	60
My Energy Optimizer Partner Plus	Residential	Battery storage	75
Peak Conserve	Residential	2-way AC switches	16
Power Direct	Non-Residential	Building EMS	30
Commercial VPP	Non-Residential	Battery Storage	17
EV Managed Charging	All	Electric Vehicles	135
Vehicle-to-Grid	All	Electric Vehicles	140
Total			473

5.2 Evaluation of Programs

SMUD maintains and continues to develop a robust portfolio of load flexibility programs that strike the right balance between customer needs and grid benefits. As summarized above, this portfolio provides at least one option for our residential, C&I, and agricultural customer classes to automate response to dispatch signals from SMUD. These signals are based on several factors, including day-ahead marginal prices. SMUD is also in the process of building out our DERMS technology platform, which we anticipate will optimize and automate dispatch of DER on our system, as well as investing in next generation metering and technology platforms to enable grid edge intelligence and control.

Our programs are piloting how we could automate customer response to dynamic price signals in addition to other system events, with some pilots utilizing our Price Communication Application (PCA). We developed the PCA in 2018, recognizing the need for a simple API that provides machine readable price schedules for enabling technologies so SMUD could research price-based signals to devices. However, our pilots are not currently ready for full scale implementation, nor do they use MIDAS signals to automate customer response.

This section evaluates the cost-effectiveness, equity, technological feasibility, and benefits to the grid and customers of implementing programs that enable automated response to dispatch signals, including MIDAS signals, year-round, that are available to every customer class by April 1, 2026. SMUD's evaluation does not demonstrate that adding new programs or modifying existing programs to enable automated dispatch based on MIDAS signals is likely to provide material incremental reduction of peak load, or other benefits relative to SMUD's current programs at this time.

5.2.1 Cost-Effectiveness

The first evaluation factor is cost-effectiveness. SMUD will assess cost-effectiveness of new programs by comparing the anticipated costs and incremental benefits associated with designing and implementing new load flexibility programs that allow for response to dynamic price signals, including MIDAS signals, year-round for each customer class.⁵ To demonstrate cost effectiveness, the expected benefits for each program must exceed the costs of design and implementation.

5.2.1.1 Estimated Costs

The costs associated with implementing a new load flexibility program include program development, implementation, and administration costs.

- *Program development.* This includes the costs associated with program design and setup, including integrating new programs with the CEC's MIDAS database and SMUD's ADMS/DERMS technology platform to the extent feasible.
- *Program administration.* This includes ongoing costs to administer the program, including marketing, customer recruitment, customer education, development and maintenance of customer tools, and any upfront or ongoing incentive payments that are part of the design.

⁵ Note that the determination of whether a given load flexibility program is cost-effective for SMUD is substantially different from the manner in which this is assessed by the Investor-Owned Utilities (IOU) in California. While the IOUs use a CPUC-created cost-effectiveness tool and prescribed inputs, factors, etc., SMUD's programs must directly tap into avoided cost value streams for a given program to be cost-effective and not result in rate increases.

- *Technology and implementation costs.* Each new load flexibility program requires significant investments in new technology platforms. These include external software systems that must be procured in order to communicate with and dispatch devices, as well as internal systems which must be developed and configured to integrate the external software.

SMUD anticipates these cost categories would apply regardless of customer class. Quantifying the magnitude of these costs is challenging, because setting up an automated marginal cost/price stream to dispatch devices could either take the form of a modification to existing programs, or the establishment of an entirely new program.

5.2.1.2 *Estimated Benefits*

This section describes the potential benefits associated with implementing programs that allow for automated response to dynamic price signals, including MIDAS signals, and the estimated realization of such benefits based on the additional load shift capacity available to be captured.

5.2.1.2.1 *Potential Benefits*

Programs that allow for automated response to specific dynamic price signals could enable the following types of incremental load shift potential relative to SMUD’s current and planned programs:

- Greater magnitude of load reduction, to the extent direct exposure to high prices drives greater load flexibility response.
- More granular load shift intervals, to the extent enabling devices are accessible and widely embraced.
- Load shift beyond the seasonal and/or maximum event limits in SMUD’s current programs, to the extent that increased participation does not result in customer fatigue, affect customer comfort, and/or erode dependability of response.

The potential benefits associated with implementing programs that achieve incremental load shift include avoided capacity costs, avoided energy costs, improved reliability during peak periods, avoided GHG compliance costs, and avoided air quality, public health, and environmental costs associated with a reduction in fossil fuel generation, consistent with the benefits discussed in Section 4.3.4.⁶ These potential benefits are not unique to programs implemented for any one customer class.

5.2.1.2.2 *Realization of Benefits*

Currently, there are several uncertainties and barriers associated with realizing the above-identified incremental load shift potential, and its associated benefits. SMUD expects these barriers and uncertainties apply across residential, C&I, and agricultural customer classes. These include:

- *Resource availability.* While there has been a rapid increase in the number of devices on the market that are able to automate load reductions, SMUD is not aware of any devices capable of effectively responding to real-time (5- to 10-minute) signals without significantly compromising customers’ daily activities. For example, battery storage devices require advance notice in order to ensure they are adequately charged; thermostats require advanced notice in order to pre-cool

⁶ While some of these cost savings do not accrue financially to SMUD and are typically not included in our program cost-effectiveness assessments, they benefit our customers and community more broadly.

the home before an event; and EVs require advanced notice to ensure they are sufficiently charged to meet customers' transportation needs.

- *Customer experience.* All of SMUD's current load flexibility programs limit the maximum number of program events, and many also limit the participation season. While removing these limits may open up additional load flexibility to SMUD, frequent device dispatch without first understanding the impacts on customer experience runs the risk of eroding participation and satisfaction in the program. SMUD has developed multiple program tiers in order to provide our customers options, and we are utilizing pilots to learn how changes or removal of these thresholds could affect customer participation.
- *Incremental value of dynamic price exposure.* Currently, our load flexibility programs offer customers upfront and/or ongoing incentives in exchange for allowing SMUD to dispatch their participating devices. Some customers may also enroll in our optional CPP rate, which includes prices that are higher but still predictable if a conservation event is called. SMUD anticipates that directly exposing participants to market prices could result in deeper load reductions than are available to our current programs, to the extent that increasing prices drive customers to shift more load away from the peak. However, the magnitude of additional load reduction as a function of price is not yet known. In addition, higher customer risk with dynamic prices is likely to reduce participation and benefits.
- *Incremental benefit of granular load shift intervals.* Our current load flexibility programs dispatch based on factors that include day-ahead prices, forecasted weather, and grid conditions. SMUD anticipates that new programs would have to tap into load shift on 5- to 10- minute intervals to create incremental benefits relative to our programs. However, SMUD has not directly tested customer responses, so it is not yet known whether the issuance of multiple price signals over a peak period, or higher prices over the same period, would result in material incremental benefits.
- *Incremental value of responses to MIDAS signals.* As noted previously, SMUD is in the process of building out our DERMS system to co-optimize dispatch of different technologies and programs to support bulk and distribution system needs. At this time, it is uncertain whether enabling automated dispatch in response to MIDAS signals would result in incremental load shift benefits relative to the DERMS system optimization of DER dispatch.

5.2.1.2.3 Expected Incremental Benefits

Based on the above factors, following is a discussion of expected incremental benefits associated with programs that allow for automated response to dynamic price signals:

- *Avoided capacity costs.* Currently, the primary value stream for SMUD's load flexibility programs is RA avoidance. To the extent a given program can generate MWs that meet the resource characteristics needed to avoid RA capacity purchases, these avoided costs can be credited against the costs associated with implementing the program. While programs that expose customers to dynamic price signals may drive incremental load reductions when prices are highest, it is unknown how much and how reliable that incremental reduction would be. Moreover, the magnitude of the load shift depends on significant adoption and acceptance of enabling technology. Without demonstrating significant, reliable load reduction to dynamic price signals, including MIDAS signals, we are unable to reduce RA requirements.
- *Avoided energy purchase costs.* SMUD's current program pilots are evaluating and determining the right program structure and incentive levels to ensure customers and SMUD benefit from load flexibility. To the extent that new program structures and technology allow for faster load shift in

response to short price spikes or drive greater load shift away from peak periods, SMUD could see reductions in energy purchase costs, but this is currently not yet known. Future program design will seek to maximize the energy savings associated with customer load flexibility, balanced against technological capability, customer acceptance and impact on the overall energy system.

- *Improved reliability, avoided transmission costs, avoided GHG compliance costs, avoided public health, air quality, and environmental costs.* SMUD is unable to determine whether there would be incremental benefits associated with further reducing demand during peak periods from programs with automated response to hourly price signals versus existing programs and pilots, given uncertainties around customer response to dynamic price signals and current penetration of enabling technology.

5.2.1.3 Discussion

Based on the foregoing evaluation, SMUD cannot conclude that the development of new programs that allow for automated responses to dynamic price signals would be cost-effective at this time. Developing new programs or modifying existing programs would require SMUD to incur costs associated with design and implementation, along with new technology costs. While these costs could potentially be offset with capacity, energy, or transmission cost savings, the magnitude of those benefits are uncertain. Moreover, SMUD anticipates that any incremental benefits will be limited in the near-term, while new technology is continuing to grow. However, as SMUD continues to learn from, refine, and propose new pilots, and as the penetration of enabling technology grows, SMUD will continue to assess the expected incremental costs and benefits associated with incorporating more dynamic price signals and/or allowing resources to be dispatched by MIDAS signals.

5.2.2 Equity

The second criterion by which to evaluate new programs is equity. SMUD will qualitatively evaluate whether programs that enable automated response to dynamic prices, including MIDAS signals, are likely to lead to more equitable outcomes than SMUD's current programs.

5.2.2.1 Equitable Access to Direct Program Benefits

When designing load flexibility programs, SMUD ensures that all aspects of program design take equity into account. SMUD has articulated its commitment to equity and the specific strategies for addressing it in SMUD's Community Impact Plan (CIP). The CIP seeks to ensure that no community is left behind in the transition to 100% clean energy, and enshrines affordability, equitable access, and community engagement as key pillars for accomplishing this. The CIP also contains specific equity goals and accompanying strategies for electrifying and weatherizing homes in disadvantaged communities, workforce training for members of underprivileged groups, providing access to public EV charging infrastructure in disadvantaged communities, and much more.

To this end, SMUD's new ACLM, PeakConserve, seeks to remove financial and technological barriers to participation in load flexibility by installing AC switches free of charge and providing upfront and ongoing participation incentives. This program was explicitly designed to ensure customers who may not have a wi-fi thermostat and/or broadband internet access are still able to benefit from load flexibility initiatives at SMUD. Similarly, many of SMUD's programs include significant upfront enrollment incentives and/or discounts in SMUD's Energy Store to lower participation barriers.

SMUD anticipates that careful attention to equity would be particularly important when designing programs that allow for response to dynamic signals, given the current access barriers and risk of price exposure that may disproportionately be experienced by lower income customers.

5.2.2.2 Equitable Access to Indirect Program Benefits

Program design also plays a major role in determining whether a program delivers incremental load shift benefits that carry cost savings and improved air quality, public health, and environmental outcomes that accrue to all of SMUD's customers. However, as SMUD cannot yet conclude that dynamic price signals would result in incremental load shift benefits relative to SMUD's current rates and programs, the realization of any indirect benefits is also uncertain.

5.2.2.3 Discussion

Based on the foregoing evaluation, SMUD is unable to conclude that implementing new programs that allow for automated response to dynamic price signals, including MIDAS signals, would materially address equity. Programs can be designed to ensure equitable access to participation and benefits whether or not they incorporate sending dynamic signals directly to customers. Furthermore, the risk of price exposure from dynamic rates could potentially exacerbate equitable outcomes

5.2.3 Technological Feasibility

The third evaluation factor for programs is technological feasibility. SMUD's evaluation assesses the technological feasibility of implementing programs that allow for automated response to dynamic price signals on the schedule specified in the LMS regulations. SMUD's evaluation considers the feasibility of both the systems needed to dispatch dynamic price signals, including MIDAS signals, and to the external customer technology that is needed to enable response to hourly or sub-hourly signals.

5.2.3.1 Technology Platforms

As described previously, SMUD launched the initial phase of our DERMS technology platform in 2022, and over the next several years we are building out its capabilities as well as additional advanced functionality towards distributed intelligence and grid edge control. At this time, SMUD anticipates that it will be technologically feasible to incorporate programs that enable automatic response to dynamic price signals, including MIDAS signals, into our DERMS platform.

5.2.3.2 Enabling Customer Devices

The incremental benefits derived from implementing new programs that allow for response to dynamic price signals hinge on customer participation and the widespread availability and acceptance of devices that can respond to sub-hourly price signals without compromising customer experience. Refer to Section 4.3.3.2 for a detailed description of common load flexibility technologies that SMUD currently includes in our programs, as well as their capabilities and challenges.

5.2.3.3 Discussion

Based on our evaluation, SMUD believes the technology and platforms needed to enable programs that allow for response to dynamic price signals exist or could be updated on the LMS timeframe. However, we anticipate that re-evaluating the proposal of such programs after we have results from our pilots that test different technology capabilities would better inform our expectations of potential benefits. In

addition, SMUD anticipates that the penetration of enabling device automation technology will increase with time, expanding the potential participation in such programs resulting in greater load shift.

5.2.4 Benefits to the Grid and Customers

The final two criteria for evaluating dynamic rates are benefits to the grid and benefits to customers. SMUD is evaluating these factors together because many grid benefits also have pass-through benefits to customers.

5.2.4.1 *Grid Benefits*

To the extent that new programs enabling responses to dynamic price signals result in consistent, material incremental load reduction, following are potential grid benefits:

- Deferred or reduced need to construct new generation capacity or procure RA resources.
- Deferred or reduced need for wholesale energy purchases to meet peak demand.
- Deferred or reduced need to upgrade transmission capacity to deliver energy to meet peak demand.
- Increased reliability associated with reducing grid strain during periods of peak demand.

These benefits all depend, in significant part, on whether new programs would result in material incremental load shift relative to SMUD's existing programs. However, as discussed in Section 5.2.1, SMUD's current program pilots are still evaluating and determining the right program structure and incentive levels to ensure customers and SMUD, including SMUD's grid, benefit from load flexibility. Mutual benefit is necessary for effective, consistent load shift. Without these analyses, SMUD is unable to conclude that offering new MIDAS-integrated programs would result in material incremental load shift benefits relative to SMUD's current and planned load flexibility programs and pilots. Moreover, automated device dispatch in response to MIDAS signals, rather than the co-optimization of resources through SMUD's ADMS/DERMS platform, could actually have a limiting effect on grid reliability benefits.

5.2.4.2 *Customer Benefits*

Following is a summary of potential customers benefits associated with implementing new programs that allow for automated response to dynamic price signals:

- Pass-through cost savings associated with the realization of a reduced need for generation capacity, transmission upgrades, and higher-price wholesale energy purchases to meet peak load.
- Pass-through cost savings associated with avoided GHG compliance costs, to the extent that the incremental load shift reduces the need to rely on fossil fuel resources to meet peak demand. SMUD anticipates these savings will become less significant as we transition off fossil-fueled resources as part of our Zero Carbon Plan.
- Pass-through increased reliability, to the extent this grid benefit is realized.
- Improved public health, air quality, and environmental outcomes, to the extent that the incremental load shift reduces the need to rely on fossil fuel resources to meet peak demand.
- Cost savings associated with participation, to the extent that devices automatically shift load away from higher price periods.

While customers may benefit from cost savings associated with program participation, it is unclear how those cost savings would compare to the fixed upfront and ongoing participation incentives that customers can currently receive from allowing SMUD to optimize dispatch of their device. In addition, based on the uncertainty in whether the new programs would yield any incremental load reduction benefits, SMUD is unable to conclude that there would be any incremental pass-through cost savings or reliability benefits to customers, based on the uncertainty in realizing incremental grid benefits relative to SMUD's current and planned programs. Similarly, SMUD anticipates that any incremental air quality, public health, and environmental benefits would also be uncertain, as discussed in Section 5.3.1.

5.2.5 Compliance Approach

This section describes how SMUD plans to address the requirements to identify cost-effective programs that allow for automated response to dynamic price signals and offer customers voluntary participation in these programs, based on our evaluation of such programs.

5.2.5.1 Identification of Cost-Effective Load Flexibility Programs

Consistent with the LMS requirements, SMUD will submit to the CEC, no later than October 1, 2024, a list of cost-effective load flexibility programs that enable automated response to MIDAS signals for each customer class, if any, where such a program is determined by SMUD's Board to materially increase peak load reduction. SMUD plans to include all cost-effective load flexibility programs offered by SMUD, not solely load flexibility programs that allow for automated response to MIDAS signals, within this list.

SMUD is unable to determine, based on the information currently available, that adding new programs or modifying existing programs to allow response to MIDAS signals would materially reduce peak load for any customer class relative to SMUD's existing programs or exceed the costs of implementation. SMUD will continue to evaluate the cost-effectiveness and incremental peak load reduction potential associated with incorporating automated response to MIDAS signals into new pilots and include on our list as appropriate.

5.2.5.2 Voluntary Participation in Cost-Effective Load Flexibility Programs

Based on the foregoing, SMUD will continue to offer our customers voluntary participation in load flexibility programs, and does not at this time anticipate offering programs that enable automated response to MIDAS signals. SMUD plans to defer offering voluntary participation in load flexibility programs that enable automated response to MIDAS signals because SMUD is currently unable to demonstrate that offering such programs beginning April 1, 2026, would be cost effective or result in material peak load reduction relative to SMUD's existing and planned load flexibility programs. However, as noted above, SMUD will continue to assess the cost-effectiveness and peak load reduction potential of programs that enable automated response to MIDAS signals as we develop and refine load flexibility programs, particularly based upon the pilots which we are conducting to inform our load flexibility approach.

6 Public Information Program

Section 1623.1(a)(5) requires each Large POU to conduct a public information program to inform and educate affected customers about dynamic rates or load flexibility programs. Specifically, the information program must explain why such rates or programs, and their automation, are needed, how they will be used, and how they can save the customer money. This section addresses how SMUD will comply with the public information program requirements.

6.1 SMUD's Communications Approach

Providing broad outreach and communication to SMUD's customers and maintaining a high level of customer relations are core values of SMUD. Specifically, SMUD's Strategic Direction on Outreach and Communication (SD-15) requires that:

- SMUD shall provide its customers the information, education and tools they need to best manage their energy use according to their needs.
- SMUD will use an integrated and consistent communication strategy that recognizes the unique customer segments that SMUD serves.
- SMUD's communication and community outreach activities shall reflect the diversity of the communities we serve. SMUD shall use a broad mix of communication channels to reach all customer segments. This communication shall be designed to ensure that all groups are aware of SMUD's major decisions and programs.

6.2 Current Outreach and Marketing

SMUD recognizes the importance of collaboration and public outreach. We know we cannot achieve ambitious climate goals alone and our customers must be part of the solution to decarbonize our region. SMUD communicates in a wide variety of channels and languages throughout the year to help ensure customers are aware of our time-dependent rates and load flexibility programs, and how they can help customers save money.

For example, TOD rates have been the standard rate for residential SMUD customers since 2018. When SMUD rolled out its residential TOD rate, we developed a comprehensive marketing and education campaign that was translated into 13 different languages, took nearly 18 months, and leveraged multiple channels, as shown in the figures below.

Figure 3 – TOD Marketing and Education Campaign Timeline

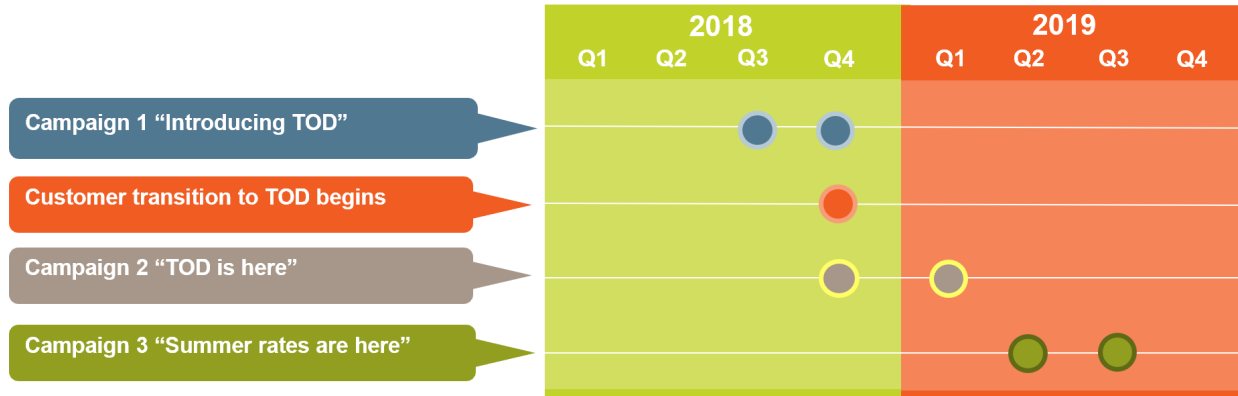


Figure 4 – TOD Awareness and Education Campaigns



SMUD’s public information campaign did not stop after the rollout of TOD implementation. SMUD continues to communicate extensively throughout the year about the significant benefits to customers and the utility to reducing energy usage between 5 and 8 pm. Throughout the summer rate months (June 1 to Sept. 30) SMUD undertakes extensive marketing and communications efforts to encourage customers to reduce energy usage during peak hours, highlighting the bill savings and benefits to the grid and environment from doing so. Key channels include media, social media, billboards, email, bill inserts, digital ads, SMUD’s website and more.

Figure 5 – Example of TOD Messaging

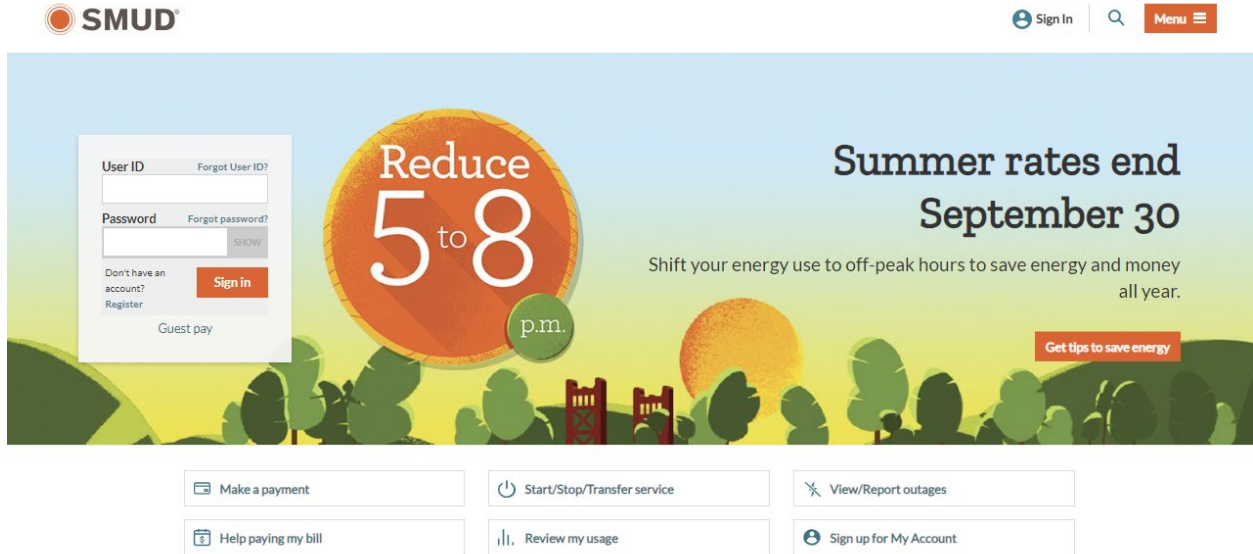


Figure 6 – Information About TOD Available on smud.org



In addition, SMUD has educated our customers on how they can participate in support of SMUD’s Zero Carbon Plan, which includes a range of new load flexibility programs which we market to customers on an ongoing basis. Key messages include a focus on how these programs help customers save energy and money.

In summer 2023, we launched a new multi-channel, multi-language marketing campaign to let customers know about our MEO Partner+ load flexibility program, which includes incentives for battery storage.

Figure 7 – Example of Information on Battery Storage Incentives



Recruitment and marketing for other load flexibility programs, including our new PeakConserve program and thermostat load flexibility program (MEO Partner) are ongoing.

SMUD also recently expanded our EV managed charging pilot to include Tesla, with a range of communications, including media, to support the expansion of the program.

Continuing to educate customers on the benefits of peak load reduction through time-dependent rates and load flexibility programs, how they work and how they can save the customer money, is an important element for achieving decarbonization goals.

SMUD will continue its award-winning communication and outreach efforts to fully maximize carbon reductions, grid savings and customer savings.

6.3 Compliance Approach

SMUD will continue with existing communication practices to maintain its outreach, education and marketing of rates, programs and pilots that support load flexibility and recognize the benefits of reducing our peak load. SMUD will also update our education and marketing to incorporate discussion of new rates, programs and pilots, along with the role of automation as appropriate, as they are developed.

7 Delay and Modification of Compliance Requirements

Section 1623.1(a)(2) of the LMS regulation specifies that a Large POU may approve a compliance plan, or material revisions to an approved plan, that delays or modifies compliance with certain LMS regulation requirements. To do so, the compliance plan must demonstrate one of the following factors: that despite good faith efforts to comply, requiring timely compliance would result in extreme hardship; requiring timely compliance would result in reduced system reliability, equity, safety, or efficiency; requiring timely compliance would not be technologically feasible or cost-effective to implement; or despite good faith efforts to implement a compliance plan, it must be modified to provide a more technologically feasible, equitable, safe, or cost-effective way to achieve the LMS requirements or the plan's goals.

This section addresses how SMUD's Plan delays or modifies compliance with certain elements of the LMS regulation.

7.1 Providing RINs to Customers

Section 1623(c)(4) requires each Large POU to provide customers access to their RIN(s) on billing statements and in online accounts by April 1, 2024, using both text and QR code. As detailed in Section 3.1.2 of this Plan, SMUD plans to make the RINs available to customers in the required formats within the designated time. SMUD has already begun engaging with our bill print vendor on the necessary changes and anticipates procuring professional services in the fourth quarter of 2023 to support this effort.

While SMUD does not anticipate needing to modify the RIN access requirement at this time, based on the scope of work and estimated completion timelines, compliance could be delayed if, for example, SMUD's current bill design constrains the inclusion of the RIN in text and/or QR code, and the redesign cannot be timely completed, tested, and implemented by the same deadline, or the cost of completion would create an extreme hardship for SMUD or its customers. In such circumstances, SMUD would need to modify the deadline for providing RINs to customers in both text and QR code because implementing this requirement by April 1, 2024, would not be technologically feasible.

7.2 Statewide RIN Access Tool

7.2.1 Development of Statewide Tool

Section 1623(c) requires the Large IOUs, Large POUs, and Large CCAs to develop a single statewide standard tool for authorized rate data access by third parties, along with a single set of terms and conditions for third parties using the tool, for submission to the CEC by October 1, 2024, for approval. As discussed in Section 3.1.3, SMUD plans to collaborate with the other regulated utilities and has committed staff to participate in the working group.

While SMUD anticipates that developing a single statewide tool that can perform the specified requirements and integrate with each regulated utility's system will be a challenging and complex task, at

this time SMUD intends to comply with the requirement. Because the tool development requirement is jointly held by the Large IOUs, Large POU, and Large CCAs, SMUD is optimistic that progress will be made and does not seek to delay or modify this requirement within this Plan. Should the need for an extension arise, SMUD anticipates that the regulated entities would approach the CEC Executive Director collectively in accordance with section 1623(c)(2)(B) of the LMS regulation, which allows the CEC Executive Director to extend the submission deadline upon a showing of good cause.

7.2.2 Implementation of Statewide Tool

Section 1623(c)(3) also requires the Large POU and other regulated entities to implement and maintain the tool, upon its approval by the CEC. At this time SMUD does not anticipate needing to modify compliance with this requirement. However, SMUD notes that integration of the approved tool with our internal systems could be delayed if the development and/or CEC approval of the tool are delayed, because integrating the tool before it is finalized and approved would not be technologically feasible, or if the cost of integrating the tool would cause extreme hardship for SMUD or our customers.

7.3 Dynamic Rates

Section 1623.1(b)(2) directs each Large POU to apply for approval from its Board by April 1, 2025, of at least one dynamic rate for the customer class(es) for which the Board determines such rate will materially reduce peak load. Section 1623.1(b)(4) requires POU to offer customers voluntary participation in such a rate or a specified load flexibility program by April 1, 2026. As discussed in Section 4.3, based on its evaluation of dynamic rates, SMUD cannot currently conclude that developing and implementing such rates on the LMS timeframe for any customer class would result in material incremental reductions in peak load relative to SMUD's existing time-dependent rates and programs, or be cost effective. This is, in large part, due to the following:

- SMUD's existing TOD and other time-dependent rate offerings capture a substantial portion of the available load shift benefits. We are also piloting new program approaches to test additional options for reducing peak load.
- At this time, there is a significant market risk to customers on dynamic rates, even with enabling technology that is capable of shifting load.
- Customers understand SMUD's time-dependent rates and programs better than a dynamic, market-based rate that fluctuates hourly.

While dynamic rates have the potential to provide incremental load shift and related benefits, there are significant uncertainties in the magnitude of such benefits relative to SMUD's existing rates, programs, and new pilots that we are testing, as well as the achievability of benefits. Implementation of unfamiliar and complex rate structures without sufficient testing and refinement of new rate designs, as well as thorough education, is likely to cause customer confusion, risking low adoption and limiting any incremental load shift benefits. Realization of incremental load shift benefits is made more uncertain by additional risks customers may bear with dynamic rates, especially if new enabling technology is not widely adopted.

While SMUD is not required to propose dynamic rates where such rates are not determined to materially reduce peak load, SMUD has determined that, for the reasons set forth in this Plan, the LMS requirements

must be modified to provide a more cost-effective and technologically feasible way for SMUD to, in good faith, achieve the LMS requirements and plan's goals.

SMUD's modifications to the dynamic rate requirements of the LMS include deferring the development or proposal of new hourly or sub-hourly rate options. Offering new rates to our customers would be likewise deferred. SMUD believes proposing dynamic rates to our Board by April 1, 2025, to implement by April 1, 2026, is premature, especially given the rollout of our many new load flexibility programs and pilots over the next two years. SMUD will continue offering our suite of TOD rates and load flexibility programs, while testing opportunities through new program pilots. The results of our pilots will help us better understand the effectiveness of our current approach, how customers with different technologies respond to different dispatch signals, and to what extent incremental load shift opportunities exist beyond our time-dependent rates and current and planned programs. As SMUD starts to receive and analyze results from our new pilots, we will be better positioned to evaluate the cost-effectiveness and flexibility of dynamic rates. SMUD will review dynamic rates in our next LMS Plan update.

7.4 Dynamic Response Load Flexibility Programs

7.4.1 Identification of Cost-Effective Load Flexibility Programs

Section 1623.1(b)(3) requires each Large POU to submit a list of cost-effective MIDAS-integrated load flexibility programs to the CEC Executive Director by October 1, 2024. The portfolio of load flexibility programs must provide at least one option to automate response to MIDAS signals (that indicate, for example, hourly marginal cost-based rates, marginal prices, or hourly or sub-hourly GHG emissions) for every customer class where such a program would materially reduce peak load.

As discussed in Section 5.3, adding or modifying programs to allow response to MIDAS signals has not yet been determined to result in material incremental reductions in peak load for any customer class relative to our existing time-dependent rates and load flexibility programs, or to be cost effective. This is in part due to the uncertainties in incremental peak load reduction potential and customer acceptance when introducing hourly or sub-hourly price signals and exposure to market price spikes and volatility.

SMUD is required to identify MIDAS-integrated dynamic load flexibility programs for customer classes where such programs are determined to be cost-effective and materially reduce peak load. Because SMUD's evaluation has not concluded that developing and implementing programs or pilots with automated response to MIDAS would be cost-effective or materially reduce peak load, SMUD anticipates submitting a list by October 1, 2024, that includes our current and planned load flexibility programs and pilots that achieve LMS goals without automated response to MIDAS signals. SMUD has determined that modifying this requirement is necessary to provide a more cost-effective and feasible way of achieving the LMS requirements and plan's goals. SMUD will continue to evaluate the cost-effectiveness and incremental peak load reduction potential associated with incorporating automated response to MIDAS signals into new pilots and include on our list as appropriate.

7.4.2 Voluntary Participation in Cost-Effective Load Flexibility Programs

Each Large POU is required to offer customers voluntary participation in either a dynamic rate, if approved by our Board, or cost-effective MIDAS-integrated load flexibility program by April 1, 2026, in accordance with Section 1623.1(b)(4).

SMUD is required to offer voluntary participation in cost-effective load flexibility programs that materially reduce peak load. As discussed in Sections 5 and 7.4.1 above, SMUD's evaluation has been unable to conclude that developing and implementing new load flexibility programs or pilots with automated response to MIDAS signals would be cost effective or materially reduce peak load beyond reductions already captured through SMUD's existing rates, programs and pilots. SMUD has determined that, for the reasons set forth in this Plan, the LMS program participation requirements must be modified to provide a more cost-effective and technologically feasible way for SMUD to in good faith achieve the LMS requirements and plan's goals. SMUD modifies this requirement to include voluntary participation in *any* load flexibility program or pilot, not just programs that allow for automated response to MIDAS signals. SMUD will continue to assess the cost-effectiveness and peak load potential of programs that enable automated response to MIDAS signals as we develop and refine load flexibility programs.

Appendix A

The following are the RINs associated with each of SMUD’s residential and non-residential rates and rate permutations that were uploaded to MIDAS by June 30, 2023.

RIN	Residential Rate Permutation
USCA-SMSM-CS00-0000	CITS-0
USCA-SMSM-CS01-0000	CITS-1
USCA-SMSM-CS02-0000	CITS-2
USCA-SMSM-CS03-0000	CITS-3
USCA-SMSM-CS04-0000	CITS-4
USCA-SMSM-CP02-0000	CITP-2
USCA-SMSM-CP03-0000	CITP-3
USCA-SMSM-CP04-0000	CITP-4
USCA-SMSM-CT03-0000	CITT-3
USCA-SMSM-CT04-0000	CITT-4
USCA-SMSM-AN00-0000	AON
USCA-SMSM-AD00-0000	AOD
USCA-SMSM-R200-0000	RT02
USCA-SMSM-RC00-0000	RTC1 (CPP rate)
USCA-SMSM-RE00-0000	RT02 w/EV
USCA-SMSM-RCE0-0000	RTC1 w/EV (CPP rate)
USCA-SMSM-CS0N-0000	CITS-0 NEM1
USCA-SMSM-CS1N-0000	CITS-1 NEM1
USCA-SMSM-CS2N-0000	CITS-2 NEM1
USCA-SMSM-CS3N-0000	CITS-3 NEM1
USCA-SMSM-CS4N-0000	CITS-4 NEM1
USCA-SMSM-CP2N-0000	CITP-2 NEM1
USCA-SMSM-CP3N-0000	CITP-3 NEM1
USCA-SMSM-CP4N-0000	CITP-4 NEM1
USCA-SMSM-CT3N-0000	CITT-3 NEM1
USCA-SMSM-CT4N-0000	CITT-4 NEM1
USCA-SMSM-R2N0-0000	RT02 w/NEM1
USCA-SMSM-RCN0-0000	RTC1 w/NEM1 (CPP rate)
USCA-SMSM-R2NE-0000	RT02 w/NEM1 &EV
USCA-SMSM-RCNE-0000	RTC1 w/NEM1 &EV (CPP rate)
USCA-SMSM-RCS0-0000	RTC1 w/SSR (CPP rate)
USCA-SMSM-RCSE-0000	RTC1 w/SSR & EV (CPP rate)

RIN	Non residential Rate Permutation
USCA-SMSM-CSE0-0000	CITS-0 w/EAPR 15% discount
USCA-SMSM-CSE1-0000	CITS-1 w/EAPR 15% discount
USCA-SMSM-CSE2-0000	CITS-2 w/EAPR 15% discount
USCA-SMSM-GS00-0000	CITS-0 w/Greenergy 0.005/kWh
USCA-SMSM-GS01-0000	CITS-1 w/Greenergy 0.005/kWh
USCA-SMSM-GS02-0000	CITS-2 w/Greenergy 0.005/kWh
USCA-SMSM-GS03-0000	CITS-3 w/Greenergy 0.005/kWh
USCA-SMSM-GS04-0000	CITS-4 w/Greenergy 0.005/kWh
USCA-SMSM-GP02-0000	CITP-2 w/Greenergy 0.005/kWh
USCA-SMSM-GP03-0000	CITP-3 w/Greenergy 0.005/kWh
USCA-SMSM-GP04-0000	CITP-4 w/Greenergy 0.005/kWh
USCA-SMSM-GT03-0000	CITT-3 w/Greenergy 0.005/kWh
USCA-SMSM-GT04-0000	CITT-4 w/Greenergy 0.005/kWh
USCA-SMSM-S000-0000	CITS-0 w/Greenergy 0.01/kWh
USCA-SMSM-S001-0000	CITS-1 w/Greenergy 0.01/kWh
USCA-SMSM-S002-0000	CITS-2 w/Greenergy 0.01/kWh
USCA-SMSM-S003-0000	CITS-3 w/Greenergy 0.01/kWh
USCA-SMSM-S004-0000	CITS-4 w/Greenergy 0.01/kWh
USCA-SMSM-P002-0000	CITP-2 w/Greenergy 0.01/kWh
USCA-SMSM-P003-0000	CITP-3 w/Greenergy 0.01/kWh
USCA-SMSM-P004-0000	CITP-4 w/Greenergy 0.01/kWh
USCA-SMSM-T003-0000	CITT-3 w/Greenergy 0.01/kWh
USCA-SMSM-T004-0000	CITT-4 w/Greenergy 0.01/kWh
USCA-SMSM-GSN0-0000	CITS-0 NEM1 & Greenergy 0.005/kWh
USCA-SMSM-GSN1-0000	CITS-1 NEM1 & Greenergy 0.005/kWh
USCA-SMSM-GSN2-0000	CITS-2 NEM1 & Greenergy 0.005/kWh
USCA-SMSM-GSN3-0000	CITS-3 NEM1 & Greenergy 0.005/kWh
USCA-SMSM-GSN4-0000	CITS-4 NEM1 & Greenergy 0.005/kWh
USCA-SMSM-GPN2-0000	CITP-2 NEM1 & Greenergy 0.005/kWh
USCA-SMSM-GPN3-0000	CITP-3 NEM1 & Greenergy 0.005/kWh
USCA-SMSM-GPN4-0000	CITP-4 NEM1 & Greenergy 0.005/kWh
USCA-SMSM-GTN3-0000	CITT-3 NEM1 & Greenergy 0.005/kWh
USCA-SMSM-GTN4-0000	CITT-4 NEM1 & Greenergy 0.005/kWh
USCA-SMSM-SN00-0000	CITS-0 NEM1 & Greenergy 0.01/kWh
USCA-SMSM-SN01-0000	CITS-1 NEM1 & Greenergy 0.01/kWh
USCA-SMSM-SN02-0000	CITS-2 NEM1 & Greenergy 0.01/kWh
USCA-SMSM-SN03-0000	CITS-3 NEM1 & Greenergy 0.01/kWh
USCA-SMSM-SN04-0000	CITS-4 NEM1 & Greenergy 0.01/kWh
USCA-SMSM-PN02-0000	CITP-2 NEM1 & Greenergy 0.01/kWh
USCA-SMSM-PN03-0000	CITP-3 NEM1 & Greenergy 0.01/kWh
USCA-SMSM-PN04-0000	CITP-4 NEM1 & Greenergy 0.01/kWh
USCA-SMSM-TN03-0000	CITT-3 NEM1 & Greenergy 0.01/kWh
USCA-SMSM-TN04-0000	CITT-4 NEM1 & Greenergy 0.01/kWh

RESOLUTION NO. 23-11-05

**BE IT RESOLVED BY THE BOARD OF DIRECTORS
OF THE SACRAMENTO MUNICIPAL UTILITY DISTRICT:**

This Board accepts the monitoring report for **Strategic Direction SD-9, Resource Planning**, substantially in the form set forth in **Attachment B** hereto and made a part hereof.

Approved: November 16, 2023

INTRODUCED: DIRECTOR FISHMAN				
SECONDED: DIRECTOR TAMAYO				
DIRECTOR	AYE	NO	ABSTAIN	ABSENT
SANBORN	X			
ROSE				X
BUI-THOMPSON				X
FISHMAN	X			
HERBER	X			
KERTH	X			
TAMAYO	X			

SACRAMENTO MUNICIPAL UTILITY DISTRICT

OFFICE MEMORANDUM

TO: Board of Directors

DATE: August 30, 2023

FROM: Claire Rogers *CR 8/30/23*

SUBJECT: Audit Report No. 28007610
Board Monitoring Report; SD-9: Resource Planning

Internal Audit Services (IAS) received the *SD-9 Resource Planning 2022 Annual Board Monitoring Report* and performed the following:

- Selected a sample of statements and assertions in the report for review.
- Interviewed report contributors and verified the methodology used to prepare the statements in our sample.
- Validated the reasonableness of the statements in our sample based on the data or other support provided to us.

During the review, nothing came to IAS' attention that would suggest the items sampled within the SD Board Monitoring report did not fairly represent the source data available at the time of the review.

CC:

Paul Lau

Board Monitoring Report 2022

SD-9, Resource Planning



1. Background

It is a core value of SMUD to provide its customers and community with a sustainable power supply using an integrated resource planning process.

A sustainable power supply is one that reduces SMUD’s greenhouse gas (GHG) emissions to serve retail customer load to zero by 2030. Zero GHG emissions will be achieved through investments in energy efficiency, clean distributed energy resources, renewables portfolio standard (RPS) eligible renewables, energy storage, large hydroelectric generation, clean and emissions free fuels, and new technologies and business models. Additionally, SMUD will continue pursuing GHG savings through vehicle, building and equipment electrification. SMUD shall assure reliability of the system, minimize environmental impacts on land, habitat, water and air quality, and maintain competitive rates relative to other California electricity providers.

To guide SMUD in its resource evaluation and investment, the Board sets the following energy supply goal:

Year	Greenhouse Gas Emissions (metric tons)
2020	2,318,000
2030 - beyond	0

In keeping with this policy, SMUD shall also achieve the following:

- a) Pursue energy efficiency and electrification to reduce carbon emissions by 365,000 metric tons from buildings and 1,000,000 metric tons from transportation in 2030 (the equivalent of 112,000 single family homes and 288,000 passenger vehicles electrified).
- b) Procure renewable resources to meet or exceed the state’s mandate of 33% of SMUD’s retail sales by 2020, 44% by 2024, 52% by 2027, and 60% of its retail sales by 2030 and thereafter, excluding additional renewable energy acquired for certain customer programs.
- c) In meeting GHG reduction goals, SMUD shall:
 - 1. Emphasize local and regional benefits.
 - 2. Improve equity for under-served communities.
- d) Explore, develop, and demonstrate emerging GHG-free technologies and business models.
- e) Promote cost effective, clean distributed generation through SMUD programs.

2. Executive Summary

SMUD’s integrated resource planning process informs long-term strategic development of programs and generation resources by the various business units within SMUD and balances reliability, sustainability, environmental, financial, and customer objectives while achieving SD-9 goals. In 2020, SMUD’s Board adopted a Climate Emergency Resolution that calls on the Board to work towards carbon neutrality by 2030. In 2021, the Board revised our SD-9 targets and approved the 2030 Zero Carbon Plan. Our progress towards achieving our SD-9 targets continues to be measured against this plan as we develop new distributed energy resource business models, investigate emerging grid-scale clean technologies, and expand our investments in proven clean technologies.

Our GHG emissions to meet customer electricity needs were approximately 2,082 thousand metric tons (MT) CO₂e in 2022. Normalized GHG emissions, which represent what our emissions would have been if load, hydro, and wind generation were as expected, were 1,725 thousand MT CO₂e. We continued working toward achieving RPS obligations for compliance period 4 (2021 – 2024), which

require meeting 44% of our retail sales with eligible renewables by 2024. Development of resources to meet current and future RPS compliance period requirements continued in 2022. As this report demonstrates, **SMUD complied with and continued to work towards the key SD-9 goals in 2022.**

3. Additional Supporting Information

The following provides an update on SMUD’s progress related to SD-9 goals. For more detailed project information see Appendix C – Detailed Project Descriptions.

A. Implementation of our 2030 Zero Carbon Plan

The 2030 Zero Carbon Plan is our roadmap to eliminating GHGs from our electricity supply by 2030 while maintaining reliable and affordable service and partnering with our customers, communities, and a wide range of stakeholders on this journey. SMUD’s GHG emissions to meet customer electricity needs decreased in 2022 to 2,082 thousand MT CO₂e. As shown in Table 1, SMUD’s normalized GHG emissions (emissions adjusted for expected weather and hydro conditions) in 2022 were 1,725 thousand MT CO₂e, which is also a decrease from last year and on trajectory to our 2030 zero carbon goal. SMUD’s main sources of GHG emissions were from SMUD’s thermal power plants and market purchases.

Table 1: SD-9 GHG Emissions & Near-term Targets

Source	Net Power (GWh)	GHG Emissions (Thousand MT CO ₂ e) ¹
Net Generation and Power Purchases	10,742	2,008
Net Wholesale Purchases	295	74
<i>SMUD Electric Sales, SMUD Usage and System Losses - Non-Normalized Total²</i>	11,037	2,082
Adjustment for Expected Load		(8)
Adjustment for Expected Wind and Hydro		(212)
REC Banking Adjustment		(137)
<i>SMUD Normalized Total (estimate)</i>		1,725
<i>2030 Target</i>		0

Expanding our Sustainable Power Supply

We are reimagining our generation portfolio through replacement or retooling of our natural gas assets, expanding local investments in proven clean technologies, and launching pilot projects and programs for new and emerging clean technologies, while continuing our work to improve equity for our under-resourced communities and the health of ecosystems that support us all.

Proven Clean Technologies and Zero Emission Resource Development

Staff continue to add and plan new proven clean technologies, such as wind, geothermal, solar, and energy storage that will reduce our GHG emissions towards zero in 2030. In 2022, we added 100 MW of renewables and 4 MW of storage to our portfolio. We also have nearly 800 MW of new renewable generation and nearly 300 MW of new storage in the pipeline for development by 2030. Additional projects are still needed to achieve our 2030 objectives. In late 2022, SMUD released a request for developer proposals for renewable generation and storage projects within our service territory and regionally.

¹ Based on SMUD’s internal accounting and represents the best estimate available. The thermal power plant emissions, SMUD’s largest source of emissions, have been independently verified. Biogenic emissions are excluded as they are part of the natural carbon cycle.

² Emissions by individual thermal asset can be found in the 2022 SD-7 Report.

Although our goals are more ambitious than already aggressive state mandates, we continue to implement a renewable energy strategy that fulfills state RPS requirements. Using existing and new RPS eligible renewable generation, SMUD is on-path to achieving our RPS compliance obligation for the 2021 – 2024 compliance period and the next RPS statutory requirement of 44% RPS in 2024.

We continue to offer our customers voluntary renewable program choices. In 2022, SMUD delivered 838 GWh (7.9% of retail sales) to customers participating in Greenergy and SolarShares. Our Greenergy program served 66,877 residential and commercial accounts equal to 520 GWh. Our Large Commercial SolarShares program delivered 318 GWh of renewable power to participants. Our residential SolarShares program continues to grow, serving 489 participants, equal to 678 MWh. The program was accepted by the CEC as a community solar compliance alternative to meet the requirements of the 2022 California Title-24 Energy Code.

New Technology and Business Models

To eliminate the last 10% of our emissions by 2030 as part of our 2030 Zero Carbon Plan, we need to explore, develop, and demonstrate new and emerging clean technologies. We are currently on track with our implementation priorities in this area. Highlights of work completed in 2022 are listed below with additional achievements provided in Appendix C.

- Performed information technology system upgrades to enable DERs and VPPs. This work is ongoing with anticipated initial implementation to be completed in 2023.
- Integrated DERs into operations, distribution, and the grid planning process based on our experience with our new load flexibility pilots.
- Launched new load flexibility pilot programs, including the smart thermostat virtual power plant program, and expanded our EV managed charging and vehicle-to-grid demonstrations.
- Conducted a market survey of long duration energy storage (LDES) technologies that can store energy for 10 hours or longer and are expected to be more cost competitive than lithium ion in the future. LDES is expected to play a critical role in balancing extended gaps in renewable energy supply and customer energy demand.
- Planned a pilot deployment of an LDES iron flow battery at the Hedge Power Academy.
- Investigated opportunities and began preparations for hydrogen and carbon capture grant applications.

Improving Equity for Under-Resourced Communities

Implementation of our 2030 Zero Carbon Plan will deliver wide-reaching benefits to our community, including expanded workforce development, while focusing on equity in our communities. In alignment with the plan, SMUD launched the Community Impact Plan, a stakeholder-informed strategy, which underlines our commitment to making meaningful investments in under-resourced communities to ensure their participation in a clean energy future. The three-year plan will increase energy equity outcomes on SMUD's road to zero carbon. These community-driven outcomes are focused on three areas: affordability, equitable access, and community engagement and education. Programs include capacity building for nonprofit organizations, neighborhood electrification for residential and commercial customers, and regional workforce development programs.

Our 2022 Community Impact Plan accomplishments included:

- The launch of the Residential Neighborhood Electrification Pilot program, installing 114 energy efficiency and electrification measures for 24 income-qualified customers in the Gardenland neighborhood.
- The launch of the Commercial Business District Electrification program and partnership with the Sacramento Hispanic Chamber of Commerce to increase awareness and adoption of clean energy technologies in Gardenland.

- The expanded partnerships of 14 Property Business Improvement Districts to increase our ability to support inclusive economic development efforts in our region.

Additionally, through a collaborative and community-based approach, SMUD identified emerging zero carbon energy and electrification related jobs and skills, and partnered with community organizations and education entities to create training programs that position participants from under-resourced communities to fill the projected need for workers in the clean energy industry and other emerging high wage careers. Workforce development activities in 2022 included:

- SMUD launched Powering Careers, a collaborative pilot effort between People Services & Strategies, Energy Delivery & Operations, and Sustainable Communities. Powering Careers provided under-resourced and under-represented communities with clear career pathways and direct access to clean energy careers at SMUD. Powering Careers partnered with Greater Sacramento Urban League to recruit participants from surrounding neighborhoods to participate in a success prep course, designed to provide 15 hours of workforce readiness training. Participants selected to move on participated in hands-on task-based assessments and one-on-one interviews. 20 participants were selected to participate in SMUD's 6-week hands-on and classroom-based training, where they received 240 hours of instruction & training. Six participants were selected through a competitive interview process for limited-term utility assistant positions at SMUD.
- Through our partnership with Grid Alternatives, 75 people received solar and electrification training, with over 25 participants being placed into jobs by the end of 2022. Expanding on this successful model, SMUD entered into agreements for future trainings with Northern California Construction Training, Inc. and Cosumnes River College to deliver an Electrician Pre-Apprenticeship and Construction Electrification course respectively.
- In total, through our regional workforce partnerships, SMUD provided education and training to over 3,000 people in a variety of skills and helped 446 individuals find higher paying, more secure jobs.

Energy Efficiency and Building and Vehicle Electrification

Our building energy efficiency portfolio includes rebates and retailer incentives for residential and commercial customers. The building electrification portfolio includes offerings for gas-to-electric conversions of water heating equipment, space heating equipment, and cooktops delivered through residential and commercial new construction and retrofit programs. In 2022, our energy efficiency and building electrification programs collectively reduced GHG emissions by 66,649 MT,³ equivalent to 10,097 all-electric homes. Our goal is to have these building electrification and energy efficiency programs reduce GHG emissions by 365,000 MT in 2030, the equivalent of electrifying 112,000 single family homes.

SMUD's vehicle electrification portfolio includes residential EV charger incentives, dealership incentives, residential outreach, commercial charger incentives, and commercial vehicle incentives. At the end of 2022, we had 32,396 EVs registered within SMUD's service territory, an increase of 8,820 registered vehicles from the previous year⁴ and an estimated annual GHG reduction of about 97,133 MT.⁵ Our goal is to have these vehicle electrification programs reduce transportation GHG emissions by 1 MMt in 2030, the equivalent of electrifying 288,000 vehicles.

³ The DER Cost Effectiveness Tool evaluates and accounts for DER program effectiveness, calculating gross annual emissions impact. It is reported in each year the "measure" is installed on the grid and within its useful life.

⁴ EPRI Vehicles in Operation report.

⁵ 1 EV is equivalent to 3 MT of GHG reduction.

B. Promote Cost Effective Clean Distributed Generation and Storage

SD-9 requires that SMUD develop programs to promote cost effective, clean distributed generation. The following describes progress in 2022 and alignment with our 2030 Zero Carbon Plan.

Flexible Demand

Our flexible demand programs seek to optimize operation of our customer-partner's equipment and distributed energy resources in a way that balances customer-partner and grid needs, and compensates customers for the energy they supply into SMUD's grid for use by other customers. In 2022, we awarded a contract for the My Energy Optimizer Partner+ program for battery storage (a storage virtual power plant program) with program implementation to begin in 2023. The My Energy Optimizer Partner level offering for smart thermostats enrolled over 12,500 devices and 10,250 customers, including 40 on the Critical Peak Pricing rate. Fifteen Peak Events were delivered throughout the 2022 summer season resulting in 10 MW load reduction capability. This resource was added to the summer 2023 Load Management Plan. With our PowerDirect® program, commercial customers were notified eleven times to curtail load, which produced an average load reduction of 5.24 MW to 12.72 MW across the duration of the events.⁶ As part of our load flexibility programs, we offer time-of-day rates, which give the majority of our customers more time on the lower priced non-summer seasonal rate.

Clean Distributed Generation and Storage

2022 saw expansion of customer-sited distributed generation and storage with installation of:

- 33.61 MW of residential customer-sited solar PV (7,009 systems).
- 7.21 MW of commercial customer-sited solar PV (270 systems).
- 3.26 MW of residential customer-sited energy storage projects (509 systems).
- 1.29 MW of commercial customer-sited energy storage projects (1 system).

At the end of 2022, we had over 47,000 total customer-sited PV installations totaling 323 MW in SMUD's service territory and over 1,000 total customer-sited storage installations totaling 8.70 MW.

4. Challenges

Notable challenges to meeting SD-9 goals in 2022 included an extended unplanned outage at Cosumnes Power Plant (CPP), lower than expected generation from several renewable resources, project delays, and extended drought conditions in the West leading to hydro generation losses. The outage at CPP occurred between June and December, following a planned maintenance event, and required a large amount of unplanned market purchases in 2022. This event, combined with the loss of 40% of planned hydro generation due to drought conditions, could have resulted in a measurable increase in GHG emissions in 2022. However, our energy traders reduced the impacts of these two events by focusing on procuring as much low-carbon and carbon free power as practical resulting in lower emissions totals compared to 2021. During the unplanned outage timeframe, approximately 25% of SMUD's market purchases were from low-carbon and carbon free resources which helped replace the lost generation from the CPP outage and from our hydro generation resources.

5. Recommendation

It is recommended that the Board accept the Monitoring Report for SD-9.

⁶ NERC WebDADs report "Realized Demand Reduction (MW)"

Appendix A – SD-9 History

SD-9 was established by SMUD’s Board in 2004 and provides direction for SMUD’s ongoing environmental leadership and the use of an IRP process to achieve these directives while balancing environmental goals with financial and customer rate impacts and reliability requirements. SMUD’s strategic directions have evolved as markets, policies and laws have changed.

In December 2008, the Board added sustainable power supply as the overall objective of the IRP process and set a GHG emissions target. In 2018 the Board updated our GHG reduction goals to include a 2040 Net Zero GHG goal. In 2020, the Board adopted carbon-based targets for energy efficiency and building electrification. This was the first time a major utility used carbon as its efficiency tracking metric, and aligned our evolving energy supply goals with our energy efficiency and electrification programs. In April 2021, the Board adopted Resolution No. 21-04-04 which updated the SD-9 to align with our goal of zero GHG emissions in our energy supply by 2030, as put forth in our 2030 Zero Carbon Plan. SMUD has embarked on a path to zero carbon by 2030, focusing on zero carbon resource acquisition and new renewable energy contracts, expanding on customer programs for energy efficiency and building and transportation electrification, developing new voluntary customer programs, and investigating emerging clean energy technology. Under SD-9, SMUD’s goal is more aggressive than California’s planned trajectory, which requires that utilities meet electric demand with at least 60% eligible renewable resources by 2030. SMUD’s goal is also more aggressive than California’s planned trajectory to achieve economywide carbon neutrality by 2045.

Appendix B – Methodology Discussion

Normalization Adjustments

Normalization adjustments to SMUD’s actual GHG emissions include a *decrease* to account for higher-than-expected energy usage by SMUD customers, a *decrease* to account for lower-than-expected hydro production, an *increase* to account for higher-than-expected wind production and a *decrease* for using banked renewable energy credits (RECs). In previous years, SMUD procured more renewable energy than required and received credits for future use. These credits were saved or banked in accordance with RPS rules, which *increased* our normalized SD-9 emissions in those years to account for these banked RECs. Using these banked RECs lowers SMUD’s normalized emissions because any emissions impacts were realized at an earlier date, but not yet credited to SMUD. SMUD used all remaining banked surplus RECs from previous years in 2022 and will no longer incorporate the REC Banking Adjustment in future SD9 reports.

Continued historic drought conditions well into 2022 reduced hydro generation by 40% from SMUD’s hydro resources. As a result, actual 2022 GHG emissions were higher than expected. Fortunately, while SMUD’s hydro generation was significantly reduced in 2022, we were able to procure short-term low-carbon and carbon free energy from the northwest where there were stronger hydro conditions. In fact, our short-term carbon free purchases from the NW nearly doubled from the previous year. While these short-term purchases are not guaranteed year-to-year, our energy traders actively look for these opportunities to reduce GHG emissions associated with market purchases.

Renewables Portfolio Standard (RPS)

State RPS law requires that SMUD procure renewable generation for at least 60% of retail sales by 2030 as well as achieve interim targets over several compliance periods.⁷ 2022 was a challenging year with the loss of almost 500,000 MWh of expected renewable generation due to project delays, transmission outages, and partial project outages at several of our renewable projects. The State

⁷ Senate Bill 100 (De León, Chapter 312, Statutes of 2018) increased RPS targets to 44% by the end of 2024, 52% by the end of 2027, 60% by the end of 2030 and set a statewide planning goal to meet 100% of retail electricity sales with RPS eligible and zero-carbon resources by 2045.

determines compliance with RPS obligations by compliance period rather than individual year in acknowledgment of the “lumpiness” of new resource additions and to provide some flexibility. We are on track to meet the RPS targets for compliance period 4 (2021 – 2024).

Appendix C – Detailed Project Descriptions

Sustainable Communities & Income-Eligible Programs

Implementation of our 2030 Zero Carbon Plan will deliver wide-reaching benefits to our community while focusing on equity and strengthening our communities.

- **Transportation Electrification.** SMUD is partnering with the community to implement eMobility Hubs throughout our region, which will be strategically located at sites in under-resourced communities. These hubs will include various modes of transportation such as public transit, micro mobility, shared mobility, ride hail, taxi services, community electric vehicles, public EV charging stations, etc. Additionally, EV programs are expanding to provide low cost or free EV charging infrastructure for income eligible customers and expertise on home charging solutions. In 2022, we installed 221 EV circuits to prepare households for the future and additionally installed 135 EVSE for those that participated in the Clean Cars 4 All program. We also offered incentives to expand EV charging infrastructure at public locations, multifamily properties, and affordable housing sites. Additionally, two EV ride & drives were facilitated in under-resourced communities in 2022 to educate those communities on the benefits of EVs, incentives available, and charging programs.
- **Load Flexibility.** SMUD worked to ensure that all customers can participate in the portfolio of load flexibility pilots launched in 2022. These pilots will help achieve our 2030 zero carbon goal, yet they can sometimes require costly technologies, such as a smart thermostat, electric vehicle, or battery storage system to participate. SMUD continued to explore ways in which our load flexibility pilots can be more inclusive despite this barrier. Possible examples include integrating load flexibility program enrollment into our existing low-income weatherization program, which already provides a no-cost smart thermostat in most cases and/or creating a no-cost technology installation pathway for low-income homeowners or renters to participate in our virtual power plant program with their heating/cooling system.
- **Building Electrification and Energy Efficiency.** To support SMUD’s equity efforts as part of the 2030 Zero Carbon Plan, SMUD is continuing expansion of its existing efforts to provide no-cost energy retrofit installations to income eligible residential customers for both gas-to-electric conversions and electric-to-electric upgrades. Available project measures include electric heat pump water heaters, electric heat pump HVAC units, seal-and-insulate projects, and panel upgrades. In addition, SMUD continues to provide a low-income incentive for projects within SMUD’s multifamily retrofit program that meet affordable housing criteria. In 2022, SMUD installed 688 building electrification measures for income-eligible households and provided solar for 11 households. We connected with nearly 2,400 households to provide energy efficiency measures and education (details of these measures are provided in Table 3).
- **Workforce Development:** Through our Sustainable Communities Workforce Development efforts, we partnered with organizations to reach into our community to understand the challenges that residents face in pursuing well-paying careers. At the same time, we renewed our focus on the jobs and skills that will help our community get to zero carbon. As part of that effort, SMUD completed the second year of our Energy Careers Pathways training partnership with Grid Alternatives. The solar workforce program recruited individuals from under-resourced communities and provided them four weeks of paid instruction. Upon graduation, participants were matched with potential employers to demonstrate what they have learned by showcasing conduit bending, wired J-boxes, and more. Students also learned about the installation and importance of battery storage and EV charging infrastructure.

- **Data Tools:** To deploy comprehensive resources for our communities most in need, we continue to align our region’s investments toward the goal of creating and supporting healthy, vibrant, and economically sustainable neighborhoods. We have developed several data collection and visualization tools aimed at matching areas of inequity within the Sacramento region with future investment; we’re working to address potential inequities in the way we do business. These include our Sustainable Communities Resource Priorities Map, which was updated in 2022 to include the Justice 40 Climate and Justice Economic Screening Tool, an update to the CalEnviroScreen 4.0 data, digital inclusion data, and English ability and linguistics isolation information. Additionally, our Sustainable Communities dashboard tracks funding and links partners and projects across six key focus areas – Institutional Support and Outreach, Education, Health Equity, Environmental Leadership, Economic Development, and Transportation and Access. These metrics, coupled with expanded access to an equitable workforce pipeline and business creation, will serve to validate investments across focus areas.

Proven Clean Technology Projects

Table 2 details new proven clean technology procurement activities. Beyond the projects listed below, in the near-term, we are exploring options to procure or develop additional zero emission resources, including local solar and storage, to help achieve our 2030 Zero Carbon Plan.

Table 2: New Procurement and Project Development Status

Project Name	Type	Projected Online Year	Status	Size (MW)	Equivalent Homes Powered	Emissions Avoided (MT CO ₂ /year)
Hedge Battery	Battery	2022	Online	4	800 (peak)	NA
NTUA Drew Solar	Solar PV	2022	Online	100	33,100	117,579
Calpine Geysers	Geothermal	2023	Online	100	97,300	322,850
ESS Battery Pilot	Long-duration Storage	2024	Construction	4	800 (peak)	NA
Solano 4	Wind	2024	Construction	85.5	28,000	118,147
Coyote Creek	Solar PV	2026	Under Development	200	58,500	193,870
	Battery			100	20,000 (peak)	NA
Slough House	Solar PV	2025	Under Development	50	14,600	48,369
Country Acres	Solar PV	2026	Under Development	344	100,400	248,352
	Battery			172	34,400 (peak)	NA
Total	Generation			879.5	387,900	1,049,167
	Storage			280		

Energy Efficiency and Building Electrification Programs

Table 3 provides a summary of some of our 2022 energy efficiency and building electrification accomplishments, including offerings for our income eligible customers.

Table 3: Energy Efficiency and Building Electrification Accomplishments

Measures & Projects	Install Count
Commercial Retrofit Projects Completed	312
New Efficient Commercial Buildings Constructed	14
Multifamily Units Retrofitted	954
Efficient Induction Cooktops (Electric to Electric)	129
Efficient Induction Cooktops (Gas to Electric)	257
Residential Heat Pump Water Heaters Installed (Electric to Electric)	65
Residential Heat Pump Water Heaters Installed (Gas to Electric)	897
Residential HVAC Installations (Electric to Electric)	280
Residential HVAC Installations (Gas to Electric)	2,108
Residential Seal and Insulate Installations	463
All Electric New Homes and Multifamily units Constructed	1,299
Income Eligible Energy Efficiency Bundles and Electrification	Install Count
Energy Efficiency Weatherization	2,386
Heat Pump Space Heating (Gas to Electric)	274
Heat Pump Water Heaters (Gas to Electric)	182
Induction Stoves (Gas to Electric)	34
Induction Hot Plates for Renters	198

Vehicle Electrification

In 2022, SMUD expanded our transportation electrification programs to accommodate the adoption of electric vehicles in our service territory. The residential Drive Electric program continued to promote the adoption of plug-in electric vehicles through a variety of program offerings, including the residential EV discount rate, SMUD Charge@Home rebates, participation in Ride & Drive educational events, and our engagement and training of local auto dealers. Below are some metrics related to the residential Drive Electric program:

- In 2022, approximately 62% of residential EV households, equivalent to 17,229 customers, participated in the EV rate credit (midnight to 6 AM EV charging discount).⁸
- Six EV Ride & Drive events were held throughout SMUD’s territory and as COVID concerns began to ease we hosted 841 in-car experiences in addition to over 17,000 views of the SMUD EV ride & drive video.
- We provided residential customers with incentives for 941 EV chargers, installations/circuits, or both.

⁸ SAP Installation Fact 5090 Rates report, and EPRI Vehicles In Operation report

- SMUD's contribution to the statewide California Clean Fuel Reward program provided SMUD customers 4,804 point of sale rebates on the purchase or lease of a new EV at participating dealers.
- SMUD continued to fund local dealer certification as PlugStar certified dealers. Twenty-three dealers are participating in the program, 75 dealer staff were trained. SMUD additionally implemented our third EV auto dealership competition to encourage and incentivize EV sales and reward dealerships and their staff for increased EV promotion.
- SMUD provided customers expert advice and support with the EV Support Program service for SMUD customers through Plug in America's Electric Vehicle Support Program, which offers live one-on-one support answering questions on all things EV.
- SMUD continued integral support of the Clean Cars for All program in conjunction with SMAQMD. This program provides up to \$9,500 toward a new or used PHEV for income-qualified residents living in areas impacted by higher levels of pollution (disadvantaged communities). Through this partnership, SMUD has provided a free installation of a home EV Charger for customers that participated in Clean Cars for All; we installed 135 in 2022.
- Ensuring no community is left behind, SMUD also installed 221 EV circuits for income eligible customers to prepare the home for the addition of an EV and a charger.

The Commercial EV Program expanded its commercial customer offerings by launching a new eFuel Services offering which included an eFuel Advisor service. eFuel Advisor helps commercial fleet customers build a fleet electrification plan, including site analysis, charger recommendations, and cost estimates. In 2022, 5 advisor reports were completed for local customers. Below are some additional metrics related to serving commercial customers:

- Total commercial EV Program incentives in 2022 included the installation of 349 EV chargers encompassing level II and DC fast chargers, 45 forklifts, and 35 medium/heavy duty vehicles.
- SMUD partnered with the California Energy Commission and the Center for Sustainable Energy on the California Electric Vehicle Infrastructure Project (CALeVIP) in Sacramento County to promote the installation of public level II and DC fast charging stations. The program stopped taking applications for new projects in October 2021, but installations continued into 2022 and 2023. The partnership was the first of its kind in the state and is being used as a model for projects in other areas of California.

Time-of-Day (TOD) Rates

Our residential customers reduced overall load in the range of 86-126 MW. In addition to avoiding peak energy prices, customers, on average, saved money using more energy in the middle of the day when retail energy prices are cheaper, and renewables are abundant. Participation in the program has remained strong with 97% of customers on TOD rates.

Table 4: TOD Implementation

Benefit Metric	Original Pilot Projections	2022 Results
Carbon reduction (metric tons)	3,000-5,000	12,790
Residential peak load reduction	75 MW, or 5.8%	~86–126MW, or 4-6.3%
Financial benefit	\$4M annually	\$15.9M estimated ⁹
Percent of customers on TOD rates	96%	97%

Zero Emission Resources

We are continuing to fund research and development efforts as well as pursue grants for clean energy and GHG reduction projects in 2022 and beyond as part of our 2030 Zero Carbon Plan. Below are just a few of the projects that we explored in 2022; more information on our research and development work can be found in our annual Strategic Direction 10 (SD-10) Report.

- Carbon Capture and Storage (CCS). Continued to explore CCS technologies such as investigating new grant and partnership opportunities and participating in the EPRI supplemental project researching the Allam Fetsvedt Cycle, a novel approach to carbon capture, which burns fossil fuels with oxygen instead of air to generate electricity without emitting CO₂ or NO_x.
- Wind Resources in Northern CA. Assessed available wind generation resource potentials in Northern California that may feasibly be delivered to SMUD or the Balancing Authority of Northern California.
- Low-carbon Fuel Standard (LCFS) Electricity Pathways. For Van Warmerdam, New Hope and Van Steyn Dairy Digesters, carbon intensities and annual reports were submitted to CARB. The dairy digesters produce low-carbon electricity. To certify that these resources are low-carbon, SMUD tracks each digester’s carbon intensity and submits this data to the CARB LCFS program on an annual basis.

Grant Funded Clean Energy Projects

- Hydrogen Blend Collaborative Research. Completed the literature review and techno-economic analysis requirements for pipeline hydrogen blending collaborative research. This project will address the barriers on pipeline materials compatibility & degradation related to the blending of hydrogen into natural gas pipelines, a concept referred to as HyBlend. SMUD will provide data and will serve as one of the sites or use cases for injection of H₂. Resulting data will be used for techno-economic analysis to quantify costs and opportunities of H₂ production and blending with natural gas.
- Thermochemical Conversion of Biomass to Hydrogen. This project received a \$500k award from the Department of Conservation Forest Biomass to Carbon-Negative Biofuels Pilot Program in December 2022. The project concept is to use waste biomass from clearing the UARP transmission corridor for thermochemical conversion to hydrogen. This award will focus on site selection, pre-construction project validation and engineering, and begin Front-End Engineering Design for a potential project. This scope is expected to be completed during 2023.
- BestFit Innovative Charging Solutions. SMUD has been working with Ford Pro (who acquired Electriphi, the project lead applicant), in collaboration with other key partners to demonstrate a

⁹ This calculation uses customer load adjusted for impacts of COVID 19.

cost-efficient and grid-friendly pathway for fleet electrification across diverse vehicle types. This project will accelerate V2G, offsetting what would otherwise be a cost to SMUD.

- Blueprint for Medium & Heavy-Duty Zero-Emission Vehicle Infrastructure. This is a grant-funded project by the CEC to create a landmark regional blueprint plan to accelerate adoption of medium and heavy-duty zero emission vehicles in Sacramento and West Sacramento. The plan identified locations for charging and hydrogen refueling stations that optimize existing grid capabilities, reducing implementation and operational costs while accommodating the needs of local communities. The project also assessed workforce development needs to implement the plan's various elements and to ensure broad economic opportunity in the growing EV sector.
- ChargeReady Community Project. In early 2022, SMUD was awarded the CEC's Reliable, Equitable, and Accessible Charging for Multi-family Housing grant (GFO-21-603) to deploy charging infrastructure in multi-family housing units in underserved communities. The main goal of the project is to develop a technical and business model to inform future deployments and disseminate knowledge in the industry. Project partners include Mutual Housing and the SMAQMD. The project team will deploy at least 108 level II charging handles at up to 10 locations in Sacramento, utilizing SMUD's eFuel program for design and construction.

Climate Change and Ecosystem Service Research Projects Undertaken in 2022

These projects provide technical, economic, and policy expertise on climate change and biodiversity, assisting operations in identifying and addressing climate vulnerabilities, and creating opportunities for SMUD customers and community partners to support climate neutrality and ecologically regenerative projects with a net positive impact. In 2022, SMUD achieved the following:

- Continued executing our multi-year ecosystem service integration research at SMUD's Rancho Seco II Solar project, including soil carbon monitoring, native seeding and hedgerows, and pollinator field studies. Partners include Electric Power Research Institute (EPRI), UC Davis Wild Energy Lab and the Xerces Society. This research will continue until Fall 2025.
- Formalized a proposal for an Agrivoltaic research project at SMUD's proposed Country Acres solar facility with partner UC Davis. This effort will examine the costs and benefits of the integration of crops and solar electricity production.
- Concluded the American Public Power Association Demonstration of Energy and Efficiency Development grant-funded field assessment of two grocery store installations funded by our award-winning Natural Refrigerant Incentive Program. The CO₂ transcritical system delivered significant direct and indirect CO₂e reduction relative to conventional systems.

Voluntary Renewable Energy Programs

Greenery and SolarShares are voluntary renewable energy programs that give customers the option to receive renewable electricity generated in and delivered to California by paying a fixed monthly rate. Our Greenery options currently available are as follows: Basic Greenery, \$3/month for 200kWhs; California Renewable Greenery, \$10/month to receive 100% California generation; and Local Renewable Greenery, \$18/month to receive 100% local Sacramento Region generation. When a customer enrolls in Greenery, their usage is tracked according to their enrollment level. SMUD uses the proceeds from this program to invest in renewable generators or purchase renewable energy credits to supply participants from generators located within California. In addition to these products, a customer may also purchase renewables for their neighbors or invest in carbon reducing programs through our Greenery Neighbor, and Greenery Climate Advocate programs. All Greenery renewable purchases are in addition to our RPS requirements. Our Neighborhood SolarShares option is available to builders of new low-rise residential dwellings to achieve the solar mandate from California's Title 24 Energy Code.

Customer-side Solar and Storage Status

In 2022 completed residential and commercial solar and storage projects accounted for over 45 MW of operational distributed generation. Projects approved for installation prior to March 1, 2022, were installed under net-energy metering compensation. Projects approved on or after March 1, 2022 are given the new Solar and Storage rate compensation. Table 5 summarizes customer solar installations data through 2022 and Table 6 summarizes customer storage installations through 2022.

Table 5: Installed Customer Solar PV¹⁰

	Residential		Commercial		Totals	
	Installed Systems	MW	Installed Systems	MW	Installed Systems	MW
2022	7,009	33.61	270	7.21	7,279	40.82
Totals	46,097	207.83	1,158	115.59	47,255	323.42

Table 6: Installed Customer Storage

	Residential		Commercial		Totals	
	Installed Systems	MW	Installed Systems	MW	Installed Systems	MW
2022	509	3.26	1	1.29	510	4.55
Totals	1,091	7.08	7	1.62	1,098	8.70

¹⁰ This table includes net-energy metering (NEM), Solar Smart, virtual net-energy metering (VNEM), and Solar and Storage Rate installations.

RESOLUTION NO. 23-11-06

**BE IT RESOLVED BY THE BOARD OF DIRECTORS
OF THE SACRAMENTO MUNICIPAL UTILITY DISTRICT:**

This Board approves the revisions to **Strategic Direction SD-9, Resource Planning**, substantially in the form as set forth in **Attachment C**.

Approved: November 16, 2023

INTRODUCED: DIRECTOR FISHMAN				
SECONDED: DIRECTOR TAMAYO				
DIRECTOR	AYE	NO	ABSTAIN	ABSENT
SANBORN	X			
ROSE				X
BUI-THOMPSON				X
FISHMAN	X			
HERBER	X			
KERTH	X			
TAMAYO	X			



SMUD BOARD POLICY

Category: Strategic Direction
Policy No.: SD-9
Title: Resource Planning

It is a core value of SMUD to provide its customers and community with a sustainable power supply using an integrated resource planning process.

A sustainable power supply is one that reduces SMUD’s greenhouse gas (GHG) emissions to serve retail customer load to Zero by 2030. Zero GHG emissions will be achieved through investments in energy efficiency, clean distributed energy resources, renewables portfolio standard (RPS) eligible renewables, energy storage, large hydroelectric generation, clean and emissions free fuels, and new technologies and business models. Additionally, SMUD will continue pursuing GHG savings through vehicle, building and equipment electrification.

SMUD shall assure reliability of the system, minimize environmental impacts on land, habitat, water and air quality, including Tribal and other cultural impacts, and maintain competitive rates relative to other California electricity providers.

To guide SMUD in its resource evaluation and investment, the Board sets the following energy supply goal:

Year	Greenhouse Gas Emissions (metric tons)
2020	2,318,000
2030 - beyond	0

In keeping with this policy, SMUD shall also achieve the following:

- a) Pursue energy efficiency and electrification to reduce carbon emissions by 365,000 metric tons from buildings and 1,000,000 metric tons from transportation in 2030 (the equivalent of 112,000 single family homes and 288,000 passenger vehicles electrified).
- b) Procure renewable resources to meet or exceed the state’s mandate of 33% of SMUD’s retail sales by 2020, 44% by 2024, 52% by 2027, and 60% of its retail sales by 2030 and thereafter, excluding additional renewable energy acquired for certain customer programs.
- c) In meeting GHG reduction goals, SMUD shall:
 - i) Emphasize local and regional benefits.
 - ii) Improve equity for under-served communities.
- d) Explore, develop, and demonstrate emerging GHG-free technologies and business models.
- e) Promote cost effective, clean distributed generation through SMUD programs.

Monitoring Method: CEO Report

Frequency: Annual

Versioning:

May 6, 2004	Resolution No. 04-05-11	Date of Adoption.
May 6, 2004	Resolution No. 04-05-12	Date of Revision.
September 15, 2004	Resolution No. 04-09-11	Date of Revision.
May 17, 2007	Resolution No. 07-05-10	Date of Revision.
December 18, 2008	Resolution No. 08-12-15	Date of Revision.
December 19, 2009	Resolution No. 09-11-08	Date of Revision.
May 6, 2010	Resolution No. 10-05-03	Date of Revision.
May 19, 2011	Resolution No. 11-05-05	Date of Revision.
December 20, 2012	Resolution No. 12-12-12	Date of Revision.
October 3, 2013	Resolution No. 13-10-09	Date of Revision.
September 17, 2015	Resolution No. 15-09-11	Date of Revision.
October 20, 2016	Resolution No. 16-10-14	Date of Revision.
October 18, 2018	Resolution No. 18-10-11	Date of Revision.
January 16, 2020	Resolution No. 20-01-06	Date of Revision.
April 15, 2021	Resolution No. 21-04-04	Date of Revision.
September 21, 2023	Resolution No. 23-09-02	Date of Revision.
November 16, 2023	Resolution No. 23-11-06	Date of Revision. [Current Policy]

RESOLUTION NO. 23-11-07

**BE IT RESOLVED BY THE BOARD OF DIRECTORS
OF THE SACRAMENTO MUNICIPAL UTILITY DISTRICT:**

This Board approves the revisions to **Strategic Direction SD-7, Environmental Leadership**, substantially in the form as set forth in **Attachment D**.

Approved: November 16, 2023

INTRODUCED: DIRECTOR FISHMAN				
SECONDED: DIRECTOR TAMAYO				
DIRECTOR	AYE	NO	ABSTAIN	ABSENT
SANBORN	X			
ROSE				X
BUI-THOMPSON				X
FISHMAN	X			
HERBER	X			
KERTH	X			
TAMAYO	X			

SMUD BOARD POLICY



Category: Strategic Direction
Policy No.: SD-7
Title: Environmental Leadership

Environmental leadership is a core value of SMUD. In achieving this directive, SMUD will:

- a) Conduct its business affairs and operations in a sustainable manner by continuously improving pollution prevention, minimizing environmental impacts, including Tribal and other cultural impacts, conserving resources, and promoting equity within SMUD's diverse communities.
- b) Provide leadership and innovation to improve air quality and reduce greenhouse gas emissions.
- c) Promote the efficient use of energy by our customers.
- d) Advance the electrification of vehicles, buildings and equipment.
- e) Attract and build partnerships with customers, communities, policy makers, the private sector and other stakeholders.

Monitoring Method: CEO Report

Frequency: Annual

Versioning:

August 21, 2003	Resolution No. 03-08-13	Date of Adoption.
October 16, 2003	Resolution No. 03-10-14	Date of Revision.
July 21, 2005	Resolution No. 05-07-10	Date of Revision.
December 18, 2008	Resolution No. 08-12-14	Date of Revision.
April 15, 2021	Resolution No. 21-04-04	Date of Revision.
September 21, 2023	Resolution No. 23-09-02	Date of Revision.
November 16, 2023	Resolution No. 23-11-07	Date of Revision. [Current Policy]

RESOLUTION NO. 23-11-08

**BE IT RESOLVED BY THE BOARD OF DIRECTORS
OF THE SACRAMENTO MUNICIPAL UTILITY DISTRICT:**

This Board accepts the monitoring report for **Strategic Direction SD-16, Information Management and Security**, substantially in the form set forth in **Attachment E** hereto and made a part hereof.

Approved: November 16, 2023

INTRODUCED: DIRECTOR FISHMAN				
SECONDED: DIRECTOR TAMAYO				
DIRECTOR	AYE	NO	ABSTAIN	ABSENT
SANBORN	X			
ROSE				X
BUI-THOMPSON				X
FISHMAN	X			
HERBER	X			
KERTH	X			
TAMAYO	X			

SACRAMENTO MUNICIPAL UTILITY DISTRICT

OFFICE MEMORANDUM

TO: Board of Directors

DATE: November 1, 2023

FROM: Claire Rogers *CR 11/1/23*

SUBJECT: Audit Report No. 28007613
Board Monitoring Report; SD-16: Information Management and Security

Internal Audit Services (IAS) received the SD-16 *Information Management and Security* 2023 Annual Board Monitoring Report and performed the following:

- Selected a sample of statements and assertions in the report for review.
- Interviewed report contributors and verified the methodology used to prepare the statements in our sample.
- Validated the reasonableness of the statements in our sample based on the data or other support provided to us.

During the review, nothing came to IAS' attention that would suggest the items sampled within the SD Board Monitoring report did not fairly represent the source data available at the time of the review.

CC:

Paul Lau

Board Monitoring Report 2023

SD-16 Information Management and Security



1) Background

Strategic Direction Information Management and Security policy states that:

Proper management of cyber and physical information, as well as physical security, is a core value. Robust information management and physical security practices are critical to effective risk management and to ensure regulatory compliance, business resiliency and customer satisfaction. SMUD shall take prudent and reasonable measures to accomplish the following:

- a) **Information Security:** SMUD will protect customer, employee and third-party information, and SMUD information systems are protected from unauthorized access, use, disclosure, disruption, modification, or destruction.
- b) **Physical Security:** SMUD will safeguard its employees while at work as well as customers and visitors at SMUD facilities. SMUD will also protect its facilities and functions that support the reliability of the electric system and overall operation of the organization from unauthorized access or disruption of business operations.
- c) **Customer Privacy:** SMUD will annually notify customers about the collection, use and dissemination of sensitive and confidential customer information. Except as provided by law or for a business purpose, SMUD will not disseminate sensitive and confidential customer information to a third party for non-SMUD business purposes unless the customer first consents to the release of the information. Where sensitive and confidential information is disseminated for a business purpose, SMUD will ensure: (i) the third party has robust information practices to protect the sensitive and confidential customer information, and (ii) use of the information by the third party is limited to SMUD's business purpose. SMUD will maintain a process that identifies the business purposes for which SMUD will collect, use and disseminate sensitive and confidential customer information.
- d) **Records Management:** SMUD will maintain the efficient and systematic control of the creation, capture, identification, receipt, maintenance, use, disposition, and destruction of SMUD records, in accordance with legal requirements and Board policies.

2) Executive summary

- a) SMUD's Information Security, Physical Security, Customer Privacy, and Records Management programs and initiatives align directly with the "Safety and Reliability" Core Values of SMUD's 2030 Clean Energy Plan. These programs work towards ensuring

that SMUD continues to be a good steward over customer information, physical security, privacy, and records in accordance with our customers' high expectations.

b) SMUD is substantially in compliance with SD-16 Information Management and Security Policy.

c) Summary:

SD Requirement	Program/initiative/policy	Purpose	Outcome	Notes
Information Security: protect systems and information from unauthorized access	Information security program; AP 07.03.01 Information Security Concepts and Roles	Protect systems and information; provide policy supporting the Cybersecurity program	Security controls and processes are in place to protect people, processes, and technology	
Customer Privacy: Annually notify customers about use of information	Annual notice of privacy practices	Notify customers of our privacy practices	Notice sent in the May bill package	Minor changes (around why SMUD collects personal information)
Customer Privacy: Ensure security where data is shared	System Security Plans and SOC 2 audit report requirements	Evaluate the information practices and security controls of third parties	Confidence that vendors have implemented robust cybersecurity programs to protect SMUD information	
Customer Privacy: Maintain a process that identifies purposes for information collection and dissemination	Data Sharing Policy, Data Sharing Request/Approval Process	Track NDAs, the data being shared, and the business justification for sharing	Formal data sharing process is being observed and maintained	
Records Management: Identify and manage records and information	Records Evaluations and Information Migration	Evaluate, classify and migrate records and ensure retrieval, disposal and protection.	Completed the 5-year records evaluation plan and kicked off the first wave of business area information migrations	
Records Management: Ensure all information systems are compliant with	Information System Evaluations	Review of software tools housing SMUD data and information.	Evaluate software tools for information management compliance	IMC has been added to software purchase process

IMC requirements and best practices.				
Physical Security: safeguard employees, customers, and visitors	AP 06.03.01 Increase interoperability with local law enforcement agencies during critical incidents	Protect SMUD employees and those who visit SMUD facilities	Completed operational component of project to facilitate direct radio contact with local law enforcement agencies	Policy and procedures documentation was also updated to accommodate the new radios
Physical Security: protect SMUD facilities	AP 06.03.01 Physical Security Assessment(s) of SMUD physical properties and assets	Protect SMUD campuses and grid facilities through assessment and implementation of security-industry best practices	Security Operations personnel continue to provide security evaluations for SMUD real properties	Third-party Risk, Threat, and Vulnerability Analysis tentatively scheduled to begin Q1 2024

3) Additional supporting information

Information Security

SMUD, customer, employee and third-party information and SMUD information systems are protected from unauthorized access, use, disclosure, disruption, modification, or destruction.

The Chief Information Officer’s (CIO) Cybersecurity group, under the direction of the Chief Information Security Officer, continues adoption of the National Institute of Standards and Technology (NIST) Cybersecurity Framework (CSF) to establish prudent and reasonable measures intended to protect SMUD’s operations from a cyber-attack, disruption and other threats to enterprise technologies, processes, and information. The CSF has five core functions (Identify, Protect, Detect, Respond, and Recover) which comprise both administrative and technical controls to effectively manage information and cybersecurity risk. Cybersecurity is actively working to implement the CSF controls through SMUD policies to enhance and govern information management and security risk management practices and processes in support of SD-16. Cybersecurity will highlight the cybersecurity capabilities provided in an update to the board for SD-16 during an upcoming closed session.

Physical Security

SMUD will safeguard its employees while at work as well as customers and visitors at SMUD facilities.

Security Operations has successfully implemented the full integration of the Sacramento Regional Radio Communications System (SRRCS) into our Security Control Centers as well as with Supervisors and key leadership personnel. This integration will facilitate interoperability directly with local and regional law enforcement agencies during emergencies. Security

Operations has also been working on a Risk, Threat, and Vulnerability Assessment (RTVA) request for proposal, which is complete and out for bid. This project will provide a comprehensive, third-party assessment of nearly all of SMUD's facilities in order for us to identify and mitigate risks to our personnel and assets.

SMUD will also protect its facilities and functions that support the reliability of the electric system and overall operation of the organization from unauthorized access or disruption of business operations.

Security Operations has been involved in the effort to replace the enterprise-wide Physical Access Control System (PACS). This project to upgrade and modernize the PACS is well underway and has been progressing successfully. Security Operations is also working on the implementation of additional complementary technologies to increase our ability to detect and assess unauthorized intruders at critical substations. Once the pilot program is complete, it should lead to a wider implementation of the new technologies.

Customer Privacy

SMUD will annually notify customers about the collection, use and dissemination of sensitive and confidential customer information.

SMUD sent out our annual privacy notice via email and as a bill insert to customers during the May bill cycle. The language in the notice was updated this year to be more straightforward about why we collect customer information and that it is disposed of when no longer necessary. The notice is otherwise very similar to previous years and continues to include plain language regarding SMUD's collection, use, and release of customer sensitive and confidential information, the business purposes for which customer information is used, as well as a reaffirmation of SMUD's commitment to customer privacy.

Except as provided by law or for a business purpose, SMUD will not disseminate sensitive and confidential customer information to a third party for non-SMUD business purposes unless the customer first consents to the release of the information.

No sensitive and confidential customer information has been sent to a third party for non-SMUD business purposes this year.

Where sensitive and confidential information is disseminated for a business purpose, SMUD will ensure: (i) the third party has robust information practices to protect the sensitive and confidential customer information, and (ii) use of the information by the third party is limited to SMUD's business purpose.

Cybersecurity and Procurement continue to follow a formalized supply chain risk management process, in compliance with NERC CIP requirements. The process is aligned to the NIST

Cybersecurity Framework (CSF) and is reviewed on at least an annual basis to ensure it is functioning as designed and incorporates lessons learned as new procurements follow the process. The process includes a mandatory procurement requirement for vendors to allow the Cybersecurity team to evaluate the security posture of a proposed vendor solution. The American Institute of CPAs (AICPA) Service Organization Control 2 (SOC 2) Type 2 continues to be our procurement standard as it is an independent assessment focused on a solution's security controls which includes tests of the security controls' efficacy. SOC 2 Type 2 reports provide staff confidence that vendor security controls are robust and sufficient to protect SMUD information. Contract and non-disclosure agreement language is used to provide assurance that SMUD provided sensitive and confidential information will not be used for any unapproved purposes. Additionally, our data sharing policy and process (discussed below) align to this requirement.

SMUD will maintain a process that identifies the business purposes for which SMUD will collect, use and disseminate sensitive and confidential customer information.

MP 07.03.01.122 - Data Sharing requires an approved data sharing request prior to sharing information with a third party for SMUD business purposes. The policy and process were audited last year by SMUD's Internal Audit Services (IAS) department. IAS noted no high-risk observations, although they did identify ways to improve both the data sharing policy and the associated process. Responses to all audit observations were completed on schedule and were confirmed by IAS to be closed in November 2022.

Records Management

The efficient and systematic control of the creation, capture, identification, receipt, maintenance, use, disposition, and destruction of SMUD records, in accordance with legal requirements and Board policies.

The Information Management and Compliance (IMC) program has achieved our 5-year plan of completing record evaluations for all business areas. We have implemented information management procedures for each completed business area. The completion of these evaluations and procedures gives us a high level of confidence that SMUD records will be managed appropriately.

The IMC Program in collaboration with the Enterprise Content Management (ECM) team launched a mass content migration (Enterprise Shared Drive Migration) project at the beginning of 2023. Using completed IMC records evaluations, this effort has kicked off for 13 of the 33 business areas in scope for this project. The project will identify, organize, and ultimately migrate content for each business area from non-approved records repositories into approved record repositories. This will allow this content to be managed in accordance with SD-16.

The IMC program is continuing to partner with IT to review and support new software integrations to ensure they meet records policies and information management requirements.

This is imperative as new software often produces and stores records outside of official repositories. IMC has been added to the purchase approval process to support this effort.

The IMC Program continues to collaborate with the Enterprise Content Management team, Cybersecurity, the CIP Program, Data Governance, and other business partners to ensure compliance with records policies and information management requirements.

4) **Challenges**

Information Security

The “Shields Up” declaration from the Department of Homeland Security’s Cybersecurity and Infrastructure Security Agency (CISA) from last year has never been rescinded, reflecting continued geopolitical tension and nation state cyber actors targeting critical infrastructure. Cybersecurity continued to work with numerous IT teams to follow this guidance to help manage the cyber risk. Ongoing internally facing awareness campaigns have been helpful in reminding staff of the risks we’re facing and the role they play in keeping our systems and data protected. In addition to the technical controls put in place, cybersecurity also continued to partner with other departments to ensure our cyber insurance coverage is maintained.

SMUD’s Payment Card Industry (PCI) card payment transaction volume once again increased, although SMUD remains a Level 2 Merchant. SMUD is again compliant with the PCI Data Security Standard (PCI DSS) this year as determined by an independent third-party PCI Qualified Security Assessor. Our required assessment documents were submitted to Chase Paymentech in June. This year we also introduced new processes and controls required by the upcoming PCI DSS version 4. Although our mature cybersecurity practices have prepared us well for the updated standard’s requirements, these minor improvements were necessary and will be complete by the time the new standard takes effect in March of 2024.

The Cybersecurity team continues to work hard to ensure compliance with the NERC Critical Infrastructure Protection (CIP) standards. Additional standards become enforceable in 2024 and subsequent years, which SMUD is currently not adequately staffed to implement. Over the next few years standards related to Bulk Electric System Cyber System Information (BES CSI or BCSI) in the cloud, monitoring vendor remote access, and several standards changes related to supporting virtualization will all become enforceable. Additionally, the Solano Phase 4 project and the upgrade of SMUD’s Energy Management System (EMS) will both require significant resources to ensure compliance.

Ransomware continues to be a threat facing many organizations today, and as a result SMUD Cybersecurity has continued to mature our Cybersecurity Emergency Operations Program (CEOP), performing annual exercises to ensure our teams understand the plan and are prepared to execute it in the event of a security incident. The exercises have highlighted areas of concern and risks that need to be addressed, which we are in the process of doing. Some of these need to be addressed at an enterprise level, which makes them more challenging. Additional risks and challenges will be discussed in the upcoming closed session.

SMUD Cybersecurity continues to execute a multi-year plan to execute a Zero-Trust Strategy and implement its principles to better position SMUD to secure sensitive data, systems, and services. A Zero-Trust architecture will drastically improve SMUD's Cybersecurity risk. Zero-Trust architectures are data-centric and allows the concept of least-privileged access to be applied for every resource access decision. Much progress has already been made in recent years, hastened by the enablement of remote work for our employees, and we will continue to move in this direction aligned to our IT Strategy.

Also in support of the larger IT Strategy, we will continue to enhance our necessary Vulnerability Response and Management capability and technology to ensure Information Technology delivers secure and reliable infrastructure by utilizing automation for patch management, engineering vulnerability mitigations, and maturing the implementation of cybersecurity's vulnerability management plan.

Physical Security

Physical Security is a first line of defense against any unauthorized intrusions at all of our facilities. With our current 'open campus' concept for the Headquarters Campus, and other locations, we are going to continue to regularly discover persons not authorized to be on SMUD property. This may result in increased security risks unless additional resources are deployed to prevent those incursions. This issue is also reflected at our substations as unauthorized intrusions remain a regular occurrence. Reinvesting in additional personnel and technology resources will help mitigate these issues.

As SMUD continues to grow our infrastructure footprint and provide power to an ever-expanding customer base, this necessitates additional investment in Security Operations in order to properly provide the requisite physical security protections called for by both regulatory compliance and industry best-practices. The resource profile for Security Operations has not been changed or evaluated for change since 2014. Since then, both the infrastructure profile and the population it serves have increased significantly. As with the reevaluation that occurred with Cybersecurity that resulted in their organization and staffing changing markedly, the same reevaluation and reinvestment into physical security is necessary to continue to keep pace with the increases in vulnerable assets and customers served.

Customer Privacy

SMUD continues to see requests for SMUD customer data to be used and shared for additional purposes and programs, including customer personally identifiable information (PII). As in years past, requests for such data have come from internal programs, state agencies and vendors. SMUD's Data Sharing Policy and process are in place to provide request tracking and approval to ensure that all sharing of PII is authorized and that transmission is performed using an approved and secure transfer mechanism.

Records Management

The IMC program continues to integrate information management best practices into SMUD's daily operations. Business areas are actively collaborating with IMC in the creation of information management and recordkeeping policies/procedures specific to their day-to-day operational needs. SMUD's continued development of the IMC program further reduces the risk of potential multi-million-dollar fines and reputational damage associated with lack of records management controls.

The Enterprise Shared Drive Migration project which launched at the beginning of 2023 is a large undertaking that will involve the mass organization and migration of content from Enterprise shared drives to approved SMUD information repositories. IMC in collaboration with the ECM team is working diligently to ensure completion of the project tasks by business areas and ease the learning curve that comes with these implemented changes. We have created documentation that helps with the classification of the records as well as training to ease the transition into using a new repository. This project will ensure SMUD stays in line with information management industry best practices, create an environment of purposeful organization and generate information management symmetry across SMUD.

5) Recommendation

It is recommended that the Board accept the Monitoring Report for SD-16 Information Management Policy Monitoring Report.

6) Appendices

Definitions and acronyms:

NIST – National Institute of Standards and Technology
CSF – Cybersecurity Framework
RTVA – Risk, Threat, and Vulnerability Assessment
SRRCS – Sacramento Regional Radio Communications System
CISA – Cybersecurity and Infrastructure Security Agency
PCI – Payment Card Industry
PCI DSS – Payment Card Industry Data Security Standard
CIP – Critical Infrastructure Protection
BES – Bulk Electric System
BESCSI – Bulk Electric System Cyber System Information
BCSI – BES Cyber System Information
CEOP – Cybersecurity Emergency Operations Program
CIRP – Cybersecurity Incident Response Plan

RESOLUTION NO. 23-11-09

**BE IT RESOLVED BY THE BOARD OF DIRECTORS
OF THE SACRAMENTO MUNICIPAL UTILITY DISTRICT:**

This Board accepts the monitoring report for **Strategic Direction SD-17, Enterprise Risk Management**, substantially in the form set forth in **Attachment F** hereto and made a part hereof.

Approved: November 16, 2023

INTRODUCED: DIRECTOR FISHMAN				
SECONDED: DIRECTOR TAMAYO				
DIRECTOR	AYE	NO	ABSTAIN	ABSENT
SANBORN	X			
ROSE				X
BUI-THOMPSON				X
FISHMAN	X			
HERBER	X			
KERTH	X			
TAMAYO	X			

SACRAMENTO MUNICIPAL UTILITY DISTRICT

OFFICE MEMORANDUM

TO: Board of Directors

DATE: November 1, 2023

FROM: Claire Rogers *CR 11/1/23*

SUBJECT: Audit Report No. 28007614
Board Monitoring Report; SD-17: Enterprise Risk Management

Internal Audit Services (IAS) received the SD-17 *Enterprise Risk Management* 2023 Annual Board Monitoring Report and performed the following:

- Selected a sample of statements and assertions in the report for review.
- Interviewed report contributors and verified the methodology used to prepare the statements in our sample.
- Validated the reasonableness of the statements in our sample based on the data or other support provided to us.

During the review, nothing came to IAS' attention that would suggest the items sampled within the SD Board Monitoring report did not fairly represent the source data available at the time of the review.

CC:

Paul Lau

Board Monitoring Report 2023

SD-17, Enterprise Risk Management



1. Background

Strategic Direction 17 states that:
Effectively balancing and managing risk to further SMUD's policies and business goals is a core value of SMUD.

Therefore:

SMUD will implement and maintain an integrated enterprise risk management process that identifies, assesses, prudently manages, and mitigates a variety of risks facing SMUD, including financial, supply, operational, physical and cyber security, climate change, legal, legislative and regulatory, and reputational risk.

2. Executive summary

a) SMUD strategically manages risk to proactively reduce the chance of loss, identify and take advantage of opportunities to create greater financial stability and protect our resources to support SMUD's mission and create value for our customers.

b) **SMUD is in compliance with the Board's Strategic Direction, SD-17 Enterprise Risk Management.**

c) SMUD continues to maintain an integrated Enterprise Risk Management (ERM) Program.

SMUD's ERM program continues to integrate risk management best practices to support decision making in key business processes. This year the risk framework was used to support decision making during the enterprise prioritization, planning and budget process.

Since the 2022 Annual Monitoring Report, staff continues to review SMUD's portfolio of risks. Two risks were consolidated into one risk, one risk title was changed, and three new additional risks were added to the portfolio.

- Consolidated risk: System adequacy and Operational adequacy combined to Grid infrastructure and operational adequacy
- Changed: Electrification of transport sector to Transportation sector electrification/Unmanaged electrification
- New risk: Utility scale technology
- New risk: Renewables projects
- New risk: Severe weather

The Year-on-Year Residual Risk Exposure results are summarized as follows:

			Nov. 2021	Nov. 2022	Nov. 2023
✓	“Red”:	Extremely High Residual Exposure	(0)	(0)	(0)
✓	“Orange”:	High Residual Exposure	(5)	(6)	(5)
✓	“Yellow”:	Medium Residual Exposure	(40)	(39)	(40)
✓	“Green”:	Low Residual Exposure	(38)	(38)	(40)
✓	“Blue”:	Extremely Low Residual Exposure	(0)	(0)	(0)
			(83)	(83)	(85)

Staff continues to implement risk mitigation strategies to balance residual risk exposures. Some risks, while medium or “yellow” are within the risk management goal. There are currently 47 risks, shown in the last two lines of the table, which are within the risk management goal.

Current Residual Risk Exposure	Risk Management Goal	Number of Risks
Orange “high”	Yellow “medium”	5
Yellow “medium”	Green “low”	33
Yellow “medium”	Yellow “medium”	7
Green “low”	Green “low”	40

Building Resiliency in a Changing Risk Landscape

SMUD’s enterprise-wide risk exposure is medium/high. SMUD’s risk landscape continues to change. Escalating inflation, increasing cyber events, challenges brought by energy transition, rapid changes in technology, ongoing supply chain challenges exacerbated by global unrest, and unprecedented weather events brought about by climate change are a few of the factors causing the changes in our risk environment. In addition, a hardened insurance market with reduced coverage capacity makes it more difficult for SMUD to protect itself from financial losses resulting from a risk event. As a result, SMUD is focusing on leveraging its enterprise risk management framework in building a resilient organization that can monitor uncertainties and trends, adapt to changing operating environments, and recover from significant impacts in a shifting risk landscape. Staff has worked to further enhance risk input into the enterprise prioritization and business planning processes, focused on better understanding risk interdependencies, and have identified the key risks that have the potential to impact SMUD’s performance in the upcoming year. Staff continues identify risks and implement initiatives to mitigate and manage the risks appropriately.

3. Additional Supporting information:

a) Summary of 2023 activities

In 2023, ERM continued to support the organization by facilitating risk conversations, supporting projects, aligning risk practices, and providing a risk framework for uniformed risk assessments across the organization. The overarching goal is to encourage the integration of risk-based thinking into decision-making at all levels, effectively balancing risks with opportunities.

ERM utilizes five committees to enhance cross-functional discussion and thorough understanding of major risk issues at the executive and operational leadership team level. One of these is an executive level oversight committee, the Enterprise Risk Oversight Committee (EROC) which includes multiple executives. Another is the newly developed

Risk Champion Network (RCN), a director led risk team focused on championing risk practices across SMUD and discussing top risk priorities. The other three are the Trading Operations Risk Committee (TORC), Zero Carbon Plan Implementation Team, and the Three Lines Working Team.

Since the 2022 Board update, SMUD was faced with unprecedented challenges with recurring storms, operational difficulties, and increased commodity costs to name a few. Despite the many challenges, staff continues to leverage the enterprise risk management framework to support enterprise-wide risk management/mitigation activities bringing positive outcomes for SMUD, our customers, and the community. Some samples of these activities include:

Risk Focus Areas for 2023-2024

In 2023, staff worked with leaders across SMUD to identify the top risk focus areas for 2023-2024. This is a list of the top risk areas that if additional controls/mitigations aren't appropriately allocated, have a high potential to impact the achievement of SMUD's goals and strategic objectives in the upcoming year. Understanding these risks better allows senior leaders to make risk informed decisions on the investments they need to make and the actions that are required to achieve SMUD's goals and strategic objectives. These risks were integrated into our enterprise prioritization process to help align our 2024 resource plan to areas of high risk and strategic value.

Attachment A outlines the risk focus areas for 2023-2024 and the actions that will be taken to address these risks.

Risk Champion Network

The Risk Champion Network (RCN) is a director level led committee responsible for championing risk practice across SMUD and identifying and discussing risks that have the potential to impact SMUD and its operations. In 2023, the Risk Champion Network worked to identify the interdependencies between the risk focus areas for 2023-2024. This process identifies where risks are shared across SMUD helping to identify opportunities for optimizing risk response activities. This work also lays the foundation to strategically look at the impacts of these risks SMUD-wide instead of in risk silos allowing staff to better manage and communicate risks.

Environmental and Safety Risk Mitigation

SMUD's Environmental, Health Safety (EH&S) and Real Estate department continues to support risk mitigation efforts throughout the organization. SMUD continues to expand our use of the of the safety management software to improve contractor oversight, risk mitigation compliance, and business partnership. As contractors work through our robust Procurement and Sourcing vendor screening program that assesses and qualifies them to perform future contract work at SMUD, they submit various critical risk mitigation program elements of their EH&S program. After being risk ranked scored, and selected high risk contractors performing work scopes for SMUD complete various pre-task assessments to ensure that key compliance or other project risks are sufficiently mitigated. Once work begins, EH&S staff partner with other SMUD teams to ensure that daily pre-job briefings are conducted and that required project specific risk mitigation measures are routinely performed. SMUD personnel partner with these contractors to ensure that all affected personnel and the public are not negatively impacted by work activities.

Managing Commodity Market Volatility

SMUD has various Board approved directives that dictate guidelines for commodity procurement, limiting the amount of risk tolerance and variability to commodity costs for supplying our customers. These directives serve as guardrails for reliability and affordability.

Commodities Risk Management (CRM) staff monitors and reports regularly on our risk exposure and performance of commodity procurement operations against budgeted costs within our rate case.

2022 and 2023 proved to be challenging in managing commodity costs affordably. This was primarily because of the outage at Cosumnes Power Plant (CPP), but also because of extraordinary commodity market prices in the later part of 2022 and the beginning of 2023. However, our directives requiring Energy Trading and Contract (ET&C) to respond to an outage by procuring the replacement power and capacity required to satisfy our guidelines and to hedge exposure to gas market risk helped mitigate risk to further cost increases and to any blackouts by having enough power to serve our customers reliably.

The western natural gas markets endured three months of extreme volatility from Dec 2022 through Feb 2023. Prices at northern California's main pricing hub, PG&E Citygate spiked as high as \$57 per MMBtu during this period. Our hedging program and directives ensured we were insulated from most of the cost increase, providing large cost offsets through positive settlement revenues of from these hedges. Having gas in storage also assists with this, by allowing SMUD to pull gas that was purchased at much lower prices from the ground instead of paying expensive market prices during periods of volatility.

The commodity budget was severely impacted during the outage period but was insulated from even higher costs and potential for emergency rate increases due to our risk management practices and directives on hedging.

Hazard Mitigation Plan

In 2023, SMUD received a grant from the Federal Emergency Management Agency (FEMA) to update its Hazard Mitigation Plan (HMP). The HMP is a plan that is updated every 5 years and is a requirement to receive mitigation grant funding from FEMA under Disaster Mitigation Act (DMA) 2000. SMUD's Board adopted its first HMP in 2018 and expires in June 2024. New requirements in this update includes an emphasis on vulnerable communities, climate change, and high hazard dams.

The HMP is a collaborative process which include input from the public, various stakeholders and community groups and internal subject matter experts to identify natural and human-made hazards that could potentially impact SMUD's plan area. SMUD's plan area includes all the counties where SMUD owns, partially owns, or operates its infrastructure in. Staff conducted a risk assessment and identified gaps in mitigation by leverage existing SMUD processes to prioritize any additional mitigation actions for future funding opportunities. Some risks included in the plan includes wildfire, floods, drought, severe weather, cyber threats, physical attacks, and oil spill to name a few. This plan allows SMUD to identify policies and actions that can be implemented over the long term to reduce risk and future losses. Furthermore, by having a Hazard Mitigation Plan, SMUD is eligible to apply for future CalOES and FEMA grants to help offset a portion of mitigation project costs.

Risk exposure monitoring and continuous updates: Staff continues to monitor and update any changes to existing and emerging risks and their impacts to residual risk. Staff incorporates audit results and management responses ERM assessment planning and reporting process. The audit plans are linked with the enterprise risk assessments to provide assurance that mitigation measures for critical risks are being implemented effectively and in a timely manner.

- Since the 2022 SD-17 report, 8 audit reports were reviewed by the ERM Office, and none resulted in a change to the risk profile.

- b) **Benchmarking:** Staff reviews available enterprise risk related information and incorporates new risk issues and/or expands existing risk issues where appropriate. North Carolina State University's (NCSU) Enterprise Risk Management Initiative and Protiviti continue to jointly publish benchmark information. The joint study, 2023 & 2032 Executive Perspectives on Top Risks, provides insight for short-term and long-term risks from 1,304 global board members and executives from across several industries. The study states that the level of uncertainty in today's global marketplace and the velocity of change continue to produce a multitude of potential risks that can disrupt an organization's business model and strategy on very short notice. The study found that for 2023, risks are the highest in more than a decade, risk scores for almost all risk domains have increased. People and culture continue to be top of mind for many leaders as it becomes increasingly challenging to attract and retain talent to address needs across organizations. Economic uncertainties as well as massive disruptions in the global supply chain and innovative disruptions continue to impact strategic initiatives for many organizations. Overall, the top ten identified enterprise risk issues across the surveyed organizations and those specific to the Energy and Utility Industry (Utility Industry) and its trend analysis is consistent with SMUD's identified enterprise risks.

An analysis of SMUD's enterprise risks as compared to the top 10 risks identified by the study is outlined in Attachment B.





















- c) **Looking forward**
In 2023, ERM's goal is to build a more risk aware culture by leveraging the Risk Champion Network and frequent risk communications and learning modules. Staff will continue to implement programmatic changes, align risk practices SMUD-wide, and fine tune risk management practices within business processes. The following initiatives have been planned:

- Develop risk appetite statements and risk awareness trainings,
- Enhance risk input into enterprise prioritization and strategy process,
- Finalize SMUD's Hazard Mitigation Plan,
- Continue to support SMUD's wildfire safety program,
- Positively influence state and federal legislative/regulatory issues,
- Identify a strategy to attract workforce for critical roles,
- Provide programs and services which reflect the customer's changing expectations,
- Support SMUD's Environmental and Safety initiatives,
- Continue cyber security and privacy awareness and compliance activities,
- Improve upon current physical security and public safety practices, and
- Test and enhance our operational response plans through tabletop exercises and coordinated meetings.






- 4. Challenges:** The risk environment is changing more rapidly than ever before. With technology innovations increasing, there brings both opportunities and exacerbates existing risks. Supply chain issues, decarbonization trends, a hardened insurance market, workforce capabilities, and reliability and resiliency requirements all add to the challenging risk environment, making it more difficult to manage risks. SMUD's ERM framework allows staff to better manage risks as a portfolio, rather than in silos. The result is increased awareness of SMUD's risks, level-setting of risk tolerance across the enterprise, efficiencies in mitigation efforts as well as potential cost savings.

- 5. Recommendation:** It is recommended that the Board accept the Monitoring Report for SD-17, Enterprise Risk Management.











2023-2024 Risk Focus Areas

Risk Category	Risk	Year on Year Changes			Risk Trend	Target	Risk Mitigation Activity(ies)
		2021	2022	2023			
Operational: Process	Business continuity and disaster recovery						In 2023, staff worked to implement the Enterprise Continuity Management Software (ECMS) solution to support efficient access to real-time business continuity plan information and requirements during events that pose a threat to SMUD's continuity. In 2024, staff will continue to focus on increasing business continuity capabilities through the continued roll-out of the ECMS solution with training and change management support. Staff will also begin partnering with IT to initiate enhancements to the IT Disaster Recovery Program.
Financial	Commodity costs: energy commodity						Additional directives were put in place to monitor fluctuations in commodity risks. The TORC will continue to monitor changes and report to the EROC as appropriate.
Operational: Process	Control center						Staff is currently in the beginning stages of acquiring property to build a new control center that will meet SMUD's current and future needs.
Operational: System	Cybersecurity						<p>The cybersecurity program has continued to mature year-after-year and in line with SD-16, cyber has implemented strategies and technical solutions to manage SMUD's cyber, privacy, legal, regulatory and compliance risk. In 2023, Cybersecurity has focused on:</p> <ul style="list-style-type: none"> Encouraging Information Technology (IT) and the business to embrace a Zero-Trust Strategy and Principles to better position SMUD to secure sensitive data, systems, and services. A Zero-Trust architecture will drastically improve SMUD's Cybersecurity risk. Zero-Trust architectures are data-centric and allows the concept of least-














2023-2024 Risk Focus Areas

Risk Category	Risk	Year on Year Changes			Risk Trend	Target	Risk Mitigation Activity(ies)
		2021	2022	2023			
							<p>privileged access to be applied for every resource access decision. In 2024, collaborating within IT and the business, cyber will continue to introduce and implement their strategic road map to implement a Zero-Trust architecture.</p> <ul style="list-style-type: none"> Continued to deploy Vulnerability Response and Management Strategy and Plan to support the delivery of secure information technology. In 2024, Cybersecurity will continue to strategically mature this capability by encouraging automation, where technically feasible, for patch management. Continued implementing cybersecurity controls, information management processes, and technical solutions to enforce cybersecurity policies, procedures and standards aligned to the National Institute of Standards and Technology (NIST) Cybersecurity Framework Security and Privacy Control families. Continued building on the momentum and experience from achieving 100% pass rate for consecutive North American Electric Reliability Corporation (NERC) Critical Infrastructure Protection (CIP) compliance audits. Cybersecurity's CIP Program Manager and team continued to ensure the implementation of new mandatory and enforceable regulatory standards, best practices, and internal controls while collaborating across multiple stakeholders to mature technology and process compliance implementations.
Operational: System	Data Privacy						SMUD continues to see demand for SMUD customer data to be used and shared for additional purposes and






2023-2024 Risk Focus Areas

Risk Category	Risk	Year on Year Changes			Risk Trend	Target	Risk Mitigation Activity(ies)
		2021	2022	2023			
							programs, including customer personally identifiable information (PII). Requests for such data have come from internal programs, state agencies and vendors. SMUD’s Data Sharing Policy and Process are in place to provide request tracking and approval to ensure that all sharing of PII is authorized and performed using a secure transfer mechanism.
Operational: Process	Grid infrastructure T&D						<p>Staff continues to implement ongoing T&D asset maintenance and multi-year replacement strategies using a risk-based approach, considering the assets’ impacts to safety, load serving capability, reliability and regulatory compliance requirements.</p> <p>The 2024 Capital Portfolio includes completion of multi-year projects that are in flight and the start of projects to replace or upgrade substation transformers, circuit breakers and switchgear. The portfolio also includes funding for our ongoing pole replacement and cable replacement programs.</p>
Operational: Process	Physical asset security						<p>Security Operations continues its work to develop, update, and modernize security plans, policies, and procedures affecting the entire SMUD enterprise. Security Operations is also continuing to pursue implementation of additional physical security measures throughout our critical asset portfolio, such as installation/implementation of the following: thermal imaging cameras to detect intrusion at substations, ballistic protection for transformers within critical substations, enhancement and hardening of perimeters at both campus and substation locations, and expansion of the video management systems memory to preserve footage for a greater amount of time. In addition,</p>











2023-2024 Risk Focus Areas

Risk Category	Risk	Year on Year Changes			Risk Trend	Target	Risk Mitigation Activity(ies)
		2021	2022	2023			
							Security Operations is currently working towards providing recommendations for security risk mitigation in the UARP, as well as down selecting a leading security contractor firm in order to develop a comprehensive risk profile of all SMUD locations where personnel are located in order to better protect them.
Operational: Process	Power generation asset reliability						Staff has established processes to manage unexpected disruption to power generation and/or non-performance from power & gas contractual assets that threaten to cause partial or complete cessation of the day-to-day bulk power operations of SMUD. Staff continues to assess the reliability of SMUD's assets and performs standard maintenance and rebuilds where necessary to meet SMUD's current and future needs. In addition, staff continues to identify appropriate renewables resources in support of SMUD's zero carbon goals. See renewables projects for additional information.
External	Regulatory/legislative mandates						Staff continues to monitor and stay apprised of all regulatory/legislative mandates that have the potential to impact SMUD. Staff works through a formalized process to respond to these
Strategic	Renewables projects						In 2024 staff will continue to work to identify appropriate resources to meet SMUD's needs and move SMUD closer towards the achievement of its zero carbon goals. SMUD staff performed significant analysis and outreach, numerous studies, and a competitive solicitation of the market to identify future projects that meet SMUD's needs. Planned diversification of proven clean technologies and new technologies and business model evaluations ensure that the right projects and programs are selected to meet SMUD's goals in a






2023-2024 Risk Focus Areas

Risk Category	Risk	Year on Year Changes			Risk Trend	Target	Risk Mitigation Activity(ies)
		2021	2022	2023			
							<p>reliable and affordable manner. In addition, SMUD staff participate in industry discussions and studies with regard to the development and implementation of new and updated Reliability Standards to ensure grid reliability and resiliency with the increased penetration of inverter-based resources into the grid.</p> <p>SMUD staff continue to plan and perform Capital and Operations and Management projects and work to ensure the reliability of existing and new generation assets and infrastructure supported by proven procedures, policies, and strategies as a part of SMUD's Asset Management Program.</p>
Operational: Process	Safety: loss of life						<p>Within SMUD Operations, the health & safety of our employees, contractors continue to be a primary focus. Integrated into our work processes are various mitigations that help SMUD reduce both the frequency and severity of incidents. We continue to ensure that we follow the guidance laid out in the Cal-OSHA Injury Illness & Prevention Program (IIPP). Key areas of risk mitigation measures that SMUD performs include safety responsibility awareness, OSHA regulatory compliance, safety communications, hazard assessments, accident/exposure investigations, hazard correction, safety training instruction, and recordkeeping. In addition, SMUD continues to operate an industry leading, behavior-based safety program called SCORCH. In the past year SMUD has continued to further integrate safety software solutions that has improved employee access to critical safety information, enhanced the ability to capture near miss reporting, and employee safety suggestions and concerns. SMUD continues to leverage best practices among the Utility</p>






2023-2024 Risk Focus Areas

Risk Category	Risk	Year on Year Changes			Risk Trend	Target	Risk Mitigation Activity(ies)
		2021	2022	2023			
							industry to drive down risk and improve operational performance.
External	Severe weather (incl wind, heat, lightning, capacity)						Climate change increases the frequency, intensity, and impacts of extreme weather events. These impacts have a high potential to impact SMUD's goals and operations. SMUD has conducted lessons learned after events and used those lessons to make process changes and plan for future events. Staff continues to conduct tabletop exercises for a number of hazard events such as storms, wildfires, heat waves, and gas pipeline to name a few. Doing so helps SMUD proactively identify gaps and address them, preparing SMUD for future events.
Operational: People	Strategic workforce planning: critical positions						<p>In 2023 SMUD leadership began implementing action plans for each of the 59 roles identified as key through our Strategic Workforce Planning Program. These action plans encompass 110 different strategies that mitigate current and future risks associated with the key positions, as well as outlines steps to create new classifications that will be required to support work in the next 3-5 years. Directors and executives drive the action plans, which often require stakeholder partnerships and significant touchpoints in People Services and Strategies.</p> <p>Staff monitors progress and report status of action plans quarterly; due to the action plans being strategic and long-range in nature, staff will continue execution and tracking through 2024. Staff will also ask senior leaders to identify significant changes that require reassessing key roles. In 2024 staff expects to accomplish several impactful plans, such as creating a Data Scientist classification series and a Field Leader Training</p>






2023-2024 Risk Focus Areas

Risk Category	Risk	Year on Year Changes			Risk Trend	Target	Risk Mitigation Activity(ies)
		2021	2022	2023			
							<p>Program. While the Data Scientist classification will facilitate getting new and important work done, it also helps attract new talent with diverse experiences and expands career opportunities and helps retain current employees. The Field Leader Training Program is another way SMUD is investing in its employees and maximizes employees chances of being successful in leading a team to accomplish core operational work.</p> <p>As background, staff assess all roles through Strategic Workforce Planning against several criteria: impact on strategy, turnover, cost of turnover, level of effort to backfill, operational impact, customer service impact, and performance variability. Leaders also describe positions that don't yet exist, but that would be needed for new types of work 3-5 years in the future. In 2022 the top 2% (59) of highest scoring roles based on these criteria were designated as "key" and reasons for the challenges or future anticipated challenges were captured. Action plans were created to identify how staff can address challenges, mitigating risk to the organization.</p>
Operational: Process	Supply chain						<p>Supply chain risk management (SCRM) efforts continues to mature in 2023. Staff has continued with weekly integrated business planning to manage supply and demand forecasts for key equipment supporting the new business pipeline, primarily distribution transformers. Internal coordination has continued to include the Chief Operating Officer (COO) and Chief Financial Officer (CFO) for inventory levels and risk of customer or project delays due to supply chain.</p> <p>In 2023, for the third year in a row, staff completed an annual SCRM risk assessment for all categories</p>

2023-2024 Risk Focus Areas

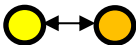


Risk Category	Risk	Year on Year Changes			Risk Trend	Target	Risk Mitigation Activity(ies)
		2021	2022	2023			
							<p>(materials/equipment, services/technology, and construction), the overall risk score for materials and equipment has gone down by 32%. Staff has reduced risk scores in 2023 by adding secondary suppliers, increasing safety stock values, increasing inventory on-hand, and by managing supplier performance.</p> <p>The new goal for 2023 is to establish more senior leadership involvement in managing critical third-party relationships, estimated to include the top 10 to 20 suppliers that are 60 to 80% of SMUD's spend and provide mission critical material, equipment, services, and technology has begun to develop with a few key relationships being managed at the executive level at least 1x per year including; distribution transformers, large power transformers, fleet vehicles/equipment, meters, and wood poles, this goal will continue in 2024.</p>
Strategic	Transportation sector electrification/Unmanaged electrification						<p>SMUD has been looking at the question of what electrification of buildings and transport will do to our grid for more than a decade. We continually improve our assessment approach as new data, forecasts, and technology change. This assessment process helps us plan for expected growth in a manageable way, to reduce the risk of us delaying connection of new electric loads. In addition, the assessment process enables us to have a clear picture of the potential impacts in an unmanaged and a managed world.</p> <p>Beyond assessment, we are actively piloting different approaches to managing charging to make sure that we can flatten out large new electric loads and accommodate as much of this new load as possible on our existing grid. In 2022 we launched a large-scale pilot of managed charging with three large OEMs and we've</p>

2023-2024 Risk Focus Areas




Risk Category	Risk	Year on Year Changes			Risk Trend	Target	Risk Mitigation Activity(ies)
		2021	2022	2023			
							expanded that in 2023 to continue to explore approaches to managing charging of light duty vehicles. We are also testing charge management and vehicle to grid functionality with school bus fleets and expect to expand our efforts in the broader commercial fleet space in 2024. With managed charging we anticipate being able to significantly reduce impacts to our grid, but at the same time recognize that we will need to also expand our grid's capacity to accommodate even a future where managed charging is widespread.
External	Wildfire						In 2023 staff continues to assess wildfire risks to SMUD and completed its triennial update of its Wildfire Mitigation Plan. The 2024 Capital and O&M budget include funds to continue implementation of SMUD's Wildfire Mitigation Plan.

**TOP 10 ENTERPRISE RISKS COMPARED TO SMUD'S ENTERPRISE RISK CATEGORIES
Specific to Energy and Utilities Industry**

Benchmarking Information indicates that SMUD's risks are consistent with other energy and utilities; one indicator that we are aligned in our understanding of risks facing our industry.

North Carolina State ERM Initiative and Protiviti Top 10 Enterprise Risks		SMUD's Corresponding Risks	SMUD's Current Residual Risk Exposure
Specific to Energy and Utilities Industry			
1	Rising threat associated with natural disasters and weather phenomena	External risk: Climate change Global pandemic Wildfire Severe weather	The current residual risk exposure ranges from medium to high 
2	Uncertainties in supply chain including the viability of key suppliers, scarcity of supplies, volatile shipping and delivery options, or stable prices in the supply chain ecosystem may make it difficult to deliver services	Operational risk: Supply chain	
3	Succession challenges, ability to attract and retain top talent	Operational risk: Strategic workforce agility Competitive workforce total rewards Diversity, equity, inclusion and belonging Change management	

TOP 10 ENTERPRISE RISKS COMPARED TO SMUD'S ENTERPRISE RISK CATEGORIES
Specific to Energy and Utilities Industry

North Carolina State ERM Initiative and Protiviti Top 10 Enterprise Risks		SMUD's Corresponding Risks	SMUD's Current Residual Risk Exposure
Specific to Energy and Utilities Industry			
4	Changes in the overall work environment including shifts to hybrid work	Operational risk: Strategic workforce agility Operational excellence Diversity, equity, inclusion and belonging Change management Employee safety	
5	Organization's approach to managing ongoing demands on or expectations of a significant portion of workforce to "work remotely" or increased expectations for a transformed, collaborative hybrid work environment may negatively impact our ability to retain talent as well as the effectiveness and efficiency of how we operate our business.	Operational risk: Strategic workforce agility Operational excellence Diversity, equity, inclusion and belonging Change management Employee safety Strategic risk: 2030 Zero Carbon Plan Innovation	
6	Resistance to change in our culture may restrict our organization from making necessary adjustments to the business model and core operations	Operational risk: Strategic workforce agility Operational excellence Diversity, equity, inclusion and belonging Change management Strategic risk: Innovation 2030 Zero Carbon Plan	

**TOP 10 ENTERPRISE RISKS COMPARED TO SMUD’S ENTERPRISE RISK CATEGORIES
Specific to Energy and Utilities Industry**

North Carolina State ERM Initiative and Protiviti Top 10 Enterprise Risks		SMUD's Corresponding Risks	SMUD's Current Residual Risk Exposure
Specific to Energy and Utilities Industry			
7	Economic conditions (including inflationary pressures) in markets we currently serve may significantly restrict growth opportunities, impact margins, or require new skill sets for our organization	Financial risk: Interest rate Commodity Project execution Operational risk: Strategic workforce agility External risk: Legislative and regulatory Economic business agility	
8	The current interest rate environment may have a significant effect on the organization’s capital costs and operations.	Financial risk: Interest rate Energy commodity Capital availability/cashflow Liquidity Wholesale credit default	The current residual risk exposure ranges from medium to high
9	The adoption of digital technologies in the marketplace and in our organization may require new skills that either are in short supply in the market for talent or require significant efforts to upskill and reskill our existing employees.	Operational risk: Strategic workforce agility Operational excellence Diversity, equity, inclusion and belonging Change management Strategic risk: Innovation	
10	Anticipated increases in labor costs may affect our opportunity to meet targets	Operational risk: Strategic workforce agility Total rewards Change management Strategic risk: Innovation	

President Sanborn then turned to Discussion Calendar Item 12, to adopt the California Environmental Quality Act (CEQA) Initial Study and Mitigated Negative Declaration (IS/MND) for the El Rio Substation Project (Project); adopt the Mitigation Monitoring and Report Program; and approve the Project.

Ellias van Ekelenburg, Director, Environmental Safety & Real Estate Services gave a presentation on Item 12. A copy of the slides used in his presentation is attached to these minutes.

Mary Green, a member of the public, stated that she was providing comment on behalf of her mother, Gina Powell. She noted that she wanted her comments to be made part of the minutes if the Board approved the Project. She outlined commitments that SMUD had made including quickly repairing damages caused on El Rio Avenue by construction equipment as well as the commitment to work with other agencies on road maintenance and to ensure the canal that was being constructed along El Rio would have 100-year flood plain status. She stated SMUD had committed to preparing landscape plans and requested shrubs to help mitigate the impact of light and the visual impact of chain link fences along the road. She stated that SMUD had committed to watch the volume of construction noise and levels of dust as well as to make the main entrance for the El Rio Substation to be off of Elverta rather than El Rio.

President Sanborn stated that she could see that staff was nodding in agreement and then asked if the "dark skies" protocols would be followed.

Mr. van Ekelenburg stated that crews would have various lighting setups that would be used, with dimming of the lights during non-operational hours, and that staff would be meeting with Sacramento County regarding setback requirements.

Ms. Lewis commented that the items mentioned were not part of the CEQA process requiring mitigation, but she commended staff for reaching out to Ms. Green and making the commitments. She noted that the comments would be included in the minutes but were not part of the required CEQA documentation.

Mr. van Ekelenburg stated that a formal response had been provided to the concerns raised, and it was referenced in Letter 2.

There being no further discussion, Director Tamayo moved for approval of Discussion Calendar Item 12, Director Kerth seconded, and Resolution No. 23-11-10 was approved by a vote of 5-0, with Directors Rose and Bui-Thompson absent.

RESOLUTION NO. 23-11-10

WHEREAS, this Board has adopted policies stating this Board is committed to meeting customers' electrical energy needs (SD-4); demonstrating energy reliability and environmental leadership (SD-7); and ensuring high levels of customer satisfaction (SD-5); and

WHEREAS, SMUD's primary purpose is to supply electrical energy to customers in the Sacramento area; and

WHEREAS, SMUD proposes the **EI Rio Substation Project (Project)** to construct and operate a new substation and decommission and remove outdated equipment at the existing **Elverta Substation**; and

WHEREAS, the **Project** would include new transformers and circuit breakers, a control building, paved access, fencing, lighting, stormwater drainage, stormwater retention basin, and utilities; and

WHEREAS, north of the **Project**, two existing electrical towers carrying 230 kilovolt (kV) transmission lines would be replaced with two or three steel monopoles (also known as tubular poles) to tie the substation into the existing grid; and

WHEREAS, following energization of the proposed **EI Rio Substation**, the existing **Elverta Substation** would be decommissioned and the outdated equipment dismantled and removed from the site; and

WHEREAS, **Project** construction is anticipated to be during the first quarter of 2025 and would be completed by late 2026, involving active construction for approximately 24 months, and three months to decommission the **Elverta Substation**; and

WHEREAS, SMUD prepared an **Initial Study/Mitigated Negative Declaration (IS/MND)**, and **Mitigation Monitoring and Reporting Program** for the **Project** that incorporated environmental avoidance, mitigation and improvement measures; and

WHEREAS, the draft **Initial Study, Mitigated Negative Declaration**, and **Mitigation Monitoring and Reporting Program** were distributed to members of the Board, interested persons and organizations,

public agencies, and landowners and occupants of adjacent parcels; notice was published in the *Sacramento Bee*, inviting public comment; the comment period was open from September 5, 2023, through October 5, 2023; a hybrid virtual/in-person public meeting was held on September 26, 2023, which was attended by five members of the public; and four public comment were received; and

WHEREAS, all comments received during the public review period have been responded to as appropriate and incorporated into the **Initial Study, Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program**; and

WHEREAS, the **Initial Study, Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program** are located in the records of SMUD under the custody of the Environmental Services Department; **NOW THEREFORE**,

**BE IT RESOLVED BY THE BOARD OF DIRECTORS
OF THE SACRAMENTO MUNICIPAL UTILITY DISTRICT:**

Section 1. This Board has reviewed and considered information in the **Initial Study, Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program**, together with comments received during the public review period; finds that the **Initial Study, Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program** as set forth in **Attachment G** hereto have been completed in compliance with the **California Environmental Quality Act (CEQA)**, the State Guidelines for implementation of **CEQA**, and Board Resolution No. 13-11-03 (Procedures for Implementation of **CEQA**); and finds that the **Initial Study, Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program** reflect the independent judgment and analysis of this Board.

Section 2. This Board finds, on the basis of the **Initial Study, Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program**, and comments received during the public review period, that there is no substantial evidence that the **El Rio Substation Project (Project)** may have a significant effect on the environment.

Section 3. Based on the **Initial Study, Mitigated Negative Declaration, Mitigation Monitoring and Reporting Program**, and the findings made by this Board, this Board adopts the **Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program** and approves the **Project**. The Environmental Services Department is directed to file with the County Clerk of Sacramento County, a Notice of Determination, which shall set forth the information required by **CEQA**.

Approved: November 16, 2023

INTRODUCED: DIRECTOR TAMAYO				
SECONDED: DIRECTOR KERTH				
DIRECTOR	AYE	NO	ABSTAIN	ABSENT
SANBORN	X			
ROSE				X
BUI-THOMPSON				X
FISHMAN	X			
HERBER	X			
KERTH	X			
TAMAYO	X			

Sacramento Municipal Utility District

El Rio Substation Project

Final Initial Study and Proposed Mitigated Negative Declaration •
State Clearinghouse Number 2023090056 •
November 2023

Powering forward. Together.



Sacramento Municipal Utility District

El Rio Substation Project

Final Initial Study and Proposed Mitigated Negative Declaration •
State Clearinghouse Number 2023090056 •
November 2023

Lead Agency:

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6201 S Street, MS B209
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or

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TABLE OF CONTENTS

EXECUTIVE SUMMARY	ES-1
INTRODUCTION	ES-1
PROJECT DESCRIPTION	ES-1
FINDINGS	ES-1
CUMULATIVE IMPACTS.....	ES-1
GROWTH-INDUCING IMPACTS.....	ES-2
DETERMINATION	ES-2
1 INTRODUCTION	1
1.1 PROJECT OVERVIEW	1
1.2 ENVIRONMENTAL PROCESS SUMMARY	1
1.3 MITIGATION MEASURES	2
1.4 CEQA DETERMINATION	13
2 COMMENTS AND RESPONSES	14
2.1 INTRODUCTION	14
2.2 RESPONSES TO COMMENTS.....	14
3 CHANGES TO DRAFT IS/MND TEXT	32
3.1 CHANGES TO DRAFT IS/MND PROJECT DESCRIPTION.....	32
3.2 CHANGES TO DRAFT IS/MND ENVIRONMENTAL IMPACT EVALUATION	34
4 MITIGATION MONITORING AND REPORTING PROGRAM	37
4.1 INTRODUCTION	37
4.2 MITIGATION IMPLEMENTATION AND MONITORING	37
4.3 MITIGATION ENFORCEMENT	38
5 LIST OF PREPARERS	56
5.1 SACRAMENTO MUNICIPAL UTILITY DISTRICT	56
5.2 AREA WEST ENVIRONMENTAL INC.	56
APPENDIX A. Draft IS/MND as Revised In the Final IS/MND	

ACRONYMS AND OTHER ABBREVIATIONS

ACM	asbestos-containing material
APN	Assessor's Parcel Number
CARB	California Air Resources Board
ATSDR	Agency for Toxic Substances and Disease Registry
BMP	best management practice
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CNG	compressed natural gas
dB	decibel
dBA	A-weighted decibel
DPM	diesel-exhaust particulate matter
IS/MND	Initial Study/Mitigated Negative Declaration
EMD	Environmental Management Department
HMBP	Hazardous Materials Business Plan
kV	Kilovolt
L _{eq}	Energy Equivalent Noise Level
LBP	lead-based paint
LNG	liquefied natural gas
MMRP	mitigation monitoring and reporting program
mph	miles per hour
NAHC	Native American Heritage Commission
NESHAP	National Emission Standard for Hazardous Air Pollutants
NPDES	National Pollution Discharge Elimination System
project	El Rio Substation Project
RLECP	Rio Linda and Elverta Community Plan
SF ₆	Sulfur Hexafluoride
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMUD	Sacramento Municipal Utility District
SWPPP	storm water pollution prevention plan
USEPA	United States Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
WEAT	Worker Environmental Awareness Training

Executive Summary

Introduction

This Initial Study (IS) and Mitigated Negative Declaration (MND) has been prepared to evaluate the potential physical environmental impacts associated with Sacramento Municipal Utility District's (SMUD) El Rio Substation Project (project) in compliance with the California Environmental Quality Act (CEQA). SMUD is the lead agency responsible for complying with the provisions of CEQA.

Project Description

SMUD is proposing to construct and operate a new 230-115-69 kilovolt (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 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.

Findings

As lead agency for compliance with CEQA requirements, SMUD finds that the project would be implemented without causing a significant adverse impact on the environment. Mitigation measures for potential impacts associated with Air Quality, Biological Resources, Tribal Cultural Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, and Noise would be implemented as part of SMUD's project through adoption of a mitigation monitoring and reporting program (MMRP).

Cumulative Impacts

CEQA requires lead agencies to assess whether a project's incremental effects are significant when viewed in connection with the effects of other past, present, and foreseeable future projects. Based on the analysis presented in the Draft IS/MND, the project would not contribute incrementally to considerable environmental changes when considered in combination with other projects in the area. Therefore, the potential cumulative environmental effects of the project were determined to be less than cumulatively considerable. All identified potentially significant impacts would be mitigated to a less-than-significant level.

Growth-Inducing Impacts

SMUD exists as a public agency to supply electrical energy to customers in the Sacramento area. It has an obligation to serve all new development approved by the local agencies and Sacramento County. SMUD does not designate where and what new development may occur. The project would replace an existing substation that is near the end of its service life. The project would not have the potential to foster economic or population growth. The project would be consistent with SMUD's established strategic direction, which includes environmental leadership; is consistent with long-range planning documents prepared by Sacramento County, such as the Rio Linda and Elverta Community Plan (RLECP) and the 2030 General Plan; and would support development at levels approved by the County of Sacramento as the governing land use authority.

Determination

On the basis of this evaluation, SMUD concludes:

- The project does not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered species, or eliminate important examples of the major periods of California history or prehistory.
- The project would not achieve short-term environmental goals to the disadvantage of long-term environmental goals.
- The project would not have impacts that are individually limited, but cumulatively considerable.
- The project would not have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly.
- No substantial evidence exists to demonstrate that the project would have a substantive negative effect on the environment.



Ammon Rice
Supervisor, Environmental Services

11/03/2023

Date

1 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 existing 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 on the proposed El Rio Substation property. 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 Environmental Process Summary

1.2.1 *Review of the Draft IS/MND*

Copies of the Draft IS/MND were made available in hard copy form for public review at SMUD offices (Customer Service Center and East Campus Operations Center), posted on SMUD’s public website, and were distributed to the State Clearinghouse via the Governor’s Office of Planning and Research. A notice of intent was distributed to property owners and occupants of record within 1,000 feet of the project site. The 30-day public review period began on September 5, 2023, and ended on October 5, 2023. SMUD held a public meeting on September 26, 2023. No comments regarding the CEQA document were received during the public meeting. Four comment letters were received from property owners and agencies during the comment period. These comment letters and SMUD’s written responses to each comment received are presented in Section 2.0 of this document. As noted in Section 2.0, the conclusions presented in the Draft IS/MND were not altered in response to comments received.

1.2.2 *Preparation of the Final IS/MND*

The comment letters from property owners and agencies received during the comment period were reviewed, and responses were prepared (see Section 2.0). Based on the comments received, there were no new environmental effects identified. The Final Initial Study/Mitigated Negative Declaration (IS/MND) does not incorporate any changes to the project description. However, SMUD has added language to Mitigation Measure 3.3-1 to provide clarity regarding the mitigation requirements from the Sacramento Municipal Air Quality Management District (SMAQMD). These changes are reflected in the final text of the MMRP.

1.2.3 CEQA Guidelines

CEQA Guidelines Section 15073.5 provides the conditions for determining if recirculation of a negative declaration is required before adoption. Section 15073.5(a) states:

A lead agency is required to recirculate a negative declaration when the document must be substantially revised after public notice of its availability has previously been given pursuant to Section 15072, but prior to adoption.

According to Section 15073.5(b), a substantial revision is defined as:

(1) A new, avoidable significant effect is identified, and mitigation measures or project revisions must be added in order to reduce the effect to insignificance, or

(2) The lead agency determines that the proposed mitigation measures or project revisions will not reduce potential effects to less than significance and new measures or revisions must be required.

SMUD has determined that none of the aforementioned conditions were satisfied following public notice; therefore, recirculation of the Draft IS/MND is not required. SMUD, as the lead agency, may proceed to present the Final IS/MND to the SMUD Board for action.

Circumstances under which recirculation is not required include:

(1) Mitigation measures are replaced with equal or more effective measures pursuant to Section 15074.1.

(2) New project revisions are added in response to written or verbal comments on the project's effects identified in the proposed negative declaration which are not new avoidable significant effects.

(3) Measures or conditions of project approval are added after circulation of the negative declaration which are not required by CEQA, which do not create new significant environmental effects and are not necessary to mitigate an avoidable significant effect.

(4) New information is added to the negative declaration which merely clarifies, amplifies, or makes insignificant modifications to the negative declaration. (Section 15073.5[c])

The changes to Mitigation Measure 3.3-1 are made to clarify SMUD's mitigation obligation. These changes do not meet the above criteria for recirculation; therefore, recirculation of the Draft IS/MND is not required.

1.3 Mitigation Measures

This section presents the mitigation measures SMUD would implement to address potential impacts on Air Quality, Biological Resources, Tribal Cultural Resources, Cultural

Resources, Geology and Soils, Hazards and Hazardous Materials, and Noise. These measures reflect text revisions as documented in the Final IS/MND.

1.3.1 Air Quality

As discussed in Section 3.3 of the Draft IS/MND, project construction activities would result in temporary generation and emissions of criteria air pollutants and precursors. The modeling of anticipated construction-generated emissions revealed that the project, without the application of *Best Management Practices* (BMPs) and *Basic Construction Emission Control Practices*, would generate daily emissions of particulate matter less than 10 microns in diameter and particulate matter less than 2.5 microns in diameter in excess of SMAQMD thresholds. Mitigation Measure 3.3-1 requires SMUD's contractor to implement SMAQMD emission control practices and would reduce project effects to a less-than-significant impact. Mitigation Measure 3.3-1 has been updated since circulation of the Draft IS/MND in response to input from SMAQMD.

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 Diesel-exhaust particulate matter (DPM):

- *Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.*
- *Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.*
- *Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.*
- *Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).*
- *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.*
- *Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site.*
- *Provide current certificate(s) of compliance for the California Air Resources Board's (CARB's) In-Use Off-Road Diesel-Fueled Fleets Regulation [California Code of Regulations, Title 13, sections 2449 and 2449.1].*
- *Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified*

mechanic and determined to be running in proper condition before it is operated.

- *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 percent.*
- *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.*
- *Diesel equipment meeting the CARB 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.*

Demolition activities have potential negative air quality impacts, which require the proper handling, demolition, and disposal of asbestos-containing material (ACM). Based on the age of multiple buildings constructed onsite, the potential exists for ACM and lead-based paint (LBP) to be present. 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.

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.

1.3.2 Biological Resources

As discussed in detail in Section 3.4 of the Draft IS/MND, the project may impact sensitive habitats. 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. SMUD would implement the following mitigation measures to reduce impacts to less-than-significant level.

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 U.S. Fish and Wildlife Service (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.

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 the California Department of Fish and Wildlife (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.

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.*

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.*

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.*

1.3.3 Cultural Resources

Although the study area is considered low sensitivity for the presence of cultural materials, there remains the possibility that previously undiscovered historical or archaeological resources may be found during ground disturbing activities associated with construction of the proposed project. SMUD would implement the following mitigation measure to reduce potential impacts to a less-than-significant level.

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.

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. SMUD would implement Mitigation Measure 3.5-2 to reduce potential impacts related to human remains to a less-than-significant level.

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.

1.3.4 ***Tribal Cultural Resources***

Although Tribal consultation revealed no known Tribal cultural resources on the project site as defined in PRC Section 21074 and the Sacred Lands File search conducted by the NAHC reported that the project area is negative for Sacred Lands, 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. SMUD would implement the following mitigation measures to reduce potential impacts to a less-than-significant level.

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.

1.3.5 Geology and Soils

As discussed in Section 3.8 of the Draft IS/MND, project-related earthmoving activities would occur in the Pleistocene-age Riverbank Formation. Because numerous vertebrate fossils have been recovered from the Riverbank Formation in northern and central California, including localities that are close to the project site, this formation is considered paleontologically sensitive. While there are no known paleontological resources within the project alignment, implementation of Mitigation Measure 3.8-1 would reduce potential effects on previously unknown paleontological resources to a less-than-significant level.

Mitigation Measure 3.8-1: Worker awareness and response for 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 Society of Vertebrate Paleontology (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.

1.3.6 Hazards and Hazardous Materials

As discussed in Section 3.9 of the Draft IS/MND, construction of the project would involve use, transport, storage, and disposal of hazardous materials. Use of these materials could potentially result in accidental spills that could release hazardous materials into the environment. With compliance with state and federal regulations, accidental releases of hazardous materials during construction of the project would be unlikely to occur. SMUD would implement Mitigation Measure 3.9-1 to reduce potential impacts to a less-than-significant level.

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 Environmental Management Department [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.

1.3.7 Noise

As discussed in Section 3.13 of the Draft IS/MND, noise levels associated with construction activities would not exceed the threshold. However, activities occurring during the more noise-sensitive evening and nighttime hours are of increased concern. With the implementation of Mitigation Measure 3.13-1, noise impacts during construction would be less than significant.

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.*

1.4 CEQA Determination

SMUD has determined that although the proposed project could have a significant effect on the environment, a significant effect would not occur with implementation of the aforementioned mitigation measures because the proposed mitigation measures would reduce the effects of any impacts to below the established thresholds of significance. Therefore, SMUD's Board of Directors will consider adoption of the MND at a board meeting in November 2023.

2 Comments and Responses

2.1 Introduction

The Draft IS/MND for the proposed project was circulated for a 30-day public review period (September 5, 2023 to October 5, 2023). During the public comment period, SMUD received four comment letters that pertained to the proposed project (see Table 2-1).

Table 2-1: List of Commenters

Letter Number	Name
1	David Field September 25, 2023
2	Gena Powell October 5, 2023
3	Central Valley Regional Water Quality Control Board Peter Minkel, Engineering Geologist October 5, 2023
4	Sacramento Metropolitan Air Quality Management District Molly Wright, Air Quality Planner/Analyst October 9, 2023

2.2 Responses to Comments

The comment letters identified above and SMUD's responses to comments are provided on the following pages.



Letter
1

From: DAVID FIELD [REDACTED]
To: Ammon.Rice@smud.org <ammon.rice@smud.org>
Sent: Monday, September 25, 2023 at 11:58:38 AM PDT
Subject: El Rio Sub.

Hi Ammon,

I live on parcel 202-0090-025,

I have several questions,

- 1-1 | The Orange project line on your map, is shown cutting across our parcel. Why?
- 1-2 | The red " footprint " line, is shown west of the existing roadway (El Rio Ave). Are they (SMUD) moving the existing 12KV tap line also, or leaving it as a sitting duck, to be hit by traffic on the road?
- 1-3 | It's hard to tell what the final configuration is going to be.....Maybe the existing fence stays?
- 1-4 | Why abandon the name " Elverta Sub "?

I look forward to hearing from you.

Dave Field
[REDACTED] cell

Letter 1	David Field September 25, 2023
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- 1-1 The comment is inquiring about the orange line shown over APN 202-0090-025 on Figure 2-2 on page 9 of the Draft ISMND. The orange line is representing the full extent of the project. This portion of the orange line is showing a potential aerial easement for the Western Area Power Administration (WAPA) overhead 69kV line to tie into the new substation equipment. No ground-disturbing activities would occur on this parcel. No changes are required to the Draft IS/MND in response to this comment.
- 1-2 The comment is inquiring about the red “Proposed Substation Footprint” line shown on Figure 2-2 on page 9 of the Draft ISMND. The footprint line is showing a setback of 31 feet from public street frontages per Sacramento County Zoning Code Section 3.6.6.A Utility and Public Service Facility Uses, 3.6.6.A.1.c.
- The existing 12kV line on El Rio Avenue will stay in place. These poles are set back from the El Rio Avenue edge of pavement by approximately 7 feet. No changes are required to the Draft IS/MND in response to this comment.
- 1-3 The comment is inquiring about the final configuration of the perimeter fence for the proposed substation. The existing fence on the southern portion of the existing substation site will stay in place as it will still be the southern extent of the proposed substation footprint. The proposed new portions of fence on the acquired parcel will align with the current fence on the property line between APN 202-0090-025 and APN 202-0090-024. No changes are required to the Draft IS/MND in response to this comment.
- 1-4 The comment is inquiring about the name change for the proposed substation. The proposed substation will be named El Rio Substation and will replace the existing Elverta Substation, which is planned for decommissioning. The name change is needed to avoid confusion in record keeping. No changes are required to the Draft IS/MND in response to this comment.



Gena Powell
[redacted] El Rio Avenue
Elverta, CA 95626
[redacted]

October 5, 2023

Via Email to
Ammon.Rice@smud.org

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

Dear Mr. Rice,

The home my husband and I built in 1984 is located on El Rio Avenue to the East of the proposed El Rio Substation Project (the “Project”). While the Elverta Substation predated our home build, the existing home and related acreage along El Rio Avenue has provided my property with insulation from the substation’s aesthetics, light and noise. I have the following comment/concerns regarding the Project’s Draft Initial Study/Mitigated Negative Declaration (“Draft IS/MND” and “Report”):

2-1

1. Access on El Rio Avenue – The current Elverta Substation is accessed through a gated driveway on Elverta Road. The Draft IS/MND indicates that another access gate will be created off of Elverta Road and a third gate will be placed on Elverta Road for the Project. El Rio Avenue is a rural road used for local traffic for two residential homes and ABC Ready-Mix (“ABC”) (see Report Section 2.3, P. 7). When we built our home, El Rio Road was a dirt road that was later chip sealed. It is not maintained by the County. It is maintained by a Road Agreement between the neighbors and ABC which is recorded with the County. As ABC grew their business and expanded their site they paved the road to accommodate their large concrete trucks and related equipment and employee traffic. The traffic generated by ABC and the contractors that lease space at ABC already heavily impact this short dead-end rural road. Traffic for construction and operation of the Project should not be routed down this rural road. I believe that two access gates off Elverta Road should be sufficient to service the Project. If a gate must be installed on El Rio Avenue for safety reasons it should be an emergency access gate only. There is also a drainage ditch for El Rio Avenue which runs the length of the road that will need to be maintained and a culvert for any access gate will need to be installed for road drainage to prevent flooding of the only access route to the residential properties.

- 2-2 2. Retention Pond – I am concerned that the proposed location of the retention pond to the South of the existing Elverta Substation may cause flooding which may impact the only access I have to my home on El Rio Avenue. This is very close to a flooding area shown on in the FEMA map on page 92. I would like confirmation that this issue has been studied. Also, the homes on El Rio Avenue are on well water. I would like assurance that there will be monitoring of the retention pond for hazardous waste that might leach into our groundwater supply. I request that reports of this monitoring be provided annually to the properties that received notice of the Project from SMUD.
- 2-3 3. Noise – I am especially concerned about the nighttime noise during the construction and demolition related to the Project. Per the Construction Schedule listed in the Report at P. 18 “Crews would normally work Monday through Saturday from 7 a.m. to 6 p.m.” (emphasis added). Under the Lighting Mitigation section of the Report at P. 28 “Construction activities would occur during daylight hours and would not require nighttime lighting apart from occasional deliveries of equipment” (emphasis added). However, the Construction Noise Mitigation section of the Report at P. 106 states “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.” (emphasis added). The Report is therefore inconsistent with regard to the construction hours and needs to be clarified. I believe the construction hours should be limited to 6 p.m. Monday through Saturday in order to lessen the noise pollution which will be suffered by nearby residences during construction. Additionally, I propose that the County require that noise measurements be taken randomly by the County to ensure compliance with noise limits stated in the Report of 80 dBA Leq during construction and 48 dBA Leq/L50 during operation of the El Rio Substation. Finally, I propose that the residents be provided with a contact person at the County to field any complaints/concerns regarding noise especially during construction.
- 2-4 4. Lighting – While I appreciate the proposed downlighting for the El Rio Substation Project, I feel there will be a substantial glow emanating from the Project which is now much closer to nearby residents. Shade mesh or slats could be added to the proposed chain link fencing which might cut down on the light pollution.
- 2-5 5. Fencing and Landscaping – I propose the addition of shade mesh or slats to the chain link fence along El Rio to help conceal the development, decrease light pollution and cut down dust from the Project. It would also be more aesthetically pleasing since this 9 foot tall fence is also topped by razor wire. Also, the proposed landscaping treatment of Agavaceae plants (Report P. 27) between the fenceline and El Rio Avenue seems insufficient. The addition of trees or tall shrubs would provide a better light, sound and aesthetic barrier between the project and residents.
- 2-6 6. Future use of Elverta Substation Site – I couldn’t locate any information in the Draft IS/MND regarding the proposed future use of the existing Elverta Substation site following it’s decommissioning. I am concerned that it may become a storage yard for abandoned equipment containing potentially hazardous materials.

Page 3

Thank you for considering my concerns. Please call me at [REDACTED] if you have any questions or comments regarding same.

Very truly yours,

Gena Powell
Gena Powell

Letter 2	Gena Powell October 5, 2023
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- 2-1 The comment is inquiring about the use of and need for the proposed access gate on El Rio Avenue, which is not a county-maintained road.

Use of the proposed El Rio Avenue gate would be primarily during construction. The access gate along El Rio Avenue is needed for delivery and installation of large substation components including transformers. The gate location on El Rio Avenue has been updated from the location shown in the Draft IS/MND; the gate has been moved slightly south (see revised Figure 2-4 below). Operational use of access gates will be limited. 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, estimated as two to four times per month for internal inspections and four times per year for perimeter maintenance. It is expected that the Elverta Road gate would continue to be used as the primary entrance to the substation.

Construction of the new access from El Rio Avenue would include an appropriately sized culvert under the access driveway to maintain flow in the drainage ditch.

The comment references an existing Road Agreement between the neighbors on El Rio Avenue and the ABC Ready Mix concrete batch plant, which is located south of the proposed substation. It is SMUD policy to evaluate pre- and post-construction conditions on roads used for equipment access. SMUD will repair damage caused by the construction activities on any road not maintained by the County and coordinate with the County to repair any damage attributable to SMUD's use of County roads.

The location of the El Rio Avenue access gate has been updated on Figure 2-4; see Section 3 *Changes to Draft IS/MND Text* below.

- 2-2 The comment requests more information regarding impacts from the proposed retention basin for the project. Additionally, the commenter requests monitoring of the retention pond for hazardous waste.

Studies have been completed to determine the size requirements of the stormwater detention basin proposed at the El Rio Substation. Additional studies will be completed as the design of the substation progresses to ensure that the detention basin is of adequate size to retain stormwater on site. It is SMUD policy to size the detention basins to accommodate the runoff associated with a 100-year storm. Additionally, the bioretention basin would be vegetated to help capture pollutants.

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. Similar to the existing substation, the El Rio Substation would utilize a highly refined mineral oil within transformers and other components. Each transformer would have a secondary containment system made of concrete and sufficiently sized to collect and hold any oil leaks from the transformer. Monitor pumps will be installed on equipment to monitor potential leaks. Transformers are required to be inspected regularly and any leaks are addressed promptly to maintain reliability.

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) is 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 HMBP includes emergency response plans and procedures to prevent or minimize harm to the public and the environment if a release of a hazardous material were to occur.

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

The description of the retention basin and optional locations for stormwater retention and treatment have been updated for clarity. See Section 3 *Changes to Draft IS/MND Text* below for the updated text and revised Figure 2-4.

2-3 The comment requests additional information on construction-related noise.

While the Sacramento County noise standard limits construction activities between the hours of 6 a.m. and 8 p.m., Monday through Friday, and 7 a.m. to 8 p.m. on Saturdays (Sacramento County Code 6.68.090[e]), SMUD will primarily work Monday through Saturday from 7 a.m. to 6 p.m. as stated on page 18 of the Draft IS/MND. Exceptions to these hours will occur for specific equipment installation, including oil filtering for transformer installation which requires the use of a generator for 3 days at 24-hours/day, and equipment deliveries which may occur outside the daytime hours. The El Rio Substation Project Noise Impact Assessment determined for residential land uses, noise levels associated with construction activities would not exceed the 80 dBA Leq threshold. Mitigation Measure 3.13-1 will be implemented to reduce short-term construction noise impacts include work hour restrictions. The proper maintenance of construction equipment and use of manufacturer-recommended mufflers and engine shrouds would reduce equipment noise levels by approximately 10 dB. The installation of temporary noise barriers, where required, would decrease noise levels by approximately 5 to 10 dB.

With mitigation, this impact would be considered less than significant. Based on

the predicted noise levels noted in the El Rio Substation Project Noise Impact Assessment and assuming that all noise sources were to 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 not exceed the County's exterior daytime/nighttime noise standards of 55/50 dBA Leq/L50 or the County's interior noise standard of 35 dBA Leq/L50. As a result, this impact would be considered less than significant.

When notifying neighbors of the start of construction, SMUD will provide neighbors with contact information for the SMUD Construction Manager responsible for contractor oversight. Noise complaints can be made to this SMUD employee. Minor changes have been made to the discussion of construction-related noise; see Section 3 *Changes to Draft IS/MND Text* below for the updated text.

- 2-4 The comment is inquiring about the lighting associated with the proposed project.

Most substation lighting would be off during standard operating conditions, except for footpath and security lighting, which incorporates fixtures with photocell on/off and motion high/low with low light output at 30% or less, and on rare occasions when nighttime access is required for urgent repairs or inspections. All substation lighting would be oriented downward toward major equipment and shields may be used on fixtures to help prevent light trespass and minimize glare onto surrounding properties, as long as SMUD security standards are still met. The substation lighting standards would be approximately 30 feet above ground level and at least 31 feet from adjacent roadways per Sacramento County setback requirements. Hence, impacts from new lighting are less than significant.

No changes are required to the Draft IS/MND in response to this comment.

- 2-5 The comment states concern regarding the proposed fencing and landscaping and suggests the addition of shade fabric or slats to the fence and changes to the proposed landscaping.

SMUD specifications for fencing do not include fence fabric or slats. SMUD uses a higher security 1-inch-mesh chain link fence, and readily available fence slats are not made for this smaller mesh size. Privacy fence fabric is also not recommended due to maintenance cost and effort. Once constructed, the substation would not generate dust and, as explained in response to comment 2-4, use of lighting at the substation would be limited and light standards have been designed to minimize glare and light trespass. As discussed in Section 3.1 of the Draft IS/MND, the project would have a less-than-significant impact on aesthetics.

Landscaping is subject to final design determination. SMUD strives to implement perimeter landscaping that requires low water use and minimal maintenance while being visually appealing. SMUD appreciates the commentor's concern for the visibility of the site and the request for additional trees and shrubs will be added to the record. The comments will be considered in the final landscape plan. No changes are required to the Draft IS/MND in response to this comment.

- 2-6 The comment is inquiring about the future use of the Elverta Substation site.

As shown on Figure 2-4, some of the existing equipment will remain following the decommissioning of the Elverta Substation. The site may be used for short-term storage of parts or materials, which could include steel structures or spare equipment that is in good working condition. This site would not be used to store abandoned equipment containing hazardous materials. No changes are required to the Draft IS/MND in response to this comment.



GAVIN NEWSOM
GOVERNOR



YANA GARCIA
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Letter
3

Central Valley Regional Water Quality Control Board

5 October 2023

Ammon Rice
Sacramento Municipal Utility District (SMUD)
6201 S Street, MS B209
Sacramento, CA 95817-1899
ammon.rice@smud.org

COMMENTS TO REQUEST FOR REVIEW FOR THE MITIGATED NEGATIVE DECLARATION, EL RIO SUBSTATION PROJECT, SCH#2023090056, SACRAMENTO COUNTY

Pursuant to the State Clearinghouse's 5 September 2023 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Mitigated Negative Declaration* for the El Rio Substation Project, located in Sacramento County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore, our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources Control Board (State Water Board), Office of

3-1

El Rio Substation Project
Sacramento County

- 2 -

5 October 2023

Letter
33-1
cont.

Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues. For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:

http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Implementation Policy is available on page 74 at:

https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_2018_05.pdf

In part it states:

3-2

Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.

This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Construction Storm Water General Permit

3-3

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), Construction General Permit Order No. 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). For more information on the Construction General Permit, visit the State Water Resources Control Board website at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

3-3
cont.**Clean Water Act Section 404 Permit**

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACE). If a Section 404 permit is required by the USACE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements. If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications. For more information on the Water Quality Certification, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/

Waste Discharge Requirements – Discharges to Waters of the State

If USACE determines that only non-jurisdictional waters of the State (i.e., “non-federal” waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation. For more information on the Waste Discharges to Surface Water NPDES Program and WDR processes, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/

Projects involving excavation or fill activities impacting less than 0.2 acre or 400 linear feet of non-jurisdictional waters of the state and projects involving dredging activities impacting less than 50 cubic yards of non-jurisdictional waters of the state may be eligible for coverage under the State Water Resources Control Board Water Quality Order No. 2004-0004-DWQ (General Order 2004-0004). For more information on the General Order 2004-0004, visit the State Water Resources Control Board website at:

https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2004/wqo2004-0004.pdf

Dewatering Permit

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Threat General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Threat Waiver) R5-2018-0085. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Threat Waiver and the application process, visit the Central Valley Water Board website at:

https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2018-0085.pdf

Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Limited Threat Discharges to Surface Water* (Limited Threat General Order). A complete Notice of Intent must be submitted to the Central Valley Water Board to obtain coverage under the Limited Threat General Order. For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:

https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf

NPDES Permit

If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit. For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at: <https://www.waterboards.ca.gov/centralvalley/help/permit/>

3-3
cont.



El Rio Substation Project
November 2023

El Rio Substation Project
Sacramento County

- 5 -

5 October 2023

Letter 3

If you have questions regarding these comments, please contact me at (916) 464-4684 or Peter.Minkel2@waterboards.ca.gov.

Peter Minkel

Peter Minkel
Engineering Geologist

cc: State Clearinghouse unit, Governor's Office of Planning and Research,
Sacramento

Letter 3	Central Valley Regional Water Quality Control Board Peter Minkel, Engineering Geologist October 5, 2023
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- 3-1 The comment provides background information about the Basin Plan and the process for amending the Basin Plan. It is understood that the standards of the Basin Plan may be amended over time. The comment does not address the adequacy of the analysis of the Draft IS/MND. No further response is needed.
- 3-2 The comment states that all wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

The Basin Plan is discussed on page 87 of the Draft IS/MND. Furthermore, as discussed on page 90 of the Draft IS/MND, the project would obtain coverage under the National Pollution Discharge Elimination System (NPDES) General Construction Permit. The permit would require preparation and implementation of a stormwater pollution prevention plan (SWPPP) that would specify storm water best management practices (BMPs). No changes are required to the Draft IS/MND in response to this comment.

- 3-3 The comment provides information about the permitting requirements that may be applicable to the project. Section 2.5 beginning on page 20 of the Draft IS/MND discusses the potential permits that may be required and includes permits issued by the Central Valley Regional Water Quality Control Board. Additionally, the impact discussion on page 90 of the Draft IS/MND discusses the applicable permits and requirements related to water quality. No changes are required to the Draft IS/MND in response to this comment.

From: Molly Wright <MWright@airquality.org>
Sent: Monday, October 9, 2023 3:32 PM
To: Ammon Rice <Ammon.Rice@smud.org>
Cc: Paul Philley <PPhilley@airquality.org>
Subject: [EXTERNAL] Sacramento Metropolitan Air Quality Management District comments on the El Rio Substation MND

Letter
4

CAUTION: This email originated from outside of SMUD. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Ammon Rice:

Thank you for providing the Sacramento Metropolitan Air Quality Management District (SMAQMD) with notice of the draft Mitigated Negative Declaration (MND) for the El Rio Substation Project. Our comment on the MND pertains to use of our [Basic Construction Emission Control Practices](#) (BMPs).

The MND correctly indicates that “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.” It further indicates that “Mitigation Measure 3.3-1 would require that the project implement the SMAQMD’s BMPs.”

Mitigation Measure 3.3-1 is commendable, however, it does not include the entirety of our BMPs. Our BMPs, proper predications for their use, and other CEQA guidance is available in our *Guide to Air*

Quality Assessment in Sacramento County, available online here:

<https://www.airquality.org/Residents/CEQA-Land-Use-Planning/CEQA-Guidance-Tools>

- SMAQMD recommends that all measures from our Basic Construction Emission Control Practices be included in Mitigation Measure 3.3-1, so that the MND can correctly use [our non-zero thresholds of significance](#) for particulate matter. The other elements of Mitigation Measure 3.3-1 could still be included therein.

Thank you for your consideration. Please let me know if you have any questions at all.

Best Regards,

Molly Wright

Air Quality Planner/Analyst

Desk: (279) 207-1157

mwright@airquality.org

www.AirQuality.org



4-1

Letter 4	Sacramento Metropolitan Air Quality Management District Molly Wright, Air Quality Planner/Analyst October 9, 2023
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4-1 In response to the comment, Mitigation Measure 3.3-1 has been revised to include the entirety of the SMAQMD BMPs. The updates to the mitigation measure requested by the commenter are reflected in the final text of the MMRP to be implemented by SMUD, and do not change the conclusion of the IS/MND. See Section 3 *Changes to Draft IS/MND Text* below for the updated mitigation measure text.

3 Changes to Draft IS/MND Text

This section presents specific text changes made to the Draft IS/MND since its publication and public review. The changes are presented in the order in which they appear in the original document and are identified by the Draft IS/MND page number. Text deletions are shown in strikethrough (~~strikethrough~~), and text additions are shown in underline (underline).

It should be noted that the following revisions do not change the intent or content of the analysis or effectiveness of mitigation measures presented in the Draft IS/MND and do not necessitate recirculation of the Draft IS/MND or preparation of an Environmental Impact Report.

3.1 Changes to Draft IS/MND Project Description

Figure 2-4 Conceptual Substation Plan on page 13 of the Draft IS/MND has been updated to show options for stormwater drainage and revision to the El Rio Avenue gate. The revised figure is provided below.

The text on page 14 of the Draft IS/MND describing the stormwater drainage has been revised as follows.

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. Figure 2-4 shows optional locations for the retention basin or bioretention basin south of the existing substation (Option B) or along the north side of the new and existing substation (Option A). 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 constructed within the substation property, the bioretention basin or retention basin would collect stormwater and allow pollutants to be captured by vegetation before entering the existing roadside stormwater collection system. 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.

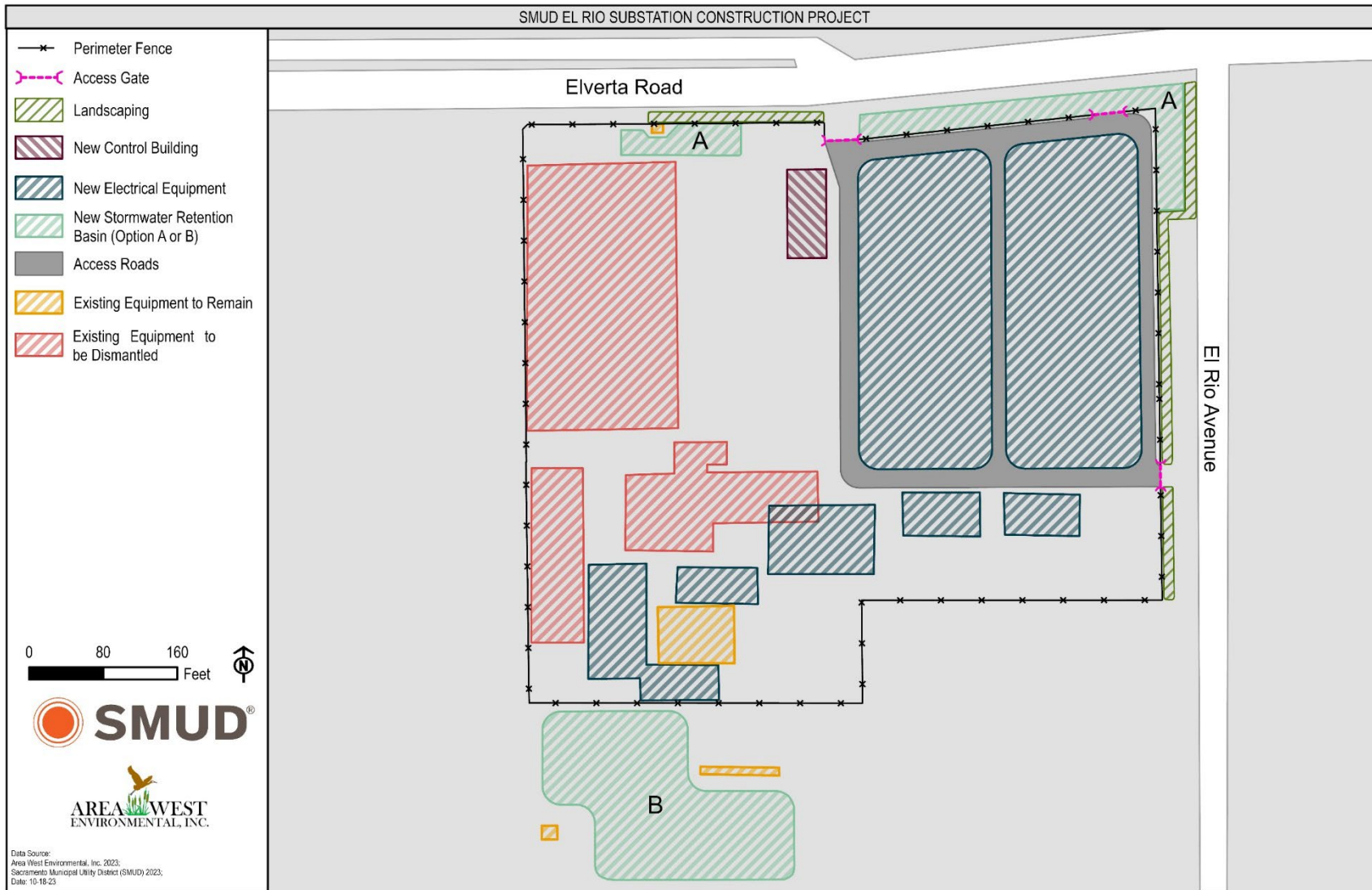


Figure 2-1. Conceptual Substation Plan

3.2 Changes to Draft IS/MND Environmental Impact Evaluation

The text of Mitigation Measure 3.3-1 beginning on page 39 of the Draft IS/MND is revised as follows.

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:

- *Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.*
- *Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.*
- *Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.*
- *Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).*
- *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.*
- *Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site.*
- *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].*
- *Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before it is operated.*
- ~~*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.*

The text under Construction-Related Noise beginning on page 104 of the Draft IS/MND is revised as follows.

With regard to residential land uses, noise levels associated with construction activities would not exceed the 80 dBA Leq 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. Nighttime construction activities would be infrequent; equipment deliveries may be made at night or early morning and oil filtering for transformer installation would require a generator for three days (24 hours a day). For these reasons, noise-generating construction activities would be considered to have a **potentially significant** impact.

4 Mitigation Monitoring and Reporting Program

4.1 Introduction

This mitigation monitoring and reporting program summarizes identified mitigation measures, implementation schedule, and responsible parties for the SMUD El Rio Substation Project (project). SMUD will use this mitigation monitoring and reporting program to ensure that identified mitigation measures, adopted as conditions of project approval, are implemented appropriately. This monitoring program meets the requirements of CEQA Guidelines Section 15074(d), which mandates preparation of monitoring provisions for the implementation of mitigation assigned as part of project approval or adoption.

4.2 Mitigation Implementation and Monitoring

SMUD will be responsible for monitoring the implementation of mitigation measures designed to minimize impacts associated with the project. While SMUD has ultimate responsibility for ensuring implementation, others may be assigned the responsibility of implementing the mitigation. SMUD will retain the primary responsibility for ensuring that the project meets the requirements of this mitigation plan and other permit conditions imposed by participating regulatory agencies.

SMUD will designate specific personnel who will be responsible for monitoring implementation of the mitigation that will occur during project construction. The designated personnel will be responsible for submitting documentation and reports to SMUD on a schedule consistent with the mitigation measure and in a manner necessary for demonstrating compliance with mitigation requirements. SMUD will ensure that the designated personnel have authority to require implementation of mitigation requirements and will be capable of terminating project construction activities found to be inconsistent with mitigation objectives or project approval conditions.

SMUD and its appointed contractor will also be responsible for confirming that its construction personnel understand their responsibilities for adhering to the performance requirements of the mitigation plan and other contractual requirements related to the implementation of mitigation as part of project construction. In addition to the prescribed mitigation measures, Table 3-1 (Mitigation Monitoring and Reporting Program) lists each identified environmental resource being affected, the corresponding monitoring and reporting requirement, and the party responsible for ensuring implementation of the mitigation measure and monitoring effort.

4.3 Mitigation Enforcement

SMUD will be responsible for enforcing mitigation measures. If alternative measures are identified that would be equally effective in mitigating the identified impacts, implementation of these alternative measures will not occur until agreed upon by SMUD.

Table 4-1: Mitigation Monitoring and Reporting Program

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>Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.</i> • <i>Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.</i> • <i>Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.</i> • <i>Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).</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> 	<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
<ul style="list-style-type: none"> • <i>Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site.</i> • <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>Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before it is operated.</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>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> 						

Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified	Remarks
<ul style="list-style-type: none"> • <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 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></p>	Before Construction	Authorized Construction Contractor	SMUD	Construction Contractor will provide results of ACM and LBP testing. & Site Inspection		

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. 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. 	<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>	<p>Authorized Construction Contractor</p>	<p>SMUD</p>	<p>Construction Contractor will advise SMUD in writing that the environmental training has been completed.</p> <p>&</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"> • 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. • 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. 						
<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</i></p>	Before Construction	SMUD	SMUD	Completion of Compensatory Mitigation Plan and receipt of 404 permit, if applicable		

Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified	Remarks
<p><i>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>						
<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 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>	<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 and CDFW, as appropriate.</p>		

Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified	Remarks
<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 the project site as Environmentally Sensitive Areas. This area should be avoided by all construction personnel.</i> <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> 	<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>	<p>SMUD</p>	<p>The project biologist will submit a summary of environmental training and pre-construction survey results to SMUD.</p>		

Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified	Remarks
<ul style="list-style-type: none"> 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. 						
<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"> 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), a SMUD 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. 	<p>If construction is planned between February 1 and August 31:</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
<ul style="list-style-type: none"> <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 whether the buffer may be reduced based on the biologist's professional judgment.</i> <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>Before Construction</p>	<p>SMUD Biologist</p>	<p>SMUD</p>	<p>The project biologist will submit a summary of</p>		

Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified	Remarks
<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 Staff Report on Burrowing Owl Mitigation (CDFW 2012) or an updated version of this document.</i> <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> 				the pre-construction survey results to SMUD.		
<p><u>Mitigation Measure 3.4-7: Conduct an American Badger Pre-construction Survey</u> <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> 	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
<ul style="list-style-type: none"> 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. 						

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</i></p>	<p>Before Construction (training)</p> <p>During Construction (discovery)</p>	Authorized Construction Contractor	SMUD	Construction Contractor will advise SMUD in writing that the environmental training has been completed.		

Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified	Remarks
<p><i>(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.</i></p>				<p>Construction Contractor will advise SMUD ASAP by phone of any discovery.</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 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</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>		

Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified	Remarks
<p><i>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>						

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</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>		

Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified	Remarks
<i>authorization is granted by SMUD's project manager in consultation with the paleontologist.</i>						

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>	<i>During Construction (discovery)</i>	<i>Authorized Construction Contractor</i>	<i>SMUD</i>	<i>Construction Contractor will advise SMUD ASAP by phone of any discovery.</i>		

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</i> 	<i>During Construction</i>	<i>Authorized Construction Contractor</i>	<i>SMUD</i>	<i>Site Inspection</i>		

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

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><i>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.</i></p> <p><i>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,</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 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>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>						
<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 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</i></p>	During Construction (discovery)	Authorized Construction Contractor	SMUD	Construction Contractor will advise SMUD ASAP by phone of any discovery		

Mitigation Measure	Timing	Responsible for Implementation	Responsible for Verification	Form of Verification	Verified	Remarks
<p><i>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>						

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Sacramento Municipal Utility District

El Rio Substation Project

Draft Initial Study and Mitigated Negative Declaration •
September 2023

Reflects Revisions Made in the Final IS/MND on November 3, 2023

Powering forward. Together.



Sacramento Municipal Utility District

El Rio Substation Project

Draft Initial Study and Mitigated Negative Declaration • September 2023
Reflects Revisions Made in the Final IS/MND on November 3, 2023

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TABLE OF CONTENTS

1.0	Introduction.....	1
1.1	Project Overview	1
1.2	Purpose of Document.....	1
1.3	Public Review Process	2
1.4	SMUD Board Approval Process	2
1.5	Document Organization.....	3
1.6	Environmental Factors Potentially Affected.....	4
1.7	Determination	5
2.0	Project Description.....	6
2.1	Project Location.....	6
2.2	Project Objectives	6
2.3	Background Information	7
2.4	Proposed Project.....	10
2.5	Potential Permits and Approvals Required.....	21
3.0	Environmental Impact Evaluation	22
3.0	Evaluation of Environmental Impacts	22
3.1	Aesthetics.....	24
3.2	Agriculture and Forestry Resources	29
3.3	Air Quality.....	34
3.4	Biological Resources	43
3.5	Cultural Resources	60
3.6	Energy	64
3.7	Geology and Soils	66
3.8	Greenhouse Gas Emissions.....	75
3.9	Hazards and Hazardous Materials	78

3.10	Hydrology and Water Quality.....	86
3.11	Land Use and Planning	95
3.12	Mineral Resources	99
3.13	Noise	100
3.14	Population and Housing	108
3.15	Public Services.....	110
3.16	Recreation	113
3.17	Transportation	114
3.18	Tribal Cultural Resources.....	118
3.19	Utilities and Service Systems	122
3.20	Wildfire	126
3.21	Mandatory Findings of Significance	128
4.0	Environmental Justice Evaluation	130
4.1	Introduction.....	130
4.2	Regulatory Context.....	131
4.3	Sensitivity of Project Location	133
4.4	Evaluation of the Project's Contribution to a Community's Sensitivity.....	136
4.5	Summary of Environmental Justice Assessment	138
5.0	List of Preparers	140
6.0	References	141

APPENDICES

- A Mitigation Monitoring and Reporting Program
- B Biological Resources Information

FIGURES

Figure 2-1. Project Vicinity	8
Figure 2-2. Project Site.....	9
Figure 2-3. Proposed Project Elements.....	12
Figure 2-4. Conceptual Substation Plan.....	13
Figure 3-1. Farmland.....	31
Figure 3-2. Vegetation Communities	46
Figure 3-3. Topography.....	68
Figure 3-4. Soils	69
Figure 3-5. National Wetland Inventory Features	88
Figure 3-6. FEMA Flood Hazard Zones.....	91
Figure 3-7. Potential Haul Routes for Construction Access.....	115

TABLES

Table 2-1. Project Phase Timeline	18
Table 2-2. Summary of Anticipated Equipment for Each Project Phase.....	19
Table 3-1. Daily Construction Emissions without Mitigation	38
Table 3-2. Construction-related Greenhouse Gas Emissions	76
Table 3-3. Sacramento County General Plan Energy Facility Polices.....	96
Table 3-4. Caltrans Recommendations Regarding Levels of Vibration Exposure	103
Table 3-5. Short-Term Noise Measurement Data	104

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
CNDDDB	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

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.

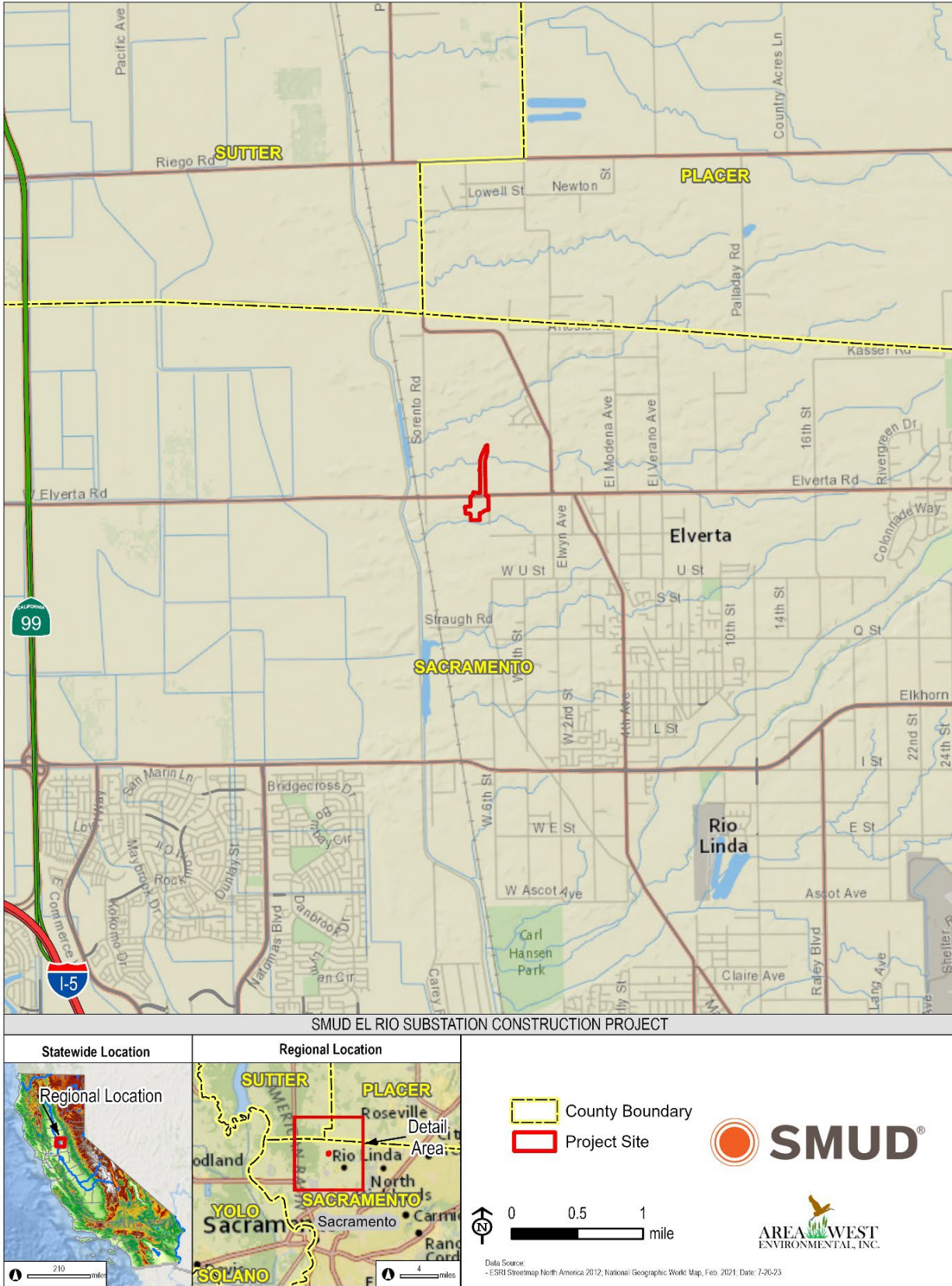


Figure 2-1. Project Vicinity

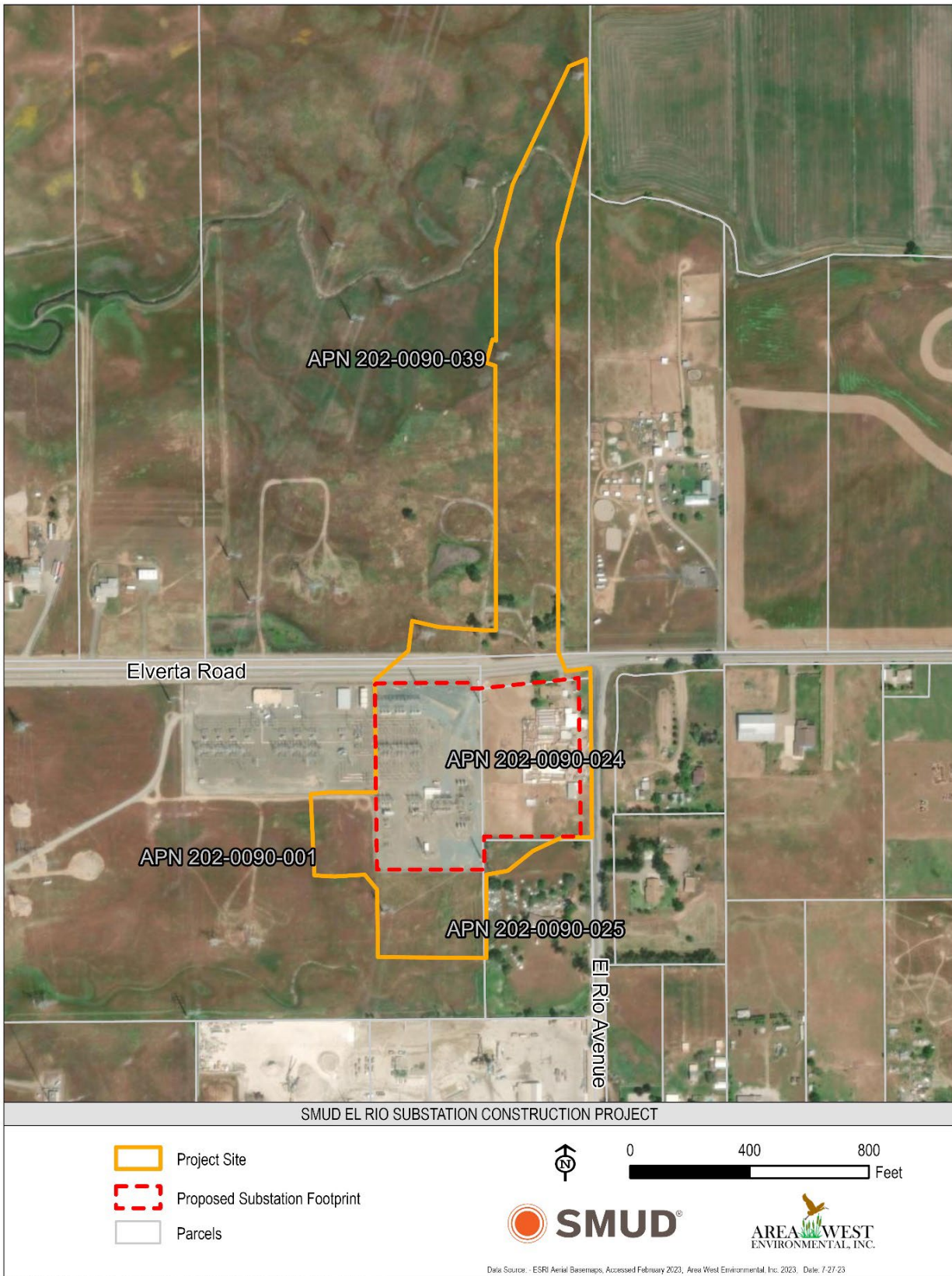


Figure 2-2. Project Site

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.

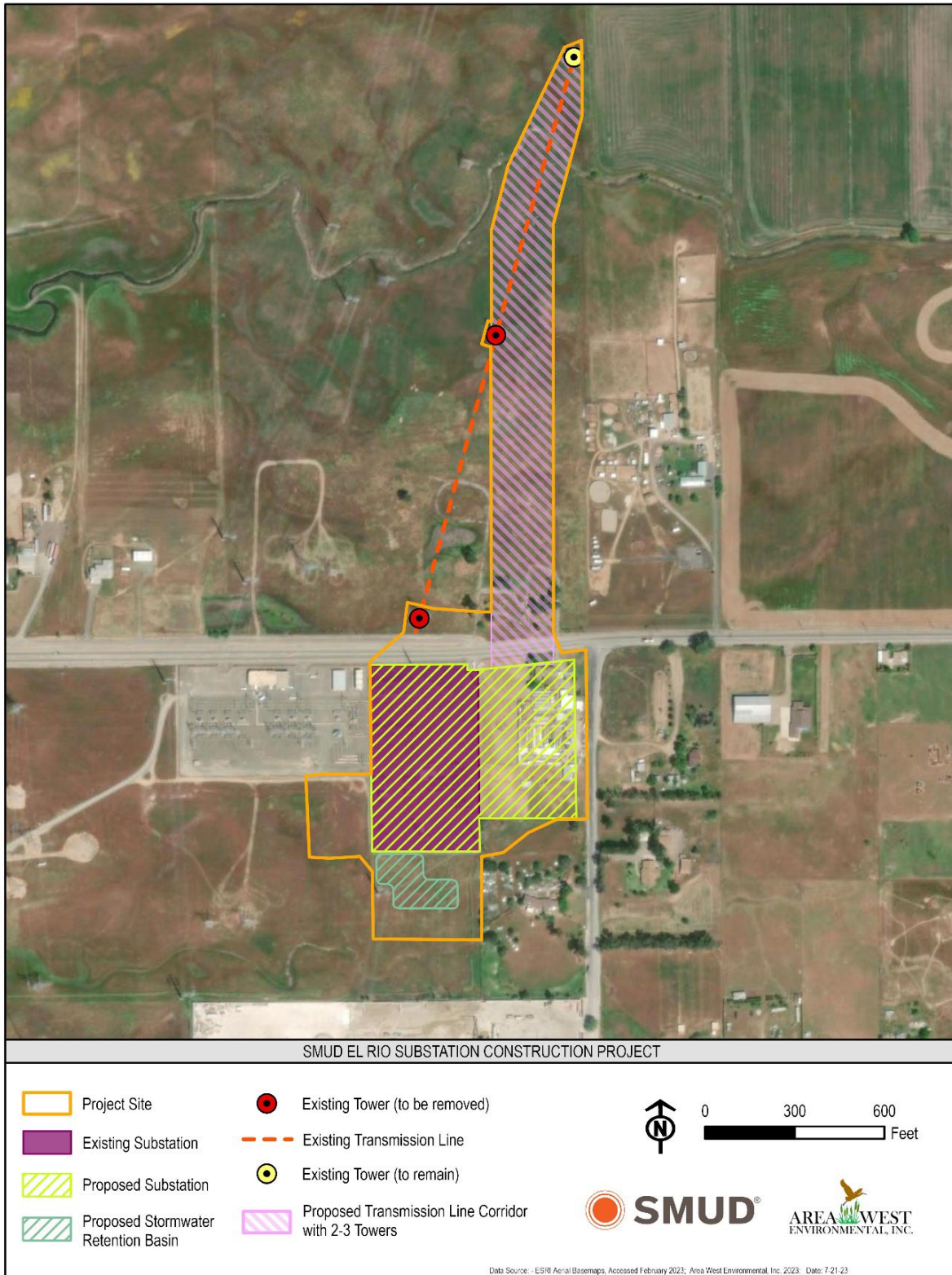


Figure 2-3. Proposed Project Elements

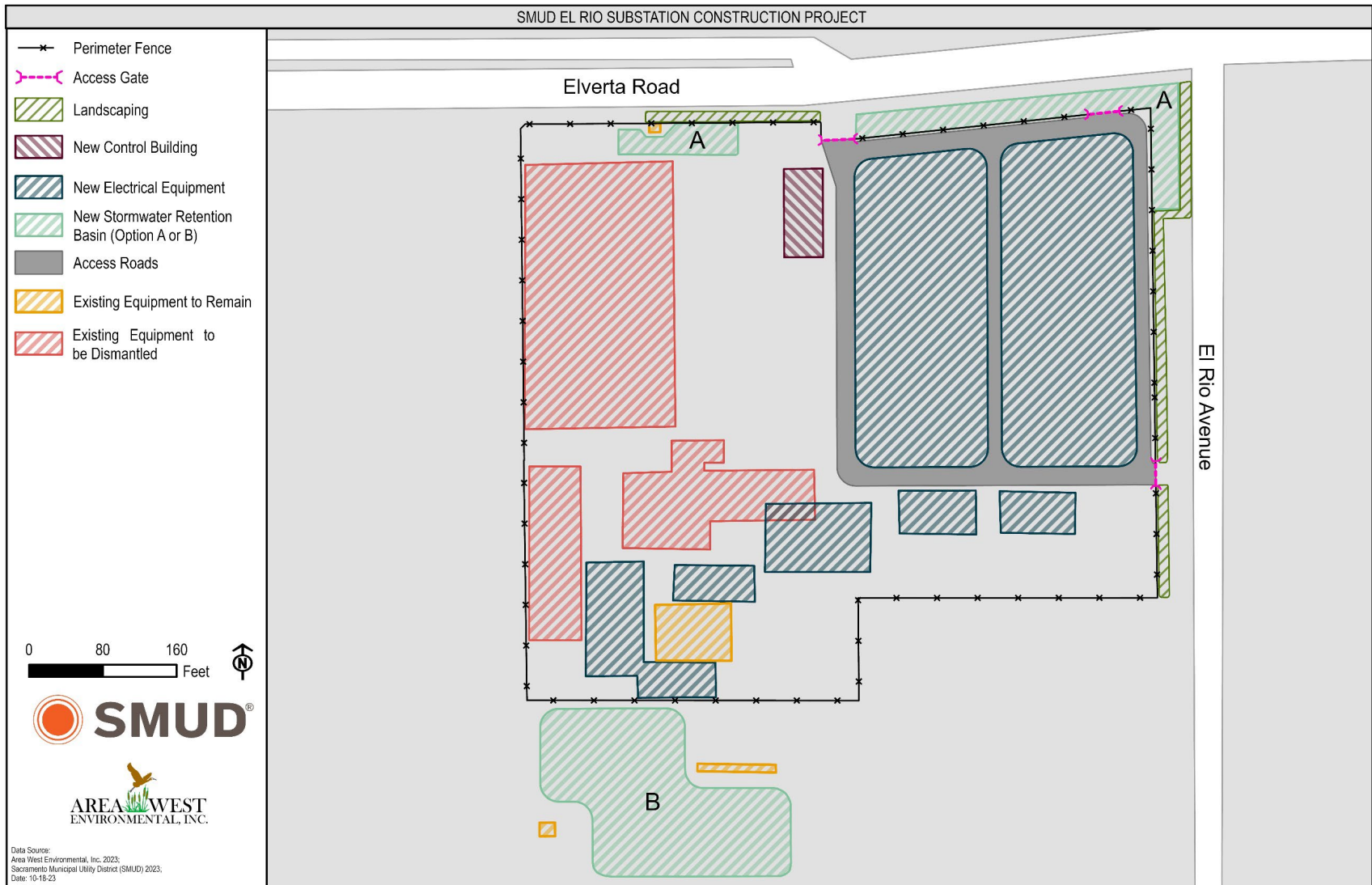


Figure 2-4. Conceptual Substation Plan

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. Figure 2-4 shows optional locations for the retention basin or bioretention basin south of the existing substation (Option B) or along the north side of the new and existing substation (Option A). 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 constructed within the substation property, the bioretention basin or retention basin would collect stormwater and allow pollutants to be captured by vegetation before entering the existing roadside stormwater collection system. 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, belowground 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

Equipment	Project Phase
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
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).

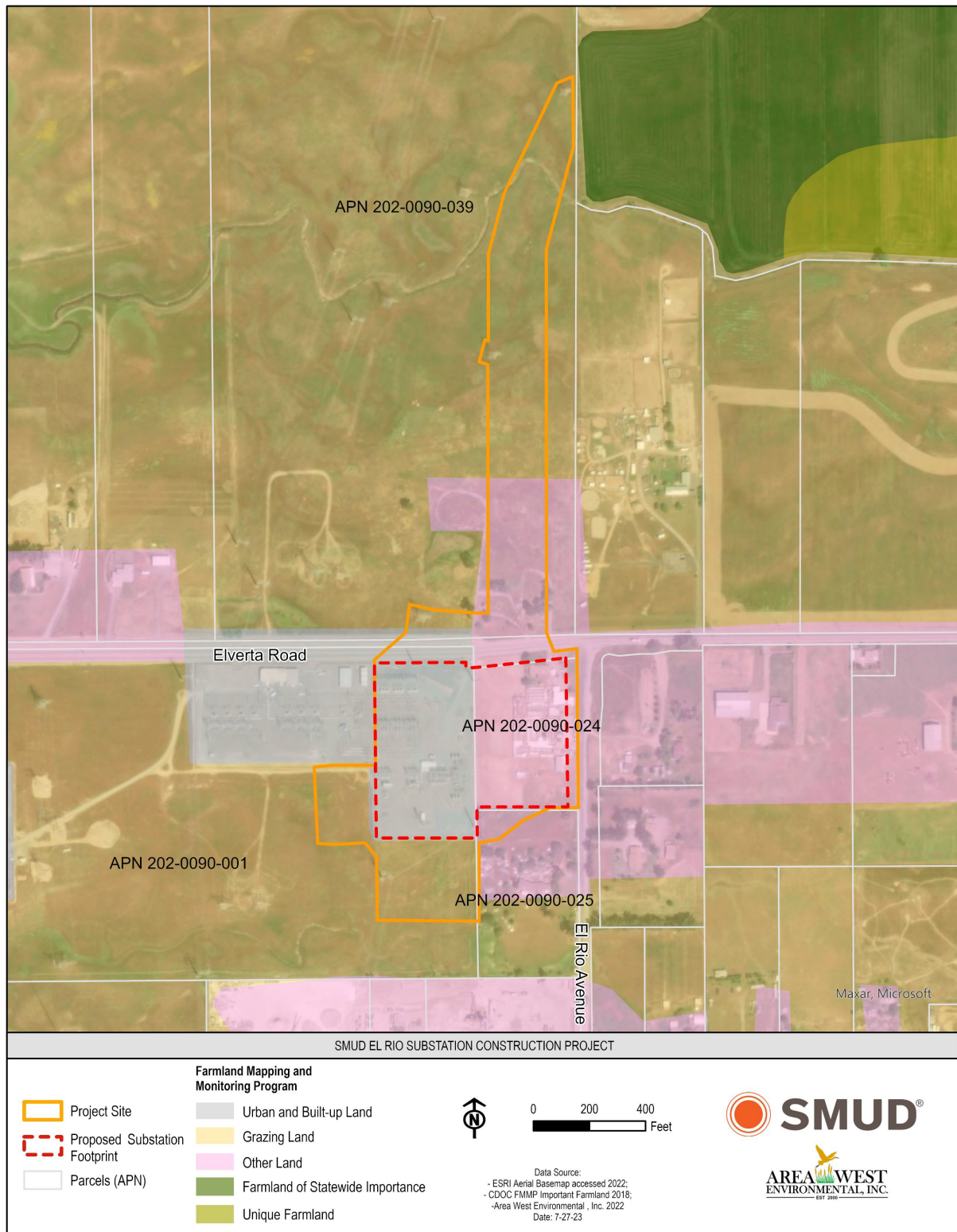


Figure 3-1. Farmland

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:

- *Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.*
- *Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.*
- *Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.*
- *Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).*
- *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.*
- *Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site.*
- *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].*
- *Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determine to be running in proper condition before it is operated.*
- *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.*
- *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 packardi*), 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 overlie 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 and, 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 NCRES as Hedge Loam (Map Unit 157).

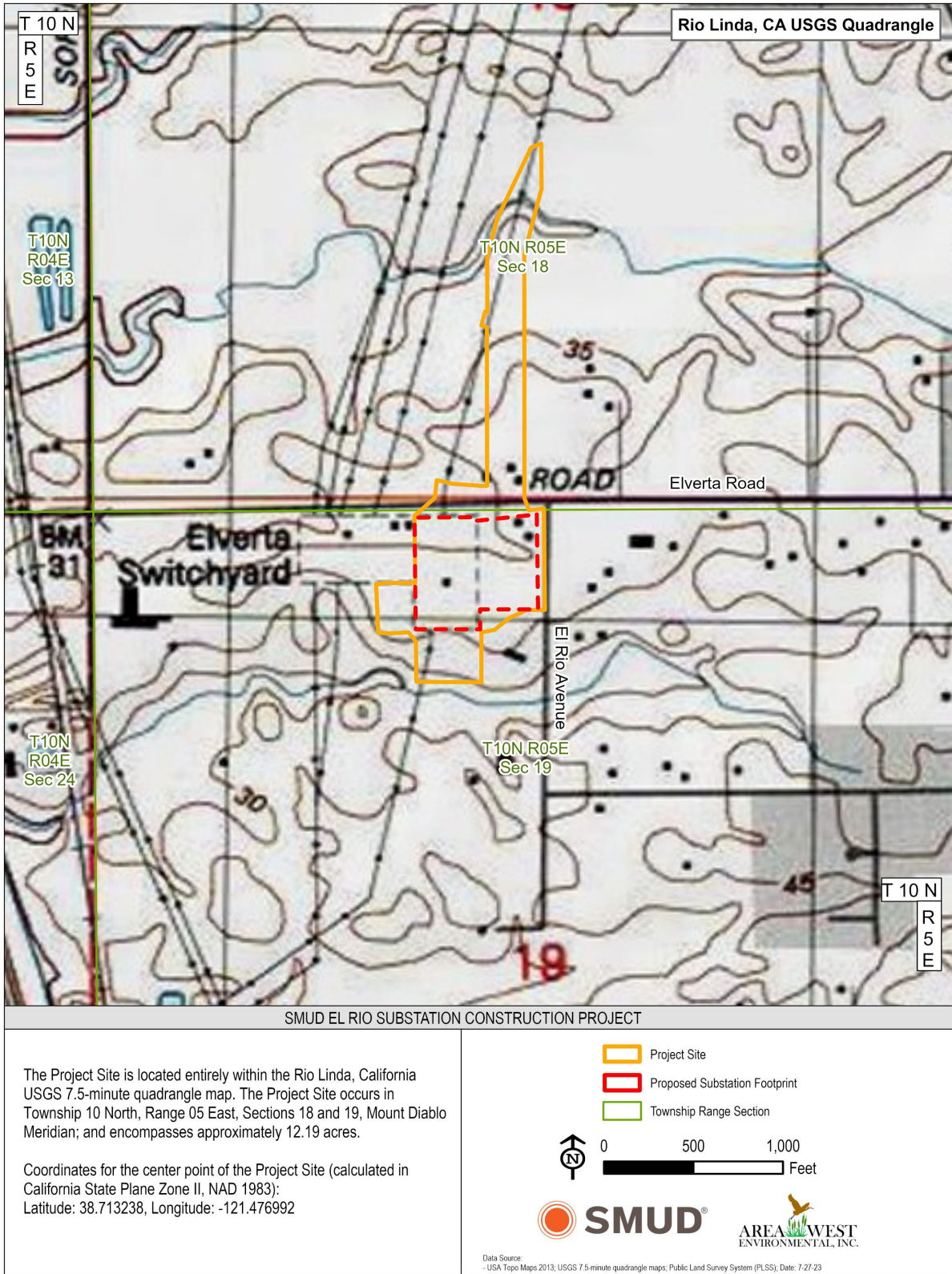
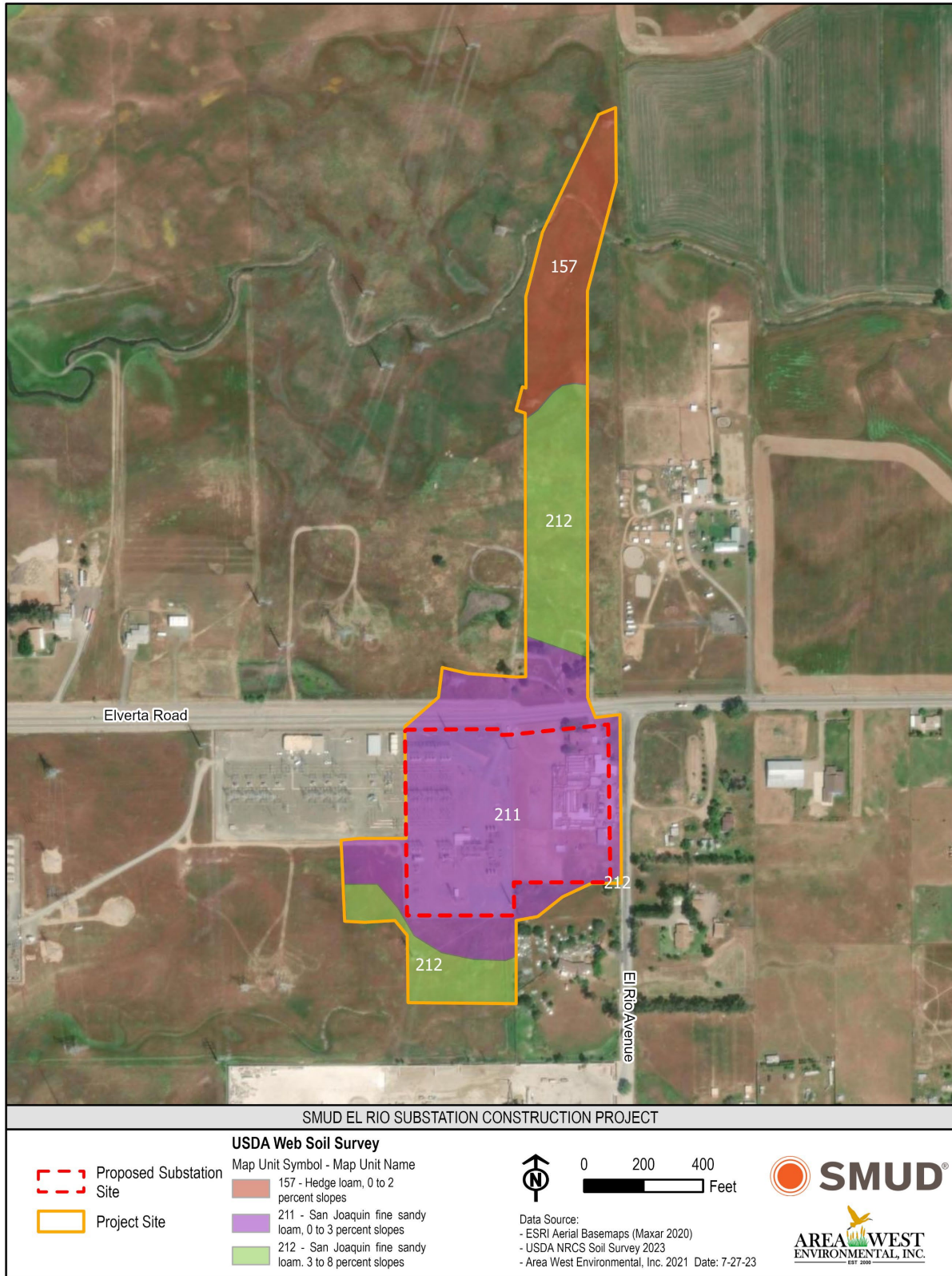


Figure 3-3. Topography



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 countermeasures. 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).

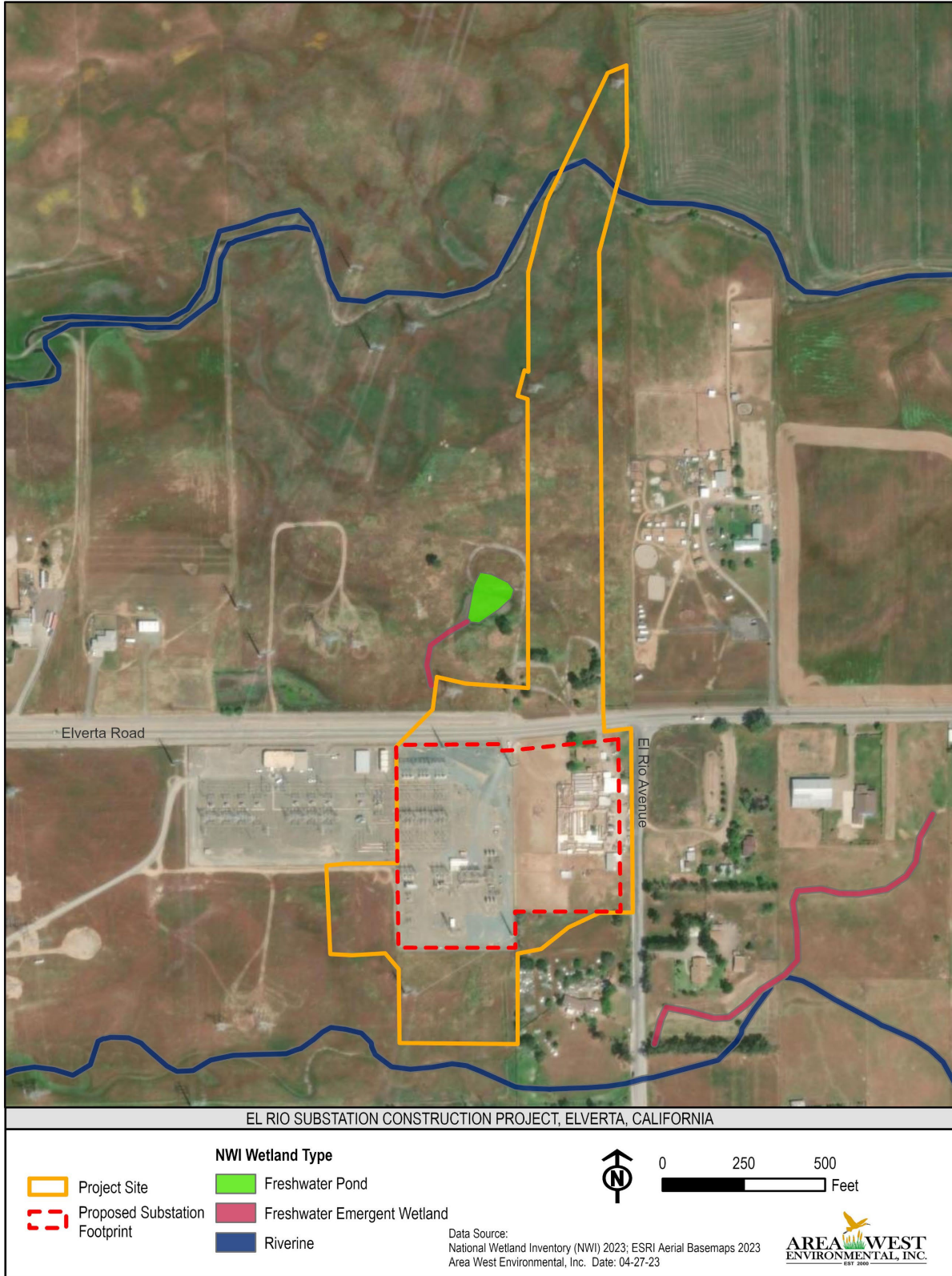


Figure 3-5. National Wetland Inventory Features

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.

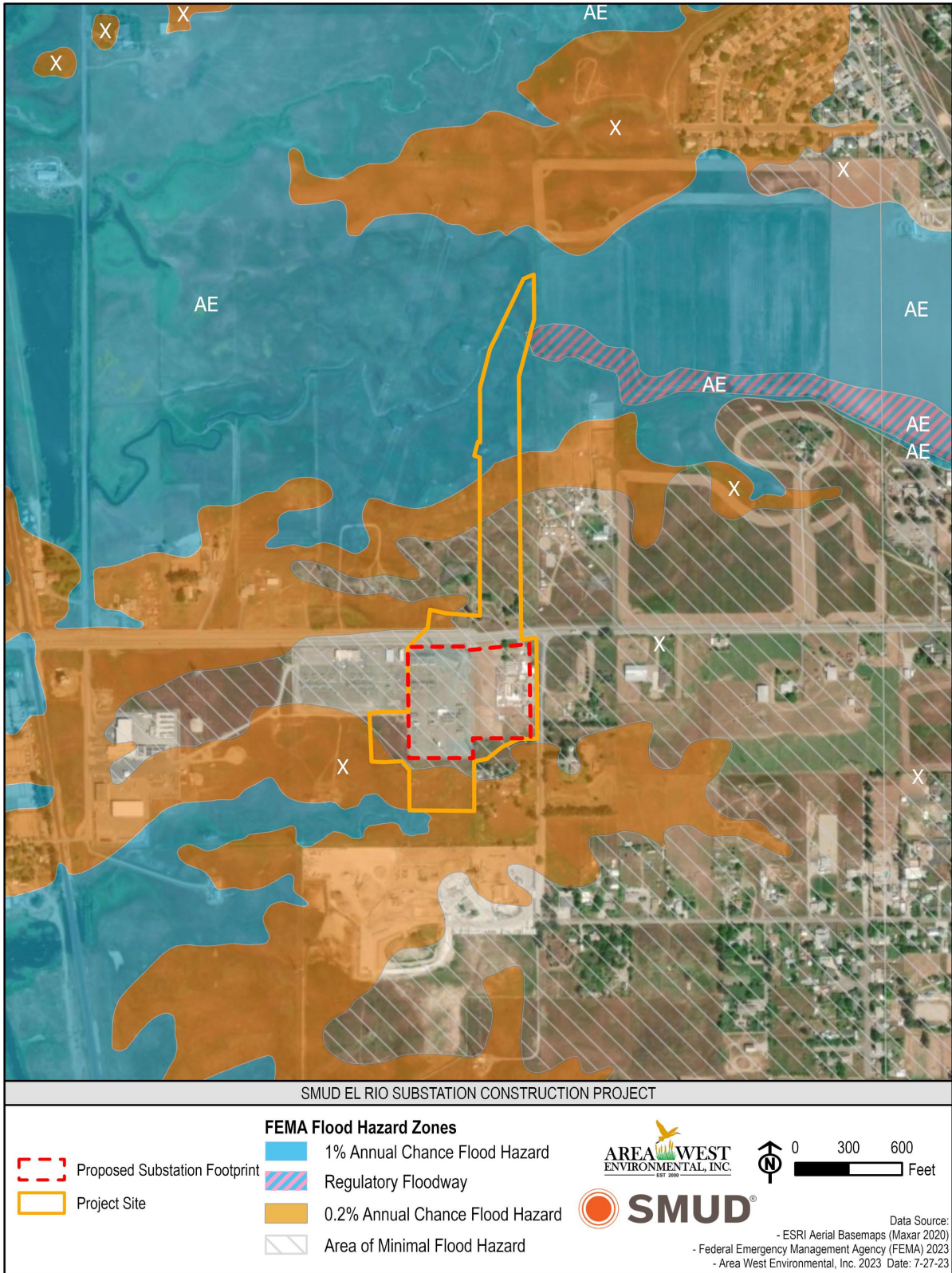


Figure 3-6. FEMA Flood Hazard Zones

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	<p>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:</p> <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	<p>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.</p>
PF-85	<p>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.</p>
PF-89	<p>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.</p>
PF-92	<p>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.</p>
PF-93	<p>Protect native and non-native bird populations by incorporating electrocution prevention measures into the design of transmission towers.</p>
PF-96	<p>Locate transmission facilities in a manner that maximizes the screening potential of topography and vegetation</p>
PF-97	<p>Utilize monopole construction, where practicable, to reduce the visual impact on a corridor's middle and distant views.</p>

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 ground-borne vibration or ground-borne 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 EI 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 EI Rio Avenue, approximately 340 feet south of Elverta and EI 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 EI 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. Nighttime construction activities would be infrequent; equipment deliveries may be made at night or early morning and oil filtering for transformer installation would require a generator for three days (24 hours a day). 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 ground-borne vibration or ground-borne noise levels?

Less than Significant. No major stationary sources of ground-borne 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 ground-borne vibration levels. However, the use of major ground-borne 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), ground-borne 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 ground-borne vibration that would be expected to exceed commonly applied criteria for structural damage or annoyance (Caltrans 2020). The impact on humans and structures from ground-borne 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.

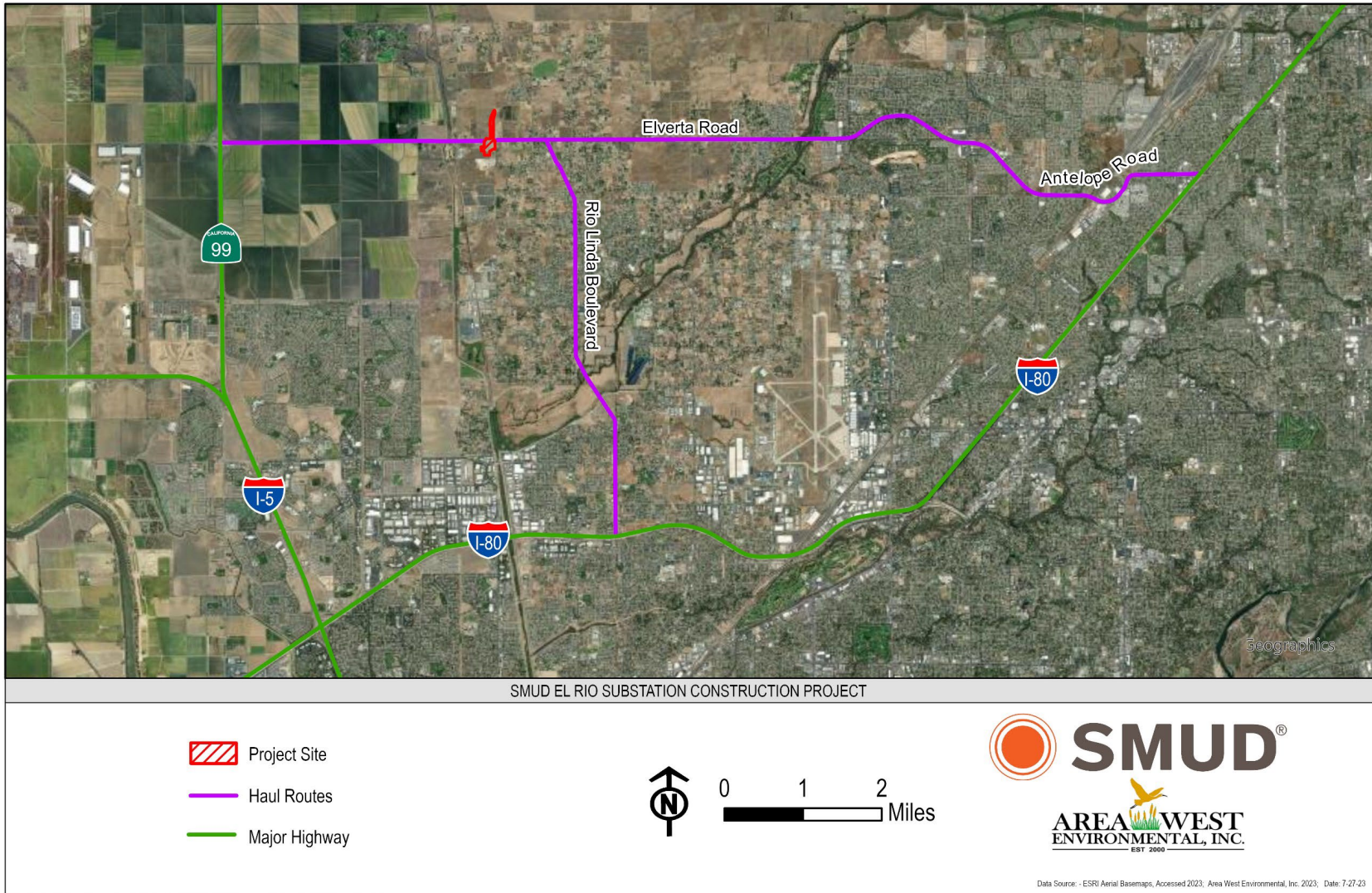


Figure 3-7. Potential Haul Routes for Construction Access

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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USEPA. See U.S. Environmental Protection Agency.

President Sanborn then turned to Discussion Calendar Item 13, the election of officers for the SMUD Board of Directors for 2024.

No public comment was forthcoming on Discussion Calendar Item 13.

Director Kerth then nominated Director Herber for the position of President of the SMUD Board of Directors for 2024, and Resolution No. 23-11-11 was approved by a vote of 5-0, with Directors Rose and Bui-Thompson absent.

RESOLUTION NO. 23-11-11

WHEREAS, President Sanborn called for the election of the President of the Board of Directors for the year 2024; and

WHEREAS, Director Kerth nominated Director Herber for the position of President of the Board of Directors for 2024; and

WHEREAS, hearing no other nominations, the President closed the nominations and proceeded to a vote; **NOW, THEREFORE**

BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE SACRAMENTO MUNICIPAL UTILITY DISTRICT:

That this Board hereby elects Director Herber to serve as President of the Board of Directors for the 2024 term commencing January 1, 2024, through December 31, 2024.

Approved: November 16, 2023

INTRODUCED: DIRECTOR KERTH				
DIRECTOR	AYE	NO	ABSTAIN	ABSENT
SANBORN	X			
ROSE				X
BUI-THOMPSON				X
FISHMAN	X			
HERBER	X			
KERTH	X			
TAMAYO	X			

President Sanborn then nominated Director Fishman for the position of Vice President of the SMUD Board of Directors for 2024, and Resolution No. 23-11-12 was approved by a vote of 5-0, with Directors Rose and Bui-Thompson absent.

RESOLUTION NO. 23-11-12

WHEREAS, President Sanborn called for the election of the Vice President of the Board of Directors for the year 2024; and

WHEREAS, President Sanborn nominated Director Fishman for the position of Vice President of the Board of Directors for 2024; and

WHEREAS, hearing no other nominations, the President closed the nominations and proceeded to a vote; **NOW, THEREFORE**

BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE SACRAMENTO MUNICIPAL UTILITY DISTRICT:

That this Board hereby elects Director Fishman to serve as Vice President of the Board of Directors for the 2024 term commencing January 1, 2024, through December 31, 2024.

Approved: November 16, 2023

INTRODUCED: DIRECTOR SANBORN				
DIRECTOR	AYE	NO	ABSTAIN	ABSENT
SANBORN	X			
ROSE				X
BUI-THOMPSON				X
FISHMAN	X			
HERBER	X			
KERTH	X			
TAMAYO	X			

President Sanborn then called for statements from the public regarding items not on the agenda.

Public comment, a copy of which is attached to these minutes, was received by the following member of the public:

- Dave Wright

President Sanborn then turned to Directors' Reports.

Director Fishman reported on his attendance at the Valley Vision Livability Summit as well as his emcee duties at the Hope Cooperative Stand Up Sacramento event. He reported on his presentation about SMUD's 2030 Zero Carbon Plan at the Mountain Western Renewables Conference in Salt Lake City. He concluded by reporting on his attendance at the *Sacramento Observer's* 60th Anniversary Gala.

Vice President Herber thanked the Board for allowing her to be 2024 President. She stated that she intended to meet with each Director to talk about goals. She then reported on her attendance at the National Coalition of 100 Black Women's luncheon. She reported on her opening comments at the Diversity Summit hosted by the Black Chamber of Commerce, the Rainbow Chamber of Commerce, and the Hispanic Chamber of Commerce. She reported on her participation at a tree planting at McClatchy Park as well as her visit with members of the Carmichael Chamber of Commerce and her attendance at the Valley Vision Livability Summit. She concluded by thanking Jeff Paull for the presentation he had provided to the Curtis Park Electric Stars.

Director Kerth reported on his attendance at the Sacramento Tree Foundation Oak-toberfest as well as the Hope Cooperative's Stand Up Sacramento event. He reported on his attendance at the reception for the Aerospace Museum and noted that SMUD had helped them with lighting efficiency resulting in a monthly savings of approximately \$3,000 and noted that they would next move on to HVAC systems. He then reported on his attendance at the four-agency meeting of Sacramento Regional Transit (SacRT), Sacramento Area Council of Governments (SACOG), Sacramento Metropolitan

Air Quality Management District, and SMUD, where they had met to discuss climate change and reducing carbon in the region.

Director Tamayo thanked President Sanborn for her work in getting the four-agency meeting scheduled and stated she had done a very good job of co-chairing the meeting. He then reported on his presentation regarding the 2030 Zero Carbon Plan to the Franklin Boulevard Business Association as well as to the Asian Resources Community Services group. He reported on his speaking engagements with the South Sacramento Community Festival and his participation in the Florin Road Partnership Business Walk. He reported on his participation at an event in Rancho Cordova where he assisted with rebuilding a walkway and porch. He commended the SMUD Employee Resource Group Groups Reaching Across International Networks (GRAIN) for hosting an event where the spouse of a SMUD employee who is a chef from UC Davis provided a Filipino cooking demonstration as part of Filipino American Heritage month. He announced that there was an event coming up over the weekend where a documentary would be showing related to how Filipinos in the years before World War II actively helped a number of Jewish refugees escape Nazi Germany and gave them a place to go and noted he was very proud that his community was part of that. He concluded by reporting on his attendance at the World Cup Startup Competition in Natomas and encouraged all to attend next year.

President Sanborn reported on her attendance at the Distinguished Alumni Awards ceremony at Sac State and noted that she had gotten to meet the recipient of the Rising Star award and connected her with the Aerospace Museum to help develop STEM education. She thanked Sac State for hosting the four-agency meeting as well as Supervisor Kennedy and staff for working hard to schedule the meeting. She congratulated staff for winning awards from the Public Relations Society of America, which accepted on SMUD's behalf. She reported on her attendance at the Rainbow Chamber's Boas and Bowties award presentation. She concluded by reporting on her attendance at Valley Vision's Livability Summit.

Paul Lau, Chief Executive Officer and General Manager, continued his report on the following items:

- 2) **November Celebrations.** November has been full of celebrations. We recognized National Native American Heritage Month, Diwali and Veterans Day. Throughout November, we are recognizing the rich ancestry and vibrant traditions of Native Americans. We honor the legacy that Indigenous history makers have left – and those who continue to shape our society, lead their communities and impact our culture today. Also this month, we gathered to celebrate Diwali with our employee resource group Groups Reaching Across International Networks (GRAIN). There were opportunities to learn about the history of Diwali and enjoy traditional foods of the holiday. Finally, we proudly celebrated Veterans Day. SMUD's Military Employee Resource Group celebrated with a special veterans' appreciation lunch and then teamed up with SMUD Cares to volunteer in the Folsom and Elk Grove community parades last weekend. Thank you to everyone who dedicated their time to recognize those who serve and protect our country – especially SMUD's many veterans. Thank you for your service.
- 3) **J.D. Power.** Some exciting news that just broke this week! I am pleased to announce that SMUD is number one among California utilities in the J.D. Power business customer satisfaction survey. And in the West Midsize segment, we finished second only to Seattle City Light. Congratulations to all on this accomplishment!
- 4) **WE3 Summit.** Over the last two days, several of us attended the WE3 Summit, which brings together some of the top utility leaders to share insights on achieving a clean energy future. A big thank you to Director Bui-Thompson for serving on a panel

to speak about our history of Environmental, Social and Governance, or ESG, leadership. Our Chief Information Officer, Suresh Kotha, joined other leaders on a panel to discuss innovative use cases of Artificial Intelligence (AI) in our industry. And I was honored to deliver the Keynote this morning, focusing on how SMUD has put people at the center of our decarbonization plan. It was a fantastic event and the icing on the cake was the three awards we brought home from WE3! Suresh Kotha accepted the Sustainable Energy Company of the Year award on behalf of SMUD. Our Chief Zero Carbon Officer Lora Anguay was recognized with the Climate Action Champion award, and I was honored to receive the Sustainability Leader of the Year award. Congratulations to all!

- 5) **Solano 4 Wind Project.** Phase 4 of our Solano Wind Project is progressing nicely. Recently, 19 new wind turbines arrived via boat at the Port of Stockton and were transported to the staging area near the project site. These turbines are massive! In fact, each blade is 243 feet long. That is almost the entire length of a football field! We expect the project to be operational by May of next year as we continue to build momentum for a clean energy future.
- 6) **Board Video.** Finally, tonight's video focuses on energy storage at SMUD – a critical component of our journey to a clean energy future. The video is the latest in our "Road to Zero" video series that highlights our employees working on the projects that are moving us closer to our zero-carbon goal. You will hear from James Frasher and Bryan Swann about the critical role battery storage plays in our transition to a clean energy future while helping keep rates low and our world class reliability. Due to technical difficulties, the video was postponed.

President Sanborn requested the Summary of Board Direction, but there were no items.

President Sanborn stated SMUD employee, Carolyn Kohtz, a Computer Operations Specialist on the Infrastructure Platform Services team within the Information Technology department, had passed away earlier in the week. She stated Carolyn's coworkers will remember how kind and empathetic she was, along with her deep commitment to her work and that Carolyn is survived by her two sons. She extended her condolences to Carolyn's family and to the many coworkers to whom she was a caring friend.

No further business appearing, President Sanborn adjourned the meeting in honor of Carolyn Kohtz at 7:01 p.m.

Approved:

President

Secretary

Exhibit to Agenda Item #12

Adopt the **California Environmental Quality Act (CEQA) Initial Study and Mitigated Negative Declaration (IS/MND)** for the **EI Rio Substation Project (Project)**; adopt the **Mitigation Monitoring and Reporting Program**; and approve the **Project**.

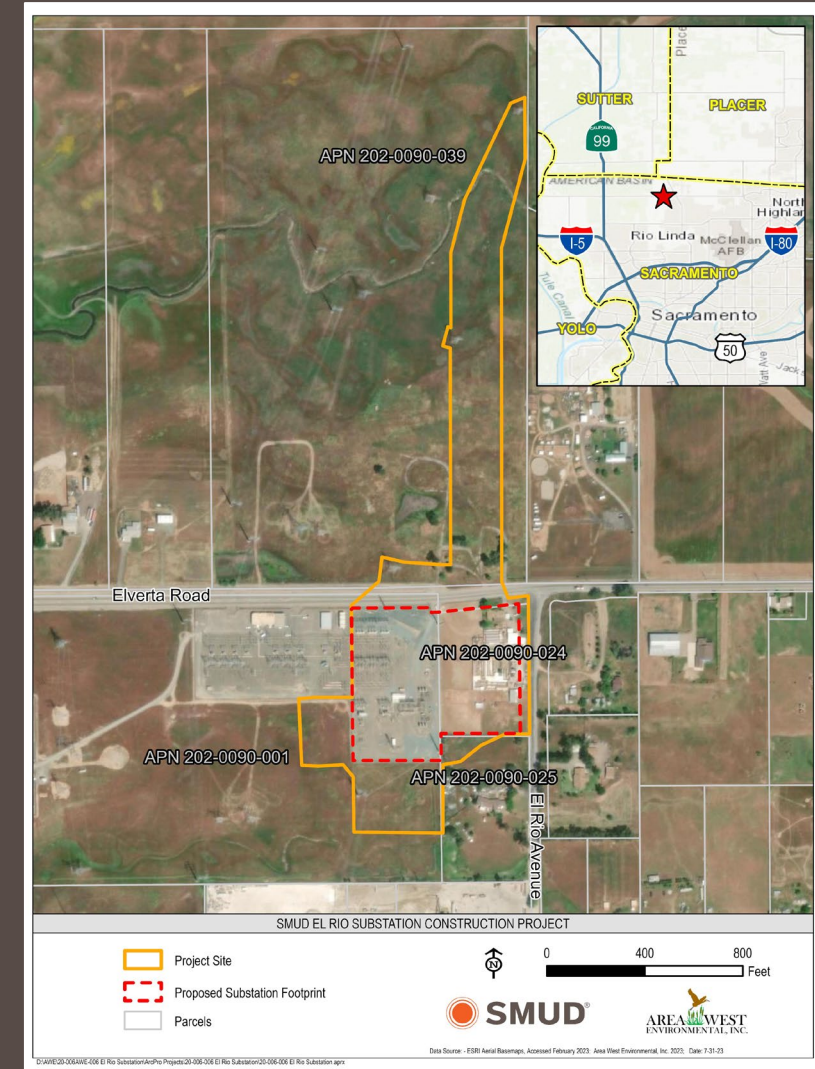
Board of Directors Meeting

Thursday, November 16, 2023, scheduled to begin at 6:00 p.m.

Auditorium, SMUD Headquarters Building

Project Overview

- El Rio Substation would replace the existing Elverta Substation
- Improve reliability and allow for interconnection to renewable generation
- Add operational flexibility to the SMUD Bulk electric system
- Replace two existing electrical towers
- Minimize impacts to nearby sensitive receptors and sensitive natural communities



Environmental Analysis

- Prepared an Initial Study and Draft Mitigated Negative Declaration (IS/MND)
- Potentially significant impacts reduced to less-than-significant levels with mitigation measures related to:
 - Air Quality
 - Biological Resources
 - Cultural Resources
 - Geology/Soils
 - Hazards & Hazardous Materials
 - Noise
 - Tribal Cultural Resources



Public Review Process

- Notice of Intent and Draft Initial Study Mitigated Negative Declaration, 30-day public comment period (September 5 – October 5, 2023)
- Published at SMUD.org, Sacramento Bee, and State Clearinghouse
- Notices mailed to property owners within 1,000 feet of the project
- State and Federal Agencies, Tribes, School Districts, County Departments
- Document available at SMUD Customer Service Center and East Campus Operations Center
- Hybrid In-person and Virtual Public Meeting, September 26, 2023
- Final IS/MND posted on November 3rd and provided to all commentors

Draft Initial Study Mitigated Negative Declaration Commenters

- Two local residents
- Central Valley Regional Water Quality Control Board
- Sacramento Metropolitan Air Quality Management District



Tribal Consultation under CEQA

- Initial outreach on March 21, 2023
- Tribes Contacted:
 - United Auburn Indian Community (UAIC)
 - Wilton Rancheria
 - Shingle Springs Band of Miwok Indians
 - Lone Band of Miwok Indians
- UAIC, Wilton Rancheria, and Shingle Springs requested consultation
- Site visit with Wilton on April 12, 2023
- Project updates during regular reoccurring Tribal consultation meetings
- Input on Tribal Cultural Resources section and Mitigation Measures

Requested SMUD Board Action

- Adopt the California Environmental Quality Act Initial Study Mitigated Negative Declaration for the El Rio Substation Construction Project;
- Adopt the Mitigation Monitoring and Reporting Program; and
- Approve the Project

From: [Dave Wright](#)
To: [Public Comment](#)
Cc: coyote1@surewest.net; katie.mccammon@350sacramento.org
Subject: [EXTERNAL] Comment on Agenda Item 2, SMUD Board meeting Nov 16, 2023
Date: Thursday, November 16, 2023 4:09:59 PM

CAUTION: This email originated from outside of SMUD. Do not click links or open attachments unless you recognize the sender and know the content is safe.

President Sanborn and Members of the Board,

I am commenting this evening as a member of and on behalf of [350Sacramento.org](https://350sacramento.org) .

350Sacramento is highly supportive of SMUD's 2030 Zero Carbon goal. And because of that, we are very concerned about the limited progress SMUD has made in achieving its interim targets detailed in the 2030 Zero Carbon Plan. We urge SMUD to embrace an all-options strategy that gets us closer to a just and sustainable future, prioritizing climate solutions that enhance the lives of the most vulnerable populations while reducing greenhouse gas impacts as quickly as possible. We and all your customers, many agencies and governments, the state, and even the world are depending on you.

Dave Wright
Sacramento

SSS No. CFO 23-015

BOARD AGENDA ITEM

STAFFING SUMMARY SHEET

Committee Meeting & Date Finance and Audit November 7 & 8, 2023
Board Meeting Date December 14, 2023

TO				TO								
1.	Russell Mills	6.	Lora Anguay									
2.	Lisa Limcaco	7.	Scott Martin									
3.	Laurie Rodriguez	8.										
4.	Jennifer Davidson	9.	Legal									
5.	Jose Bodipo-Memba	10.	CEO & General Manager									
Consent Calendar		Yes		No <i>If no, schedule a dry run presentation.</i>		Budgeted		Yes		No <i>(If no, explain in Cost/Budgeted section.)</i>		
FROM (IPR) Jennifer Restivo				DEPARTMENT Planning and Performance				MAIL STOP A309	EXT. 5193	DATE SENT 10/27/23		

NARRATIVE:

Requested Action: Approve the following:

- 2024 SMUD Budget Resolution
- 2024 Debt Resolution
- Pay Schedule and Special Compensation Items

Summary: 2024 Budget Resolution

The 2024 Proposed SMUD Budget Resolution is comprised of Operations and Maintenance budget of \$1,386.1 million, Debt Service budget of \$202.3 million, and Capital budget of \$555 million. The proposed 2024 Budget Resolution limits spending to \$2,143.4 million (total of prior amounts), plus 10% contingency, plus the commodity contingency and adjustments for Hydro Generation Adjustment transfers or revenue, weather hedge contracts, Western Area Power Administration (WAPA) energy delivery shortfall, and higher retail sales. Additionally, SMUD participates in regulatory programs such as Low Carbon Fuel Standard (LCFS) and Cap-and-Trade. When SMUD collects revenues through these program's sales, it is required to apply the proceeds toward specific expenses that support the program's goals. Should actual sales proceeds exceed the budgeted amount for these programs, the budgeted amount may be increased to match the sales proceeds without the prior specific approval of this Board. The proposed resolution also limits authorized permanent full-time positions to 2,250 plus 5 percent.

Public Good Charge

The Public Good Charge will decrease from 16.77 percent to 16.28 percent of 1994 revenues. The percentage allocation for the public good charge expenditures will change from 6.60 percent to 7.22 percent for low-income assistance, from 8.16 percent to 7.70 percent for energy efficiency, stayed the same at 0.00 percent for new renewable generation, and from 2.01 percent to 1.37 percent for research and development.

2024 Debt Resolution

The 2024 Proposed Debt Resolution contains the official Declaration of Intent to Issue Debt to create \$400 million of additional bonding authority to reimburse for qualifying capital expenditures. The resolution also contains the Official Intent to reimburse for 2024 and 2023 capital expenditures from bond proceeds, which is required to maintain tax-exempt financing capability.

Pay Schedule and Special Compensation Items

Approve/Adopt SMUD's pay schedule and special compensation pursuant to California Code of Regulations (CCR).

Board Policy: The 2024 SMUD Budget funds programs and initiatives that contribute to meeting Board strategic directives. *(Number & Title)* GP-3 (e) Board will adopt SMUD's budget on an annual basis.

Benefits: Approval of the 2024 SMUD Budget meets the requirements of the MUD Act and will authorize spending within the limits prescribed.

Cost/Budgeted: Approval of the 2024 SMUD Budget Resolution will authorize spending within the limits prescribed.

Alternatives: Approval of a budget for SMUD is required before January 1, 2024, otherwise, SMUD will not have the authority to make purchases or pay employees.

Affected Parties: SMUD

Coordination: Budget Office, Treasury, Accounting, People, Services & Strategies, Legal.

Presenter: Jennifer Davidson, Chief Financial Officer
Brandy Bolden, Chief Customer Officer
Lora Anguay, Chief Zero Carbon Officer
Frankie McDermott, Chief Operating Officer
Suresh Kotha, Chief Information Officer
Jose Bodipo-Memba, Chief Diversity Officer

Additional Links:

SUBJECT

2024 Proposed SMUD Budget

ITEM NO. (FOR LEGAL USE ONLY)

5

ITEMS SUBMITTED AFTER DEADLINE WILL BE POSTPONED UNTIL NEXT MEETING.

2024 SMUD Wage Schedule
Effective 12/16/2023

DRAFT

Job ID	Job Title	Prob Per Mo	Pay Scale Group	Step 01	Step 02	Step 03	Step 04	Step 05	Step 06	Step 07	Step 08	Step 09	Step 10	Wage Type	Effective Date
50051540	Accountant Entry	F	PAS00430	\$74,900.80									\$99,216.00	Annually	12/16/2023
50051541	Accountant Journey	12	PAS00520	\$93,516.80									\$123,843.20	Annually	12/16/2023
50083082	Accounting Technician	6	OSE0680A	\$31.51	\$32.32	\$33.13	\$33.95	\$34.82	\$35.70	\$36.58	\$37.52	\$38.48		Hourly	12/16/2023
50051545	Administrative Supervisor	12	PAS00430	\$74,900.80									\$99,216.00	Annually	12/16/2023
50131376	Analyst Trainee	N/	PAS00390	\$67,870.40									\$89,980.80	Annually	12/16/2023
50157614	Art Director	12	PAS00620	\$119,641.60									\$158,433.60	Annually	12/16/2023
50051631	Asset Protection Officer I	12	SECU220A	\$23.78	\$24.41	\$25.03	\$25.64	\$26.29	\$26.92	\$27.60	\$28.27	\$29.00		Hourly	12/16/2023
50051633	Asset Protection Officer II	12	SECU245A	\$30.17	\$30.93	\$31.69	\$32.49	\$33.31	\$34.17	\$34.98	\$35.88	\$36.78		Hourly	12/16/2023
50138722	Asset Supervisor Business Operations	12	PAS0062L	\$119,641.60									\$221,686.40	Annually	12/16/2023
50169886	Asset Supervisor Power Generation	12	PAS0062J	\$116,147.20									\$200,720.00	Annually	12/17/2022
50169886	Asset Supervisor Power Generation	12	PAS0062J	\$119,641.60									\$206,731.20	Annually	12/16/2023
50121495	Assistant Engineer	12	PAS00410	\$71,302.40									\$94,411.20	Annually	12/16/2023
50136460	Assistant General Manager	N/	EXECU01E	\$291,761.60									\$477,422.40	Annually	12/16/2023
50092300	Assistant Superintendent Power Generation	12	PAS00660	\$132,080.00									\$174,928.00	Annually	12/16/2023
50159051	Assistant Supervisor Telecommunication Operations and Management	12	PAS0059C	\$111,092.80									\$158,433.60	Annually	12/16/2023
50090360	Associate Civil Engineer Entry Level	F	PAS00520	\$93,516.80									\$123,843.20	Annually	12/16/2023
50097000	Associate Civil Engineer Journey	12	PAS00590	\$111,092.80									\$147,201.60	Annually	12/16/2023
50051553	Associate Desktop Support Specialist Closed Classification	F	PAS00450	\$78,686.40									\$104,187.20	Annually	12/16/2023
50083179	Associate Distribution Design Engineer Entry	F	PAS00520	\$93,516.80									\$123,843.20	Annually	12/16/2023
50051525	Associate Distribution Design Engineer Journey	12	PAS00590	\$111,092.80									\$147,201.60	Annually	12/16/2023
50083180	Associate Distribution System Engineer Entry	F	PAS00520	\$93,516.80									\$123,843.20	Annually	12/16/2023
50051539	Associate Distribution System Engineer Journey	12	PAS00590	\$111,092.80									\$147,201.60	Annually	12/16/2023
50083181	Associate Electrical Engineer Entry	F	PAS00520	\$93,516.80									\$123,843.20	Annually	12/16/2023
50051526	Associate Electrical Engineer Journey	12	PAS00590	\$111,092.80									\$147,201.60	Annually	12/16/2023
50139912	Associate Energy Management System Engineer Entry Level	F	PAS00520	\$93,516.80									\$123,843.20	Annually	12/16/2023
50139910	Associate Energy Management System Engineer Journey	12	PAS00590	\$111,092.80									\$147,201.60	Annually	12/16/2023
50121331	Associate Enterprise Technology Analyst Entry	F	PAS00450	\$78,686.40									\$104,187.20	Annually	12/16/2023
50121274	Associate Enterprise Technology Developer Entry	F	PAS00450	\$78,686.40									\$104,187.20	Annually	12/16/2023
50168400	Associate Instrument and Controls Engineer Entry Level	F	PAS00520	\$93,516.80									\$123,843.20	Annually	12/16/2023
50108175	Associate Instrument and Controls Engineer Journey	12	PAS00590	\$111,092.80									\$147,201.60	Annually	12/16/2023
50051532	Associate Mechanical Engineer Entry Level	F	PAS00520	\$93,516.80									\$123,843.20	Annually	12/16/2023
50083182	Associate Mechanical Engineer Journey	12	PAS00590	\$111,092.80									\$147,201.60	Annually	12/16/2023
50120408	Associate Power Operation Engineer Journey Level	12	PAS00590	\$111,092.80									\$147,201.60	Annually	12/16/2023
50134736	Associate Protection Engineer Entry Level	F	PAS00520	\$93,516.80									\$123,843.20	Annually	12/16/2023
50120123	Associate Protection Engineer Journey	12	PAS00590	\$111,092.80									\$147,201.60	Annually	12/16/2023
50121906	Associate Telecommunication Engineer Entry	F	PAS00520	\$93,516.80									\$123,843.20	Annually	12/16/2023
50121894	Associate Telecommunication Engineer Journey	12	PAS00590	\$111,092.80									\$147,201.60	Annually	12/16/2023
50123046	Associate Transmission Planning Engineer Entry	F	PAS00520	\$93,516.80									\$123,843.20	Annually	12/16/2023
50123047	Associate Transmission Planning Engineer Journey	12	PAS00590	\$111,092.80									\$147,201.60	Annually	12/16/2023
50051556	Attorney Entry Level	N/	PAS00620	\$119,641.60									\$158,433.60	Annually	12/16/2023
50051557	Attorney Journey Level	N/	PAS00660	\$132,080.00									\$174,928.00	Annually	12/16/2023
50054600	Board Member	N/	BOARD001	\$317.00										Per Meeting	12/16/2023
50051564	Body Fender Mechanic	12	IBEW884A	\$55.16										Hourly	12/16/2023
50160320	Business Continuity Program Manager	12	PAS00640	\$125,694.40									\$166,483.20	Annually	12/16/2023
50166420	Business Development Manager Customer Sales	N/	PAS0069B	\$142,188.80									\$197,891.20	Annually	12/16/2023
50083187	Business Planning Analyst Entry Level	F	PAS0043B	\$74,900.80									\$104,187.20	Annually	12/16/2023
50051560	Business Planning Analyst Journey	12	PAS0052B	\$93,516.80									\$130,062.40	Annually	12/16/2023
50051551	Business Technology Analyst Entry	F	PAS00450	\$78,686.40									\$104,187.20	Annually	12/16/2023
50051561	Business Technology Analyst Journey	12	PAS00540	\$98,217.60									\$130,062.40	Annually	12/16/2023
50111755	Business Technology Program Manager	12	PAS00660	\$132,080.00									\$174,928.00	Annually	12/16/2023
50088597	Business Transformation Specialist	12	PAS00640	\$125,694.40									\$166,483.20	Annually	12/16/2023
50084255	Business Unit Planning Coordinator	12	PAS0062B	\$119,641.60									\$166,483.20	Annually	12/16/2023
50051586	Cable Locator	12	IBEW873G	\$47.41	\$48.41	\$49.78	\$51.05	\$52.01						Hourly	12/16/2023
50051584	Cable Locator with class A	12	IBEW873M	\$48.56	\$49.56	\$50.93	\$52.20	\$53.16						Hourly	12/16/2023
50051585	Cable Locator with Hazmat	12	IBEW873X	\$48.67	\$49.67	\$51.03	\$52.32	\$53.28						Hourly	12/16/2023
50165732	Cable Splicer Construction Foreman/Woman	12	IBEW941I	\$79.69										Hourly	12/16/2023
50167676	Cable Splicer Construction Foreman/Woman with class A	12	IBEW941F	\$80.84										Hourly	12/16/2023
50051574	Cable Splicer/Electrician	12	IBEW923K	\$67.12										Hourly	12/16/2023
50083188	Cable Splicer/Electrician Apprentice	54	IBEW909A	\$43.65	\$46.12	\$48.64	\$51.17	\$53.72	\$56.24	\$58.70	\$61.25	\$63.74		Hourly	12/16/2023
50051575	Cable Splicer/Electrician Apprentice with class A	54	IBEW909B	\$44.80	\$47.27	\$49.79	\$52.32	\$54.87	\$57.39	\$59.85	\$62.40	\$64.89		Hourly	12/16/2023
50051579	Cable Splicer/Electrician Apprentice with hazmat	54	IBEW909C	\$44.92	\$47.39	\$49.91	\$52.44	\$54.99	\$57.51	\$59.97	\$62.52	\$65.01		Hourly	12/16/2023
50051844	Cable Splicer/Electrician Foreman/Woman	12	IBEW937D	\$72.28										Hourly	12/16/2023
50051577	Cable Splicer/Electrician Foreman/Woman Light	12	IBEW942A	\$75.62										Hourly	12/16/2023
50051578	Cable Splicer/Electrician Foreman/Woman Light with class A	12	IBEW942L	\$76.77										Hourly	12/16/2023
50051576	Cable Splicer/Electrician with Class A	12	IBEW923L	\$68.27										Hourly	12/16/2023
50051583	Calibration Technician	12	IBEW925A	\$65.53										Hourly	12/16/2023
50166640	Category Manager	12	PAS00560	\$103,188.80									\$136,697.60	Annually	12/16/2023
50131457	Chief Customer Officer	N/	EXECU01E	\$291,761.60									\$477,422.40	Annually	12/16/2023
50136448	Chief Diversity Officer	N/	EXECU01E	\$291,761.60									\$477,422.40	Annually	12/16/2023
50051691	Chief Executive Officer and General Manager	N/	EXECU03E	\$575,000.00									\$1,000,000.00	Annually	12/16/2023
50107656	Chief Financial Officer	N/	EXECU01E	\$291,761.60									\$477,422.40	Annually	12/16/2023
50159814	Chief Information Officer	N/	EXECU01E	\$291,761.60									\$477,422.40	Annually	12/16/2023
50051558	Chief Legal & Government Affairs Officer	N/	EXECU01E	\$291,761.60									\$477,422.40	Annually	12/16/2023
50170848	Chief Marketing & Communications Officer	N/	EXECU01E	\$291,761.60									\$477,422.40	Annually	12/16/2023
50159810	Chief Operating Officer	N/	EXECU01E	\$291,761.60									\$477,422.40	Annually	12/16/2023
50136450	Chief Strategy Officer	N/	EXECU01E	\$291,761.60									\$477,422.40	Annually	12/16/2023
50169284	Chief Zero Carbon Officer	N/	EXECU01E	\$291,761.60									\$477,422.40	Annually	12/16/2023
50051599	Civil Maintenance Foreman/Woman light	12	IBEW937G	\$69.15										Hourly	12/16/2023
50051600	Civil Maintenance Foreman/Woman light with class A	12	IBEW937L	\$70.30										Hourly	12/16/2023
50051601	Civil Maintenance Foreman/Woman light with hazmat	12	IBEW937X	\$70.42										Hourly	12/16/2023

N/ designates non-civil service jobs

F designates non-journey nonrepresented flex jobs

2024 SMUD Wage Schedule
Effective 12/16/2023

50123556	Claims Administrator Entry Level	F	PAS0045O	\$78,686.40												\$104,187.20	Annually	12/16/2023
50161455	Claims Administrator Journey	12	PAS0054O	\$98,217.60												\$130,062.40	Annually	12/16/2023
50051587	Combustible Turbine Foreman/Woman	12	IBEW945B	\$73.63													Hourly	12/16/2023
50051588	Combustible Turbine Technician	12	IBEW917A	\$63.26													Hourly	12/16/2023
50168961	Commercial and Industrial Energy Educator	12	PAS0062O	\$119,641.60												\$158,433.60	Annually	12/16/2023
50134282	Communications Supervisor	12	PAS0059C	\$111,092.80												\$158,433.60	Annually	12/16/2023
50160594	Community Engagement Events Supervisor	12	PAS0062O	\$119,641.60												\$158,433.60	Annually	12/16/2023
50132074	Community Engagement Representative	12	PAS0056O	\$103,188.80												\$136,697.60	Annually	12/16/2023
50097275	Computer Operations Specialist Entry Level	6	OSE0680B	\$31.41	\$32.17	\$32.98	\$33.82	\$34.68	\$35.50	\$36.42	\$37.33	\$38.23					Hourly	12/16/2023
50097276	Computer Operations Specialist Journey	6	OSE0720B	\$38.22	\$39.21	\$40.20	\$41.19	\$42.21	\$43.26	\$44.31	\$45.44	\$46.57					Hourly	12/16/2023
50161490	Construction Contract Analyst Entry Level	F	PAS0043O	\$74,900.80												\$99,216.00	Annually	12/16/2023
50161492	Construction Contract Analyst Journey Level	12	PAS0052O	\$93,516.80												\$123,843.20	Annually	12/16/2023
50051605	Construction Management Inspector I	12	OSE0740A	\$42.21	\$43.26	\$44.31	\$45.44	\$46.56	\$47.76	\$48.95	\$50.21	\$51.43					Hourly	12/16/2023
50051606	Construction Management Inspector II	12	OSE0770B	\$49.63	\$50.87	\$52.13	\$53.43	\$54.80	\$56.13	\$57.58	\$58.96	\$60.48					Hourly	12/16/2023
50122929	Construction Management Inspector III	12	OSE0772A	\$52.12	\$53.40	\$54.75	\$56.09	\$57.53	\$58.92	\$60.44	\$61.91	\$63.51					Hourly	12/16/2023
50051616	Consulting Engineer II	12	PAS0069O	\$142,188.80												\$188,323.20	Annually	12/16/2023
50135051	Coordinator Education Relations	12	PAS0062O	\$119,641.60												\$158,433.60	Annually	12/16/2023
50084576	Coordinator Electric Transportation Projects	12	PAS0064O	\$125,694.40												\$166,483.20	Annually	12/16/2023
50051592	Coordinator Energy and Technology Center	12	PAS0059C	\$111,092.80												\$158,433.60	Annually	12/16/2023
50100156	Cost Schedule Specialist Entry	F	PAS0043O	\$74,900.80												\$99,216.00	Annually	12/16/2023
50051609	Cost Schedule Specialist Journey	12	PAS0052O	\$93,516.80												\$123,843.20	Annually	12/16/2023
50051610	Crafts Helper	12	IBEW828G	\$32.38	\$33.86	\$36.46	\$38.95	\$41.71									Hourly	12/16/2023
50083191	Crafts Helper with class A	12	IBEW828L	\$33.53	\$35.01	\$37.61	\$40.10	\$42.86									Hourly	12/16/2023
50051611	Crafts Helper with hazmat	12	IBEW828X	\$33.65	\$35.13	\$37.73	\$40.22	\$42.98									Hourly	12/16/2023
50124979	Critical Infrastructure Protection Compliance Specialist Entry Level	F	PAS0049O	\$86,819.20												\$115,044.80	Annually	12/16/2023
50124980	Critical Infrastructure Protection Compliance Specialist II	12	PAS0056O	\$103,188.80												\$136,697.60	Annually	12/16/2023
50124981	Critical Infrastructure Protection Compliance Specialist Senior Level	12	PAS0062O	\$119,641.60												\$158,433.60	Annually	12/16/2023
50051617	Custodian Closed Classification	12	IBEW800G	\$31.87	\$33.30	\$34.83	\$36.44										Hourly	12/16/2023
50051619	Customer Services Assistant	12	PAS0043O	\$74,900.80												\$99,216.00	Annually	12/16/2023
50051620	Customer Services Field Representative	6	OSE0725D	\$39.21	\$40.20	\$41.19	\$42.22	\$43.26	\$44.31	\$45.44	\$46.56	\$47.77					Hourly	12/16/2023
50051622	Customer Services Representative I	6	OSE0641A	\$29.71	\$30.46	\$31.22	\$31.99	\$32.79									Hourly	12/16/2023
50051618	Customer Services Representative II	6	OSE0680A	\$31.51	\$32.32	\$33.13	\$33.95	\$34.82	\$35.70	\$36.58	\$37.52	\$38.48					Hourly	12/16/2023
50092958	Customer Services Supervisor	12	PAS0059O	\$111,092.80												\$147,201.60	Annually	12/16/2023
50167103	Cyber Security Engineer Entry	F	PAS0045O	\$78,686.40												\$104,187.20	Annually	12/16/2023
50167112	Cybersecurity Engineer Journey	12	PAS0059O	\$111,092.80												\$147,201.60	Annually	12/16/2023
50167108	Cybersecurity Government And Computer Specialist Entry Level	F	PAS0045O	\$78,686.40												\$104,187.20	Annually	12/16/2023
50167109	Cybersecurity Government And Computer Specialist Journey Level	12	PAS0059O	\$111,092.80												\$147,201.60	Annually	12/16/2023
50167110	Cybersecurity Risk Specialist Entry Level	F	PAS0045O	\$78,686.40												\$104,187.20	Annually	12/16/2023
50167111	Cybersecurity Risk Specialist Journey	12	PAS0059O	\$111,092.80												\$147,201.60	Annually	12/16/2023
50051623	Data Base Administrator	12	PAS0059O	\$111,092.80												\$147,201.60	Annually	12/16/2023
50051602	Data Center Operations Specialist	12	PAS0047O	\$82,700.80												\$109,470.40	Annually	12/16/2023
50113480	Deputy General Counsel	N/	MGR0085G	\$208,603.20												\$290,492.80	Annually	12/16/2023
50084608	Design and Standards Specialist	12	PAS0056O	\$103,188.80												\$136,697.60	Annually	12/16/2023
50051643	Desktop Support Specialist Closed Classification	12	PAS0054O	\$98,217.60												\$130,062.40	Annually	12/16/2023
50170867	Director Community Relations Outreach & Support	N/	MGR0080G	\$184,350.40												\$256,776.00	Annually	12/16/2023
50051798	Director Accounting and Controller	N/	MGR0080G	\$184,350.40												\$256,776.00	Annually	12/16/2023
50126853	Director Advanced Energy Solutions	N/	MGR0080G	\$184,350.40												\$256,776.00	Annually	12/16/2023
50051816	Director Applications	N/	MGR0080G	\$184,350.40												\$256,776.00	Annually	12/16/2023
50051808	Director Audit Services	N/	MGR0080G	\$184,350.40												\$256,776.00	Annually	12/16/2023
50161661	Director Community Development and Business Attraction	N/	MGR0080G	\$184,350.40												\$256,776.00	Annually	12/16/2023
50160177	Director Customer and Grid Strategy	N/	MGR0080G	\$184,350.40												\$256,776.00	Annually	12/16/2023
50091654	Director Customer and Revenue Operations	N/	MGR0085G	\$208,603.20												\$290,492.80	Annually	12/16/2023
50142658	Director Customer Experience Delivery	N/	MGR0080G	\$184,350.40												\$256,776.00	Annually	12/16/2023
50126698	Director Customer Operations and Community Energy Services	N/	MGR0080G	\$184,350.40												\$256,776.00	Annually	12/16/2023
50161872	Director Cybersecurity	N/	MGR0085G	\$208,603.20												\$290,492.80	Annually	12/16/2023
50051820	Director Distribution Planning And Operations	N/	MGR0080G	\$184,350.40												\$256,776.00	Annually	12/16/2023
50123045	Director Diversity, Equity, Inclusion & Belonging	N/	MGR0080G	\$184,350.40												\$256,776.00	Annually	12/16/2023
50122304	Director Energy Trading & Contracts	N/	MGR0085G	\$208,603.20												\$290,492.80	Annually	12/16/2023
50160223	Director Environmental Safety & Real Estate Services	N/	MGR0080G	\$184,350.40												\$256,776.00	Annually	12/16/2023
50051801	Director Facilities Security & Emergency Operations	N/	MGR0080G	\$184,350.40												\$256,776.00	Annually	12/16/2023
50162575	Director Grid Assets Strategic Services	N/	MGR0080G	\$184,350.40												\$256,776.00	Annually	12/16/2023
50088304	Director Information Technology Infrastructure and Operations	N/	MGR0080G	\$184,350.40												\$256,776.00	Annually	12/16/2023
50160638	Director Information Technology Strategic Initiatives	N/	MGR0080G	\$184,350.40												\$256,776.00	Annually	12/16/2023
50051799	Director Line Assets	N/	MGR0085G	\$208,603.20												\$290,492.80	Annually	12/16/2023
50137965	Director Marketing and Corporate Communication	N/	MGR0080G	\$184,350.40												\$256,776.00	Annually	12/16/2023
50133151	Director People Services & Strategies	N/	MGR0080G	\$184,350.40												\$256,776.00	Annually	12/16/2023
50151556	Director Planning & Performance	N/	MGR0080G	\$184,350.40												\$256,776.00	Annually	12/16/2023
50091575	Director Power Generation	N/	MGR0085G	\$208,603.20												\$290,492.80	Annually	12/16/2023
50051856	Director Procurement, Warehouse & Fleet	N/	MGR0080G	\$184,350.40												\$256,776.00	Annually	12/16/2023
50124607	Director Reliability Compliance & Coordination	N/	MGR0080G	\$184,350.40												\$256,776.00	Annually	12/16/2023
50131456	Director Resource Strategy	N/	MGR0080G	\$184,350.40												\$256,776.00	Annually	12/16/2023
50051819	Director Substation Telecommunications & Metering Assets	N/	MGR0080G	\$184,350.40												\$256,776.00	Annually	12/16/2023
50166082	Director Sustainable Community Programs	N/	MGR0080G	\$184,350.40												\$256,776.00	Annually	12/16/2023
50145212	Director Transmission Planning & Operations	N/	MGR0085G	\$208,603.20												\$290,492.80	Annually	12/16/2023
50083424	Director Treasury & Treasurer	N/	MGR0085G	\$202,529.60												\$282,027.20	Annually	4/22/2023
50083424	Director Treasury & Treasurer	N/	MGR0085G	\$208,603.20												\$290,492.80	Annually	12/16/2023
50140181	Distribution Line Design Supervisor	12	PAS0062T	\$119,641.60												\$174,948.80	Annually	12/16/2023
50051628	Distribution System Operator I	12	IBEW928J	\$67.65	\$69.35	\$71.14	\$73.00	\$74.84	\$76.76	\$78.68	\$80.79	\$82.83					Hourly	12/17/2022
50051628	Distribution System Operator I	12	IBEW928J	\$69.68	\$71.43	\$73.27	\$75.19	\$77.09	\$79.06	\$81.04	\$83.21	\$85.31					Hourly	12/16/2023
50051629	Distribution System Operator II	12	IBEW992D	\$86.98													Hourly	12/17/2022
50051629	Distribution System Operator II	12	IBEW992D	\$89.59													Hourly	12/16/2023
50051630	Distribution System Specialist	12	PAS0066A	\$132,080.00												\$179,275.20	Annually	12/16/2023

N/ designates non-civil service jobs
F designates non-journey nonrepresented flex jobs

2024 SMUD Wage Schedule
Effective 12/16/2023

50051624	Document Record Specialist I	6	OSE0615A	\$22.70	\$23.27	\$23.85	\$24.42	\$25.03	\$25.68	\$26.31	\$26.97	\$27.66		Hourly	12/16/2023
50051625	Document Record Specialist II	6	OSE0634B	\$24.89	\$25.50	\$26.19	\$26.82	\$27.50	\$28.22	\$28.91	\$29.65	\$30.37		Hourly	12/16/2023
50090307	Document Record Specialist Journey Level Confidential	6	CONF634A	\$27.30	\$27.97	\$28.65	\$29.38	\$30.12	\$30.85	\$31.67	\$32.44	\$33.29		Hourly	12/16/2023
50083194	Drafting Technician I	6	OSE0680A	\$31.51	\$32.32	\$33.13	\$33.95	\$34.82	\$35.70	\$36.58	\$37.52	\$38.48		Hourly	12/16/2023
50051642	Drafting Technician II	6	OSE0716A	\$37.25	\$38.17	\$39.13	\$40.12	\$41.11	\$42.15	\$43.20	\$44.30	\$45.41		Hourly	12/16/2023
50115039	Economic & Small Business Development Representative Entry Level	F	PAS0045O	\$78,686.40									\$104,187.20	Annually	12/16/2023
50051822	Economic & Small Business Development Representative II	12	PAS0054O	\$98,217.60									\$130,062.40	Annually	12/16/2023
50051590	Economic & Small Business Development Representative III	12	PAS0059O	\$111,092.80									\$147,201.60	Annually	12/16/2023
50051823	Economic & Small Business Development Supervisor	12	PAS0062B	\$119,641.60									\$166,483.20	Annually	12/16/2023
50170332	Economic Development & Business Growth Specialist	N/	PAS0066O	\$132,080.00									\$174,928.00	Annually	12/16/2023
50137576	Economic Development and Business Growth Manager	N/	PAS0072O	\$153,088.00									\$202,820.80	Annually	12/16/2023
50051645	Economic Development Specialist	N/	PAS0066O	\$132,080.00									\$174,928.00	Annually	12/16/2023
50051646	Education Specialist	12	PAS0056O	\$103,188.80									\$136,697.60	Annually	12/16/2023
50140144	Electrical Field Consultant	12	PAS0066O	\$132,080.00									\$174,928.00	Annually	12/16/2023
50051653	Electrical Technician	12	IBEW937E	\$74.98										Hourly	12/16/2023
50089229	Electrical Technician Apprentice	48	IBEW928B	\$48.67	\$51.57	\$54.35	\$57.16	\$60.00	\$62.84	\$65.60	\$68.43	\$71.23		Hourly	12/16/2023
50051654	Electrical Technician Apprentice with hazmat	48	IBEW928C	\$49.94	\$52.84	\$55.62	\$58.43	\$61.27	\$64.11	\$66.87	\$69.87	\$72.50		Hourly	12/16/2023
50092679	Electrical Technician Foreman/Woman Light	12	IBEW970A	\$85.79										Hourly	12/16/2023
50099277	Electrical Technician Foreman/Woman Light On Call	12	IBEW970O	\$87.45										Hourly	12/16/2023
50092739	Electrical Technician Foreman/Woman With class A	12	IBEW970M	\$86.99										Hourly	12/16/2023
50092740	Electrical Technician Foreman/Woman With hazmat	12	IBEW970N	\$87.11										Hourly	12/16/2023
50091431	Electrical Technician Subforeman/Woman	12	IBEW937F	\$80.78										Hourly	12/16/2023
50120394	Electrical Test & Repair Specialist	12	IBEW939A	\$73.24										Hourly	12/16/2023
50051647	Electrician	12	IBEW916A	\$62.81										Hourly	12/16/2023
50051648	Electrician Apprentice	48	IBEW880A	\$40.82	\$43.55	\$46.19	\$48.89	\$51.59	\$54.29	\$56.93	\$59.65			Hourly	12/16/2023
50051649	Electrician Apprentice with class A	48	IBEW880L	\$41.97	\$44.70	\$47.34	\$50.04	\$52.74	\$55.44	\$58.08	\$60.80			Hourly	12/16/2023
50051650	Electrician Apprentice with hazmat	48	IBEW880X	\$42.09	\$44.82	\$47.46	\$50.16	\$52.86	\$55.56	\$58.20	\$60.92			Hourly	12/16/2023
50099538	Electrician Foreman/Woman Light	12	IBEW941M	\$71.89										Hourly	12/16/2023
50099539	Electrician Foreman/Woman Light With class A	12	IBEW941L	\$73.04										Hourly	12/16/2023
50099540	Electrician Foreman/Woman Light With hazmat	12	IBEW941X	\$73.16										Hourly	12/16/2023
50051651	Electrician with class A	12	IBEW916L	\$63.96										Hourly	12/16/2023
50133656	Electrician with hazmat	12	IBEW916X	\$64.08										Hourly	12/16/2023
50051663	Emergency Preparedness Specialist I	F	PAS0049O	\$86,819.20									\$115,044.80	Annually	12/16/2023
50051664	Emergency Preparedness Specialist II	12	PAS0056O	\$103,188.80									\$136,697.60	Annually	12/16/2023
50120629	Emergency Preparedness Specialist III	12	PAS0062O	\$119,641.60									\$158,433.60	Annually	12/16/2023
50164527	End User Computing Analyst	12	PAS0039O	\$67,870.40									\$89,980.80	Annually	12/16/2023
50131802	Energy Advisor Entry Level	F	PAS0045O	\$78,686.40									\$104,187.20	Annually	12/16/2023
50131803	Energy Advisor Journey	12	PAS0054O	\$98,217.60									\$130,062.40	Annually	12/16/2023
50051666	Energy Coordinator Special Projects	12	PAS0071O	\$149,344.00									\$197,891.20	Annually	12/16/2023
50131880	Energy Specialist Entry	6	OSE0725D	\$39.21	\$40.20	\$41.19	\$42.22	\$43.26	\$44.31	\$45.44	\$46.56	\$47.77		Hourly	12/16/2023
50131879	Energy Specialist Journey	6	OSE0753A	\$45.23	\$46.37	\$47.51	\$48.70	\$49.93	\$51.14	\$52.43	\$53.76	\$55.06		Hourly	12/16/2023
50108843	Energy Trading Specialist Entry	F	PAS0043O	\$74,900.80									\$99,216.00	Annually	12/16/2023
50108844	Energy Trading Specialist Intermediate	F	PAS0052O	\$93,516.80									\$123,843.20	Annually	12/16/2023
50108900	Energy Trading Specialist Journey	12	PAS0062O	\$119,641.60									\$158,433.60	Annually	12/16/2023
50090546	Engineering Designer I	12	OSE0711B	\$36.42	\$37.33	\$38.27	\$39.22	\$40.21	\$41.19	\$42.22	\$43.27	\$44.36		Hourly	12/16/2023
50083405	Engineering Designer II	12	OSE0745A	\$43.26	\$44.35	\$45.44	\$46.61	\$47.76	\$48.95	\$50.17	\$51.42	\$52.72		Hourly	12/16/2023
50083457	Engineering Designer III	12	OSE0770A	\$51.42	\$52.72	\$54.02	\$55.40	\$56.78	\$58.19	\$59.64	\$61.12	\$62.67		Hourly	12/16/2023
50084126	Engineering Designer IV	12	OSE0780A	\$58.19	\$59.63	\$61.12	\$62.67	\$64.23	\$65.82	\$67.46	\$69.16	\$70.90		Hourly	12/16/2023
50051656	Engineering Specialist	12	PAS0056O	\$103,188.80									\$136,697.60	Annually	12/16/2023
50083195	Engineering Technician Entry Level	12	OSE0677A	\$34.15	\$35.00	\$35.87	\$36.77	\$37.70						Hourly	12/16/2023
50051658	Engineering Technician Journey	12	OSE0714A	\$37.18	\$38.12	\$39.03	\$40.03	\$41.05	\$42.08	\$43.13	\$44.18	\$45.33		Hourly	12/16/2023
50170773	Enterprise Application Administrator Entry	F	PAS0052B	\$93,516.80									\$130,062.40	Annually	12/16/2023
50085578	Enterprise Application Administrator Journey	12	PAS0059O	\$111,092.80									\$147,201.60	Annually	12/16/2023
50166430	Enterprise Architect Entry Level	F	PAS0045O	\$78,686.40									\$104,187.20	Annually	12/16/2023
50166431	Enterprise Architect Journey Level	12	PAS0059O	\$111,092.80									\$147,201.60	Annually	12/16/2023
50051746	Enterprise Operations Analyst Journey	12	PAS0054O	\$98,217.60									\$130,062.40	Annually	12/16/2023
50145378	Enterprise Performance Planning Coordinator Entry Level	F	PAS0045O	\$78,686.40									\$104,187.20	Annually	12/16/2023
50139957	Enterprise Performance Planning Coordinator Journey	12	PAS0056O	\$103,188.80									\$136,697.60	Annually	12/16/2023
50158464	Enterprise Risk Coordinator	12	PAS0062O	\$119,641.60									\$158,433.60	Annually	12/16/2023
50126639	Enterprise Technology Analyst Intermediate	F	PAS0054O	\$98,217.60									\$130,062.40	Annually	12/16/2023
50083607	Enterprise Technology Analyst Journey	12	PAS0059O	\$111,092.80									\$147,201.60	Annually	12/16/2023
50138868	Enterprise Technology Developer Intermediate	F	PAS0054O	\$98,217.60									\$130,062.40	Annually	12/16/2023
50083823	Enterprise Technology Developer Journey	12	PAS0059O	\$111,092.80									\$147,201.60	Annually	12/16/2023
50138415	Enterprise Technology Infrastructure Specialist Entry Level	F	PAS0045O	\$78,686.40									\$104,187.20	Annually	12/16/2023
50138421	Enterprise Technology Infrastructure Specialist Intermediate	F	PAS0054O	\$98,217.60									\$130,062.40	Annually	12/16/2023
50138422	Enterprise Technology Infrastructure Specialist Journey	12	PAS0059O	\$111,092.80									\$147,201.60	Annually	12/16/2023
50051936	Environmental Health & Safety Specialist I	F	PAS0049O	\$86,819.20									\$115,044.80	Annually	12/16/2023
50051937	Environmental Health & Safety Specialist II	12	PAS0056O	\$103,188.80									\$136,697.60	Annually	12/16/2023
50051938	Environmental Health & Safety Specialist III	12	PAS0062O	\$119,641.60									\$158,433.60	Annually	12/16/2023
50051659	Equipment Operator	12	IBEW858L	\$49.22										Hourly	12/16/2023
50051660	Equipment Operator with class A	12	IBEW864A	\$50.37										Hourly	12/16/2023
50051661	Equipment Operator with hazmat	12	IBEW864X	\$50.49										Hourly	12/16/2023
50051662	Equipment Testing Representative	6	OSE0735B	\$41.19	\$42.21	\$43.26	\$44.31	\$45.44	\$46.56	\$47.76	\$48.96	\$50.21		Hourly	12/16/2023
50083197	Equipment Testing Representative Assistant	6	OSE0695A	\$33.82	\$34.68	\$35.50	\$36.42	\$37.32	\$38.22	\$39.21	\$40.20	\$41.19		Hourly	12/16/2023
50088756	Executive Advisor	N/	EXE001E	\$291,761.60									\$477,422.40	Annually	12/16/2023
50092751	Executive Assistant Executive Office	N/	PAS0051O	\$91,208.00									\$120,868.80	Annually	12/16/2023
50131624	Facilities Building & Grounds Supervisor	12	PAS0059O	\$111,092.80									\$147,201.60	Annually	12/16/2023
50113660	Facilities Craft Supervisor	12	PAS0062B	\$119,641.60									\$166,483.20	Annually	12/16/2023
50099209	Facilities Custodian	12	IBEW792A	\$24.83	\$26.71	\$28.86	\$31.06							Hourly	12/16/2023
50051842	Facilities Electrical Foreman/Woman Light with class A	12	IBEW941L	\$73.04										Hourly	12/16/2023
50117605	Facilities Electrician Foreman/Woman Light	12	IBEW941M	\$71.89										Hourly	12/16/2023
50159122	Facilities Stationary Engineer Apprentice	12	IBEW851J	\$33.39	\$35.33	\$37.23	\$39.17	\$41.08	\$43.01	\$44.95	\$46.86	\$48.82		Hourly	12/16/2023

N/ designates non-civil service jobs
F designates non-journey nonrepresented flex jobs

2024 SMUD Wage Schedule
Effective 12/16/2023

50159123	Facilities Stationary Engineer Apprentice Closed Classification	12	IBEW879F	\$39.29	\$41.57	\$43.82	\$46.11	\$48.36	\$50.63	\$52.91	\$55.15	\$57.44		Hourly	12/16/2023
50159225	Facilities Stationary Engineer I	12	IBEW872G	\$51.38										Hourly	12/16/2023
50159124	Facilities Stationary Engineer Foreman/Woman Light	12	IBEW937G	\$69.15										Hourly	12/16/2023
50159226	Facilities Stationary Engineer II	12	IBEW908A	\$60.46										Hourly	12/16/2023
50052152	Facilities Utility Crew Foreman/Woman	12	IBEW919M	\$45.97										Hourly	12/16/2023
50168952	Facilities Utility Crew Foreman/Woman Closed Classification	12	IBEW863M	\$53.53										Hourly	12/16/2023
50168954	Facilities Utility Crew Foreman/Woman with hazmat	12	IBEW919N	\$47.24										Hourly	12/16/2023
50168953	Facilities Utility Crew Foreman/Woman with hazmat Closed Classification	12	IBEW863N	\$54.80										Hourly	12/16/2023
50093182	Fault Locator	12	IBEW941H	\$73.20										Hourly	12/16/2023
50093183	Fault Locator with class A	12	IBEW941J	\$74.35										Hourly	12/16/2023
50101800	Field Support Technician with class A	12	IBEW888C	\$52.27	\$53.58	\$54.93	\$56.27							Hourly	12/16/2023
50083165	Financial Analyst Entry Level	F	PAS0043O	\$74,900.80									\$99,216.00	Annually	12/16/2023
50051681	Financial Analyst Journey Level	12	PAS0052O	\$93,516.80									\$123,843.20	Annually	12/16/2023
50051683	Financing Specialist Closed Classification	12	PAS0049O	\$86,819.20									\$115,044.80	Annually	12/16/2023
50083479	Fire Protection & Loss Control Specialist	12	PAS0054O	\$98,217.60									\$130,062.40	Annually	12/16/2023
50111032	Fleet Asset Coordinator	12	PAS0052O	\$93,516.80									\$123,843.20	Annually	12/16/2023
50111036	Fleet Maintenance Scheduler	12	PAS0052O	\$93,516.80									\$123,843.20	Annually	12/16/2023
50160529	Fleet Maintenance Supervisor	12	PAS0056C	\$103,188.80									\$147,201.60	Annually	12/16/2023
50051686	Forms Assistant	6	OSE0660A	\$28.50	\$29.17	\$29.93	\$30.66	\$31.41	\$32.17	\$32.98	\$33.82	\$34.68		Hourly	12/16/2023
50051687	Forms Technician	6	OSE0670D	\$29.93	\$30.66	\$31.41	\$32.17	\$32.98	\$33.82	\$34.68	\$35.50	\$36.42		Hourly	12/16/2023
50154335	Gardener	12	IBEW877J	\$37.76	\$38.72	\$39.53								Hourly	12/16/2023
50051700	Gardener Closed Classification	12	IBEW848G	\$44.17	\$45.28	\$46.19								Hourly	12/16/2023
50154336	Gardener with class A	12	IBEW877K	\$38.91	\$39.87	\$40.68								Hourly	12/16/2023
50051701	Gardener with class A Closed Classification	12	IBEW848L	\$45.32	\$46.43	\$47.34								Hourly	12/16/2023
50154337	Gardener with hazmat	12	IBEW877L	\$39.03	\$39.99	\$40.80								Hourly	12/16/2023
50051702	Gardener with hazmat Closed Classification	12	IBEW848X	\$45.44	\$46.55	\$47.46								Hourly	12/16/2023
50097100	Gas Control Technician	12	IBEW924A	\$65.35										Hourly	12/16/2023
50124993	Gas Control Technician Apprentice	48	IBEW912E	\$42.60	\$45.40	\$48.22	\$51.02	\$53.85	\$56.62	\$59.44	\$62.24			Hourly	12/16/2023
50113669	Gas Control Technician with class A	12	IBEW924L	\$66.50										Hourly	12/16/2023
50051690	Gas Pipeline Fieldperson	12	IBEW873G	\$47.41	\$48.41	\$49.78	\$51.05	\$52.01						Hourly	12/16/2023
50096042	Generation Designer I	12	OSE0711B	\$36.42	\$37.33	\$38.27	\$39.22	\$40.21	\$41.19	\$42.22	\$43.27	\$44.36		Hourly	12/16/2023
50096043	Generation Designer II	12	OSE0745A	\$43.26	\$44.35	\$45.44	\$46.61	\$47.76	\$48.95	\$50.17	\$51.42	\$52.72		Hourly	12/16/2023
50096044	Generation Designer III	12	OSE0770A	\$51.42	\$52.72	\$54.02	\$55.40	\$56.78	\$58.19	\$59.64	\$61.12	\$62.67		Hourly	12/16/2023
50096045	Generation Designer IV	12	OSE0780A	\$58.19	\$59.63	\$61.12	\$62.67	\$64.23	\$65.82	\$67.46	\$69.16	\$70.90		Hourly	12/16/2023
50164498	Geographic Information Systems Technician Entry	F	OSE0705A	\$35.50	\$36.42	\$37.32	\$38.22	\$39.21	\$40.21	\$41.19	\$42.21	\$43.27		Hourly	12/16/2023
50097650	Geographic Information Systems Technician Journey	6	OSE0736A	\$41.96	\$43.00	\$44.10	\$45.20	\$46.33	\$47.44	\$48.66	\$49.88	\$51.10		Hourly	12/16/2023
50097651	Geographic Information Systems Technician Journey	12	PAS0052O	\$93,516.80									\$123,843.20	Annually	12/16/2023
50110253	Geographic Information Systems Manager	12	PAS0064O	\$125,694.40									\$166,483.20	Annually	12/16/2023
50051693	Government Affairs Representative II	12	PAS0056O	\$103,188.80									\$136,697.60	Annually	12/16/2023
50051694	Government Affairs Representative III	12	PAS0062O	\$119,641.60									\$158,433.60	Annually	12/16/2023
50051692	Government Affairs Representative Entry Level	F	PAS0047O	\$82,700.80									\$109,470.40	Annually	12/16/2023
50130986	Graduate Intern	N/	PAS0041O	\$71,302.40									\$94,411.20	Annually	12/16/2023
50051698	Graphic Artist	6	OSE0699A	\$34.30	\$35.18	\$36.06	\$37.01	\$37.92	\$38.95	\$39.91	\$40.95	\$41.97		Hourly	12/16/2023
50052175	Hazard Waste Foreman/Woman Light	12	IBEW912G	\$61.97										Hourly	12/16/2023
50052176	Hazard Waste Foreman/Woman Light with class A	12	IBEW915B	\$63.10										Hourly	12/16/2023
50055201	Hazard Waste Technician	12	IBEW874H	\$31.87	\$33.30	\$44.75	\$45.36	\$46.84	\$48.35	\$50.10	\$52.57			Hourly	12/16/2023
50119981	Hazard Waste Technician On Call	12	IBEW886A	\$55.26										Hourly	12/16/2023
50083169	Hazard Waste Technician with class A	12	IBEW878A	\$53.71										Hourly	12/16/2023
50052177	Hazardous Waste Foreman/Woman Light with hazmat	12	IBEW915X	\$63.24										Hourly	12/16/2023
50052178	Hazardous Waste Technician with hazmat	12	IBEW878X	\$53.84										Hourly	12/16/2023
50154338	Head Gardener	12	IBEW919D	\$42.55										Hourly	12/16/2023
50051703	Head Gardener Closed Classification	12	IBEW863A	\$49.76										Hourly	12/16/2023
50154339	Head Gardener with class A	12	IBEW919F	\$43.70										Hourly	12/16/2023
50051704	Head Gardener with class A Closed Classification	12	IBEW863L	\$50.91										Hourly	12/16/2023
50154340	Head Gardener with hazmat	12	IBEW919G	\$43.82										Hourly	12/16/2023
50051705	Head Gardener with hazmat Closed Classification	12	IBEW863X	\$51.03										Hourly	12/16/2023
50083171	Heavy Duty Equipment Operator	12	IBEW893F	\$57.62										Hourly	12/16/2023
50051706	Heavy Duty Equipment Operator Apprentice	48	IBEW877A	\$37.44	\$39.89	\$42.39	\$44.85	\$47.29	\$49.78	\$52.23	\$54.71			Hourly	12/16/2023
50092744	Heavy Duty Equipment Operator Foreman/Woman Light	12	IBEW922L	\$65.89										Hourly	12/16/2023
50099278	Heavy Duty Equipment Operator Foreman/Woman Light On Call	12	IBEW937G	\$69.15										Hourly	12/16/2023
50092746	Heavy Duty Equipment Operator Foreman/Woman light with class A	12	IBEW923A	\$67.04										Hourly	12/16/2023
50092747	Heavy Duty Equipment Operator Foreman/Woman light with hazmat	12	IBEW923B	\$67.16										Hourly	12/16/2023
50051707	Heavy Duty Equipment Operator with class A	12	IBEW898E	\$58.77										Hourly	12/16/2023
50051708	Heavy Duty Equipment Operator with class hazmat	12	IBEW898X	\$58.89										Hourly	12/16/2023
50109882	Help Desk Specialist Entry Level Closed Classification	12	PAS0052O	\$93,516.80									\$123,843.20	Annually	12/16/2023
50051709	Help Desk Specialist Entry Level Closed Classification	12	PAS0054O	\$98,217.60									\$130,062.40	Annually	12/16/2023
51000003	High Voltage Electrician	12	IBEW921H	\$65.00										Hourly	12/16/2023
51000000	High Voltage Electrician Apprentice	48	IBEW918A	\$42.25	\$45.07	\$47.81	\$50.60	\$53.40	\$56.19	\$58.92	\$61.74			Hourly	12/16/2023
51000001	High Voltage Electrician Apprentice with Class A	48	IBEW918B	\$43.40	\$46.22	\$48.96	\$51.75	\$54.55	\$57.34	\$60.07	\$62.89			Hourly	12/16/2023
51000002	High Voltage Electrician Apprentice with Hazmat	48	IBEW918C	\$43.52	\$46.34	\$49.08	\$51.87	\$54.67	\$57.46	\$60.19	\$63.01			Hourly	12/16/2023
51000004	High Voltage Electrician with Class A	12	IBEW925D	\$66.15										Hourly	12/16/2023
51000005	High Voltage Electrician with Hazmat	12	IBEW925E	\$66.27										Hourly	12/16/2023
61000001	High Voltage Test Apprentice	48	IBEW918A	\$41.02	\$43.76	\$46.42	\$49.13	\$51.84	\$54.55	\$57.20	\$59.94			Hourly	1/26/2023
61000001	High Voltage Test Apprentice	48	IBEW918A	\$42.25	\$45.07	\$47.81	\$50.60	\$53.40	\$56.19	\$58.92	\$61.74			Hourly	12/16/2023
50099375	High Voltage Test Technician	12	IBEW921E	\$64.59										Hourly	12/16/2023
50083170	Human Resources Analyst Entry	F	PAS0045O	\$78,686.40									\$104,187.20	Annually	12/16/2023
50051710	Human Resources Analyst Journey	12	PAS0054O	\$98,217.60									\$130,062.40	Annually	12/16/2023
50092250	Human Resources Technician Confidential	6	CONF702A	\$36.46	\$37.38	\$38.34	\$39.34	\$40.35	\$41.34	\$42.43	\$43.51	\$44.62		Hourly	12/16/2023
50099894	Hydro Electrician Foreman/Woman Light	12	IBEW945B	\$73.63										Hourly	12/16/2023
50051712	Hydro Electrician Foreman/Woman Light	12	IBEW940A	\$74.40										Hourly	12/16/2023
50099279	Hydro Electrician Foreman/Woman Light On Call	12	IBEW941C	\$75.49										Hourly	12/16/2023
50051713	Hydro Electrician Foreman/Woman Light with class A	12	IBEW940B	\$75.55										Hourly	12/16/2023

N/ designates non-civil service jobs

F designates non-journey nonrepresented flex jobs

2024 SMUD Wage Schedule
Effective 12/16/2023

50051714	Hydro Electrician Foreman/Woman Light with hazmat	12	IBEW940C	\$75.67															Hourly	12/16/2023	
50051735	Hydro Field Technician	12	IBEW915A	\$60.49															Hourly	12/16/2023	
50098810	Hydro Field Technician Foreman/Woman Light	12	IBEW939B	\$71.52															Hourly	12/16/2023	
50098811	Hydro Field Technician Foreman/Woman Light with class A	12	IBEW939F	\$72.67															Hourly	12/16/2023	
50098809	Hydro Field Technician Foreman/Woman Light with hazmat	12	IBEW939H	\$72.79															Hourly	12/16/2023	
50051736	Hydro Field Technician with class A	12	IBEW915F	\$61.64															Hourly	12/16/2023	
50051737	Hydro Field Technician with hazmat	12	IBEW915H	\$61.76															Hourly	12/16/2023	
50051720	Hydro Mechanic Foreman/Woman Light	12	IBEW937G	\$69.15															Hourly	12/16/2023	
50099281	Hydro Mechanic Foreman/Woman Light On Call	12	IBEW939A	\$73.24															Hourly	12/16/2023	
50051721	Hydro Mechanic Foreman/Woman Light with class A	12	IBEW937L	\$70.30															Hourly	12/16/2023	
50051722	Hydro Mechanic Foreman/Woman Light with hazmat	12	IBEW937X	\$70.42															Hourly	12/16/2023	
50154344	Hydro Operator	12	IBEW917C	\$65.42															Hourly	12/16/2023	
50154345	Hydro Operator Apprentice	12	IBEW820B	\$42.54	\$45.33	\$48.15	\$50.93	\$53.76	\$56.53	\$59.36	\$62.15								Hourly	12/16/2023	
50083173	Hydro Operator Apprentice Closed Classification	48	IBEW919A	\$43.53	\$46.39	\$49.24	\$52.11	\$55.00	\$57.84	\$60.73	\$63.58								Hourly	12/16/2023	
50154346	Hydro Operator Apprentice with class A	12	IBEW820C	\$43.69	\$46.48	\$49.30	\$52.08	\$54.91	\$57.68	\$60.51	\$63.36								Hourly	12/16/2023	
50094281	Hydro Operator Apprentice with class A Closed Classification	48	IBEW919B	\$44.68	\$47.54	\$50.39	\$53.26	\$56.15	\$58.99	\$61.88	\$64.73								Hourly	12/16/2023	
50154347	Hydro Operator Apprentice with hazmat	12	IBEW919H	\$43.81	\$46.65	\$49.46	\$52.25	\$55.07	\$57.84	\$60.67	\$63.48								Hourly	12/16/2023	
50051724	Hydro Operator Apprentice with hazmat Closed Classification	48	IBEW919C	\$44.80	\$47.66	\$50.51	\$53.38	\$56.27	\$59.11	\$62.00	\$64.85								Hourly	12/16/2023	
50051723	Hydro Operator Closed Classification	12	IBEW927F	\$66.93															Hourly	12/16/2023	
50154348	Hydro Operator Foreman/Woman	12	IBEW941A	\$78.25															Hourly	12/16/2023	
50114860	Hydro Operator Foreman/Woman Closed Classification	12	IBEW970B	\$80.02															Hourly	12/16/2023	
50154349	Hydro Operator Foreman/Woman with class A	12	IBEW941G	\$79.40															Hourly	12/16/2023	
50114911	Hydro Operator Foreman/Woman with class A Closed Classification	12	IBEW970L	\$81.17															Hourly	12/16/2023	
50051725	Hydro Operator with class A	12	IBEW928A	\$66.57															Hourly	12/16/2023	
50051727	Hydro Overhaul Foreman/Woman	12	IBEW945B	\$73.63															Hourly	12/16/2023	
50160050	Hydro Stationary Engineer Apprentice	12	IBEW851J	\$33.39	\$35.33	\$37.23	\$39.17	\$41.08	\$43.01	\$44.95	\$46.86	\$48.82							Hourly	12/16/2023	
50160051	Hydro Stationary Engineer I	12	IBEW872G	\$51.38															Hourly	12/16/2023	
50160052	Hydro Stationary Engineer II	12	IBEW908A	\$60.46															Hourly	12/16/2023	
50164138	Hydro Stationary Engineer II with Class C-Hazmat	12	IBEW908K	\$61.21															Hourly	12/16/2023	
50160026	Hydro Stationary Engineer II with hazmat	12	IBEW908X	\$61.73															Hourly	12/16/2023	
50160200	Hydro Stationary Engineer Subforeman/Woman	12	IBEW922I	\$65.09															Hourly	12/16/2023	
50160053	Hydro Stationary Engineer Subforeman/Woman Light	12	IBEW937G	\$69.15															Hourly	12/16/2023	
50155432	Hydrographer Entry Level	F	PAS0047O	\$82,700.80																Annually	12/16/2023
50051734	Hydrographer Journey	12	PAS0056O	\$103,188.80																Annually	12/16/2023
50051738	Hydrography Specialist	12	OSE0750A	\$44.31	\$45.44	\$46.56	\$47.76	\$48.95	\$50.20	\$51.42	\$52.73	\$54.02							Hourly	12/16/2023	
50051644	Image Production Postal Service Specialist I	F	OSE0646A	\$27.06	\$27.75	\$28.44	\$29.16	\$29.90	\$30.63	\$31.41	\$32.21	\$33.03							Hourly	12/16/2023	
50052101	Image Production Postal Service Specialist II	6	OSE0657A	\$27.99	\$28.70	\$29.43	\$30.16	\$30.94	\$31.70	\$32.50	\$33.30	\$34.15							Hourly	12/16/2023	
50052051	Image Production Postal Service Specialist III	6	OSE0670D	\$29.93	\$30.66	\$31.41	\$32.17	\$32.98	\$33.82	\$34.68	\$35.50	\$36.42							Hourly	12/16/2023	
50161011	Information Management Analyst Entry	F	PAS0043O	\$74,900.80																Annually	12/16/2023
50112642	Information Management Analyst Journey	12	PAS0052O	\$93,516.80																Annually	12/16/2023
50051741	Information Technology Auditor	12	PAS0056O	\$103,188.80																Annually	12/16/2023
50051742	Information Technology Business Relationship Management Analyst	12	PAS0059O	\$111,092.80																Annually	12/16/2023
50051747	Information Technology Procurement Contract Specialist	12	PAS0054O	\$98,217.60																Annually	12/16/2023
50051748	Information Technology Project Manager	12	PAS0066O	\$132,080.00																Annually	12/16/2023
50051749	Information Technology Supervisor	12	PAS0066O	\$132,080.00																Annually	12/16/2023
50162765	Information Technology Technician	6	OSE0680B	\$31.41	\$32.17	\$32.98	\$33.82	\$34.68	\$35.50	\$36.42	\$37.33	\$38.23							Hourly	12/16/2023	
50051743	Instructor	12	IBEW938A	\$71.30																Hourly	12/16/2023
50143123	Insurance Program Manager	12	PAS0064O	\$125,694.40																Annually	12/16/2023
50092220	Interactive Voice Response Coordinator	12	PAS0054O	\$98,217.60																Annually	12/16/2023
50083226	Internal Auditor Entry Level	F	PAS0045O	\$78,686.40																Annually	12/16/2023
50051744	Internal Auditor Journey	12	PAS0054O	\$98,217.60																Annually	12/16/2023
50051745	Inventory Technician	6	OSE0695A	\$33.82	\$34.68	\$35.50	\$36.42	\$37.32	\$38.22	\$39.21	\$40.20	\$41.19							Hourly	12/16/2023	
50096950	Labor Relations Analyst Entry Level	F	PAS0045O	\$78,686.40																Annually	12/16/2023
50086678	Labor Relations Analyst Journey Level	12	PAS0054O	\$98,217.60																Annually	12/16/2023
50083228	Land Agent A	6	OSE0725A	\$30.66	\$31.39	\$32.17	\$32.98													Hourly	12/16/2023
50083227	Land Agent B	6	OSE0725B	\$33.82	\$34.68	\$35.50	\$36.42	\$37.32	\$38.23											Hourly	12/16/2023
50051757	Land Agent C	6	OSE0725C	\$39.21	\$40.21	\$41.19	\$42.21	\$43.26	\$44.31	\$45.44	\$46.56	\$47.77								Hourly	12/16/2023
50136479	Land Recreation & Ecological Specialist	12	PAS0059O	\$107,848.00																Annually	8/21/2023
50136479	Land Recreation & Ecological Specialist	12	PAS0059O	\$111,092.80																Annually	12/16/2023
50083229	Land Specialist Entry	F	PAS0043B	\$72,716.80																Annually	6/3/2023
50083229	Land Specialist Entry	F	PAS0043B	\$74,900.80																Annually	12/16/2023
50051758	Land Specialist Journey	12	PAS0052B	\$90,792.00																Annually	6/3/2023
50051758	Land Specialist Journey	12	PAS0052B	\$93,516.80																Annually	12/16/2023
50126010	Land Surveyor	12	PAS0056O	\$103,188.80																Annually	12/16/2023
50051756	Law Clerk		CONF300A	\$33.99	\$34.81	\$35.70														Hourly	12/16/2023
50162418	Lead Distribution System Operator	12	IBEW984D	\$91.33																Hourly	12/17/2022
50162418	Lead Distribution System Operator	12	IBEW984D	\$94.07																Hourly	12/16/2023
50101752	Lead Office Technician	6	OSE0688A	\$32.91	\$33.73	\$34.57	\$35.46	\$36.31	\$37.23	\$38.17	\$39.13	\$40.11							Hourly	12/16/2023	
50119427	Lead Office Technician Confidential	6	CONF688A	\$35.49	\$36.38	\$37.31	\$38.23	\$39.18	\$40.17	\$41.19	\$42.18	\$43.26								Hourly	12/16/2023
61000002	Lead Telecomm Technician	12	IBEW933A	\$73.87																Hourly	2/10/2023
61000002	Lead Telecomm Technician	12	IBEW933A	\$76.09																Hourly	12/16/2023
50051760	Lead Tool Repairer	12	IBEW922I	\$65.09																Hourly	12/16/2023
50165758	Lead Utility Compliance Specialist	12	IBEW828K	\$47.55																Hourly	12/16/2023
50154184	Lead Vehicle Mechanic	12	IBEW888D	\$54.65																Hourly	12/16/2023
50051761	Lead Vehicle Mechanic Closed Classification	12	IBEW904B	\$59.59																Hourly	12/16/2023
50154185	Lead Vehicle Mechanic with class A	12	IBEW888E	\$55.80																Hourly	12/16/2023
50051762	Lead Vehicle Mechanic with class A Closed Classification	12	IBEW909D	\$60.74																Hourly	12/16/2023
50154186	Lead Vehicle Mechanic with hazmat	12	IBEW888H	\$55.92																Hourly	12/16/2023
50051763	Lead Vehicle Mechanic with hazmat Closed Classification	12	IBEW909X	\$60.86																Hourly	12/16/2023
50164311	Lead Vehicle Mechanic with hazmat Fresh Pond	12	IBEW904A	\$59.63																Hourly	12/16/2023
50164525	Lead Vehicle Mechanic with hazmat Fresh Pond Closed Classification	12	IBEW922A	\$65.04																Hourly	12/16/2023
50160076	Learning and Development Specialist Entry Level	F	PAS0045O	\$78,686.40																Annually	12/16/2023

N/ designates non-civil service jobs
F designates non-journey nonrepresented flex jobs

2024 SMUD Wage Schedule
Effective 12/16/2023

50160077	Learning and Development Specialist Journey	12	PAS0054O	\$98,217.60									\$130,062.40	Annually	12/16/2023
50169820	Legal Analyst	12	PAS0052O	\$93,516.80									\$123,843.20	Annually	12/16/2023
50090306	Legal Assistant Confidential	6	CONF706A	\$37.93	\$38.87	\$39.87	\$40.91	\$41.95	\$43.01	\$44.13	\$45.24	\$46.41		Hourly	12/16/2023
50133108	Legislative & Regulatory Coordinator Closed Classification	12	PAS0072O	\$153,088.00									\$202,820.80	Annually	12/16/2023
50153089	Legislative & Regulatory Program Manager	N/	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50083472	Line Construction Foreman/Woman	12	IBEW976D	\$92.02										Hourly	12/16/2023
50083473	Line Construction Foreman/Woman with class A	12	IBEW976C	\$93.17										Hourly	12/16/2023
50083474	Line Construction Foreman/Woman with hazmat	12	IBEW976X	\$93.29										Hourly	12/16/2023
50154187	Line Equipment Operator Assistant with class A	12	IBEW795A	\$29.30	\$30.54	\$32.81	\$34.98	\$37.42						Hourly	12/16/2023
50128409	Line Equipment Operator Assistant with class A Closed Classification	12	IBEW830L	\$34.77	\$36.31	\$39.01	\$41.61	\$44.41						Hourly	12/16/2023
50154188	Line Equipment Operator with class A	12	IBEW862D	\$56.16										Hourly	12/16/2023
50106535	Line Equipment Operator with class A Closed Classification	12	IBEW898B	\$58.77										Hourly	12/16/2023
50169850	Line Equipment Operator with Crane and class A	12	IBEW862G	\$57.11										Hourly	12/16/2023
50169884	Line Equipment Operator with Crane and class A Closed Classification	12	IBEW898D	\$59.72										Hourly	12/16/2023
50169852	Line Equipment Operator with Crane and hazmat	12	IBEW862F	\$57.23										Hourly	12/16/2023
50154140	Line Equipment Operator with hazmat	12	IBEW862E	\$56.28										Hourly	12/16/2023
50108451	Line Equipment Operator with hazmat Closed Classification	12	IBEW862H	\$58.89										Hourly	12/16/2023
50051767	Line Foreman/Woman Light	12	IBEW965R	\$86.45										Hourly	12/16/2023
50051768	Line Foreman/Woman Light with class A	12	IBEW965C	\$87.60										Hourly	12/16/2023
50142318	Line Inspector I	12	IBEW933A	\$76.09										Hourly	12/16/2023
50156652	Line Inspector I with class A	12	IBEW933C	\$77.23										Hourly	12/16/2023
50108831	Line Inspector II	12	IBEW941R	\$81.25										Hourly	12/16/2023
50114932	Line Inspector II with class A	12	IBEW941D	\$82.40										Hourly	12/16/2023
50051770	Line Sub Foreman/Woman	12	IBEW941R	\$81.25										Hourly	12/16/2023
50051771	Line Sub Foreman/Woman with class A	12	IBEW941D	\$82.40										Hourly	12/16/2023
50083463	Lineman/Woman	12	IBEW933A	\$76.09										Hourly	12/16/2023
50083460	Lineman/Woman Apprentice	49	IBEW922R	\$49.47	\$52.73	\$55.98	\$59.25	\$62.47	\$65.75	\$69.03	\$72.29			Hourly	12/16/2023
50083461	Lineman/Woman Apprentice with class A	49	IBEW922C	\$50.62	\$53.88	\$57.13	\$60.40	\$63.62	\$66.90	\$70.18	\$73.44			Hourly	12/16/2023
50083462	Lineman/Woman Apprentice with hazmat	49	IBEW922Z	\$50.74	\$54.00	\$57.25	\$60.52	\$63.74	\$67.02	\$70.30	\$73.56			Hourly	12/16/2023
50083464	Lineman/Woman with class A	12	IBEW933C	\$77.23										Hourly	12/16/2023
50083465	Lineman/Woman with hazmat	12	IBEW933X	\$77.35										Hourly	12/16/2023
50136767	Lineman/Woman with helicopter	12	IBEW933Y	\$79.89										Hourly	12/16/2023
50154416	Maintenance Carpenter	12	IBEW865A	\$51.38										Hourly	12/16/2023
50154417	Maintenance Carpenter Apprentice	48	IBEW851E	\$32.82	\$34.72	\$36.62	\$38.52	\$40.39	\$42.29	\$44.21	\$46.09	\$48.00		Hourly	12/16/2023
50083233	Maintenance Carpenter Apprentice Close Classification	48	IBEW879F	\$39.29	\$41.57	\$43.82	\$46.11	\$48.36	\$50.63	\$52.91	\$55.15	\$57.44		Hourly	12/16/2023
50051805	Maintenance Carpenter Closed Classification	12	IBEW908A	\$60.46										Hourly	12/16/2023
50154459	Maintenance Carpenter Foreman/Woman Light	12	IBEW901K	\$57.78										Hourly	12/16/2023
50115406	Maintenance Carpenter Foreman/Woman Light Closed Classification	12	IBEW937G	\$69.15										Hourly	12/16/2023
50154460	Maintenance Carpenter Subforeman/Woman	12	IBEW887D	\$54.36										Hourly	12/16/2023
50051806	Maintenance Carpenter Subforeman/Woman Closed Classification	12	IBEW922I	\$65.09										Hourly	12/16/2023
50159375	Maintenance Carpenter with class A	12	IBEW872D	\$52.53										Hourly	12/16/2023
50116262	Maintenance Carpenter with class A Closed Classification	12	IBEW908L	\$61.61										Hourly	12/16/2023
50103121	Maintenance Planner General Services	12	PAS0062O	\$119,641.60									\$158,433.60	Annually	12/16/2023
50103375	Maintenance Planner Power Production	12	PAS0062O	\$119,641.60									\$158,433.60	Annually	12/16/2023
50112813	Maintenance Planner Substation & Telecommunications	12	PAS0062O	\$119,641.60									\$158,433.60	Annually	12/16/2023
50115702	Maintenance Planner Transmission & Distribution Line Assets	12	PAS0062O	\$119,641.60									\$158,433.60	Annually	12/16/2023
50051784	Management Analyst Entry	F	PAS0041O	\$71,302.40									\$94,411.20	Annually	12/16/2023
50051785	Management Analyst Journey	12	PAS0049O	\$86,819.20									\$115,044.80	Annually	12/16/2023
50128042	Manager Account Management & Sales	12	PAS0071O	\$149,344.00									\$197,891.20	Annually	12/16/2023
50052019	Manager Accounting & Assistant Controller	12	PAS0066O	\$132,080.00									\$174,928.00	Annually	12/16/2023
61000003	Manager Asset Operations Power Generation	12	PAS0072Q	\$148,636.80									\$316,097.60	Annually	10/17/2023
61000003	Manager Asset Operations Power Generation	12	PAS0072Q	\$153,088.00									\$325,582.40	Annually	12/16/2023
50051544	Manager Auditing	12	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50093079	Manager Business Performance & Optimization	12	PAS0071O	\$149,344.00									\$197,891.20	Annually	12/16/2023
50052025	Manager Career Development & Learning	N/	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50140137	Manager Civil Engineering	12	PAS0072O	\$153,088.00									\$202,820.80	Annually	12/16/2023
50169965	Manager Commodity and Operations Settlements	12	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50139537	Manager Community Development Outreach & Education	N/	PAS0064E	\$125,694.40									\$188,323.20	Annually	12/16/2023
50170818	Manager Community Education and Technology	12	PAS0064E	\$122,033.60									\$182,832.00	Annually	12/17/2022
50170818	Manager Community Education and Technology	12	PAS0064E	\$125,694.40									\$188,323.20	Annually	12/16/2023
TBD	Manager Compensation, Classification & Performance	N/	PAS0069O	\$142,188.80									\$188,323.20	Hourly	12/16/2023
50126108	Manager Corporation Communications	12	PAS0066O	\$132,080.00									\$174,928.00	Annually	12/16/2023
50166592	Manager Culture & Change	N/	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50163673	Manager Customer Delivery	12	PAS0067O	\$135,387.20									\$179,275.20	Annually	12/16/2023
50091780	Manager Customer Experience Strategy	12	PAS0066B	\$132,080.00									\$183,747.20	Annually	12/16/2023
50092302	Manager Customer Operations	12	PAS0064O	\$125,694.40									\$166,483.20	Annually	12/16/2023
50167926	Manager Customer Strategy & Operations	12	PAS0066O	\$132,080.00									\$174,928.00	Annually	12/16/2023
50160766	Manager Customer Value Performance & Projects	12	PAS0064C	\$125,694.40									\$179,275.20	Annually	12/16/2023
50160085	Manager Cybersecurity	12	PAS0066F	\$132,080.00									\$202,820.80	Annually	12/16/2023
50159037	Manager Digital User Experience	12	PAS0062D	\$119,641.60									\$174,948.80	Annually	12/16/2023
50131011	Manager Distributed Energy Strategy	12	PAS0071O	\$149,344.00									\$197,891.20	Annually	12/16/2023
50162683	Manager Distributed Generation Interconnections	12	PAS0071O	\$149,344.00									\$197,891.20	Annually	12/16/2023
50160208	Manager Distribution Operations Engineering	12	PAS0072O	\$153,088.00									\$202,820.80	Annually	12/16/2023
50110255	Manager Distribution Planning	12	PAS0072O	\$153,088.00									\$202,820.80	Annually	12/16/2023
50140139	Manager Distribution System Operations	12	PAS0072L	\$148,636.80									\$249,558.40	Annually	3/11/2023
50140139	Manager Distribution System Operations	12	PAS0072L	\$153,088.00									\$257,046.40	Annually	12/16/2023
50165511	Manager Economic Development & Partnership	N/	PAS0072O	\$153,088.00									\$202,820.80	Annually	12/16/2023
50088581	Manager Electric Transportation	12	PAS0066O	\$132,080.00									\$174,928.00	Annually	12/16/2023
50126016	Manager Electric Design & Standards	12	PAS0072O	\$153,088.00									\$202,820.80	Annually	12/16/2023
50125294	Manager Emerging Technology	12	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50135736	Manager Employee Relations	N/	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50051979	Manager Energy Management System	12	PAS0072O	\$153,088.00									\$202,820.80	Annually	12/16/2023

N/ designates non-civil service jobs

F designates non-journey nonrepresented flex jobs

2024 SMUD Wage Schedule
Effective 12/16/2023

50154528	Material Specialist I with crane and hazmat	12	IBEW793E	\$29.24	\$33.38	\$37.54	\$41.70								Hourly	12/16/2023
50099008	Material Specialist I with crane and hazmat Closed Classification	12	IBEW851B	\$34.51	\$39.45	\$44.40	\$49.38								Hourly	12/16/2023
50154529	Material Specialist I with hazmat	12	IBEW793B	\$28.29	\$32.43	\$36.59	\$40.75								Hourly	12/16/2023
50099005	Material Specialist I with hazmat Closed Classification	12	IBEW851H	\$33.56	\$38.50	\$43.45	\$48.43								Hourly	12/16/2023
50154530	Material Specialist II	12	IBEW912D	\$41.53											Hourly	12/16/2023
50154478	Material Specialist II with class A	12	IBEW912F	\$42.68											Hourly	12/16/2023
50051787	Material Specialist II Closed Classification	12	IBEW862I	\$49.63											Hourly	12/16/2023
50051788	Material Specialist II with class A Closed Classification	12	IBEW862C	\$50.78											Hourly	12/16/2023
50154480	Material Specialist II with Crane and class A	12	IBEW912P	\$43.63											Hourly	12/16/2023
50099011	Material Specialist II with Crane and class A Closed Classification	12	IBEW862A	\$51.73											Hourly	12/16/2023
50154481	Material Specialist II with crane and hazmat	12	IBEW912R	\$43.75											Hourly	12/16/2023
50099012	Material Specialist II with crane and hazmat Closed Classification	12	IBEW862B	\$51.85											Hourly	12/16/2023
50154482	Material Specialist II with hazmat	12	IBEW912H	\$42.80											Hourly	12/16/2023
50083234	Material Specialist II with hazmat Closed Classification	12	IBEW862X	\$50.90											Hourly	12/16/2023
50154483	Material Specialist III	12	IBEW928D	\$51.79											Hourly	12/16/2023
50052074	Material Specialist III Closed Classification	12	IBEW878L	\$54.21											Hourly	12/16/2023
50154484	Material Specialist III with class A	12	IBEW928G	\$52.94											Hourly	12/16/2023
50052075	Material Specialist III with class A Closed Classification	12	IBEW879A	\$55.36											Hourly	12/16/2023
50154486	Material Specialist III with Crane and class A	12	IBEW928L	\$53.89											Hourly	12/16/2023
50099013	Material Specialist III with Crane and class A Closed Classification	12	IBEW879D	\$56.31											Hourly	12/16/2023
50154487	Material Specialist III with crane and hazmat	12	IBEW928M	\$54.01											Hourly	12/16/2023
50099014	Material Specialist III with crane and hazmat Closed Classification	12	IBEW898A	\$56.43											Hourly	12/16/2023
50154488	Material Specialist III with hazmat	12	IBEW928H	\$53.06											Hourly	12/16/2023
50052076	Material Specialist III with hazmat Closed Classification	12	IBEW879B	\$57.98											Hourly	12/16/2023
50154489	Material Specialist IV	12	IBEW858B	\$55.04											Hourly	12/16/2023
50052170	Material Specialist IV Closed Classification	12	IBEW893F	\$57.62											Hourly	12/16/2023
50154490	Material Specialist IV with class A	12	IBEW858H	\$56.19											Hourly	12/16/2023
50052171	Material Specialist IV with class A Closed Classification	12	IBEW898C	\$58.77											Hourly	12/16/2023
50154570	Material Specialist IV with Crane and class A	12	IBEW858N	\$57.14											Hourly	12/16/2023
50099009	Material Specialist IV with crane and class A Closed Classification	12	IBEW893A	\$59.72											Hourly	12/16/2023
50154571	Material Specialist IV with crane and hazmat	12	IBEW858P	\$57.26											Hourly	12/16/2023
50099010	Material Specialist IV with crane and hazmat Closed Classification	12	IBEW893E	\$59.84											Hourly	12/16/2023
50154572	Material Specialist IV with hazmat	12	IBEW858J	\$56.31											Hourly	12/16/2023
50052172	Material Specialist IV with hazmat Closed Classification	12	IBEW898X	\$58.89											Hourly	12/16/2023
50154141	Mechanic	12	IBEW865B	\$50.50											Hourly	12/16/2023
50051791	Mechanic Closed Classification	12	IBEW884A	\$55.16											Hourly	12/16/2023
50154142	Mechanic with Class A	12	IBEW865C	\$51.65											Hourly	12/16/2023
50051792	Mechanic with class A Closed Classification	12	IBEW888G	\$56.31											Hourly	12/16/2023
50154143	Mechanic with hazmat	12	IBEW865D	\$51.77											Hourly	12/16/2023
50051793	Mechanic with hazmat Closed Classification	12	IBEW888X	\$56.43											Hourly	12/16/2023
50154165	Mechanical Foreman/Woman Light	12	IBEW921G	\$63.34											Hourly	12/16/2023
50099004	Mechanical Foreman/Woman Light Closed Classification	12	IBEW937G	\$69.15											Hourly	12/16/2023
50164526	Meter & Service Designer	6	OSE0711A	\$36.42	\$37.32	\$38.27	\$39.21	\$40.21							Hourly	12/16/2023
50051796	Meter Technician	12	IBEW925A	\$65.53											Hourly	12/16/2023
50051797	Meter Technician Apprentice	48	IBEW912E	\$42.60	\$45.40	\$48.22	\$51.02	\$53.85	\$56.62	\$59.44	\$62.24				Hourly	12/16/2023
TBD	Network Assistant	12	IBEW802G	\$31.44	\$32.88	\$34.31	\$35.74								Hourly	10/24/2023
TBD	Network Assistant	12	IBEW802G	\$32.38	\$33.86	\$35.34	\$36.81								Hourly	12/16/2023
TBD	Network Assistant with class A	12	IBEW802L	\$32.59	\$34.03	\$35.46	\$36.89								Hourly	10/24/2023
TBD	Network Assistant with class A	12	IBEW802L	\$33.53	\$35.01	\$36.49	\$37.96								Hourly	12/16/2023
50051839	Network Cable Foreman/Woman Light	12	IBEW941M	\$71.89											Hourly	12/16/2023
50051841	Network Electrician Foreman/Woman Light	12	IBEW941M	\$71.89											Hourly	12/16/2023
50051843	Network Electrician Foreman/Woman Light with hazmat	12	IBEW941X	\$73.16											Hourly	12/16/2023
50165507	Network Engineer Operations Technology Entry Level	F	PAS0045O	\$78,686.40										\$104,187.20	Annually	12/16/2023
50165508	Network Engineer Operations Technology Journey	12	PAS0059O	\$111,092.80										\$147,201.60	Annually	12/16/2023
50051846	Office Assistant		OSE0548A	\$16.00	\$16.45	\$16.93	\$17.45	\$17.97	\$18.51	\$19.07	\$19.63	\$20.22			Hourly	12/16/2023
50051847	Office Specialist I	6	OSE0615A	\$22.70	\$23.27	\$23.85	\$24.42	\$25.03	\$25.68	\$26.31	\$26.97	\$27.66			Hourly	12/16/2023
50051848	Office Specialist II	6	OSE0647A	\$27.18	\$27.87	\$28.57	\$29.29	\$30.02	\$30.78	\$31.57	\$32.34	\$33.16			Hourly	12/16/2023
50122178	Office Specialist II Confidential	6	CONF647A	\$29.30	\$30.03	\$30.78	\$31.57	\$32.36	\$33.16	\$34.00	\$34.85	\$35.74			Hourly	12/16/2023
50051849	Office Technician	6	OSE0672A	\$30.13	\$30.89	\$31.68	\$32.47	\$33.23	\$34.12	\$34.91	\$35.81	\$36.71			Hourly	12/16/2023
50085707	Office Technician Confidential	6	CONF672A	\$32.95	\$33.75	\$34.63	\$35.49	\$36.71	\$37.32	\$38.26	\$39.18	\$40.18			Hourly	12/16/2023
50051851	Operations Support Supervisor	12	PAS0052O	\$93,516.80										\$123,843.20	Annually	12/16/2023
50125954	Organization Effectiveness Specialist Entry Level	F	PAS0047O	\$82,700.80										\$109,470.40	Annually	12/16/2023
50125953	Organization Effectiveness Specialist Journey Level	12	PAS0056O	\$103,188.80										\$136,697.60	Annually	12/16/2023
50155433	Paralegal Confidential	6	CONF735A	\$40.81	\$41.82	\$42.89	\$43.94	\$45.05	\$46.17	\$47.33	\$48.50	\$49.71			Hourly	12/16/2023
50092672	Payroll Technician Confidential	6	CONF702A	\$36.46	\$37.38	\$38.34	\$39.34	\$40.35	\$41.34	\$42.43	\$43.51	\$44.62			Hourly	12/16/2023
50051857	Physical Network Specialist Closed Classification	12	PAS0054O	\$98,217.60										\$130,062.40	Annually	12/16/2023
50159569	Physical Security Program Manager	12	PAS0064O	\$125,694.40										\$166,483.20	Annually	12/16/2023
50051860	Plant Mechanic	12	IBEW908A	\$60.46											Hourly	12/16/2023
50083241	Plant Mechanic Apprentice	48	IBEW879E	\$39.29	\$41.89	\$44.49	\$47.08	\$49.66	\$52.25	\$54.84	\$57.44				Hourly	12/16/2023
50083242	Plant Mechanic Apprentice with class A	48	IBEW879H	\$40.44	\$43.08	\$45.68	\$48.27	\$50.84	\$53.43	\$56.03	\$58.63				Hourly	12/16/2023
50051861	Plant Mechanic Apprentice with hazmat	48	IBEW874X	\$40.56	\$43.21	\$45.80	\$48.38	\$50.98	\$53.56	\$56.15	\$58.75				Hourly	12/16/2023
50100942	Plant Mechanic Welder	12	IBEW920A	\$64.25											Hourly	12/16/2023
50051862	Plant Mechanic with class A	12	IBEW908L	\$61.61											Hourly	12/16/2023
50083240	Plant Mechanic with hazmat	12	IBEW908X	\$61.73											Hourly	12/16/2023
50083244	Power Contracts Specialist Entry Level	F	PAS0049O	\$86,819.20										\$115,044.80	Annually	12/16/2023
50161142	Power Contracts Specialist Intermediate Level	F	PAS0054O	\$98,217.60										\$130,062.40	Annually	12/16/2023
50067464	Power Contracts Specialist Journey	12	PAS0059O	\$111,092.80										\$147,201.60	Annually	12/16/2023
50139834	Power Generation Asset Supervisor	12	PAS0062I	\$116,147.20										\$181,937.60	Annually	12/17/2022
50139834	Power Generation Asset Supervisor	12	PAS0062I	\$119,641.60										\$187,387.20	Annually	12/16/2023
50051904	Power Quality Technician	6	OSE0760A	\$46.56	\$47.76	\$48.95	\$50.20	\$51.42	\$52.73	\$54.02	\$55.40	\$56.78			Hourly	12/16/2023
50088326	Power System Analyst Entry	F	PAS0047O	\$82,700.80										\$109,470.40	Annually	12/16/2023
50051905	Power System Analyst Journey	12	PAS0056O	\$103,188.80										\$136,697.60	Annually	12/16/2023

N/ designates non-civil service jobs
F designates non-journey nonrepresented flex jobs

2024 SMUD Wage Schedule
Effective 12/16/2023

50154573	Power System Operator Entry	12	IBEW955A	\$69.80	\$71.55	\$73.34	\$75.21	\$77.05						Hourly	12/16/2023
50154574	Power System Operator I	12	IBEW980A	\$77.05	\$78.96	\$80.99	\$83.00	\$85.08	\$87.22	\$89.38	\$91.64	\$93.93		Hourly	12/16/2023
50154600	Power System Operator II	12	IBEW986A	\$98.60										Hourly	12/16/2023
50162139	Power System Operator Instructor I	F	PAS0062O	\$119,641.60									\$158,433.60	Annually	12/16/2023
50127179	Power System Operator Instructor II	12	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50051888	Pre-Apprentice Lineman/Woman	30	IBEW830A	\$33.62	\$35.16	\$37.86	\$40.46	\$43.26						Hourly	12/16/2023
50051889	Pre-Apprentice Lineman/Woman with class A	30	IBEW830L	\$34.77	\$36.31	\$39.01	\$41.61	\$44.41						Hourly	12/16/2023
50051890	Pre-Apprentice Lineman/Woman with hazmat	30	IBEW830X	\$34.89	\$36.43	\$39.13	\$41.73	\$44.53						Hourly	12/16/2023
50051899	Press Operator	6	OSE0685A	\$32.17	\$32.98	\$33.82	\$34.68	\$35.50	\$36.42	\$37.32	\$38.22	\$39.21		Hourly	12/16/2023
50051863	Principal Architect	12	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50051865	Principal Civil Engineer	12	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50167212	Principal Cybersecurity Engineer	12	PAS0066C	\$132,080.00									\$188,323.20	Annually	12/16/2023
50167113	Principal Cybersecurity Governance & Compliance Specialist	12	PAS0066C	\$132,080.00									\$188,323.20	Annually	12/16/2023
50167115	Principal Cybersecurity Risk Specialist	12	PAS0066C	\$132,080.00									\$188,323.20	Annually	12/16/2023
50170618	Principal Dam Safety Engineer	12	PAS0071O	\$149,344.00									\$197,891.20	Annually	12/16/2023
50051866	Principal Distribution Design Engineer	12	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50051867	Principal Distribution System Engineer	12	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50051869	Principal Electrical Engineer	12	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50166561	Principal Employee Relations Analyst	12	PAS0062O	\$119,641.60									\$158,433.60	Annually	12/16/2023
50131800	Principal Energy Advisor	12	PAS0064O	\$125,694.40									\$166,483.20	Annually	12/16/2023
50139903	Principal Energy Management System Engineer	12	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50108902	Principal Energy Trading Specialist	12	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50140366	Principal Engineer Closed Classification	12	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50051870	Principal Engineering Technician	12	OSE0755A	\$45.22	\$46.36	\$47.50	\$48.71	\$49.93	\$51.17	\$52.46	\$53.78	\$55.10		Hourly	12/16/2023
50090325	Principal Enterprise Technology Analyst	12	PAS0066O	\$132,080.00									\$174,928.00	Annually	12/16/2023
50089613	Principal Enterprise Technology Developer	12	PAS0066O	\$132,080.00									\$174,928.00	Annually	12/16/2023
50051871	Principal Financial Accountant	12	PAS0059O	\$111,092.80									\$147,201.60	Annually	12/16/2023
50051872	Principal Financial Analyst	12	PAS0064O	\$122,033.60									\$161,636.80	Annually	8/12/2023
50051872	Principal Financial Analyst	12	PAS0064O	\$125,694.40									\$166,483.20	Annually	12/16/2023
50051873	Principal Instrument & Controls Engineer	12	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50132976	Principal Market Analyst	12	PAS0066O	\$132,080.00									\$174,928.00	Annually	12/16/2023
50051876	Principal Market Research Specialist	12	PAS0062O	\$119,641.60									\$158,433.60	Annually	12/16/2023
50051877	Principal Market Risk Specialist	12	PAS0066O	\$132,080.00									\$174,928.00	Annually	12/16/2023
50051875	Principal Mechanical Engineer	12	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50052086	Principal Network Engineer Operations Technology	12	PAS0066O	\$132,080.00									\$174,928.00	Annually	12/16/2023
50139865	Principal Outage Management System Specialist Closed Classification	12	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50051879	Principal Plant Accountant	12	PAS0059O	\$111,092.80									\$147,201.60	Annually	12/16/2023
50051880	Principal Power Contract Specialist	12	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50051881	Principal Power Operations Engineer	12	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50161716	Principal Power System Analyst	12	PAS0066O	\$132,080.00									\$174,928.00	Annually	12/16/2023
50088004	Principal Protection Engineer	12	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50051882	Principal Rate Analyst	12	PAS0062O	\$119,641.60									\$158,433.60	Annually	12/16/2023
50051884	Principal Resource Planning Analyst	12	PAS0066O	\$132,080.00									\$174,928.00	Annually	12/16/2023
50051886	Principal Telecommunications Engineer	12	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50051887	Principal Transmission Planning Engineer	12	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50093101	Process Coordinator Commercial Development	12	PAS0066O	\$132,080.00									\$174,928.00	Annually	12/16/2023
50093077	Process Coordinator Customer Operations	12	PAS0066O	\$132,080.00									\$174,928.00	Annually	12/16/2023
50083168	Procurement Compliance Program Administrator	12	PAS0056O	\$103,188.80									\$136,697.60	Annually	12/16/2023
50086500	Procurement Specialist Entry	F	PAS0043O	\$74,900.80									\$99,216.00	Annually	12/16/2023
50086476	Procurement Specialist Journey	12	PAS0052O	\$93,516.80									\$123,843.20	Annually	12/16/2023
50083476	Procurement Supervisor	12	PAS0062O	\$119,641.60									\$158,433.60	Annually	12/16/2023
50095463	Product Services Coordinator	12	PAS0056O	\$103,188.80									\$136,697.60	Annually	12/16/2023
50051591	Product Services Specialist	12	PAS0054O	\$98,217.60									\$130,062.40	Annually	12/16/2023
50083245	Productivity Analyst Entry	F	PAS0043O	\$74,900.80									\$99,216.00	Annually	12/16/2023
50051893	Productivity Analyst Journey	12	PAS0052O	\$93,516.80									\$123,843.20	Annually	12/16/2023
50162852	Program Manager Critical Infrastructure Protection	12	PAS0066O	\$132,080.00									\$174,928.00	Annually	12/16/2023
50162981	Program Manager Cybersecurity	12	PAS0066C	\$132,080.00									\$188,323.20	Annually	12/16/2023
50160537	Program Manager Data Governance	12	PAS0062D	\$119,641.60									\$174,948.80	Annually	12/16/2023
50126307	Program Manager Diversity Equity Inclusion and Belonging	12	PAS0062O	\$119,641.60									\$158,433.60	Annually	12/16/2023
50100228	Program Manager Energy Efficiency and Customer Research and Development	12	PAS0071O	\$149,344.00									\$197,891.20	Annually	12/16/2023
50166590	Program Manager Future Workforce	12	PAS0062O	\$119,641.60									\$158,433.60	Annually	12/16/2023
50170541	Program Manager Innovation	12	PAS0066O	\$132,080.00									\$174,928.00	Annually	12/16/2023
50139508	Program Manager Local Government	12	PAS0066O	\$132,080.00									\$174,928.00	Annually	12/16/2023
50153614	Program Manager Regulatory Compliance	12	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50168122	Program Manager Social Media	N/	PAS0059C	\$111,092.80									\$158,433.60	Annually	12/16/2023
50114096	Program Manager System Operations and Reliability	12	PAS0072O	\$153,088.00									\$202,820.80	Annually	12/16/2023
50160926	Program Manager Vegetation Management	12	PAS0059C	\$111,092.80									\$158,433.60	Annually	12/16/2023
50120124	Program Manager, Information Management & Compliance	12	PAS0062O	\$119,641.60									\$158,433.60	Annually	12/16/2023
50135827	Project Development Manager	12	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50111813	Project Integration Manager	12	PAS0071O	\$149,344.00									\$197,891.20	Annually	12/16/2023
50051896	Project Manager I	12	PAS0056O	\$103,188.80									\$136,697.60	Annually	12/16/2023
50051897	Project Manager II	12	PAS0062O	\$119,641.60									\$158,433.60	Annually	12/16/2023
50051900	Public Information Specialist I	F	PAS0045O	\$78,686.40									\$104,187.20	Annually	12/16/2023
50051901	Public Information Specialist II	12	PAS0054O	\$98,217.60									\$130,062.40	Annually	12/16/2023
50121215	Quality Auditor Journey Level	12	PAS0056O	\$103,188.80									\$136,697.60	Annually	12/16/2023
50083247	Rate Analyst Entry	F	PAS0045O	\$78,686.40									\$104,187.20	Annually	12/16/2023
50051916	Rate Analyst Journey	12	PAS0054O	\$98,217.60									\$130,062.40	Annually	12/16/2023
50095131	Rate Pricing Advisor	12	PAS0066O	\$132,080.00									\$174,928.00	Annually	12/16/2023
50130984	Regulatory Compliance Analyst Entry level	F	PAS0045O	\$78,686.40									\$104,187.20	Annually	12/16/2023
50130983	Regulatory Compliance Analyst Journey	12	PAS0054O	\$98,217.60									\$130,062.40	Annually	12/16/2023
50131203	Regulatory Coordinator Generation	12	PAS0062O	\$119,641.60									\$158,433.60	Annually	12/16/2023
50104213	Relay Specialist	12	PAS0059O	\$111,092.80									\$147,201.60	Annually	12/16/2023

N/ designates non-civil service jobs

F designates non-journey nonrepresented flex jobs

2024 SMUD Wage Schedule
Effective 12/16/2023

50051898	Senior Land Specialist	12	PAS0056B	\$100,193.60										\$139,443.20	Annually	6/3/2023
50051898	Senior Land Specialist	12	PAS0056B	\$103,188.80										\$143,624.00	Annually	12/16/2023
50160078	Senior Learning & Development Specialist	12	PAS0059O	\$111,092.80										\$147,201.60	Annually	12/16/2023
50122845	Senior Line Inspector	12	IBEW965R	\$86.45											Hourly	12/16/2023
50167750	Senior Management Administrative Assistant I	12	PAS0045O	\$78,686.40										\$104,187.20	Annually	12/16/2023
50170242	Senior Management Administrative Assistant II	12	PAS0049O	\$86,819.20										\$115,044.80	Annually	12/16/2023
50052073	Senior Mapper	6	OSE0713A	\$36.75	\$37.68	\$38.60	\$39.57	\$40.56	\$41.58	\$42.58	\$43.67	\$44.75			Hourly	12/16/2023
50091987	Senior Market Analyst	12	PAS0062O	\$119,641.60										\$158,433.60	Annually	12/16/2023
50160569	Senior Market Research Specialist	12	PAS0056O	\$103,188.80										\$136,697.60	Annually	12/16/2023
50102303	Senior Market Risk Specialist	12	PAS0062O	\$119,641.60										\$158,433.60	Annually	12/16/2023
50169475	Senior Market Strategy Analyst	12	PAS0062O	\$119,641.60										\$158,433.60	Annually	12/16/2023
50138025	Senior Marketing Specialist	12	PAS0059O	\$111,092.80										\$147,201.60	Annually	12/16/2023
50088378	Senior Material Planner Coordinator	12	PAS0052O	\$93,516.80										\$123,843.20	Annually	12/16/2023
50052077	Senior Mechanical Engineer	12	PAS0066O	\$132,080.00										\$174,928.00	Annually	12/16/2023
50052079	Senior Meter Technician	12	IBEW937A	\$70.07											Hourly	12/16/2023
50051840	Senior Network Engineer Operations Technology	12	PAS0064O	\$125,694.40										\$166,483.20	Annually	12/16/2023
50052087	Senior Office Specialist	6	OSE0671A	\$29.90	\$30.65	\$31.41	\$32.23	\$33.03	\$33.86	\$34.70	\$35.58	\$36.47			Hourly	12/16/2023
50122177	Senior Office Specialist-Confidential	6	CONF671A	\$32.23	\$33.04	\$33.86	\$34.73	\$35.60	\$36.51	\$37.39	\$38.33	\$39.31			Hourly	12/16/2023
50125952	Senior Organization Effectiveness Specialist	12	PAS0062O	\$119,641.60										\$158,433.60	Annually	12/16/2023
50139846	Senior Outage Management System Specialist Closed Classification	12	PAS0066O	\$132,080.00										\$174,928.00	Annually	12/16/2023
50085328	Senior Park Maintenance Worker	12	IBEW814A	\$38.91											Hourly	12/16/2023
50052090	Senior Physical Network Specialist Closed Classification	12	PAS0059O	\$111,092.80										\$147,201.60	Annually	12/16/2023
50052093	Senior Power Contracts Specialist	12	PAS0066O	\$132,080.00										\$174,928.00	Annually	12/16/2023
50118825	Senior Power Generation Mechanical Engineer	12	PAS0066O	\$132,080.00										\$174,928.00	Annually	12/16/2023
50136253	Senior Power Operations Engineer	12	PAS0066O	\$132,080.00										\$174,928.00	Annually	12/16/2023
50052094	Senior Power System Analyst	12	PAS0062O	\$119,641.60										\$158,433.60	Annually	12/16/2023
50154603	Senior Power System Operator	12	IBEW990A	\$103.57											Hourly	12/16/2023
50052091	Senior Press Operator	6	OSE0714A	\$37.18	\$38.12	\$39.03	\$40.03	\$41.05	\$42.08	\$43.13	\$44.18	\$45.33			Hourly	12/16/2023
50086475	Senior Procurement Specialist	12	PAS0056O	\$103,188.80										\$136,697.60	Annually	12/16/2023
50095464	Senior Product Services Coordinator	12	PAS0062O	\$119,641.60										\$158,433.60	Annually	12/16/2023
50052092	Senior Project Manager	12	PAS0066O	\$132,080.00										\$174,928.00	Annually	12/16/2023
50088003	Senior Protection Engineer	12	PAS0066O	\$132,080.00										\$174,928.00	Annually	12/16/2023
50051902	Senior Public Information Specialist	12	PAS0059O	\$111,092.80										\$147,201.60	Annually	12/16/2023
50052097	Senior Rate Analyst	12	PAS0059O	\$111,092.80										\$147,201.60	Annually	12/16/2023
50052098	Senior Resource Planning Analyst	12	PAS0062O	\$119,641.60										\$158,433.60	Annually	12/16/2023
50098850	Senior Revenue Analyst	12	PAS0056O	\$103,188.80										\$136,697.60	Annually	12/16/2023
50087904	Senior Risk Management Analyst	12	PAS0059O	\$111,092.80										\$147,201.60	Annually	12/16/2023
50089612	Senior Security Administrator	12	PAS0064O	\$125,694.40										\$166,483.20	Annually	12/16/2023
50168121	Senior Social Media Specialist	12	PAS0056O	\$103,188.80										\$136,697.60	Annually	12/16/2023
50052070	Senior Software Quality Assurance Specialist	12	PAS0059O	\$111,092.80										\$147,201.60	Annually	12/16/2023
50052099	Senior Staff Secretary	6	OSE0667A	\$29.33	\$30.06	\$30.82	\$31.59	\$32.36	\$33.18	\$34.02	\$34.88	\$35.76			Hourly	12/16/2023
50052100	Senior Staff Secretary To Board Office Confidential	6	CONF667A	\$31.78	\$32.59	\$33.39	\$34.20	\$35.07	\$35.94	\$36.82	\$37.76	\$38.70			Hourly	12/16/2023
50089955	Senior Staff Secretary-Confidential	6	CONF667A	\$31.78	\$32.59	\$33.39	\$34.20	\$35.07	\$35.94	\$36.82	\$37.76	\$38.70			Hourly	12/16/2023
50160570	Senior Strategic Business Planner	12	PAS0066O	\$132,080.00										\$174,928.00	Annually	12/16/2023
50099177	Senior Survey Engineering Technician-Chief of Party	6	OSE0740A	\$42.21	\$43.26	\$44.31	\$45.44	\$46.56	\$47.76	\$48.95	\$50.21	\$51.43			Hourly	12/16/2023
50092752	Senior Survey Engineering Technician-Office Survey	6	OSE0735A	\$41.18	\$42.21	\$43.26	\$44.36	\$45.47	\$46.62	\$47.80	\$48.97	\$50.24			Hourly	12/16/2023
50052103	Senior Telecommunications Engineer	12	PAS0066O	\$132,080.00										\$174,928.00	Annually	12/16/2023
50052107	Senior Telecommunications Technician	12	IBEW939B	\$71.52											Hourly	12/16/2023
50154498	Senior Telephone Technician	12	IBEW922G	\$64.18											Hourly	12/16/2023
50100561	Senior Telephone Technician Closed Classification	12	IBEW939B	\$71.52											Hourly	12/16/2023
50052109	Senior Tool Repairer	12	IBEW901A	\$58.57											Hourly	12/16/2023
50052108	Senior Transmission Planning Engineer	12	PAS0066O	\$132,080.00										\$174,928.00	Annually	12/16/2023
50052114	Senior Troubleshooter	12	IBEW976D	\$92.02											Hourly	12/16/2023
50163133	Senior User Experience Specialist	12	PAS0059O	\$111,092.80										\$147,201.60	Annually	12/16/2023
50154166	Senior Vehicle Mechanic	12	IBEW874B	\$51.24											Hourly	12/16/2023
50083253	Senior Vehicle Mechanic Closed Classification	12	IBEW887A	\$55.94											Hourly	12/16/2023
50154167	Senior Vehicle Mechanic with class A	12	IBEW874D	\$52.39											Hourly	12/16/2023
50052115	Senior Vehicle Mechanic with class A Closed Classification	12	IBEW887L	\$57.09											Hourly	12/16/2023
50154168	Senior Vehicle Mechanic with hazmat	12	IBEW874E	\$52.51											Hourly	12/16/2023
50052116	Senior Vehicle Mechanic with hazmat Closed Classification	12	IBEW887X	\$57.21											Hourly	12/16/2023
50051927	Service Dispatcher	6	OSE0705A	\$35.50	\$36.42	\$37.32	\$38.22	\$39.21	\$40.21	\$41.19	\$42.21	\$43.27			Hourly	12/16/2023
50167601	Shift Power System Operator I	12	IBEW980A	\$77.05	\$78.96	\$80.99	\$83.00	\$85.08	\$87.22	\$89.38	\$91.64	\$93.93			Hourly	12/16/2023
50167434	Shift Power System Operator II	12	IBEW986A	\$98.60											Hourly	12/16/2023
50154602	Shift Senior Power System Operator	12	IBEW990A	\$103.57											Hourly	12/16/2023
50051684	Site Safety Coordinator	12	PAS0062O	\$119,641.60										\$158,433.60	Annually	12/16/2023
50166436	SMUD Cares Program Manager	12	PAS0056B	\$103,188.80										\$143,624.00	Annually	12/16/2023
50168118	Social Media Specialist	12	PAS0054O	\$98,217.60										\$130,062.40	Annually	12/16/2023
50051751	Software Quality Assurance Specialist	12	PAS0054O	\$98,217.60										\$130,062.40	Annually	12/16/2023
50165227	Space and Move Management Specialist	12	PAS0043O	\$74,900.80										\$99,216.00	Annually	12/16/2023
50051940	Special Assistant to Board of Directors	N/	PAS0059O	\$111,092.80										\$147,201.60	Annually	12/16/2023
50051928	Staff Secretary	6	OSE0655A	\$27.77	\$28.50	\$29.17	\$29.93	\$30.66	\$31.41	\$32.17	\$32.98	\$33.82			Hourly	12/16/2023
50086677	Staff Secretary Confidential	6	CONF655A	\$29.98	\$30.74	\$31.51	\$32.27	\$33.07	\$33.91	\$34.76	\$35.64	\$36.49			Hourly	12/16/2023
50052118	Station Recorder Closed Classification	12	IBEW861C	\$33.14	\$34.66	\$44.66	\$46.57	\$49.47							Hourly	12/16/2023
50151393	Station Recorder Closed Classification	12	IBEW872I	\$51.79											Hourly	12/16/2023
50162807	Stem Cooperative Organization Student Assistant	N/	OSE0550A	\$22.89	\$23.47	\$24.05	\$24.64	\$25.26	\$25.90	\$26.53	\$27.20	\$27.89			Hourly	12/16/2023
50051657	Stem Student Assistant	N/	OSE0550A	\$22.89	\$23.47	\$24.05	\$24.64	\$25.26	\$25.90	\$26.53	\$27.20	\$27.89			Hourly	12/16/2023
50160145	Strategic Account Advisor I	F	PAS0045O	\$78,686.40										\$104,187.20	Annually	12/16/2023
50160202	Strategic Account Advisor II	12	PAS0054O	\$98,217.60										\$130,062.40	Annually	12/16/2023
50160192	Strategic Account Advisor III	12	PAS0056C	\$103,188.80										\$147,201.60	Annually	12/16/2023
50160040	Strategic Account Advisor IV Closed Classification	12	PAS0064O	\$125,694.40										\$166,483.20	Annually	12/16/2023
50051626	Strategic Business Planner I	12	PAS0056O	\$103,188.80										\$136,697.60	Annually	12/16/2023
50052044	Strategic Business Planner II	12	PAS0062O	\$119,641.60										\$158,433.60	Annually	12/16/2023

N/ designates non-civil service jobs
F designates non-journey nonrepresented flex jobs

2024 SMUD Wage Schedule
Effective 12/16/2023

50052119	Student Staff Assistant	N/	OSE0549A	\$18.54	\$19.00	\$19.48	\$19.97	\$20.46	\$20.96	\$21.49	\$22.05	\$22.59		Hourly	12/16/2023
50170857	Student Staff Assistant Confidential		CONF549A	\$19.00	\$19.47	\$19.96	\$20.46	\$20.97	\$21.48	\$22.02	\$22.59	\$23.15		Hourly	12/16/2023
50137994	Substation Assets Supervisor	12	PAS0062I	\$116,147.20									\$181,937.60	Annually	12/17/2022
50137994	Substation Assets Supervisor	12	PAS0062I	\$119,641.60									\$187,387.20	Annually	12/16/2023
50091429	Substation Construction Foreman/Woman with class A	12	IBEW942E	\$79.25										Hourly	12/16/2023
50091430	Substation Construction Foreman/Woman with hazmat	12	IBEW942F	\$79.37										Hourly	12/16/2023
TBD	Substation Electrical Inspector	12	IBEW940A	\$72.24										Hourly	10/24/2023
TBD	Substation Electrical Inspector	12	IBEW940A	\$74.40										Hourly	12/16/2023
50051929	Substation Foreman/Woman,Light	12	IBEW940A	\$74.40										Hourly	12/16/2023
50051930	Substation Foreman/Woman,Light with class A	12	IBEW940B	\$75.55										Hourly	12/16/2023
50051931	Substation Foreman/Woman,Light with hazmat	12	IBEW940C	\$75.67										Hourly	12/16/2023
50165789	Substation Maintenance Worker I	12	IBEW861A	\$39.41	\$41.39									Hourly	6/17/2023
50165789	Substation Maintenance Worker I	12	IBEW861A	\$40.59	\$42.63									Hourly	12/16/2023
50125721	Substation Maintenance Worker II	12	IBEW861B	\$43.45	\$45.62	\$47.90	\$50.28							Hourly	6/17/2023
50125721	Substation Maintenance Worker II	12	IBEW861B	\$44.75	\$46.99	\$49.33	\$51.79							Hourly	12/16/2023
50051932	Substation SubForeman/Woman	12	IBEW936D	\$70.01										Hourly	12/16/2023
50051933	Substation Subforeman/Woman with class A	12	IBEW936E	\$71.16										Hourly	12/16/2023
50051934	Substation Subforeman/Woman with hazmat	12	IBEW936F	\$71.28										Hourly	12/16/2023
50091625	Superintendent Project Development and Engineering	12	PAS0071O	\$149,344.00									\$197,891.20	Annually	12/16/2023
50051957	Supervising Accounting Tech	12	PAS0047O	\$82,700.80									\$109,470.40	Annually	12/16/2023
50165907	Supervising Administrative Analyst I	F	PAS0041O	\$71,302.40									\$94,411.20	Annually	12/16/2023
50165911	Supervising Administrative Analyst II	12	PAS0049O	\$86,819.20									\$115,044.80	Annually	12/16/2023
50165909	Supervising Administrative Analyst III	12	PAS0052O	\$93,516.80									\$123,843.20	Annually	12/16/2023
50051972	Supervising Customer Representative	12	PAS0049O	\$86,819.20									\$115,044.80	Annually	12/16/2023
50051973	Supervising Customer Services Field Representative	12	PAS0052B	\$93,516.80									\$130,062.40	Annually	12/16/2023
50166563	Supervising Human Resources Analyst	12	PAS0062O	\$119,641.60									\$158,433.60	Annually	12/16/2023
50135199	Supervising Paralegal	12	PAS0047O	\$82,700.80									\$109,470.40	Annually	12/16/2023
50150056	Supervising Procurement Specialist Closed Classification	12	PAS0059A	\$111,092.80									\$150,883.20	Annually	12/16/2023
50052015	Supervising Resource Planner	12	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50130191	Supervisor Business Technology Resources & Planning	12	PAS0071O	\$149,344.00									\$197,891.20	Annually	12/16/2023
50051697	Supervisor Fleet Design & Delivery	12	PAS0059O	\$111,092.80									\$147,201.60	Annually	12/16/2023
50129649	Supervisor Apprenticeship & Operations Training	12	PAS0064O	\$125,694.40									\$166,483.20	Annually	12/16/2023
50163093	Supervisor Budget Office	12	PAS0066O	\$132,080.00									\$174,928.00	Annually	12/16/2023
50090727	Supervisor Business Process Support	12	PAS0062O	\$119,641.60									\$158,433.60	Annually	12/16/2023
50124592	Supervisor Construction Management Inspection	12	PAS0064O	\$125,694.40									\$166,483.20	Annually	12/16/2023
50051994	Supervisor Data Management	12	PAS0064O	\$125,694.40									\$166,483.20	Annually	12/16/2023
50126020	Supervisor Distribution Services New Business	12	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50051852	Supervisor Distribution System Operations-Field Operation	12	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50128766	Supervisor Energy Efficiency Emerging Technologies	12	PAS0066O	\$132,080.00									\$174,928.00	Annually	12/16/2023
50162517	Supervisor Energy Management System	12	PAS0069B	\$142,188.80									\$197,891.20	Annually	12/16/2023
50160221	Supervisor Energy Trading & Contracts	12	PAS0072O	\$153,088.00									\$202,820.80	Annually	12/16/2023
50160265	Supervisor Engineering	12	PAS0071O	\$149,344.00									\$197,891.20	Annually	12/16/2023
50158442	Supervisor Environmental, Health & Safety Services	12	PAS0066O	\$132,080.00									\$174,928.00	Annually	12/16/2023
50051981	Supervisor Facilities & Maintenance	12	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50162321	Supervisor Field Metering	12	PAS0059B	\$111,092.80									\$154,668.80	Annually	12/16/2023
50094154	Supervisor Health & Safety Services Closed Classification	12	PAS0066C	\$132,080.00									\$188,323.20	Annually	12/16/2023
50051729	Supervisor Hydro License Implementation	12	PAS0066O	\$132,080.00									\$174,928.00	Annually	12/16/2023
50051990	Supervisor Image Production Postal Service & Administrative	12	PAS0052C	\$93,516.80									\$133,328.00	Annually	12/16/2023
50136695	Supervisor Load Research and Forecasting	12	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50091651	Supervisor Maintenance Engineering	12	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50083477	Supervisor Material Planning & Coordination	12	PAS0062O	\$119,641.60									\$158,433.60	Annually	12/16/2023
50116025	Supervisor Operations & Availability	12	PAS0071O	\$149,344.00									\$197,891.20	Annually	12/16/2023
50052007	Supervisor Operations Scheduling & Productivity	12	PAS0059O	\$111,092.80									\$147,201.60	Annually	12/16/2023
50160902	Supervisor Project Management Office	12	PAS0067O	\$135,387.20									\$179,275.20	Annually	12/16/2023
50052012	Supervisor Rates	12	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50052014	Supervisor Real Estate Services	12	PAS0062O	\$119,641.60									\$158,433.60	Annually	12/16/2023
50163671	Supervisor Segment Delivery	12	PAS0064O	\$125,694.40									\$166,483.20	Annually	12/16/2023
50160146	Supervisor Strategic Account Management	12	PAS0062D	\$119,641.60									\$174,948.80	Annually	12/16/2023
50052021	Supervisor Survey	12	PAS0062O	\$119,641.60									\$158,433.60	Annually	12/16/2023
50051925	Supervisor Threat Management and Corporation Security Operations	12	PAS0062O	\$119,641.60									\$158,433.60	Annually	12/16/2023
50126182	Supervisor Transmission and Distribution Line Maintenance	12	PAS0069O	\$142,188.80									\$188,323.20	Annually	12/16/2023
50099720	Supplier Diversity Supervisor	12	PAS0056O	\$103,188.80									\$136,697.60	Annually	12/16/2023
50164529	Support Center Supervisor	12	PAS0059O	\$111,092.80									\$147,201.60	Annually	12/16/2023
50092750	Survey Engineering Technician Journey	6	OSE0714A	\$37.18	\$38.12	\$39.03	\$40.03	\$41.05	\$42.08	\$43.13	\$44.18	\$45.33		Hourly	12/16/2023
50170412	Sustainable Community Partnership Specialist I	F	PAS0045O	\$78,686.40									\$104,187.20	Annually	12/16/2023
50170327	Sustainable Community Partnership Specialist II	12	PAS0054O	\$98,217.60									\$130,062.40	Annually	12/16/2023
50170328	Sustainable Community Partnership Specialist III	12	PAS0059O	\$111,092.80									\$147,201.60	Annually	12/16/2023
50091953	Systems Protection and Control	12	PAS0071O	\$149,344.00									\$197,891.20	Annually	12/16/2023
50052124	Technical Writer Entry Level	12	PAS0052O	\$93,516.80									\$123,843.20	Annually	12/16/2023
50154313	Telecommunications Technician Apprentice	12	IBEW845A	\$39.32	\$42.96	\$46.59	\$50.22	\$53.85	\$57.47					Hourly	12/16/2023
50083255	Telecommunications Technician Apprentice Closed Classification	48	IBEW921A	\$43.83	\$47.87	\$51.94	\$55.93	\$59.99	\$64.05					Hourly	12/16/2023
50052125	Telecommunications Technician Closed Classification	12	IBEW928I	\$67.41										Hourly	12/16/2023
50154499	Telecommunications Technician I	12	IBEW915A	\$60.49										Hourly	12/16/2023
50161055	Telecommunications Technician II	12	IBEW928I	\$67.41										Hourly	12/16/2023
50154625	Telephone Technician	12	IBEW915A	\$60.49										Hourly	12/16/2023
50154626	Telephone Technician Apprentice	12	IBEW845A	\$39.32	\$42.96	\$46.59	\$50.22	\$53.85	\$57.47					Hourly	12/16/2023
50100562	Telephone Technician Apprentice Closed Classification	36	IBEW921A	\$43.83	\$47.87	\$51.94	\$55.93	\$59.99	\$64.05					Hourly	12/16/2023
50100560	Telephone Technician Closed Classification	12	IBEW928I	\$67.41										Hourly	12/16/2023
50052131	Tool Repairer	12	IBEW874G	\$46.84	\$48.35	\$50.10	\$52.57							Hourly	12/16/2023
50052132	Tool Repairer with class A	12	IBEW874M	\$47.99	\$49.50	\$51.25	\$53.72							Hourly	12/16/2023
50052133	Tool Repairer with hazmat	12	IBEW874Z	\$48.11	\$49.62	\$51.37	\$53.84							Hourly	12/16/2023
50086933	Tool Room Foreman/Woman	12	IBEW936A	\$69.00										Hourly	12/16/2023

N/ designates non-civil service jobs

F designates non-journey nonrepresented flex jobs

2024 SMUD Wage Schedule
Effective 12/16/2023

50092673	Trade Show Coordinator	6	OSE0743A	\$43.06	\$44.11	\$45.22	\$46.36	\$47.50	\$48.71	\$49.93	\$51.17	\$52.46		Hourly	12/16/2023
50111034	Training & Compliance Coordinator	12	PAS0052O	\$93,516.80									\$123,843.20	Annually	12/16/2023
50160075	Training Coordinator	12	PAS0045O	\$78,686.40									\$104,187.20	Annually	12/16/2023
50140030	Transmission and Distribution Line Construction Consultant	12	PAS0066C	\$132,080.00									\$188,323.20	Annually	12/16/2023
50151305	Transmission and Distribution Supervisor Projects	12	PAS0062U	\$119,641.60									\$182,187.20	Annually	12/16/2023
50052134	Troubleshooter	12	IBEW941R	\$81.25										Hourly	12/16/2023
50093281	Troubleshooter with class A	12	IBEW941D	\$82.40										Hourly	12/16/2023
50163132	User Experience Specialist Entry Level	F	PAS0045O	\$78,686.40									\$104,187.20	Annually	12/16/2023
50092219	User Experience Specialist Journey	12	PAS0054O	\$98,217.60									\$130,062.40	Annually	12/16/2023
50151422	Utility Assistant	12	IBEW785A	\$19.84	\$22.68									Hourly	12/16/2023
50083807	Utility Compliance Specialist	12	IBEW828G	\$32.38	\$33.86	\$36.46	\$38.95	\$41.71						Hourly	12/16/2023
50151392	Utility Compliance Specialist Closed Classification	12	IBEW872I	\$51.79										Hourly	12/16/2023
50151322	Utility Compliance Specialist Closed Classification	12	IBEW872L	\$53.02										Hourly	12/16/2023
50166507	Utility Compliance Specialist II	12	IBEW919J	\$43.86										Hourly	12/16/2023
50052154	Utility Crew Foreman/Woman with hazmat	12	IBEW888X	\$56.43										Hourly	12/16/2023
50052156	Utility Worker I with class A	12	IBEW802L	\$33.53	\$35.01	\$36.49	\$37.96							Hourly	12/16/2023
50052155	Utility Worker I	12	IBEW802G	\$32.38	\$33.86	\$35.34	\$36.81							Hourly	12/16/2023
50163854	Utility Worker II	12	IBEW814A	\$38.91										Hourly	12/16/2023
50116120	Utility Worker III	12	IBEW816H	\$34.33	\$35.70	\$37.25	\$38.77	\$40.43						Hourly	12/16/2023
50052157	Utility Worker with hazmat	12	IBEW802X	\$33.65	\$35.13	\$36.61	\$38.08							Hourly	12/16/2023
50154631	Vegetation Management Specialist with class A	12	IBEW878H	\$54.33										Hourly	12/16/2023
50150005	Vegetation Management Specialist With class A Closed Classification	12	IBEW901L	\$59.72										Hourly	12/16/2023
50052146	Vegetation Management Supervisor I	12	PAS0056O	\$103,188.80									\$136,697.60	Annually	12/16/2023
50162373	Vegetation Management Supervisor II	12	PAS0059O	\$111,092.80									\$147,201.60	Annually	12/16/2023
50154627	Vegetation Work Planner	12	IBEW878G	\$53.18										Hourly	12/16/2023
50052143	Vegetation Work Planner Closed Classification	12	IBEW901A	\$58.57										Hourly	12/16/2023
50154628	Vegetation Work Planner with class A	12	IBEW878H	\$54.33										Hourly	12/16/2023
50052144	Vegetation Work Planner with class A Closed Classification	12	IBEW901L	\$59.72										Hourly	12/16/2023
50154630	Vegetation Work Planner with hazmat	12	IBEW878J	\$54.45										Hourly	12/16/2023
50052145	Vegetation Work Planner with hazmat Closed Classification	12	IBEW901X	\$59.84										Hourly	12/16/2023
50052158	Vehicle Attendant	12	IBEW816G	\$33.44	\$34.85	\$36.41	\$37.93	\$39.56						Hourly	12/16/2023
50083257	Vehicle Attendant with class A	12	IBEW817B	\$34.59	\$36.00	\$37.56	\$39.08	\$40.71						Hourly	12/16/2023
50052159	Vehicle Attendant with hazmat	12	IBEW817X	\$34.71	\$36.12	\$37.68	\$39.20	\$40.83						Hourly	12/16/2023
50099030	Vehicle Maintenance Aide	12	IBEW790A	\$23.83	\$29.41									Hourly	12/16/2023
50052164	Vehicle Maintenance Aide with class A	12	IBEW790L	\$24.98	\$30.56									Hourly	12/16/2023
50052165	Vehicle Maintenance Aide with hazmat	12	IBEW790X	\$25.10	\$30.68									Hourly	12/16/2023
50154169	Vehicle Mechanic	12	IBEW858A	\$48.12										Hourly	12/16/2023
50154049	Vehicle Mechanic Apprentice with hazmat	48	IBEW851D	\$32.04	\$34.17	\$36.26	\$38.35	\$40.46	\$42.55	\$44.68	\$46.74			Hourly	12/16/2023
50052161	Vehicle Mechanic Apprentice with hazmat Closed Classification	48	IBEW866X	\$35.45	\$37.70	\$39.96	\$42.22	\$44.47	\$46.71	\$48.98	\$51.23			Hourly	12/16/2023
50052160	Vehicle Mechanic Closed Classification	12	IBEW874C	\$52.57										Hourly	12/16/2023
50168478	Vehicle Mechanic Welder	12	IBEW851I	\$50.33										Hourly	12/16/2023
50154213	Vehicle Mechanic Welder Apprentice with class A	12	IBEW851F	\$33.53	\$35.76	\$37.94	\$40.12	\$42.37	\$44.54	\$44.58	\$48.98			Hourly	12/16/2023
50125306	Vehicle Mechanic Welder Apprentice with class A Closed Classification	48	IBEW888A	\$36.79	\$39.14	\$41.56	\$43.98	\$46.40	\$48.78	\$51.18	\$53.57			Hourly	12/16/2023
50154214	Vehicle Mechanic Welder Apprentice with hazmat	12	IBEW851K	\$33.59	\$35.81	\$37.99	\$40.17	\$42.40	\$44.58	\$46.77	\$49.01			Hourly	12/16/2023
50125304	Vehicle Mechanic Welder Apprentice with hazmat Closed Classification	48	IBEW888B	\$36.83	\$39.19	\$41.61	\$44.01	\$46.41	\$48.82	\$51.23	\$53.61			Hourly	12/16/2023
50154218	Vehicle Mechanic Welder with class A	12	IBEW874A	\$51.48										Hourly	12/16/2023
50052166	Vehicle Mechanic Welder with class A Closed Classification	12	IBEW888G	\$56.31										Hourly	12/16/2023
50154219	Vehicle Mechanic Welder with hazmat	12	IBEW872H	\$51.60										Hourly	12/16/2023
50052167	Vehicle Mechanic Welder with hazmat Closed Classification	12	IBEW888X	\$56.43										Hourly	12/16/2023
50154225	Vehicle Mechanic with class A	12	IBEW858D	\$49.27										Hourly	12/16/2023
50052162	Vehicle Mechanic with class A Closed Classification	12	IBEW878A	\$53.71										Hourly	12/16/2023
50154240	Vehicle Mechanic with hazmat	12	IBEW858K	\$49.39										Hourly	12/16/2023
50052163	Vehicle Mechanic with hazmat Closed Classification	12	IBEW878X	\$53.84										Hourly	12/16/2023
50052168	Vehicle Parts Clerk	6	OSE0680B	\$31.41	\$32.17	\$32.98	\$33.82	\$34.68	\$35.50	\$36.42	\$37.33	\$38.23		Hourly	12/16/2023
50161540	Warehouse Operation Coordinator	12	PAS0056C	\$103,188.80									\$147,201.60	Annually	12/16/2023

N/ designates non-civil service jobs

F designates non-journey nonrepresented flex jobs

Sacramento Municipal Utility District 2024 Special Pay Compensation Policy							
SPECIAL COMPENSATION CATEGORY	WAGE TYPE	ELIGIBLE EMPLOYEE GROUPS					EFFECTIVE DATE
		OSE	IBEW	PAS/MGMT	PSOA	CONF	
Special Assignment Pay	2nd Shift Differential Pay	\$ 2.79	\$ 3.77	*6%		4%	12/16/2023
Special Assignment Pay	3rd Shift Differential Pay	\$ 3.73	\$ 5.02	*8%		6%	12/16/2023
Special Assignment Pay	4th Shift Diff Pay - R.S.	\$ 4.66	\$ 5.02	*8%		8%	12/16/2023
Special Assignment Pay	PSOA 2nd Shift Differential Pay				8%		12/16/2023
Special Assignment Pay	Dbldm 4th Shift Diff	2X + \$4.66	2X + \$5.02	*2X + 8%	2X + 8%	0	12/16/2023
Special Assignment Pay	Instructor/Training Officer				8%		12/16/2023
Special Assignment Pay	Mutual Aid		2X				12/16/2023
Statutory Items	DT Incentive Erngs	2X	2X	*2X	2X		12/16/2023
Incentive Pay	Employer Paid Member Contributions	0.00%	0.00%	1.75%	0.00%	1.75%	12/16/2023
Statutory Items	FRC Cleaning Allowance	Up to \$1,550 / yr	Up to \$1,550 / yr	Up to \$1,550 / yr	Up to \$1,550 / yr		12/16/2023
Manual Adjustment Required to correct	LUMP SUM ADJ - PERS	**	**	**	**	**	12/16/2023
Statutory Items	Overtime Incentive Erngs	2X	2X	*1.5X	2X		12/16/2023
Statutory Items	PERS Uniform Allowance	Up to \$1,559 / yr	Up to \$2,078 / yr	Up to \$2,078 / yr			12/16/2023
Special Assignment Pay	Relief Shift Differential	\$ 4.66	\$ 5.02	*8%	8%	8%	12/16/2023
Special Assignment Pay	Sch Hol Wk Shft 2 Dif-PAS			*1.5X + 6%			12/16/2023
Special Assignment Pay	Sch Hol Wk Shft 3 Dif-PAS			*1.5X + 8%			12/16/2023
Special Assignment Pay	Sch Hol Wk Shft 4 Dif-PAS			*1.5X + 8%			12/16/2023
Statutory Items	Sch Holiday Dbl Time	2X	2X	*2X	2X		12/16/2023
Statutory Items	Sch Holiday Work	2X	2X	*1.5X	2X		12/16/2023
Statutory Items	Sch Holiday Worked - PAS			*1.5X			12/16/2023
Special Assignment Pay	Schd Hol DT Shft 2 Diff	2X + \$2.79	2X + \$3.77	*2X + 6%	2X + 8%		12/16/2023
Special Assignment Pay	Schd Hol DT Shft 3 Diff	2X + \$3.73	2X + \$5.02	*2X + 8%	2X + 8%		12/16/2023
Special Assignment Pay	Schd Hol DT Shft 4 Diff	2X + \$4.66	2X + \$5.02	*2X + 8%	2X + 8%		12/16/2023
Special Assignment Pay	Sched Hol Wrk Shft 2 Diff	2X + \$2.79	2X + \$3.77	*1.5X + 6%	2X + 8%		12/16/2023
Special Assignment Pay	Sched Hol Wrk Shft 3 Diff	2X + \$3.73	2X + \$5.02	*1.5X + 8%	2X + 8%		12/16/2023
Special Assignment Pay	Sched Hol Wrk Shft 4 Diff	2X \$4.66	2X + \$5.02	*1.5X + 8%	2X + 8%		12/16/2023
Premium Pay	WOC DT Incentive	2X	2X		2X	2X	12/16/2023
Premium Pay	WOC Hol Special	2X	2X		2X	2X	12/16/2023
Premium Pay	WOC OT Incentive	2X	2X		2X	1.5X	12/16/2023
Premium Pay	WOC Reg	1X	1X		1X	1X	12/16/2023
Special Assignment Pay	Temporary Upgrade 2.5%	2.50%	2.50%	2.50%	2.50%	2.50%	12/16/2023
Special Assignment Pay	Temporary Upgrade 5%	5%	5%	5%	5%	5%	12/16/2023
Special Assignment Pay	Temporary Upgrade 7.5%	7.50%	7.50%	7.50%	7.50%	7.50%	12/16/2023
Special Assignment Pay	Temporary Upgrade 10%	10%	10%	10%	10%	10%	12/16/2023
Short Term Incentives - Exec	STI			11%			12/16/2023
Short Term Incentives - Dir	STI			6%			12/16/2023
Individual Performance Award	Pay for Performance Award			0 - 9%			12/16/2023
Incentive Pay	Off-Salary-Schedule Pay						12/16/2023

Labor Policy:
Special compensation will be reported as pensionable compensation in accordance with CalPERS rules & regulations. The above table provides information related to special compensation items for employee groups. Represented employee special compensation may also be found in the applicable labor agreements. For unrepresented employees, this document shall be used to delineate special compensation items, including Special Assignment Pay and Statutory Items designated for employees working 12 hour work schedules and/or shift schedules within Security Operations, Energy Trading & Contracts and any other designated 24/7
*applies to PAS employees in Energy Trading & Contracts working a shift schedule
**manual adjustment amount required to correct records varies depending upon situation

RESOLUTION NO. _____

WHEREAS, the Board of Directors currently delegates the authority to approve pay schedules and special compensation items to the Chief Executive Officer and General Manager; and

WHEREAS, the **California Public Employees' Retirement System (CalPERS)** adopted California Code of Regulations, Title 2, Sections 570.5 and 571(b), which require this Board to formally adopt pay schedules and special compensation items for purposes of calculating CalPERS retirement benefits; **NOW, THEREFORE**,

**BE IT RESOLVED BY THE BOARD OF DIRECTORS
OF THE SACRAMENTO MUNICIPAL UTILITY DISTRICT:**

Adopt Sacramento Municipal Utility District's Pay Schedule and Special Compensation items for employees pursuant to California Code of Regulations, Title 2, Sections 570.5 and 571(b), substantially in the form of **Attachment ____** and **Attachment ____**.

SSS No. DPG23-075

BOARD AGENDA ITEM

STAFFING SUMMARY SHEET

Committee Meeting & Date Finance & Audit – 12/13/23
Board Meeting Date December 14, 2023

TO				TO				
1.	James Frasher	6.	Jose Bodipo-Memba					
2.	Steve Lins	7.						
3.	Jennifer Davidson	8.						
4.	Lora Anguay	9.	Legal					
5.	Scott Martin	10.	CEO & General Manager					
Consent Calendar	X	Yes	No <i>If no, schedule a dry run presentation.</i>	Budgeted	Yes	No <i>(If no, explain in Cost/Budgeted section.)</i>		
FROM (IPR) Tom Moore			DEPARTMENT Zero Carbon Energy Solutions			MAIL STOP K221	EXT. 5064	DATE SENT 11/16/23

NARRATIVE:

Requested Action: Approve and ratify the submittal of SMUD’s Connected Clean PowerCity project application to the Department of Energy (DOE) for the Grid Resilience and Innovation Partnerships (GRIP) grant and authorize the Chief Executive Officer and General Manager, or his designee, to negotiate and execute in the name of Sacramento Municipal Utility District a GRIP grant recipient contract with DOE as well as all grant documents, including, but not limited to, applications, agreements, amendments and requests for payment, necessary to facilitate grant participation.

Summary: In support of SMUD’s 2030 Zero Carbon Plan, SMUD submitted a grant application to the DOE on March 17, 2023, and was selected on October 17, 2023, to receive a GRIP \$50 million grant award for our Connected Clean PowerCity project. In support of the grant project, SMUD’s cost share is \$104,967,835 and Wilton Rancheria’s is \$1,196,337. The project will enable a zero-carbon grid of the future by deploying technologies and processes that improve service reliability, support core community benefits, and provide equitable energy access to all at a best-in-class cost. Expected outcomes future-proof the region's resilience against climate projections and electrification needs while concurrently delivering immediate benefits in testing grid congestion reductions based on edge-sensing.

Connected Clean PowerCity will identify and implement the base elements and critical infrastructure needed to prepare and implement a complete next-generation smart grid to include a fully enabled instance of Distributed Intelligence (DI) at the Grid Edge at scale, Advanced Distributed Energy Resource Management System (DERMS) and Outage Management System (OMS). The project’s next-generation smart grid will address the regional need for resilient, reliable grid service that is hardened for and supports the clean energy transition within SMUD and other utilities' service areas. This new intelligent ecosystem replicates effective grid management at small to large utilities with dispersed Tribal partners in rural and urban communities.

Board Policy: Strategic Direction SD-4, Reliability; Strategic Direction SD–7, Environmental Leadership; Strategic Direction SD-9, Resource Planning; Strategic Direction SD-10, Innovation.
(Number & Title)

Benefits: Connected CleanPower City's next-generation smart grid will address the regional need for resilient, reliable grid service that is hardened for and supports the clean energy transition. This new intelligent ecosystem replicates effective grid management at small to large utilities with dispersed Tribal partners in rural and urban communities. The Project's community centered strategy will equitably distribute Project benefits with at least 40% implementation in disadvantaged communities.

Cost/Budgeted: Grip Grant: Total Project budget is \$156,164,172: Federal DOE share is \$50,000,000, SMUD Match is \$104,967,835, Wilton Rancheria Cost Share \$1,196,337.

Alternatives: Do not support the proposal or approve the execution of the grant contracts and do not receive the awarded funding.

Affected Parties: Information Technology, Distribution System Operations, Distribution Planning, Accounting, Grants Administration

Coordination: Information Technology, Distribution System Operations, Distribution Planning, Accounting, Grants Administration

Presenter: James Frasher, Manager, Economic Development & Partnership
Amber Connors, Director, Customer & Grid Operations Tech Center

Additional Links:

SUBJECT

Connected Clean PowerCity Grant

ITEM NO. (FOR LEGAL USE ONLY)

6

ITEMS SUBMITTED AFTER DEADLINE WILL BE POSTPONED UNTIL NEXT MEETING.

RESOLUTION NO. _____

WHEREAS, in support of SMUD's **2030 Zero Carbon Plan**, SMUD submitted a grant application to the **Department of Energy (DOE)** for the **Grid Resilience and Innovation Partnerships (GRIP)** grant on March 17, 2023; and

WHEREAS, SMUD was selected on October 17, 2023, to receive a \$50 million **GRIP** grant award for SMUD's **Connected Clean PowerCity** project; and

WHEREAS, in support of the grant project, SMUD's match cost share is \$104,967,835 and **Wilton Rancheria's** is \$1,196,337; and

WHEREAS, the project will enable a zero-carbon grid of the future by deploying technologies and processes that improve service reliability, support core community benefits, and provide equitable energy access to all at a best-in-class cost; and

WHEREAS, expected outcomes future-proofs the region's resilience against climate projections and electrification needs while concurrently delivering immediate benefits in testing grid congestion reductions based on edge-sensing; and

WHEREAS, **Connected Clean PowerCity** will identify and implement the base elements and critical infrastructure needed to prepare and implement a complete next-generation smart grid to include a fully enabled instance of Distributed Intelligence (DI) at the Grid Edge at scale, Advanced Distribution Energy Resource Management System (DERMS), and Outage Management System (OMS); and

WHEREAS, the project's next-generation smart grid will address the regional need for resilient, reliable grid service that is hardened for and supports the clean energy transition within SMUD's and other utilities' service areas; and

WHEREAS, this new intelligent ecosystem replicates effective grid management at small to large utilities with dispersed Tribal partners in rural and urban communities; **NOW, THEREFORE**,

**BE IT RESOLVED BY THE BOARD OF DIRECTORS
OF THE SACRAMENTO MUNICIPAL UTILITY DISTRICT:**

Section 1. This Board approves and ratifies the submittal of SMUD's **Connected Clean PowerCity** project application to the **Department of Energy (DOE)** for the **Grid Resilience and Innovation Partnerships (GRIP)** grant.

Section 2. The Chief Executive Officer and General Manager, or his designee, is authorized to negotiate and execute in the name of Sacramento Municipal Utility District a **GRIP** grant recipient contract with **DOE** as well as all grant documents, including, but not limited to, applications, agreements, amendments and requests for payment, necessary to facilitate grant participation.

SSS No. LEG 2023-0141

BOARD AGENDA ITEM

STAFFING SUMMARY SHEET

Committee Meeting & Date Finance & Audit – 12/13/23
Board Meeting Date December 14, 2023

TO				TO			
1.	James Frasher	6.	Jose Bodipo-Memba				
2.	Steve Lins	7.					
3.	Jennifer Davidson	8.					
4.	Lora Anguay	9.	Legal				
5.	Scott Martin	10.	CEO & General Manager				
Consent Calendar	<input checked="" type="checkbox"/> Yes	No <i>If no, schedule a dry run presentation.</i>	Budgeted	<input checked="" type="checkbox"/> Yes	No <i>(If no, explain in Cost/Budgeted section.)</i>		
FROM (IPR) Laura Lewis	DEPARTMENT Executive Office			MAIL STOP B308	EXT. 6123	DATE SENT 12/06/23	

NARRATIVE:

Requested Action: Authorize submission of a grant application for a Department of Forestry and Fire Protection (CAL FIRE) California Climate Investments Wildfire Prevention Grants Program (Grant), and authorize the CEO and GM, or his delegate, to negotiate and execute in the name of Sacramento Municipal Utility District a CAL FIRE Grant recipient contract as well as all Grant documents, including, but not limited to, applications, agreements, amendments and requests for payment, necessary to facilitate Grant participation.

Summary: In an effort to mitigate wildfire risks in the Eldorado National Forest where SMUD owns numerous facilities associated with the Upper American River Project (UARP), SMUD plans to submit a grant application in January 2024 for CAL FIRE’s California Climate Investments Wildfire Prevention Grants Program (Grant). CAL FIRE requires that a copy of an authorizing Board resolution be submitted with the grant application. The maximum award for the Grant is \$3 million, with no SMUD match cost share requirement, and the Grant project is expected to span Fiscal Years (FY) 2024-2027. The grant provides funding for wildfire prevention projects and activities in and near the UARP transmission line with a focus on increasing the protection of people, structures, and communities. The funds acquired from the Grant will enable SMUD to perform vegetation clearance projects including hazardous fuels reduction in critical locations to reduce the wildfire intensity and rate of spread and reduce impact on surrounding communities.

Board Policy: *(Number & Title)* Strategic Direction SD-4, Reliability; Strategic Direction SD-7, Environmental Leadership; Strategic Direction SD-9, Resource Planning.

Benefits: CAL FIRE’s Wildfire Prevention Grants Program will enable SMUD to perform additional vegetation clearance projects in critical locations along and near the UARP, including the transmission corridor, to reduce the wildfire intensity rate of spread and reduce impact of wildfires on surrounding communities. The project is expected to span FY 2024-2027.

Cost/Budgeted: CAL FIRE Grant: Maximum total grant fund request for the CAL FIRE Wildfire Prevention Grants Program is \$3M; SMUD match cost share is not required.

Alternatives: Do not apply for the grant.

Affected Parties: Information Technology, Distribution System Operations, Distribution Planning, Accounting, Grants Administration, Vegetation Management

Coordination: Information Technology, Distribution System Operations, Distribution Planning, Accounting, Grants Administration

Presenter: James Frasher, Manager, Economic Development & Partnership

Additional Links:	
SUBJECT CalFire Grant Application Authorization	ITEM NO. (FOR LEGAL USE ONLY) 7

ITEMS SUBMITTED AFTER DEADLINE WILL BE POSTPONED UNTIL NEXT MEETING.

RESOLUTION NO. _____

WHEREAS, in an effort to mitigate wildfire risks in the Eldorado National Forest where SMUD owns numerous facilities associated with the **Upper American River Project (UARP)**, SMUD plans to submit a grant application in January 2024 for a **Department of Forestry and Fire Protection (CALFIRE) California Climate Investments Wildfire Prevention Grants Program (Grant)**; and

WHEREAS, **CALFIRE** requires that a copy of an authorizing Board resolution be submitted with the **Grant** application; and

WHEREAS, the maximum award for the **Grant** is \$3 million, with no SMUD match cost share requirement, and the project is expected to span Fiscal Years 2024-2027; and

WHEREAS, the Grant provides funding for wildfire prevention projects and activities in and near the **UARP** transmission line with a focus on increasing the protection of people, structures, and communities; and

WHEREAS, the funds acquired from the **Grant** will enable SMUD to perform vegetation clearance projects including hazardous fuels reduction in critical locations to reduce the wildfire intensity and rate of spread and reduce impact on surrounding communities; **NOW, THEREFORE**,

**BE IT RESOLVED BY THE BOARD OF DIRECTORS
OF THE SACRAMENTO MUNICIPAL UTILITY DISTRICT:**

Section 1. This Board authorizes the submittal of an application for the **California Climate Investments Wildfire Prevention Grants Program (Grant)**

administered by the **California State Department of Forestry and Fire Protection (CALFIRE)**.

Section 2. This Board certifies the following: 1) that SMUD has or will have sufficient funds to operate and maintain the project; 2) funds under the jurisdiction of SMUD are available to begin the project; and 3) SMUD will expend **Grant** funds prior to the grant deadline.

Section 3. The Chief Executive Officer and General Manager, or his designee, is authorized to negotiate and execute in the name of Sacramento Municipal Utility District a **CALFIRE Grant** recipient contract as well as all **Grant** documents, including, but not limited to, applications, agreements, amendments and requests for payment, necessary to facilitate **Grant** participation.

SSS No. SCS 23-287

BOARD AGENDA ITEM

STAFFING SUMMARY SHEET

Committee Meeting & Date Finance & Audit – 12/13/23
Board Meeting Date December 14, 2023

TO				TO			
1.	Casey Fallon	6.	Lora Anguay				
2.	Trevor Lamb	7.	Jose Bodipo-Memba				
3.	Amber Connors	8.	Jennifer Davidson				
4.	Suresh Kotha	9.	Legal				
5.	Scott Martin	10.	CEO & General Manager				
Consent Calendar	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<i>If no, schedule a dry run presentation.</i>	Budgeted	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<i>(If no, explain in Cost/Budgeted section.)</i>
FROM (IPR) Dejona Lopez		DEPARTMENT Procurement, Warehouse and Fleet		MAIL STOP EA404	EXT. 5331	DATE SENT 11/17/2023	

NARRATIVE:

Requested Action: Authorize the Chief Executive Officer and General Manager to award a sole source contract to Itron Networked Solutions, Inc. (“Itron”) to purchase hardware, software and professional services to enhance the Advanced Metering Infrastructure (AMI) platform for a one-year term in the amount of \$15 million, plus applicable taxes and fees.

Summary: The AMI platform is comprised of communication infrastructure equipment (smart meters), a communication network and back-office systems, which was originally implemented in 2009 and partially funded by SMUD’s SmartSacramento Smart Grid Investment Grant.

During 2021 and 2022 as part of SMUD’s Next Generation AMI Roadmap, use cases supporting the 2030 Zero Carbon Plan (ZCP) were analyzed. The AMI Roadmap identified the next generation of smart meters as a key enabling technology required to support many of the use cases under the ZCP as they provide advanced functionality and additional data granularity. In October 2023, SMUD was awarded a \$50M grant from the Department of Energy Grid Deployment Office’s Grid Resilience and Innovation Partnerships (GRIP) program, and Itron was identified as a named partner, for new technologies to increase reliability, efficiency and flexibility of the electric grid. As part of the grant, SMUD will deploy 200,000 Itron Riva edge computing sensors with measurement capabilities (smart meters) and eight (8) Distributed Intelligence (DI) applications with deployment beginning in September of 2024 and continuing through the end of 2025. The GRIP grant is SMUD’s first step in our journey to life cycle our meters, replacing 200,000 meters by the end of 2025, as SMUD’s existing smart meters are nearing their end of life. This contract will allow SMUD to move forward with ordering meters to meet the GRIP grant deployment schedule for 2024 and early 2025. Due to global supply chain constraints resulting in lead times of 12+ months, placement of the meter orders must begin by the end of 2023 for the initial quantities needed in 2024 to begin installation by September of 2024. In Q1 2024, SMUD will seek Board approval to negotiate and award a subsequent master agreement with Itron to purchase the remainder of the meters, software and professional services for installation in 2025 and beyond.

Itron is the only meter manufacturer with a commercially available DI enabled meter and associated DI apps deployed at scale, has the only DI enabled meter compatible with our existing AMI mesh network and back-office systems, is a named partner in our GRIP grant, and does not have any resellers; therefore, issuing a competitive solicitation would be an idle act.

The Itron Riva edge computing sensors (smart meters) with measurement capabilities are priced very competitively, within 7.5% on average compared to our existing legacy smart meters that lack the DI enabled capabilities. The cost per meter for the most common form factors is within 3% of their legacy smart meter equivalents. Costs for the software and professional services are found to be competitive when compared to other software products and associated professional services purchased by SMUD. Given this information paired with the fact that the Consumer Price Index (CPI) has increased by 46% since the current contract was put in place, the proposed pricing is considered fair and reasonable.

Recommendation:

Award a Sole Source contract to:

Itron Networked Solutions, Inc.
2111 North Molter Road
Liberty Lake, WA 99019

Comments: This non-standard contract incorporates the terms and conditions of PO 4500060554 that were reviewed and approved by SMUD Risk Management and Legal.

Board Policy: Board-Staff Linkage BL-8, Delegation to the CEO with Respect to Procurement; Strategic Direction SD-4, Reliability; Strategic Direction SD-7, Environmental Leadership
(Number & Title)

Benefits: Allow for the initial purchase of the smart meters, associated software and professional services required to enhance the AMI platform while also meeting supply chain lead time constraints.

Cost/Budgeted: \$15M; Budgeted for 2023-2024 by Information Technology.

Alternatives: If this contract is not approved, SMUD will not be able to fulfill the obligations proposed in the GRIP grant due to supply chain lead time constraints, which would not be in our best interest. Additionally, due to the proprietary nature of the products and services provided by Itron to support our existing network, issuing a competitive solicitation would be an idle act.

Affected Parties: Information Technology, Supply Chain Services, and Itron Networked Solutions, Inc.

Coordination: Information Technology and Supply Chain Services.

Presenter: Casey Fallon, Director, Procurement, Warehouse & Fleet

Additional Links:

SUBJECT

Advanced Metering Infrastructure (AMI) Platform Contract

ITEM NO. (FOR LEGAL USE ONLY)

8

ITEMS SUBMITTED AFTER DEADLINE WILL BE POSTPONED UNTIL NEXT MEETING.

RESOLUTION NO. _____

WHEREAS, the **Advanced Metering Infrastructure (AMI)** platform, originally implemented in 2009 and partially funded by SMUD’s SmartSacramento Grid Investment Grant, is comprised of communication infrastructure equipment (smart meters), a communication network, and back-office systems; and

WHEREAS, in 2021 and 2022, as part of SMUD’s Next Generation AMI Roadmap, use cases supporting the **2030 Zero Carbon Plan** were analyzed next generation smart meters were identified as a key enabling technology required to support many of the use cases due to their advanced functionality and additional data granularity; and

WHEREAS, in October 2023, SMUD was awarded a \$50 million grant from the **Department of Energy Grid Deployment Office’s (DOE) Grid Resilience and Innovation Partnerships (GRIP)** program, wherein **Itron Networked Solutions, Inc. (Itron)** was a named partner, for new technologies to increase reliability, efficiency, and flexibility of the electric grid; and

WHEREAS, as part of the **GRIP** grant, beginning in September 2024 and continuing through 2025, SMUD will deploy 200,000 **Itron** Riva edge computing sensors with measurement capabilities (smart meters) and eight Distributed Intelligence (DI) applications; and

WHEREAS, **Itron** is the only metering manufacturer with a commercially available DI-enabled meter and associated DI apps deployed at scale, has the only DI-enabled meter compatible with SMUD’s existing **AMI** mesh network and existing back-

office system, is a named partner in the **GRIP** grant, and does not have any resellers;
and

WHEREAS, the **Itron** Riva edge computing sensors (smart meters) with measurement capabilities are priced very competitively (within 7.5% on average compared to SMUD's existing legacy smart meters that lack the DI-enabled capabilities), and costs for software and professional services are found to be competitive when compared to other software products and associated professional services purchased by SMUD and thus are considered fair and reasonable; and

WHEREAS, it would not be productive or in the best interest of SMUD to advertise for competitive bids for the products and services referred to above because they can only be obtained from **Itron**; **NOW, THEREFORE**,

**BE IT RESOLVED BY THE BOARD OF DIRECTORS
OF THE SACRAMENTO MUNICIPAL UTILITY DISTRICT:**

Section 1. That the Chief Executive Officer and General Manager, or his designee, is authorized on behalf of SMUD to execute a sole source contract with **Itron Networked Solutions, Inc.** to purchase hardware, software, and professional services to enhance the **Advanced Metering Infrastructure (AMI)** platform for a one-year term in the amount of \$15,000,000, plus applicable taxes and fees.

Section 2. The Chief Executive Officer and General Manager, or his designee, is authorized to make future changes to the terms and conditions of the contract that, in his prudent judgment: (a) further the primary purpose of the contract; (b) are intended to provide a net benefit to SMUD; and (c) do not exceed the authorized contract amount and applicable contingencies.

SSS No.
ET&C 23-078

BOARD AGENDA ITEM

STAFFING SUMMARY SHEET

Committee Meeting & Date Finance & Audit - 12/13/23
Board Meeting Date December 14, 2023

TO				TO			
1.	Chad Adair	6.	Scott Martin				
2.	Jon Olson	7.	Jose Bodipo-Memba				
3.	Russell Mills	8.	Jennifer Davidson				
4.	Heather Wilson	9.	Legal				
5.	Lora Anguay	10.	CEO & General Manager				
Consent Calendar	X Yes	No	<i>If no, schedule a dry run presentation.</i>	Budgeted	X Yes	No	<i>(If no, explain in Cost/Budgeted section.)</i>
FROM (IPR) John Hansen		DEPARTMENT Energy Trading & Contracts		MAIL STOP A404	EXT. 6614	DATE SENT 11/16/23	

NARRATIVE:

Requested Action: Authorize the Chief Executive Officer and General Manager to execute the Temporary Central Valley Project (CVP) Water Transfer Reimbursement Agreement (Agreement) between SMUD and the City of Roseville for the transfer of up to 2,000 acre-feet per year of water of an approximately three-year period from December 1, 2023, through February 28, 2026, and to take such other actions as may be necessary to implement the Agreement.

Summary: SMUD and Roseville staff have negotiated a three-year water transfer of up to 2,000 acre-feet (AF) annually of SMUD’s CVP water to Roseville for the purpose of injection into Roseville’s groundwater storage system. Currently, SMUD has a Water Service Contract with the U.S. Bureau of Reclamation (USBR) for 30,000 acre-feet of water per year. The 2,000 AF/year that SMUD is transferring under this agreement is surplus to SMUD’s needs. Roseville will pay \$250/AF for any water that is scheduled under this agreement. SMUD will then pay USBR for the cost of service of the water (annually variable, ~\$65/AF). Roseville will directly cover or reimburse SMUD for any related consultant fees and USBR staff time.

Both SMUD and Roseville are CVP water contractors, and both agencies are working with the USBR Central California Area Office in Folsom on technical, administrative, and environmental requirements for the water transfer. SMUD Energy Trading & Contracts management and Roseville Environmental Utilities management have met to discuss this process and are in support of the transfer. Roseville staff is taking this agreement to the Roseville City Council on December 6, 2023, for approval and direction for Roseville’s City Manager to sign. SMUD and Roseville are members of the Sacramento Water Forum and publicly disclosed this transfer proposal to the Water Forum membership on August 24, 2023, with no concerns expressed by any of the other members (Environmental Caucus members of the Water Forum include Save the American River Association, Inc., Environmental Council of Sacramento, and Friends of the River).

Board Policy: Strategic Direction SD-2, Competitive Rates; Strategic Direction SD-7, Environmental Leadership; Strategic Direction SD-9, Resource Planning
(Number & Title)

Benefits: Will provide a revenue opportunity for SMUD of up to \$500,000 annually for three years, thereby monetizing an unused asset (SMUD’s CVP water supply). Will strengthen a valuable relationship between SMUD and Roseville. Will improve regional water reliability.

Cost/Budgeted: Energy Trading & Contracts has not budgeted for revenue to SMUD under this agreement.

Alternatives: Do not sign the business agreement. Notify Roseville that SMUD is not interested in a transfer.

Affected Parties: Energy Trading & Contracts, Settlements, Accounting, and Legal

Coordination: Energy Trading & Contracts and Legal

Presenter: Jon Olson, Director, Energy Trading & Contracts

Additional Links:

SUBJECT

SMUD – Roseville Temporary CVP Water Transfer Reimbursement Agreement

ITEM NO. (FOR LEGAL USE ONLY)

9

ITEMS SUBMITTED AFTER DEADLINE WILL BE POSTPONED UNTIL NEXT MEETING.

**SMUD – ROSEVILLE TEMPORARY CVP WATER TRANSFER
REIMBURSEMENT AGREEMENT**

THIS REIMBURSEMENT AGREEMENT (“Agreement”) is made and entered into this ___ day of _____, 20 __, by and between the City of Roseville, a municipal corporation (“CITY”), and Sacramento Municipal Utility District, a municipal utility district (“SMUD”).

W I T N E S S E T H:

WHEREAS, CITY is interested in acquiring a portion of additional Central Valley Water Project (“CVP”) water supply, by permanent contract assignment, from SMUD; and

WHEREAS, the reassigned project water would be stored in the aquifers under CITY using CITY’s Aquifer Storage and Recovery (“ASR”) equipped groundwater wells; and

WHEREAS, CITY has a current need to prove out the “real world” injection capacity of CITY’s existing ASR wells and the data to be gathered would help justify to the U.S. Bureau of Reclamation (“Reclamation”) the capacity of the ASR system to potentially acquire a permanent contract assignment of a portion of SMUD’s CVP water service contract entitlement at some future date under separate agreement; and

WHEREAS, SMUD and CITY agree that a temporary CVP water transfer of up to two thousand (2,000) acre-feet per year over a three (3) year period beginning from December 1, 2023 through February 28, 2026 is an appropriate means of providing the needed ASR data to continue reassignment discussions with the U.S. Bureau of Reclamation, SMUD and CITY; and

WHEREAS, any water used as part of the proposed CVP transfer would be used for purposes of the limited testing of the City’s ASR groundwater and injection well capacity and for developing ASR groundwater system readiness.

NOW, THEREFORE, the parties agree as follows:

1. Purchase of Water by CITY. SMUD agrees to transfer up to two thousand (2,000) acre-feet of project water per year to CITY from SMUD's CVP contract entitlement over an established three (3) year period of December 1, 2023 through February 28, 2026 with such amounts of water not exceeding the annual Not-To-Exceed Reimbursement Amounts established herein as EXHIBIT A. CITY acknowledges and understands the completion of a transfer in any given year is dependent upon Reclamation's determination of whether the water is available and whether Reclamation approves the transfer. SMUD makes no representation or warranty as to the successful completion of one or any of the proposed transfers.

2. Costs and Reimbursements. In exchange for the transfer of available and CVP approved water during the established three (3) year period, CITY will compensate SMUD at the rate of \$250 per acre-foot of water actually received by CITY from SMUD's CVP contract entitlement. CITY shall also bear all costs of reimbursing Reclamation for associated staff work on the transfer, as well as the hiring of necessary consultant(s) for environmental documentation needed for each transfer. Any consultant(s) reasonably hired by SMUD to facilitate the completion of any transfer must be preapproved by the CITY in writing before any such related costs are incurred for reimbursement by CITY, which approval shall not be unreasonably withheld.

If CITY disputes any costs claimed by SMUD for a reasonable cause, the amounts and reasons for the disputed item(s) will be documented in writing to SMUD within thirty (30) days after receipt of an invoice. CITY has the right to request additional documentation, and accounting, and/or audit of the costs presented by SMUD. SMUD shall provide all documents reasonably requested by CITY. All undisputed costs will be reimbursed by CITY within 60 days

following receipt of an invoice from SMUD. As to any disputed costs that are not resolved by their respective staffs, CITY and SMUD will each assign a senior leader to seek to reach an agreement.

3. System Validation. CITY shall be responsible for, at its own cost, the current and planned recharge capacity of CITY'S ASR groundwater infrastructure to determine the technical feasible annual schedule of transferred water, in increments, up to two thousand (2,000) acre-feet of water per year.

4. Term. This Agreement commences upon execution and shall naturally expire by its terms on April 30, 2026 and may be terminated at any time by either party upon providing a thirty (30) day written notice.

5. Completion of Project. CITY shall fully perform all necessary tasks to complete the project in a timely and cost-effective manner. If the project cannot be completed as originally scoped, CITY must, at its own expense, ensure that the project is in a safe condition for the public, that completed components are in service, and that any work performed is completed in a workmanlike fashion.

6. Independent Contractor/No Joint Venture. In the performance of this Agreement and completion of the project, each party will act as and be an independent contractor and not an officer, employee or agent of the other. Neither party has authority to bind or commit the other to any decision or course of action and will not represent to any person or business that it has such power. CITY has and will retain the right to exercise full control of the supervision of the work and the employment, direction compensation and discharge of all persons assisting CITY in the performance of work funded by this Agreement. This Agreement does not create a joint venture, partnership or any other relationship of association or agency among the parties.

7. Indemnification. SMUD shall indemnify, defend and hold harmless CITY, and CITY's officers, directors, agents, employees, and volunteers against all claims, liabilities, damages and expenses ("Claims") including, without limitation, claims for injury to or death of any person, or damage (including contamination) to any property, natural resources or the environment to the extent caused by or arising out of SMUD's performance or failure to perform its obligations under this Agreement unless the Claim(s) is subject to CITY's Indemnification, below.

CITY shall indemnify, defend and hold harmless SMUD, its officers, directors, agents, employees and volunteers against all claims, liabilities, damages and expenses ("Claims") including, without limitation, claims for injury to or death of any person, or damage (including contamination) to any property, natural resources or the environment to the extent caused by or arising out of CITY's performance or failure to perform its obligations under this Agreement unless the Claim(s) is subject to SMUD's indemnification, above.

It is the intention of CITY and SMUD that when fault is determined to have been contributory, principles of comparative fault will be followed and each party shall bear the proportionate cost of any damage attributable to the fault of that party, its officers, directors, agents, employees, contractors, volunteers, and CITY Council. The foregoing requirements are not intended to and may not in any manner limit or qualify the liabilities and obligations otherwise assumed by CITY or SMUD pursuant to this Agreement.

8. Third Party Beneficiaries. Nothing in this Agreement is intended to make the public or any member thereof a third party beneficiary hereunder, and no term or condition or other provision of this Agreement is intended to establish a standard of care owed to the public or any member thereof.

9. Insurance. Each party, at its sole cost and expense, shall carry insurance, or self-insure, its activities in connection with this Agreement, and obtain, keep in force and maintain, insurance or equivalent programs of self-insurance, for general liability, workers compensation, and business automobile liability adequate to cover its potential liabilities hereunder. Each party agrees to provide the other 30 days' advance written notice of any cancellation, termination, or lapse of any of the insurance or self-insurance coverages.

10. Third Party Obligations. SMUD is solely liable to third parties with whom it, in its sole discretion, enters into contracts to facilitate one or more transfers under this Agreement. SMUD will pay directly such parties for all amounts due. SMUD must indemnify and hold CITY harmless from any and all claims and liabilities arising from contracts between SMUD and third parties. CITY's only obligation with respect to such third parties will be limited to reimbursement to SMUD for those expenses that CITY is obligated to reimburse pursuant to Section 2.

11. Time is of the Essence. Time is of the essence of this Agreement.

12. Compliance with Laws. Each party shall comply with all federal, state and local laws, ordinances and policies as may be applicable to its obligations under this Agreement.

13. Governing Agreement. In the event of any conflict between this Agreement and its EXHIBITS, the provisions of this Agreement shall govern. In the event of any conflict between any of the EXHIBITS, the provisions of the first in order of attachment shall govern.

14. Assignment. Neither party may assign this Agreement without the prior written consent of the other.

15. Successors in Interest. This Agreement shall be binding upon the heirs, successors, executors, administrators and assigns of the respective parties hereto.

16. Attorney's Fees; Venue; Governing Law. If either party commences any legal action against the other party arising out of this Agreement or the performance hereof, the prevailing party in such action shall be entitled to recover its reasonable litigation expenses, including but not limited to, court costs, expert witness fees, discovery expenses, and attorney's fees. Any action arising out of this Agreement shall be brought in any county other than Sacramento or Placer County, California, regardless of where else venue may lie. This Agreement shall be governed by and construed in accordance with the laws of the State of California.

17. Modification. This Agreement and each provision contained herein may be waived, amended, supplemented or eliminated only by mutual written agreement of the parties.

18. Severability. If any of the provisions contained in this Agreement are for any reason held invalid or unenforceable, such holding shall not affect the remaining provisions or the validity and enforceability of the Agreement as a whole.

19. Notices. Any notices to parties required by this Agreement shall be delivered personally or mailed, U.S. first class postage prepaid, addressed as follows:

CITY OF ROSEVILLE

City of Roseville
City Clerk's Department
311 Vernon Street,
Roseville, CA 95678

SMUD

Sacramento Municipal Utility District
Power Contracts Administration, MSA404
6301 S Street
Sacramento, CA 96817-1899

Either party may amend its address for notice by giving notice to the other party in writing.

20. Integrated Agreement. This is an integrated agreement and contains all of the terms, considerations, understanding and promises of the parties. It shall be read as a whole.

IN WITNESS WHEREOF, the City of Roseville, a municipal corporation, has authorized the execution of this Agreement in duplicate by its City Manager and attested to by its City Clerk under the authority of Resolution No. _____, adopted by the Council of the City of Roseville on the ___ day of _____, 20 __, and SMUD has caused this Agreement to be properly executed.

CITY OF ROSEVILLE, a
municipal corporation

SACRAMENTO MUNICIPAL UTILITY
DISTRICT

BY: _____
DOMINICK CASEY
City Manager

BY: _____
LORA ANGUAY
Chief Zero Carbon Officer

ATTEST:

APPROVED AS TO FORM:

BY: _____
CARMEN AVALOS
City Clerk

BY: _____
JOE SCHOFIELD
Deputy General Counsel

APPROVED AS TO FORM:

BY: _____
MICHELLE SHEIDENBERGER
City Attorney

APPROVED AS TO SUBSTANCE:

BY: _____
RICHARD D. PLECKER
Environmental Utilities Director

RESOLUTION NO. _____

WHEREAS, SMUD has a water service contract with the **U.S. Bureau of Reclamation (USBR)** for 30,000 acre-feet of municipal and industrial water per year from the **Central Valley Project (CVP)**; and

WHEREAS, SMUD's present water needs do not require use of its full contractual entitlement; and

WHEREAS, SMUD and the **City of Roseville (Roseville)** propose to enter into a **Temporary CVP Water Transfer Reimbursement Agreement (Agreement)** whereby SMUD will provide to **Roseville** up to 2,000 acre-feet (AF) of **CVP** water per year for three years; and

WHEREAS, **Roseville** will pay \$250/AF for any water scheduled under the **Agreement** and will directly cover or reimburse SMUD for any related consultant fees and **USBR** staff time; and

WHEREAS, SMUD will pay **USBR** for the cost of service of the water which varies annually but is approximately \$65/AF; and

WHEREAS, SMUD staff and **Roseville** staff are working with USBR to ensure and meet technical, administrative, and environment requirements for the water transfer; and

WHEREAS, SMUD and **Roseville** are members of the **Sacramento Water Forum** and publicly disclosed this transfer proposal to the membership on August 24, 2023, with no concerns expressed; **NOW, THEREFORE**,

**BE IT RESOLVED BY THE BOARD OF DIRECTORS
OF THE SACRAMENTO MUNICIPAL UTILITY DISTRICT:**

Section 1. That the Chief Executive Officer and General Manager, or his designee, is authorized on behalf of SMUD to execute the **Temporary CVP Water Transfer Reimbursement Agreement (Agreement)**, substantially in form set forth in **Attachment ____**, for the approximate three-year period from December 1, 2023, through February 28, 2026, and to take such other actions as may be necessary to implement the **Agreement**.

Section 2. The Chief Executive Officer and General Manager, or his designee, is authorized to make future changes to the terms and conditions of the contract that, in his prudent judgment: (a) further the primary purpose of the contract; (b) are intended to provide a net benefit to SMUD; and (c) do not exceed the authorized contract amount and applicable contingencies.

SSS No. SCS-23-288

BOARD AGENDA ITEM

STAFFING SUMMARY SHEET

Committee Meeting & Date Finance & Audit – 12/13/23
Board Meeting Date December 14, 2023

TO				TO						
1.	Robert Adams	6.	Jennifer Davidson							
2.	Casey Fallon	7.	Lora Anguay							
3.	Eric Poff	8.	Scott Martin							
4.	Frankie McDermott	9.	Legal							
5.	Jose Bodipo-Memba	10.	CEO & General Manager							
Consent Calendar	x	Yes		No <i>(If no, schedule a dry run presentation.)</i>		Budgeted	x	Yes	No <i>(If no, explain in Cost/Budgeted section.)</i>	
FROM (IPR) Katherine Manne				DEPARTMENT Procurement				MAIL STOP EA404	EXT. 6175	DATE SENT 11/17/23

NARRATIVE:

Requested Action: Authorize the Chief Executive Officer and General Manager to enter into Master Service Agreements (MSA) and finalize terms and conditions with Arrow Construction (Arrow), Henkels and McCoy West, LLC (H&M), Kiewit Transmission Services, Inc. (Kiewit), and Wilson Utility Construction Company (Wilson) for Substation Construction Services for a contract term of five years from December 21, 2023, to December 20, 2028, for a total contract aggregate not-to-exceed amount of \$200 million.

Summary: Request for Qualification (RFQ) No. Doc4026185446 was issued in May 2023 to technically qualify proposers for a subsequent Request for Proposals. SMUD received 15 proposals in response to the RFQ, and ultimately pre-qualified 13 contractors to participate in the subsequent Request for Proposals (RFP). RFP No. Doc4087506649 was issued in June 2023 to solicit for qualified firms to provide distribution and transmission substation construction services. A pre-proposal conference was held on July 31, 2023. On September 9, 2023, five proposals were received and evaluated in accordance with the advertised criteria. Of the five proposals received, four were responsive. SMUD initiated negotiations with all four of the responsive proposers, which has resulted in a price reduction on labor and construction equipment of ~1.5% on Arrow’s pricing proposal, ~25.6% on H&M’s pricing proposal, ~49.3% on Kiewit’s pricing proposal, and ~5.4% on Wilson’s pricing proposal. The average labor and equipment pricing of the four contractors has been reduced by ~22.7% following negotiations. With five distribution and one transmission substation projects planned per year, this could equate to ~\$3.6M in annual savings.

The final pricing from Arrow, H&M, Kiewit, and Wilson is highly competitive, and, coupled with their technical score, this supports the recommendation to award contracts to the four highest rated proposers. Awarding four zero-dollar contracts with an aggregate amount of all tasks non-to-exceed \$200,000,000 for five years gives the business unit flexibility and mitigates the risk of work disruption. The result of the evaluation and award recommendations are shown below.

Recommendation: Award to the Highest Evaluated Responsive Proposers.

Award to:

Arrow Construction	Henkels & McCoy West, LLC	Kiewit Transmission Services, Inc.	Wilson Utility Construction Company
1850 Diesel Drive	2840 Ficus Street	1755 Creekside Oaks, Drive, Suite 290	1190 NW Third Avenue
Sacramento, CA 95838	Pomona, CA 91766	Sacramento, CA 95833	Canby, OR 97013

Proposers Notified by Procurement: [RFQ-92, RFP-77](#)

Proposers Downloaded: [RFQ-26, RFP-18](#)

Pre-Proposal Conference Attendance: [RFQ-37, RFP-12](#)

Proposals Received: [RFQ-13, RFP-5](#)

Responsive Proposals Received	P/F	SEED Points	Technical Points	Price Points	RFQ Score	Total Score	Rank	Proposal Amount	Evaluated Proposal Amount	Proposed Award Amount
		10	65	25	100	200				
Arrow Construction	P	10.0	41.50	19.22	64.40	135.12	3	\$11,643,094.19	\$11,393,094.19	Not-To-Exceed \$200,000,000 Aggregate Amount of all Task Authorizations
Henkels & McCoy West	P	0.0	34.20	19.69	85.00	138.89	2	\$9,941,174.79	\$9,941,174.79	
Kiewit Transmission Services, Inc.	P	3.99	34.20	21.09	73.60	132.87	4	\$7,491,142.86	\$7,461,290.66	
Wilson Utility Construction Company	P	10.0	41.95	21.15	85.20	158.30	1	\$9,872,734.01	\$9,622,734.01	

Non-Responsive Proposal Received	Proposal Amount
PAR Western Line Contractors, Inc.	\$23,035,531.09

Comments: N/A.

Supplier Diversity Program: Wilson is the highest rated contractor, and proposed to self-perform 64% of the work, and to subcontract 21% to SEED-verified subcontractors. H&M is the 2nd highest contractor and proposed to self-perform 98% of the work. Arrow is the 3rd highest rated contractor, is a SEED-verified contractor, and has proposed to self-perform 36% of the work, and to subcontract 13% to SEED-verified subcontractors. Kiewit is the 4th highest rated contractor, and proposed to self-perform 91% of the work, and to subcontract 8% to SEED-verified subcontractors.

Board Policy: Board-Staff Linkage BL-8, Delegation to the CEO with Respect to Procurement; Strategic Direction SD-4, Reliability; Strategic Direction SD-6, Safety Leadership; Strategic Direction SD-13, Economic Development.
(Number & Title)

Benefits: Award will provide SMUD with four qualified contractors to execute transmission and distribution substation construction services.

Cost/Budgeted: \$200,000,000; Budgeted for 2023 through 2028 by Substation, Telecom, and Metering

Alternatives: Do not award MSAs and source contracts for each substation construction project individually as needed.

Affected Parties: Substation Group, Supply Chain Services, and Contractor.

Coordination: Substation, Telecom, and Metering, and Supply Chain Services.

Presenter: Eric Poff, Director Substation, Telecommunications, and Metering Assets

Additional Links:

SUBJECT

Award Master Service Agreements for Substation Construction Services

ITEM NO. (FOR LEGAL USE ONLY)

10

ITEMS SUBMITTED AFTER DEADLINE WILL BE POSTPONED UNTIL NEXT MEETING.

RESOLUTION NO. _____

WHEREAS, in May 2023, SMUD issued Request for Qualification (RFQ) No. Doc4026185446 to technically qualify proposers for a subsequent Request for Proposals (RFP), received 15 proposals in response, and ultimately pre-qualified 13 contractors to participate in the RFP; and

WHEREAS, in June 2023, SMUD issued RFP No. Doc4087506649 to solicit qualified firms to provide distribution and transmission substation construction services; and

WHEREAS, four proposals submitted in response to RFP No. Doc4087506649 were evaluated; **NOW, THEREFORE**,

**BE IT RESOLVED BY THE BOARD OF DIRECTORS
OF THE SACRAMENTO MUNICIPAL UTILITY DISTRICT:**

Section 1. As a result of such examination, **Arrow Construction (Arrow)**, **Henkels and McCoy West, LLC (H&M)**, **Kiewit Transmission Services, Inc. (Kiewit)**, and **Wilson Utility Construction Company (Wilson)** are hereby determined and declared to be the four highest evaluated responsive proposers for Substation Construction Services.

Section 2. The Chief Executive Officer and General Manager, or his designee, is authorized, on behalf of SMUD, to enter into Master Service Agreements (MSAs) and finalize terms and conditions with **Arrow, H&M, Kiewit,** and **Wilson** for Substation Construction Services for a contract term of five years from December 21, 2023, to December 21, 2028, for a total aggregate contract not-to-exceed amount of \$200,000,000.

Section 3. The Chief Executive Officer and General Manager, or his designee, is authorized to make future changes to the terms and conditions of the contracts that, in his prudent judgment: (a) further the primary purpose of the contracts; (b) are intended to provide a net benefit to SMUD; and (c) do not exceed the authorized contract amounts and applicable contingencies.

SSS No. LEG 2023-0132

BOARD AGENDA ITEM

STAFFING SUMMARY SHEET

Committee Meeting & Date Policy – 12/13/23
Board Meeting Date December 14, 2023

TO	TO
1. Steve Lins	6.
2. Brandy Bolden	7.
3. Farres Everly	8.
4. Jennifer Davidson	9. Legal
5. Suresh Kotha	10. CEO & General Manager

Consent Calendar	<input checked="" type="checkbox"/>	Yes	No <i>If no, schedule a dry run presentation.</i>	Budgeted	<input checked="" type="checkbox"/>	Yes	No <i>(If no, explain in Cost/Budgeted section.)</i>
FROM (IPR) Dani Roberts	DEPARTMENT Government Affairs			MAIL STOP B404	EXT. 6419	DATE SENT 11/17/23	

NARRATIVE:

Requested Action: Accept the monitoring report for **Strategic Direction SD-11, Public Power Business Model.**

Summary: The 2023 annual monitoring report (link below) provides the Board with a status report of legislation and regulations that impact SD-11, Public Power Business Model. This core value was established to support public power and preserve local decision making.

Board Policy: Strategic Direction SD-11, Public Power Business Model
(Number & Title)

Benefits: Receive input and opportunity to make corrections, additions, or changes if necessary.

Cost/Budgeted: Costs contained in internal labor budget.

Alternatives: Provide to the Board via memo or written report.

Affected Parties: SMUD and Board of Directors

Coordination: Executive Office, Board Office, Government Affairs and Legal Department

Presenter: Steve Lins, Deputy General Counsel and Director of Government Affairs

Additional Links:

SUBJECT Monitoring Report – SD-11, Public Power Business Model	ITEM NO. (FOR LEGAL USE ONLY) 11
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ITEMS SUBMITTED AFTER DEADLINE WILL BE POSTPONED UNTIL NEXT MEETING.

SACRAMENTO MUNICIPAL UTILITY DISTRICT

OFFICE MEMORANDUM

TO: Board of Directors

DATE: November 29, 2023

FROM: Claire Rogers *CR 11/29/23*

**SUBJECT: Audit Report No. 28007615
Board Monitoring Report; SD-11: Public Power Business
Model**

Internal Audit Services (IAS) received the SD-11 *Public Power Business Model* 2023 Annual Board Monitoring Report and performed the following:

- Selected a sample of statements and assertions in the report for review.
- Interviewed report contributors and verified the methodology used to prepare the statements in our sample.
- Validated the reasonableness of the statements in our sample based on the data or other support provided to us.

During the review, nothing came to IAS' attention that would suggest the items sampled within the SD Board Monitoring report did not fairly represent the source data available at the time of the review.

CC:

Paul Lau



Board Monitoring Report 2023

SD-11, Public Power Business Model

1. Background

Strategic Direction [11](#), Public Power Business Model states that:

Supporting and strengthening the public power business model is a core value. Local decision making and flexibility are essential to effective and responsible local governance. Community-owned utilities are primarily accountable to their customers, not stockholders. Community citizens have a direct voice in public power decisions.

Preservation of this business model is vital to ensure public power systems continue to provide innovative solutions tailored to best meet the needs of their customers and communities.

2. Executive Summary

SMUD is in compliance with SD-11.

The SD-11 monitoring report updates the Board on our efforts to insulate SMUD from issues that may impact our local governance and provide the Board with a final status report on 2023 issues impacting this strategic directive. SMUD's interests are advanced in the legislative and regulatory arenas to the greatest extent possible. For instance, SMUD meets with key federal and state officials, both elected and appointed, with the driving purpose of educating them on the impact of new and existing policy.

State Legislative. SMUD had several victories this year in the California Legislature that advanced the public power business model to ensure local decision making and flexibility. SMUD defended against legislation that would have forced publicly-owned utilities (POUs) to allow attachments to utility poles without appropriate safeguards in place if a short shot-clock approval timeline was not met [Assembly Bill (AB) 965] and secured amendments to remove POUs not within the California Independent System Operator (CAISO) from a planning reserve margin fee assessed by the California Energy Commission (AB 1373). SMUD also worked through our trade associations to remove special districts from a bill that would have required us to change our website and email domains to .ca.gov or .gov (AB 1637). Further, SMUD helped advance legislation to protect rate-making authority [Assembly Constitutional Amendment (ACA) 13] and allow remote Board meetings during emergencies (AB 557). SMUD also worked through a broad coalition to secure funding for electric vehicle infrastructure through the Clean Transportation Program (AB 126).

State Regulatory. SMUD engaged in numerous proceedings before state agencies this year, chiefly the California Energy Commission (CEC) and California Air Resources Board (CARB), to advance the public power business model. Most notably, SMUD and our associations successfully influenced the development of the CARB's Advanced Clean Fleets regulation, which requires public agencies and large commercial fleets to transition all medium- and heavy-duty (MHD) vehicles to zero-emission beginning in 2024, to add compliance flexibility measures while supporting the trajectory to electrify MHD vehicle fleets. Key changes in the final rule included securing a fleet averaging compliance option for public fleets as an alternative to purchase mandates and expanding the conditions for seeking an exemption.

SMUD tracked and participated in numerous agency proceedings for opportunities to advance

SMUD's strategic directives, protect jurisdictional limits, and monitor potential changes to industry standards. These include, but are not limited to:

- CARB's Cap-and-Trade pre-rulemaking proceeding (ongoing) where SMUD continues to advocate to preserve allowance allocations for POU's and flexibility regarding allowance disposition.
- CARB's Low Carbon Fuel Standard (LCFS) pre-rulemaking proceeding (ongoing), where through our associations, SMUD is advocating for increased program stringency to promote additional transportation emissions reductions and support credit prices and changes to utility spending requirements to increase flexibility and adaptability.
- CEC's Demand Side Grid Support (DSGS) and Distributed Electricity Backup Assets (DEBA) program implementation, where SMUD and the California Municipal Utilities Association (CMUA) influenced program guidelines to provide greater flexibility for POU-administered programs and dedicated funding for projects in POU service areas.
- CEC's Power Source Disclosure (PSD) pre-rulemaking proceeding (currently ongoing), where SMUD and our associations are advocating to ensure that implementation of hourly greenhouse gas (GHG) accounting requirements and other changes to the PSD program are accurate and within the statutory authority.
- California Public Utilities Commission (CPUC) investigation into a new statewide database of utility poles and conduits (ongoing), where through our associations, SMUD advocated against assertion of jurisdiction over POU's.
- Office of Energy Infrastructure Safety (OEIS) development of potential recommendations to the CPUC regarding wildfire-related General Orders (ongoing), which could impact the industry standards SMUD follows.

Finally, SMUD worked closely with agency staff on the successful approval of SMUD's Neighborhood SolarShares program as a community solar program under the CEC's 2022 Energy Code, and SMUD's application to use LCFS credit proceeds to fund workforce development programs in accordance with LCFS equity spending requirements. SMUD also continued coordination with the CEC regarding SMUD's compliance approach for the newly adopted Load Management Standards regulations, which took effect in April 2023.

Federal. SMUD has secured a \$50 million grant from the Department of Energy's (DOE) Grid Resilience and Innovation Partnership (GRIP) Program which will help fund our Connected PowerCity Project. This \$156 million project will develop the next generation of smart grid infrastructure here in Sacramento showcasing public power's ingenuity by deploying a technology ecosystem enabling interactive energy management relationships between SMUD and our customers.

On the legislative front, SMUD has been active in the appropriations process, which determines the level of funding available for high-priority grant programs authorized in the Infrastructure Investment and Jobs Act (IIJA) and the Inflation Reduction Act (IRA), as well as defended against proposals to reverse the direct pay provisions enacted in the IRA. SMUD submitted earlier this year a Congressionally Directed project, or earmark request, to offices for Senators Feinstein and Padilla for a battery storage fire safety training initiative which was not selected to proceed among the Senators' appropriation submissions. However, SMUD was awarded an earmark of \$3 million dollars for a total project cost of \$6 million dollars. Using this funding, SMUD plans to electrify 300 homes in the Meadowview neighborhood. This request was made and awarded through Representative Matsui's office.

Defensive positions included advocating against legislation that would rescind energy tax credits and the ability to elect direct payment of tax credits in House legislation to raise the debt limit. In a legislative

victory, the provisions rescinding SMUD's favored provisions were dropped from the final bill.

In the regulatory arena, SMUD worked with numerous coalitions on comments responding to the U.S. Environmental Protection Agency's (EPA) proposal to curb greenhouse gases from new and existing fossil-fueled power plants. SMUD also continued engagement with the Federal Energy Regulatory Commission (FERC) on dockets related to cost allocation and transmission planning. SMUD continues to develop its enterprise-wide grant capture program to respond to federal funding opportunity announcements and build relationships with key officials and new offices within the DOE in charge of IJJA grant guidance and implementation efforts.

Community Choice Aggregators (CCA). AB 117 (2002) created Community Choice Aggregation and authorized local governments to aggregate customer electric load and become the default power provider in the service territory of an incumbent investor-owned utility (IOU). SMUD responded by offering to provide operational services to CCAs.

Today, SMUD offers the following services: contact center services, billing services, data management services, analytics services, program design and administration services, marketing services, and market research, and debt collection services. Current clients include: Valley Clean Energy (VCE), Ava Community Energy (formerly known as East Bay Community Energy), Silicon Valley Clean Energy (SVCE), Marin Clean Energy (MCE), and Sonoma Clean Power (SCP). CCAs enable their customers to access many of the same public power benefits that SMUD and other POUs have provided millions of Californians. Our support of CCAs promotes public power. CCAs also have aggressive carbon reduction goals similar to SMUD's. Our support of CCAs promotes carbon reduction regionally. SMUD is leveraging our decades of experience as a utility, staff expertise, and existing systems to provide skilled services to CCAs, generating new revenue and strengthening SMUD's ability to provide cost effective public power service to our customers.

There are currently over 24 active CCAs in California, representing nearly half of the state, and additional ones emerging or investigating the feasibility of starting a new CCA. The potential for new CCA clients for SMUD is great.

Western Energy Imbalance Market (EIM) and Extended Day-Ahead Market (EDAM)

SMUD continues to see significant benefits with its participation in the CAISO's EIM since joining in 2019 through the Balancing Authority of Northern California (BANC). On March 25, 2021, the remaining BANC Balancing Authority Area (BAA) footprint joined the EIM. This broader BANC resource participation has resulted in greater economic benefits and a better ability to integrate and manage intermittent resources within the BANC footprint.

SMUD and BANC, as well as other EIM participants, have supported the extension of the EIM real-time framework to the CAISO's day ahead market under the CAISO's EDAM initiative. After a few years of discussions, direct involvement with the CAISO and a handful of other stakeholders, and broader stakeholder meetings to develop an EDAM proposal, the CAISO filed a tariff amendment with FERC in August 2023. Pending FERC's approval of the filing, to which SMUD also filed supportive comments, EDAM implementation activities are planned for 2024 with EDAM launch as early as 2025. SMUD plans to participate in EDAM beginning in the 2026 timeframe, depending on its implementation efforts and coordination with other BANC participants. SMUD views EDAM as an important step forward in the evolution of Western energy markets and it aligns well with SMUD's 2030 Zero Carbon Plan goals.

As SMUD's Strategic Plan indicates, internal and external factors are driving our business and shaping our business model. Legislative and regulatory uncertainty continues to be a threat to the Public Power Business Model (SD-11). SMUD takes positions on legislation and regulations based on the Board's Strategic Direction.

3. Additional Supporting Information

Local decision making and flexibility are essential to effective and responsible local governance. We continued to guard local decision-making and flexibility as we pursue innovative solutions that meet the needs of our customers and our community. High priority 2023 issues were as follows:

- Meetings with state legislators to highlight SMUD's legislative priorities to advance the public power business model.
- Securing amendments to remove applicability on onerous requirements to SMUD (e.g., AB 965, AB 1637, AB 1373).
- Advocating for the passage of ACA 13 to protect local governments' fee and rate authority.
- Supporting AB 557, which eliminates the sunset date on provisions of law allowing local agencies to use teleconferencing without complying with specified Brown Act requirements during a state of emergency.
- Working with coalition of electric vehicle (EV) advocates to secure reauthorization of Clean Transportation Program funding (AB 126).
- Grants capture initiatives to support SMUD's 2030 Zero Carbon Plan, including the GRIP II grant, the Recompete grant, and Matsui earmark.
- Advocating for favorable outcomes in the appropriations process, which determines the level of funding available for high-priority grant programs authorized in the Infrastructure Investment and Jobs Act (IIJA) and the Inflation Reduction Act (IRA).
- Defending against proposals to reverse the direct pay provisions enacted in the IRA.
- Meetings with CEC Commissioners to educate key policy decision-makers on activities and needs related to SMUD's 2030 Zero Carbon Plan, including transportation electrification, building electrification, and load flexibility, to advance the public power business model.
- Securing changes to the Advanced Clean Fleets regulation to increase compliance options for public agencies and improve the transparency and scope of the exemption process.
- Advocating to preserve POU allowance allocations and flexibility regarding allowance value within the Cap-and-Trade program.
- Continued outreach to the CEC regarding SMUD's compliance approach to the Load Management Standards regulation, as well as the development of SMUD's compliance plan.
- Advocating at the CEC for funds from, and flexible program guidelines to implement, the Demand Side Grid Support (DSGS) and Distributed Energy Backup Assets Program (DEBA) Programs to support grid investment.
- Working with the California Electric Transportation Coalition (CaIETC) and partners to encourage changes to strengthen the LCFS program and update utility spending requirements.
- Securing approval of SMUD's application to serve as community solar administrator of Neighborhood SolarShares under the 2022 Energy Code.
- Securing approval of SMUD's application to use LCFS equity proceeds for workforce development programs.
- Working with trade associations to monitor and respond to proposals that could impact jurisdictional authority (e.g., pole attachments proceeding).
- Periodic meetings with CARB staff to advocate for consideration of electricity reliability and affordability in the development of programs, policies, and regulations impacting the electricity sector.

4. Challenges:

SMUD continues to face prescriptive legislative and regulatory mandates for carbon reduction, renewable energy, resources planning, and building and vehicle electrification, in part because

of the State's robust climate change goals and their potential interplay with pending federal regulations. With SMUD customers still struggling as energy costs continue to rise, it is particularly important to defend against mandates that increase costs for SMUD. At the state level, an increased interest by legislators and the Governor in both reliability and climate change led to legislative action in the form of planning reserve margin requirements and the creation of a central procurement entity (optional for POU's).

While state policy is increasingly recognizing the importance of a diverse set of resources to reliably and affordably achieve electric sector decarbonization goals, uncertainty remains regarding the definition of "zero-carbon resources," particularly emerging technologies, for purposes of the state's long-term goals. This uncertainty and potential lag time in updating state policy and regulations may pose some challenges for SMUD, as a POU that is making early investments in emerging technologies to support decarbonization goals that are faster than those of the state. For example, next year the CEC and CARB will also be preparing reports that consider and evaluate the potential role of resources like hydrogen, carbon capture and sequestration, and long duration storage, in contributing to the state's goals. The CEC will also be leading the development of the next SB 100 Joint Agency Report, which will evaluate the tradeoffs of various scenarios – including one with no combustion of biogas, carbon capture, or hydrogen – to inform state policymakers. SMUD will continue to advocate for policies that recognize the renewable and zero-carbon resources needed to decarbonize our grid.

Changes to Cap-and-Trade are on the horizon, and CARB staff has signaled both a need to reduce allowance allocations and interest in more prescriptive requirements for the disposition of allowance value. In addition, the CEC is preparing for a rulemaking to implement hourly GHG emissions accounting and reporting requirements for SMUD and other large utilities as part of the Power Source Disclosure program. The new requirements will be highly complex, and it will be critical to ensure that implementation is accurate, understandable, and fair.

SMUD will continue to advocate for the advancement of beneficial transportation and building electrification, along with consideration of utility needs for accelerating the enabling infrastructure. Transportation electrification has been a priority for this Administration, with Governor Newsom's executive order to require that all new cars and passenger trucks sold in California be zero-emission vehicles by 2035 and CARB's Advanced Clean Cars II regulation that took effect at the end of 2022. Moreover, with the Advanced Clean Fleets regulation taking effect in January 2024, the CEC, CARB, and CPUC are all focusing on efforts to deploy the necessary infrastructure to support zero-emission vehicles and freight, which may include recommendations for mandates. Changes to the LCFS are also on the horizon; while many of the current proposals are expected to be positive, SMUD and our associations are also monitoring for potential changes regarding the recipients of base credits and the impacts of CARB's proposal to phase out avoided methane crediting for dairy digesters.

Additionally, SMUD continues to monitor CPUC proceedings that may attempt to assert jurisdiction over POU's (e.g., pole and conduits database, demand flexibility through dynamic rates, discharge permitting for electric utility maintenance tasks, resiliency activities, and General Orders).

5. Recommendation

It is recommended that the Board accept the Monitoring Report for SD-11.

Appendices

State Legislation that Impacted SD-11

ACA 13 (Ward) Voting Thresholds

ACA 13, a proposed constitutional amendment, requires any constitutional amendments proposed by initiative that call for an increase in the threshold vote requirement be approved by the same proportion of votes cast as the measure would require for future local measures.

SMUD Position: Support. SMUD's advocacy, including Board involvement, proved vital in getting this legislation over the finish line.

Status: This legislation passed through the legislature and does not need action by the Governor. It will be on the November 2024 ballot and must be approved by a majority of California voters.

Staff Comment: This proposed constitutional amendment is in response to the California Business Roundtable (CBRT) initiative, which would jeopardize local government revenues and hinder local governments' ability to deliver essential services. Under current law, it would take only a simple majority vote to pass the CBRT measure, but, with ACA 13, it would need to be approved by a two-thirds vote.

AB 965 (Carrillo) Broadband Permit Applications

This bill would have required POU's (in addition to cities and counties) to undertake batch broadband permit processing upon receiving two or more "substantially similar" broadband permit applications submitted at the same time, within a reasonable time. If the POU did not approve or reject those batch permits in a reasonable time, the permits would be deemed approved.

SMUD Position: Oppose unless amended. Once amendments were taken to remove POU's from the bill's requirements, SMUD moved to a neutral position.

Status: Signed by the Governor without provisions that impact SMUD

Staff Comment: There would have been significant safety concerns with this bill, particularly in deeming pole attachments approved if we do not meet the review shot clock. SMUD opposed the bill with a very strong letter and effective advocacy, including in meetings with the Board and our legislative delegation, resulting in the removal of POU's from the bill. The bill passed and was signed by the Governor, setting forth requirements for cities and counties.

AB 1373 (Garcia) Energy

This urgency bill that required a two-thirds vote, became law as soon as the Governor signed it on October 7. At a high level, the bill requires the CEC to produce a report by January 31, 2024, assessing every POU's planning reserve margin (PRM) and whether each POU met it. The report will also look at how POU PRMs stack up against the CPUC standards for 2023. The CEC Executive Director is required to assess a capacity payment on POU's that serve load in the CAISO which are found to be short on their PRM in any month when the Strategic Reliability Reserve is used to maintain grid reliability. The bill also provides a mechanism for the Department of Water Resources to centrally procure various electric generating and storage resources. Costs will be borne by customers of load-serving entities. POU's can voluntarily participate in a centrally procured resources.

SMUD Position: Neutral once priority amendments were included in bill. Previously held an oppose unless amendment position.

Status: Signed by Governor. Became law on October 7 as an urgency measure.

Staff Comment: SMUD staff advocated heavily on this bill. The idea initially came about through the Governor's proposed budget and morphed into a policy bill. We had an oppose unless amended position on the bill. The amendments we sought were to remove non-CAISO POU's from the PRM requirements and to get some clarification on the central procurement entity. With the narrowing of the central procurement entity and the removal of non-CAISO POU's from the PRM, we became neutral on the bill.

AB 1637 (Irwin) Internet Websites and Email Addresses

This bill requires local agencies to adopt a .ca.gov or .gov domain name. This would have included special districts, as well as cities and counties, but we successfully advocated to get special districts removed from the bill.

SMUD Position: Worked through CMUA and the California Special Districts Association (CSDA) to express our concerns.

Status: Signed by Governor

Staff Comment: The impact would have been widespread, costly, and potentially have impacts to our cyber security efforts. We successfully advocated to get special districts removed from the bill, but we anticipate a similar effort to resurface next year.

AB 557 (Hart) Local Agencies: Teleconferences

This bill removes the January 1, 2024 sunset in current law for local agency governing bodies to hold remote, instead of in-person, meetings during states of emergencies. It also extends the period that a local agency body must make findings of a continuing emergency from every 30 days to every 45 days.

SMUD Position: Support

Status: Signed by Governor

Staff Comment: CSDA sponsored the bill, and SMUD supported it.

SB 57 (Gonzalez) Disconnection of Residential Service

This bill would have required an electrical corporation, local publicly owned electric utility, gas corporation, local publicly owned gas utility, water corporation, or local agency that owns a public water system to postpone the disconnection of a customer's residential service for nonpayment of a delinquent account when the temperature will be 32 degrees Fahrenheit or cooler, or 95 degrees Fahrenheit or warmer, within the utility's service area during the 24 hours after that service disconnection would occur.

SMUD Position: None

Status: Two-Year Bill

Staff Comment: The bill died before it had a hearing, but we, along with other CMUA members, expressed concern immediately. This could have significant financial impacts and presents jurisdictional concerns.

AB 735 (Berman) Workforce Development: Utility Careers

This bill establishes the High Road Utility Careers program to connect existing resources with individuals interested in careers in the utility sector.

SMUD Position: Support
Status: Two-Year Bill

Staff Comment: The bill is sponsored by CMUA, and SMUD is supporting the bill. It unfortunately didn't pass this year, but we will continue to support if it moves forward next year.

AB 538 (Holden) Multistate Regional Transmission System Organization: Membership

This bill authorizes the CAISO to submit a Regional Transmission Organization (RTO) governance plan to the CEC. This would essentially be the first step to allow for a west-wide RTO. The bill included language to make a POU's participation optional.

SMUD Position: SMUD does not have a position on the bill, but we engaged in conversations and watched it closely. CMUA had an oppose unless amended position.
Status: Two-Year Bill

Staff Comment: Relatedly, on July 14, regulators from California, Oregon, and Washington state sent a letter to the Committee on Regional Electric Power Cooperation (CREPC), which is part of the Western Interstate Energy Board. CREPC is comprised of Western energy commissioners and state energy office officials and focuses on regional cooperation issues. On behalf of California, CPUC President Alice Reynolds and CEC Vice Chair Siva Gunda signed the letter, which basically would create a separate 501(c) entity for the purposes of forming a West-wide market, and the CAISO would staff the entity. The signatories of the letter — Oregon, Washington, California, Arizona, and New Mexico — plan to work through an initial development phase this year, and they would decide key elements of the new entity's structure. Implementation is targeted for 2024.

AB 9 (Muratsuchi) Greenhouse Gases: Market-Based Compliance Mechanism

This bill would have required CARB to initiate a regulatory process to evaluate potential updates to Cap-and-Trade. It also would have required the evaluation to focus on specified items, including whether the supply of emission allowances and carbon offsets are consistent with statewide greenhouse gas emissions reduction goals.

SMUD Position: No official position.
Status: Two-Year Bill

Staff Comment: Given that potential changes to the Cap-and-Trade program could impact rates, we will continue to watch this bill closely, should it move next year.

SB 308 (Becker) Carbon Dioxide Removal Market Development Act

This bill would have required CARB, no later than 2027, to adopt a regulation to require emitting entities who produce 25,000 metric tons or more a year to purchase negative emissions credits equal to a specified amount of their greenhouse gas emissions.

SMUD Position: None
Status: Two-Year Bill

AB 126 (Reyes) Clean Transportation Program Fee Extension

The bill reflects a three-party compromise to continue funding the Clean Transportation Program (CTP), the Air Quality Improvement Program (AQIP) and the Enhanced Fleet Modernization Program (EFMP) in California until 2035. These are all critical programs to advance zero emission vehicles and related

infrastructure. Specifically, AB 126 extends the fees originally established in 2007 to 2035 at the same levels to maintain reliable funding (over a billion dollars has been provided over the last 15 years) to support the state's transition to zero-emission vehicles and reduce vehicle pollution. In order to reach this compromise, amendments were taken on September 11, 2023, that include a 15% carve out in the CTP for light-, medium-, and heavy-duty hydrogen infrastructure until 2030 as well as the addition of new reporting requirements for zero-emission vehicle charging and refueling infrastructure.

SMUD Position: Support
Status: Signed by Governor

Staff Comment: SMUD was active in our support of this bill and worked closely with the CalETC and other low carbon vehicle advocates.

AB 1594 (Garcia) Medium- and Heavy-Duty Zero-Emission Vehicles: Public Agency Utilities

The bill is intended to rectify issues in the CARB Advanced Clean Fleets (ACF) rule. Specifically, the bill requires a state agency to ensure rules applicable to vehicle fleet purchases allow public agency utilities to replace vehicles without regard to model year and to determine the daily usage of a utility vehicle that does not exclusively rely on the lowest mileage reading and does not exclude the highest usage days. The legislation allows CARB, in consultation with public agency utilities, to determine the end of useful life of an applicable vehicle.

SMUD Position: Watch; worked with CMUA on amendments
Status: Signed by Governor

State Regulation that Impacted SD-11

Advanced Clean Fleets (ACF) Regulation

In April 2023, CARB unanimously adopted the ACF regulation, which requires public agencies, drayage truck operators, and larger companies to transition their medium- and heavy- duty (MHD) vehicle fleets to zero-emission vehicles (ZEVs). The rule also increases the ZEV sales requirement for truck manufacturers to 100% of vehicle sales by the 2036 model year. The ACF regulation is part of a comprehensive strategy to achieve a zero-emission truck and bus fleet by 2045 everywhere feasible, and significantly earlier for market segments such as public fleets.

The final ACF regulation provides two compliance pathways for public agencies like SMUD:

- Annual ZEV purchase requirements, which require half of all MHD vehicle purchases to be zero-emission starting in 2024 and 100% to be zero-emission starting in 2027, or
- A “ZEV milestones” option that is based on fleet averaging and requires an increasing percentage of the fleet to be zero-emission at each milestone date. The first milestone date is in 2025.

The ZEV milestone option was originally available only to commercially owned fleets; SMUD successfully advocated to expand its availability to public agencies, which may opt in up until January 1, 2030. Along with CMUA, CalETC, and utility stakeholders, SMUD also advocated for the final regulation to include robust, transparent frameworks for determining when ZEVs are commercially available and have been demonstrated to be reliable for specialized use cases, as well as for assessing other exceptions to the ZEV requirements.

As a result of stakeholder advocacy, the final regulation expanded on the reasons for which fleet owners make seek exemptions, upon demonstration of specific requirements, if ZEVs are unavailable for purchase, cannot meet certain mileage or energy usage requirements, are needed for mutual aid and cannot be refueled using mobile charging. The regulation also includes extensions if vehicle deliveries are delayed or if a fleet owner experiences delays beyond its control in the construction or utility energization of ZEV charging infrastructure. However, there are limitations in the use of each extension or exemption, so relief may be challenging to secure in practice.

Status: The ACF regulation was approved by the Office of Administrative Law in September 2023 and will take effect October 1, 2024. Regulatory requirements for fleet owners begin January 1, 2024. CARB is convening a Truck Regulation Advisory Committee (TRAC) working groups to focus on ACF implementation, including ZEV infrastructure needs and the application of certain exemption requirements.

Cap-and-Trade Amendments (Pre-Rulemaking)

The Cap-and-Trade program is a key element of California's strategy to reduce GHG emissions by setting an economy-wide, declining cap on annual GHG emissions. Covered entities must surrender compliance instruments, or allowances, for each metric ton of GHG emissions. The current regulation provides SMUD, and other electric utilities, a specified amount of directly allocated allowances through 2030 to mitigate the cost impacts to ratepayers of compliance with the Cap-and-Trade program. As a POU, SMUD has the option of depositing allowances to meet our compliance obligations or consigning allowances to auction and using the proceeds to benefit ratepayers, in accordance with certain regulatory requirements.

This summer, CARB initiated pre-rulemaking activities for potential updates to the Cap-and-Trade regulation. The primary objective of the update is to align the Cap-and-Trade program with CARB's 2022 Scoping Plan Update, which calls for additional emissions reductions by 2030 in order to achieve carbon neutrality by 2045. As part of the update, CARB will also consider changes to improve program implementation. While CARB has not yet proposed any formal amendments, potential changes under consideration that are key to SMUD include:

- Reductions to allowance budgets, including utility allowance allocations, through 2030.
- Reduced flexibility for POUs to either consign allowances to auction or deposit for compliance.
- Reduced flexibility for POUs regarding use of allowance proceeds.

POU allowance allocations provide important ratepayer benefits and are critical to advancing the state's GHG reduction goals. Reductions in allowance allocations may directly impact ratepayers during a time when the state is suffering from an affordability crisis. SMUD and our associations have urged CARB to minimize changes to utility allowance allocations to the extent possible. SMUD also does not support changes that would require POUs to consign all allowances and restrict proceeds; preserving POUs' flexibility to determine how best to use allowance value is the most efficient, effective, and suitable way to respond to local communities' needs and reduce GHG emissions in our service areas.

Status: CARB has held several pre-rulemaking workshops but has not yet released draft regulatory amendments. The formal rulemaking is expected to begin late 2023 or early 2024, with a target effective date of January 1, 2025.

Power Source Disclosure Amendments (Pre-Rulemaking)

Last year, SB 1158 (Becker) established new hourly GHG reporting requirements for retail suppliers of electricity, including SMUD, which the CEC is tasked with implementing. Under the new law, retail suppliers will be required to report the following information beginning January 1, 2028:

- Sources of electricity used to serve hourly loss-adjusted retail load.
- The GHG emissions associated with each source.
- Annual total and average GHG emissions intensity.
- Annual avoided GHG emissions.

Implementation of the new hourly reporting requirements will be proposed in conjunction with changes to the existing Power Source Disclosure program and annual reporting and disclosure requirements. In late summer 2023, CEC staff released proposals and draft regulatory amendments. Under these proposals, retail suppliers would be attributed the emissions associated with all owned and contracted generation during a given hour, even if that generation was sold into the market and did not serve loss-adjusted retail load. The staff proposal also would expand the annual Power Content Label to address non-retail loads, among other changes.

The CEC staff proposals could result in misattribution or double accounting of greenhouse gas emissions well as create perverse incentives for retail suppliers to rely on market purchases instead of their own procured resources. Moreover, addressing non-retail loads on the Power Content Label is likely to confuse customers and is inconsistent with the statutory requirements. SMUD and CMUA are advocating for changes to the proposals and additional discussion prior to the CEC finalizing the implementation approach.

Status: CEC is reviewing comments on the staff proposal and considering changes. The formal rulemaking process is expected to begin in late 2023 or early 2024, with a target completion date of June 2024.

Low Carbon Fuel Standard Program (Pre-Rulemaking)

The LCFS program is designed to encourage the use and production of low carbon transportation fuels. The LCFS is a market-based program that is based on declining carbon intensity (CI) benchmarks; transportation fuels that have a CI lower than the benchmark generate LCFS credits, and those with higher a CI generate credit deficits. LCFS credits associated with electricity can be generated in several categories, depending on the type and location of the charging; proceeds must generally support transportation electrification projects or programs. Utilities, including SMUD, currently receive “base credits” that are allocated based on estimated EV charging within their service areas. A minimum portion of these base credits funds the statewide Clean Fuel Reward (CFR) program; the remaining “holdback” credits fund utility-specific programs, with minimum spending requirements for projects benefiting low-income and disadvantaged communities. SMUD currently generates credits through partnerships with dairies that produce digester gas for low-carbon electricity.

CARB is currently developing amendments to the LCFS regulation to increase the stringency of the program and displace additional fossil fuels, strengthen equity provisions, and support zero-emission charging infrastructure, among other objectives. Proposed changes include an immediate step-down in CI and inclusion of an auto-acceleration mechanism, changes to capacity credits for ZEV infrastructure, and changes to avoided methane crediting. At this time, CARB has not proposed any changes to base crediting.

SMUD supports an increase in program stringency to drive additional emissions reductions and bolster

low credit prices. Through our membership in CalETC, we are also advocating for changes to the CFR and utility holdback programs to improve program impact, adaptability, and focus on the needs of priority communities. SMUD is also monitoring how potential changes to avoided methane crediting would affect our existing partnerships.

Status: The formal rulemaking process is expected to begin late this year, with a targeted effective date in mid-2024.

Demand Side Grid Support (DSGS) Program

The CEC's Demand Side Grid Support (DSGS) program was established last summer as part of the new Strategic Reliability Reserve created by AB 205. The program provides incentives to utility customers that provide incremental net load reductions during grid emergencies or extreme events. DSGS providers, which may include POUs, enroll customers and administer the program; depending on the participation option, providers receive administrative cost reimbursement or incentives for committed load reduction capacity. After an accelerated initial launch last summer, the CEC revised the program guidelines in 2023 to reflect lessons learned, expand eligibility allow third-party aggregators to serve as program administrators under certain conditions, and pilot new participation options.

The current DSGS program includes three participation pathways, originally designed with the CAISO in mind:

- Option 1, which provides incentives to customers that voluntarily reduce net load in response to Energy Emergency Alerts (EEAs) issued by a California balancing authority (BA).
- Option 2, which provides monthly capacity payments for demand response resources participating in electricity markets that can provide additional load reduction capability.
- Option 3, which provides monthly capacity payments for behind-the-meter battery virtual power plants that dispatch based on market or other reliability-related signals.

SMUD successfully advocated for flexibility allowing non-CAISO balancing authority areas to benefit from the DSGS program and for POUs to propose alternative program requirements that are best suited for the reliability needs of the POU and their BA. In coordination with CMUA, SMUD also successfully advocated for changes requiring third-party aggregators to obtain written permission from the host POU before becoming a DSGS provider, to ensure any DSGS activities are coordinated with POU needs and operations.

Status: The CEC adopted the revised DSGS guidelines in July 2023. SMUD enrolled as a DSGS provider for "Option 1" this summer. SMUD is exploring options for potential implementation of "Option 3" in summer 2024 and will continue to work with the CEC on program updates.

Office of Energy Infrastructure Safety Recommendations on General Orders

The Office of Energy Infrastructure Safety (OEIS) has initiated a process to make formal recommendations to the California Public Utilities Commission (CPUC) regarding safety requirements to mitigate the risk of wildfires brought on by climate change and aging infrastructure, including potential updates to General Order (GO) 95, GO 128, and GO 165. OEIS has commissioned a study that will consider a wide range of topic areas, including vegetation management, local conditions, temperature and loading, strength of materials, inspection of lines, replacement, undergrounding, inspection requirements, and standards for operation during disasters and emergencies.

OEIS has not yet released a proposal with specific recommendations. However, any recommendations developed by OEIS and accepted by the CPUC could have a significant impact on the industry

standards that SMUD follows. Through CMUA, SMUD has advocated that OEIS allow for a thorough public review and input process prior to submitting recommendations to the CPUC, as well as considering whether any proposed recommendations would be more appropriately considered as mitigation measures selected through the utility Wildfire Mitigation Plan development process.

Status: OEIS anticipates developing recommendations to transmit to the CPUC in late 2023. Such recommendations are expected to feed into the CPUC's climate change adaptation proceeding, which will explore changes to existing safety requirements.

CPUC Pole Attachments Database Proceeding

As part of its investigation considering strategies for increased and non-discriminatory access to utility poles and conduit by competitive communications providers, the CPUC has established requirements for IOUs to maintain certain pole attachment data in an online database accessible to attaching entities. In December 2022, the CPUC issued a new ruling considering whether such requirements should apply to POUs and whether the CPUC should also develop online database requirements for conduit information.

SMUD does not support the proposed application of database requirements to POUs or the expansion to include conduit information. Through our membership in CMUA, SMUD has disputed the CPUC's assertion of jurisdiction over POUs for imposing requirements for the convenience and access of pole attachers. CMUA also recommended against developing requirements for conduit information, given that conduit does not pose the same safety risks as overloaded poles and there are greater security and safety risks associated with sharing of conduit information.

Status: SMUD is awaiting the issuance of the CPUC's proposed decision.

2025 Energy Code – Pre-Rulemaking Activities

The CEC is in the process of developing proposals for the 2025 Energy Code. The new code is expected to continue the trend toward more heat pump space heating (HPSH) and heat pump water heating (HPWH) through prescriptive requirements for new single-family homes, multifamily, and select nonresidential building types. The CEC also proposes including prescriptive heat pump requirements for alterations of existing single-family homes, where demonstrated to be cost effective. The proposed changes also include updates to efficiency standards and certain photovoltaic and energy storage requirements, including a clarification to community solar requirements.

SMUD supports the trend to encourage all-electric new construction, particularly in single family homes. SMUD is also monitoring and providing feedback on proposals that could impact requirements for community solar administrator, based on our unique perspective as the only currently-approved administrator for purposes of the Energy Code. This summer, SMUD recommended against changes to community solar opt-out requirements for multifamily buildings that would have added significant complexity with uncertain practical benefits; such changes were not included in the latest pre-rulemaking amendments.

Status: The formal rulemaking process for the 2025 Energy Code is expected to begin in January 2024. If approved, the 2025 Energy Code requirements will go into effect for construction permits that are applied on or after January 1, 2026.

Load Management Standard (LMS) Regulation

The amended LMS regulations were adopted by the CEC in October 2022 and took effect on April 1, 2023, expanding on efforts to increase efficiency and demand flexibility in California's electricity grid. While the standard has been in statute since 1978, the most recent amendments are intended to form the foundation of a statewide system that automates the creation of hourly or sub-hourly costs and signals that can be used by end-use automation to provide real-time demand flexibility on the grid. The amended regulations require the state's three largest IOUs and CCAs, the Los Angeles Department of Water, and Power (LADWP) and SMUD to develop marginal cost-based rates that change at least hourly for each customer class that is determined to materially reduce peak load, among other requirements.

During the rulemaking process, SMUD staff advocated to CEC staff, Commissioners, and other key policymakers to help guide the development of the LMS and ensure that SMUD can continue to offer pilots and programs as an alternative to dynamic rates. The final regulations largely reflected our recommendations for a separate compliance pathway for POU's that provides greater implementation flexibility.

Status: The new LMS regulations went into effect in April 2023. This year, SMUD has continued outreach to the CEC regarding our LMS compliance approach. We also successfully completed our first two compliance milestones: uploading our existing time-dependent rates into an online CEC database and submitting our proposed compliance plan to the SMUD Board of Directors by October 1.

Delta Water and Hydro Impacts

Two substantial Delta planning processes could potentially affect energy available for SMUD's purchase from the Central Valley Project (CVP) and flows within the Upper American River Project (UARP) watershed: the Bay-Delta Water Quality Control Plan (Bay-Delta Plan), and the Delta Conveyance Project (successor to the California WaterFix Project, which was in turn successor to the Bay Delta Conservation Plan).

Phase 2 of the Bay-Delta Plan is ongoing and could potentially affect SMUD by increasing the volume of water required for outflow into the Bay (Phase 3 would, if carried out, implement Phase 2 through modifications to water rights). A substantial change in Delta outflow and tributary flow requirements could, among other things, have a major impact on the timing of hydroelectric energy generation. The State Water Resources Control Board (SWRCB) staff released a draft of one of the Phase 2 documents identifying an environmental need for significantly more outflows (in short, 35 to 75% of all water is allegedly needed for outflow with staff recommending 45 to 65%).

Governor Newsom requested the SWRCB explore negotiation of voluntary agreements with water purveyors in lieu of imposing a strict plan. Work on the voluntary agreements process has been slow and sporadic but still appears to be the preferred path for compromise.

Although the earlier, two-tunnel Delta conveyance WaterFix Project was cancelled and its environmental documents rescinded in 2019, the Department of Water Resources (DWR) quickly relaunched the project as a one-tunnel option, renamed the Delta Conveyance Project. The Draft Environmental Impact Report was released in July 2022. The project would involve building one new intake and a tunnel to complement the historical diversion of water through the Delta channels for the State Water Project (SWP). It had been expected the Project would involve the CVP as well, though that does not appear to be the case and the U.S. Bureau of

Reclamation has not been participating, suggesting no CVP power would be used for the project. This is important because if provided by the CVP, power for the estimated 10-year construction effort and long-term operations would come out of supplies otherwise sold to public power contractors, the single largest share of which goes to SMUD under an existing long-term contract (which will be succeeded a new contract). Using the tunnels would be part of an effort to maintain or even increase Delta watershed exports to Southern and Central California. Proponents have claimed the project would help reduce the historical impacts of the South of Delta pumps on special status fish species, though modeling by Northern California interests of the prior project suggests the reduced impacts have not been proven and in fact the opposite could be true. Modeling of the newly proposed project is under way. Changes in the timing of the energy generation due to the project are as yet unclear.

Staff Comment: SMUD is working closely with a coalition of water interests to evaluate the impacts of the Bay–Delta Plan and the Delta Conveyance Project to understand the implications for power generation and SMUD’s water rights and hopefully agree upon a voluntary agreement substitute for a regulated process.

Federal Legislation that Impacted SD-11

H.R. 3746 (McHenry): Raising the Debt Limit

The “Fiscal Responsibility Act” became law on June 3, 2023. It would raise the federal debt limit, establish new discretionary spending limits, and makes reforms to the federal permitting process (particularly as it relates to the National Environmental Policy Act or NEPA). SMUD supported the increase to the debt limit as a default would have had a significant material impact on the national economy. SMUD also supported the meaningful and balanced reforms to NEPA, which will facilitate energy infrastructure deployment. Previous iterations of the legislation, including H.R. 2811, House Republicans’ initial version of the debt limit bill, would have repealed several clean energy tax credits as well as the direct pay provisions of the IRA. SMUD opposed these provisions and worked directly with its federal delegation and trade associations to push back on the bill.

Tax Policy

As a municipal utility, SMUD relies on municipal bonds and utilizes all available financing mechanisms to decrease the financing costs of infrastructure investments and projects. Therefore, SMUD has continued to advocate for maintaining the longstanding tax exemption for municipal bond interest as well as preserving the ability of municipal utilities to make an election for elective payment of energy tax credits as authorized under the Inflation Reduction Act (IRA).

The 2017 Tax Cuts and Jobs Act (TCJA) preserved the general exemption, but removed it for advance refunding bonds, which are used to effectively refinance an original bond. SMUD has worked individually and through coalitions like APPA, and the Alliance to Save Energy’s 50X50 Commission to restore the exemption for advance refunding bonds. Bipartisan bills in both the House and Senate have been proposed that would restore advanced refunding. Such legislation is unlikely to be passed as a stand-alone bill; however, restoring advance refunding may be considered as part of a tax reform package as several tax provisions in the TCJA are set to expire at the end of 2025.

The 2022 IRA includes a provision that allows tax-exempt entities to receive refundable elective payments of various energy tax credits, making them directly available to public power utilities for the first time. Both the House and Senate have introduced provisions in various legislation that would repeal energy tax credits authorized under the law; however, none have been advanced. SMUD has worked individually and through coalitions like the American Public Power Association (APPA) and

Large Public Power Council (LPPC) to preserve the energy incentives and the ability of municipal utilities to elect elective payment of various energy tax credits. Bipartisan bills in both the House and Senate have been proposed that would restore advanced refunding. A provision to restore advance refunding was included in the bond financing title of an early House version of the budget reconciliation bill. The Inflation Reduction Act omitted the advance refunding provision, and it is unlikely to be passed as a stand-alone bill, however the provision may return next year as Congress looks to put together a tax reform package. Federal Affairs will continue to track this issue.

Pole Attachments

Municipal utilities are exempt from federal regulation of pole attachments under Section 224 of the Federal Communications Act. However, the Federal Communications Commission (FCC) has taken steps in recent years that impact public power pole attachments. In September 2018 the FCC issued a declaratory order and ruling reinterpreting other sections of the law to impose fee limits and timelines on pole attachment applications. Most recently, in March 2022, the FCC approved a Further Notice of Proposed Rulemaking (FNPRM) on the allocation of pole replacement costs and the resolution of pole attachment disputes. SMUD has expressed to its delegation concerns about this federal intrusion, noting that it has developed pole attachment agreements with telecom carriers. Rep. Anna Eshoo (D-CA) introduced legislation in January 2019 to nullify the 2018 FCC order, and Senator Dianne Feinstein (D-CA) sponsored similar legislation in the Senate in June 2019. The bills have failed to gain bipartisan support or traction in either chamber and they have not been reintroduced in subsequent congressional sessions.

Appropriations

As has been customary for many years, Congressional appropriators failed to pass yearly funding bills before the end of the fiscal year (Sept 30). Despite opposition from several members of the House Republican majority, Speaker Kevin McCarthy (R-CA) advanced a continuing resolution (CR) to keep the government funded through Nov. 17, 2023, which resulted in the disaffected members banding with the Democratic Caucus to oust McCarthy from the Speakership under rules negotiated at the beginning of the 118th Congress. Mike Johnson (R-Louisiana) has taken over the speakership.

Spent Nuclear Fuel Removal

Unable to make progress on removing spent nuclear fuel to interim storage facilities, congressional attention has turned to reprocessing and establishing a consent-based process for siting new facilities. The House Fiscal Year 24 Energy & Water Appropriations bill prohibits funds from being used to site an interim storage facility, and the Senate bill directs the Department of Energy to identify a site for interim storage using consent-based principles.

Federal Regulatory Issues that Impacted SD-11

FERC Order 1000

SMUD has participated in Order 1000 regional transmission planning through WestConnect, a regional planning entity that is comprised of member transmission providers (both jurisdictional and non-jurisdictional transmission providers) with service areas consisting of all or portions of eleven states. WestConnect members work collaboratively to jointly plan transmission facilities, assess stakeholder and market needs and develop cost-effective enhancements to the western wholesale electricity market.

In 2015, FERC accepted WestConnect's withdrawal rights for non-jurisdictional transmission providers such as SMUD. Accordingly, if costs are allocated for particular transmission projects that are unacceptable, the non-jurisdictional transmission provider has a right to withdraw from the cost

allocation determination. El Paso Electric, a WestConnect jurisdictional transmission provider, appealed FERC's decision in the 5th Circuit Court of Appeals contending that a non-jurisdictional's decision not to accept cost allocation for a project will cause free ridership. On August 2, 2023, the 5th Circuit issued a decision reversing FERC's WestConnect order, concluding that FERC's order implementing Order 1000 for the WestConnect region is not a just and reasonable application of cost causation. FERC declined to seek rehearing, and accordingly, there is uncertainty at this time on the future of WestConnect's regional planning process. SMUD, along with the other non-jurisdictionals, are exploring options for continued planning that will ensure we are able to decide whether to accept costs for a transmission project.

Meanwhile, in April 2022, FERC issued a Notice of Proposed Rulemaking: Building for the Future Through Electric Regional Transmission Planning and Cost Allocation and Generator Interconnection (NOPR) seeking comments on reforms to existing regulations under Order 1000 to plan the grid for the future and address the nation's changing resource mix. SMUD worked with LPPC, APPA, and the Transmission Agency of Northern California (TANC) to develop separate comments in response to the NOPR. FERC also hosted a technical conference with industry experts to discuss certain transmission planning and cost allocation issues, including proposals in the NOPR. FERC has yet to issue an order. We will continue to monitor the rulemaking to ensure our public power interests are represented.

EIM and EDAM

SMUD has a direct interest in finding long-term solutions to the challenges posed by the integration of intermittent resources, such as wind and solar. One solution has been the development of an EIM operated by the CAISO, and another solution has been what the CAISO refers to as an "Extended Day Ahead Market" (EDAM). In general, the EIM is a sub-hourly energy platform that automatically clears and dispatches the lowest cost electricity available to serve demand on a real-time basis, with EDAM providing similar functionality but with a day-ahead resource and scheduling commitment.

SMUD joined in spring of 2019 under what is referred to as "Phase 1" of BANC's EIM participation as the first municipal participant. SMUD has successfully participated in the EIM since go-live on April 3, 2019, which has provided reliability, operational flexibility, and financial benefits.

The rest of BANC, including the Western Area Power Administration (WAPA) – Sierra Nevada Region, joined the EIM on March 25, 2021, under what is referred to as BANC EIM "Phase 2." This broader BANC resource participation in EIM has resulted in additional economic benefits and a greater ability to integrate and manage intermittent resources within the BANC BAA.

Given the success of EIM, the CAISO, with the support of SMUD and BANC, as well as other EIM participants, launched a stakeholder initiative to develop an extension of the EIM real time framework to the CAISO's day ahead market, referred to as the EDAM. Like EIM, EDAM would broaden the access to regional resources for the reliable integration of renewable resources, only over a longer (day ahead) time horizon, and participation is voluntary. SMUD (along with BANC) was given a seat at the table in the development of EDAM. After a few years of negotiations, along with discussions and stakeholder meetings, the CAISO Board of Governors and WEIM Governing Body jointly approved the EDAM framework in February of 2023. On August 22, 2023, the CAISO filed an EDAM tariff amendment with the FERC, to which SMUD filed supportive comments. Pending FERC's approval of the filing, EDAM implementation activities are planned for 2024 with EDAM launch as early as 2025. SMUD plans to participate in EDAM beginning in the 2026 timeframe, depending on its implementation efforts and coordination with other BANC participants. SMUD and

other EIM Entities believe EDAM is an important step forward in the evolution of Western energy markets and intermittent resource integration by allowing participants to decommit less efficient resources in the day ahead timeframe, as opposed to only in the shorter real time window. Thus, EDAM aligns well with SMUD's 2030 Zero Carbon Plan goals. Moreover, like EIM, EDAM remains a voluntary market, allowing SMUD the added flexibility of pivoting later, should better options arise in the future.

Greenhouse Gas Regulation

On May 11, the Environmental Protection Agency proposed greenhouse gas emissions standards for fossil-fueled power plants under Sec. 111 of the Clean Air Act. New and reconstructed plants would need to either use highly efficient generation or install carbon capture technology (CCS) or co-fire with hydrogen, depending on the capacity factor of the resource. Existing large units (over 300 MW with a capacity factor over 50%) would be subject to a standard equivalent to either 90 percent capture of CO₂ using CCS by 2035, or co-firing of 30% hydrogen beginning in 2032 and co-firing 96% hydrogen beginning in 2038. Existing coal plants that plan to operate after 2040 would need to capture 90% of their emissions, but those that commit to closing earlier would be subject to a less stringent standard. SMUD is monitoring this proposal, which would have minimal impacts on SMUD if enacted as proposed, but it could be expanded to cover additional units in a way that would pose challenges for SMUD's expected timelines for closure of its natural gas plants.

RESOLUTION NO. _____

**BE IT RESOLVED BY THE BOARD OF DIRECTORS
OF THE SACRAMENTO MUNICIPAL UTILITY DISTRICT:**

This Board accepts the monitoring report for **Strategic Direction SD-11, Public Power Business Model**, substantially in the form set forth in **Attachment ____** hereto and made a part hereof.

SSS No. CFO 23-015

BOARD AGENDA ITEM

STAFFING SUMMARY SHEET

Committee Meeting & Date Finance and Audit November 7 & 8, 2023
Board Meeting Date December 14, 2023

TO				TO								
1.	Russell Mills	6.	Lora Anguay									
2.	Lisa Limcaco	7.	Scott Martin									
3.	Laurie Rodriguez	8.										
4.	Jennifer Davidson	9.	Legal									
5.	Jose Bodipo-Memba	10.	CEO & General Manager									
Consent Calendar		Yes		No <i>If no, schedule a dry run presentation.</i>		Budgeted		Yes		No <i>(If no, explain in Cost/Budgeted section.)</i>		
FROM (IPR) Jennifer Restivo				DEPARTMENT Planning and Performance				MAIL STOP A309	EXT. 5193	DATE SENT 10/27/23		

NARRATIVE:

Requested Action: Approve the following:

- 2024 SMUD Budget Resolution
- 2024 Debt Resolution
- Pay Schedule and Special Compensation Items

Summary: 2024 Budget Resolution

The 2024 Proposed SMUD Budget Resolution is comprised of Operations and Maintenance budget of \$1,386.1 million, Debt Service budget of \$202.3 million, and Capital budget of \$555 million. The proposed 2024 Budget Resolution limits spending to \$2,143.4 million (total of prior amounts), plus 10% contingency, plus the commodity contingency and adjustments for Hydro Generation Adjustment transfers or revenue, weather hedge contracts, Western Area Power Administration (WAPA) energy delivery shortfall, and higher retail sales. Additionally, SMUD participates in regulatory programs such as Low Carbon Fuel Standard (LCFS) and Cap-and-Trade. When SMUD collects revenues through these program's sales, it is required to apply the proceeds toward specific expenses that support the program's goals. Should actual sales proceeds exceed the budgeted amount for these programs, the budgeted amount may be increased to match the sales proceeds without the prior specific approval of this Board. The proposed resolution also limits authorized permanent full-time positions to 2,250 plus 5 percent.

Public Good Charge

The Public Good Charge will decrease from 16.77 percent to 16.28 percent of 1994 revenues. The percentage allocation for the public good charge expenditures will change from 6.60 percent to 7.22 percent for low-income assistance, from 8.16 percent to 7.70 percent for energy efficiency, stayed the same at 0.00 percent for new renewable generation, and from 2.01 percent to 1.37 percent for research and development.

2024 Debt Resolution

The 2024 Proposed Debt Resolution contains the official Declaration of Intent to Issue Debt to create \$400 million of additional bonding authority to reimburse for qualifying capital expenditures. The resolution also contains the Official Intent to reimburse for 2024 and 2023 capital expenditures from bond proceeds, which is required to maintain tax-exempt financing capability.

Pay Schedule and Special Compensation Items

Approve/Adopt SMUD's pay schedule and special compensation pursuant to California Code of Regulations (CCR).

Board Policy: The 2024 SMUD Budget funds programs and initiatives that contribute to meeting Board strategic directives. *(Number & Title)* GP-3 (e) Board will adopt SMUD's budget on an annual basis.

Benefits: Approval of the 2024 SMUD Budget meets the requirements of the MUD Act and will authorize spending within the limits prescribed.

Cost/Budgeted: Approval of the 2024 SMUD Budget Resolution will authorize spending within the limits prescribed.

Alternatives: Approval of a budget for SMUD is required before January 1, 2024, otherwise, SMUD will not have the authority to make purchases or pay employees.

Affected Parties: SMUD

Coordination: Budget Office, Treasury, Accounting, People, Services & Strategies, Legal.

Presenter: Jennifer Davidson, Chief Financial Officer
Brandy Bolden, Chief Customer Officer
Lora Anguay, Chief Zero Carbon Officer
Frankie McDermott, Chief Operating Officer
Suresh Kotha, Chief Information Officer
Jose Bodipo-Memba, Chief Diversity Officer

Additional Links:

SUBJECT

2024 Proposed SMUD Budget

ITEM NO. (FOR LEGAL USE ONLY)

12a

ITEMS SUBMITTED AFTER DEADLINE WILL BE POSTPONED UNTIL NEXT MEETING.

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RESOLUTION NO. _____

WHEREAS, the proposed 2024 Budget is expected to result in a positive net income for 2024; **NOW THEREFORE,**

**BE IT RESOLVED BY THE BOARD OF DIRECTORS
OF SACRAMENTO MUNICIPAL UTILITY DISTRICT:**

Section 1. This resolution may be referred to as the 2024 Budget Resolution.

Section 2. (a) There is hereby appropriated from the General Fund sufficient monies for the payment of demands against SMUD which relate to obligations incurred for the purposes and within the amount specified for such purposes in the following projection of SMUD's program for the period January 1, 2024, through December 31, 2024.

Operations and maintenance:

Commodity - purchased power, fuel, and wheeling	\$572,000,004
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Public Goods	67,888,971
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Customer, energy delivery, enterprise strategy, workforce diversity & inclusion, information technology, corporate services and Rancho Seco	746,217,455
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Sub-Total	\$1,386,106,430
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Debt Service	202,263,155
Capital and reserve	554,965,979

TOTAL	\$2,143,335,564
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(b) The Commodity line item budget is based on assumptions of average rainfall and temperatures during 2024. SMUD has in

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place a Hydro Generation Adjustment (SMUD HGA) mechanism whereby, based on the actual rainfall amounts between April 1, 2023 and March 31, 2024 in comparison to the budget assumptions, SMUD may transfer funds to or from the Hydro Rate Stabilization Fund and, once pre-established limits are met, increase or decrease customer rates. The Commodity line item budget will be increased or reduced based on the actual transfer and/or change in customer revenues from the SMUD HGA adjustment.

(c) SMUD also has in place or may enter into additional agreements under which monies will be received by SMUD in the event actual weather conditions are drier than average. In the event of below average rainfall, the Commodity line item budget will be increased by an amount equal to the payments received under these contracts.

(d) SMUD has budgeted to receive energy in 2024 under its contract with the Western Area Power Administration (WAPA). SMUD has in place a WAPA Hydro Generation Adjustment (WAPA HGA) mechanism whereby, based on the actual delivery from WAPA between April 1, 2023 and March 31, 2024 in comparison to the budget assumptions, SMUD may transfer funds to or from the WAPA Rate Stabilization Fund and, once pre-established limits are met, increase or decrease customer rates. This energy primarily is generated at Central Valley Project hydroelectric plants, and the actual quantity of energy received will be dependent on rainfall, carryover water storage and operation of the WAPA system to meet contractual water deliveries. Because WAPA generation facilities are spread over a wide area, insurance is not

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practical for offsetting variations of energy deliveries due to weather. One purpose of the Rate Stabilization Fund is to mitigate such variations. The Commodity line item budget will be increased or reduced based on the actual transfer and/or change in customer revenues from the WAPA HGA adjustment

(e) Budgeted energy purchases necessary to meet customer energy sales requirements (10,302 GWh) are based on average weather conditions and expected customer growth in 2024. Should actual weather conditions or growth levels cause SMUD retail sales and related energy requirements to be higher, the Commodity line item budget will be increased by the NP15 power price per megawatt-hour of additional retail energy sales to offset the cost of these sales.

(f) SMUD participates in regulatory programs such as Low Carbon Fuel Standard (LCFS) and Cap-and-Trade. Under these programs, SMUD has the option to monetize the credits and allowances applicable to these programs through sales transactions. When SMUD collects revenues through these sales, it is required to apply the proceeds toward specific expenses that support the program goals. An additional purpose of the Rate Stabilization Fund is to mitigate fluctuations from regulatory programs. The Accountant is hereby authorized to transfer funds to or from the Rate Stabilization Fund to match LCFS and Cap-and-Trade revenues with expenses. The budgeted amount will be increased or decreased accordingly.

(g) For purposes of Section 11891.6 of the Municipal Utility District Act, there shall be deemed added to each line item, in section 2a, a

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10 percent contingency. Demands against SMUD which relate to obligations incurred for each line item and are within such line item amount plus the 10 percent contingency may be paid without prior specific approval of this Board, provided the total of such payments during 2024 may not exceed the total budget amount plus this 10% contingency, plus the commodity contingency and adjustments for weather hedge contracts, higher retail sales and Rate Stabilization transfers as set forth in paragraphs (b), (c), (d), (e) and (f) above.

Section 3. Demands against SMUD may be paid without the prior specific approval of this Board if they relate to obligations incurred for the purpose and within the amounts specified in Section 2, provided such demands are approved by the CEO & General Manager or someone to whom he has delegated such approval authority. It is the purpose and intent of this paragraph to delegate to the CEO & General Manager authority to make purchases, to negotiate and execute contracts, and expend funds in any manner necessary or appropriate to the administration of the business affairs of SMUD, all within the amounts and for the purposes set forth above, and subject to the provisions of existing law and of all the duly passed resolutions of this Board, including the Board-approved delegations of authority.

Section 4. At monthly intervals the Treasurer shall transfer from the General Fund appropriate amounts into each of the various funds established to service SMUD's general obligation indebtedness, its Electric System Revenue Bond indebtedness, and its Electric Revenue Bond indebtedness in approximately equal installments as set forth in the tabulations on file with the

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Accountant. Investment authority, for all funds, is delegated to the Treasurer for a one-year period in accordance with California Code Section 53607.

Section 5. The number of permanent full-time employees during 2024 shall not exceed 2,250 employees plus a five percent contingency without further authorization of this Board.

Section 6. The Public Goods Charge shall be adjusted from 16.77 percent of 1994 revenues to 16.28 percent of 1994 revenues. The percentage allocation for the public goods charge expenditures shall be adjusted from 6.60 percent to 7.22 percent for low-income assistance, and from 8.16 percent to 7.7 percent for energy efficiency, and from 2.01 percent to 1.37 percent for research and development, and stayed the same at 0.00 percent for new renewable generation.

SSS No. CFO 23-015

BOARD AGENDA ITEM

STAFFING SUMMARY SHEET

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Board Meeting Date December 14, 2023

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Public Good Charge

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Suresh Kotha, Chief Information Officer
Jose Bodipo-Memba, Chief Diversity Officer

Additional Links:

SUBJECT

2024 Proposed SMUD Budget

ITEM NO. (FOR LEGAL USE ONLY)

12b

ITEMS SUBMITTED AFTER DEADLINE WILL BE POSTPONED UNTIL NEXT MEETING.

RESOLUTION NO. _____

Supplemental Resolution (Supplemental)
to Resolutions No. 6457, 8107, 83-7-26)
as amended by Resolution No. 87-10-22,)
No. 92-12-29, No. 93-12-19, No. 94-12-16,)
No. 95-12-10, No. 96-12-07, No. 97-12-18,)
No. 98-11-12, No. 99-12-10, No. 00-12-11,)
No. 01-12-02, No. 02-11-04, No. 03-12-14,)
No. 04-12-11, No. 05-12-13, No. 06-12-08,)
No. 07-12-08, No. 08-12-05, No. 09-12-08,)
No. 10-12-03, No. 11-12-08, No. 12-12-06,)
No. 13-12-09, No. 14-12-13, No. 15-12-08,)
No. 16-12-14, No. 17-12-13, No. 18-12-12,)
No. 19-11-05, No. 20-12-14, No. 21-12-11 and)
No. 22-12-06) declaring the intention of the)
Board of Directors of the Sacramento Municipal)
Utility District to authorize the issuance of)
additional Revenue Bonds)
_____)

WHEREAS, Sacramento Municipal Utility District (“SMUD”) on July 23, 1970, May 2, 1974, and July 21, 1983, by the adoption by its Board of Directors of Resolutions No. 6457, 8107, and 83-7-26, as amended by Resolution No. 87-10-22 adopted October 1, 1987; Resolutions No. 92-2-11, No. 92-12-29, No. 93-12-19, No. 94-12-16, No. 95-12-10, No. 96-12-07, No. 97-12-18, No. 98-11-12, No. 99-12-10, No. 00-12-11, No. 01-12-02, No. 02-11-04, No. 03-12-14, No. 04-12-11, No. 05-12-13, No. 06-12-08, No. 07-12-08, No. 08-12-05, No. 09-12-08, No. 10-12-03, No. 11-12-08, No. 12-12-06, No. 13-12-09, No. 14-12-13, No. 15-12-08, No. 17-12-13, No. 18-12-12, 19-11-05, 20-12-14, 21-12-11, 22-12-06 adopted by the Board of Directors on February 6, 1992, December 17, 1992, December 16, 1993, December 15, 1994, December 14, 1995, December 19, 1996, December 17,

1997, November 30, 1998, December 2, 1999, December 7, 2000, December 6, 2001, November 7, 2002, December 4, 2003, December 2, 2004, December 1, 2005, December 7, 2006, December 6, 2007, December 4, 2008, December 3, 2009, December 3, 2010, December 1, 2011, December 6, 2012, December 5, 2013, December 4, 2014, December 3, 2015, December 1, 2016, December 21, 2017, December 20, 2018, November 21, 2019, December 10, 2020, December 9, 2021, and December 8, 2022, respectively (collectively, the “Prior Resolutions”), found and determined that it was necessary to raise funds by the issuance of revenue bonds in the maximum principal amount of \$8,655,000,000 pursuant to Sections 12850, et seq., of the California Public Utilities Code (the “Act”); and

WHEREAS, in order to provide reliable electric service to its customers, it is necessary for SMUD to make certain capital improvements and other capital expenditures to its system, which capital improvements and other capital expenditures are designed to have useful lives of up to 40 years, or more; and

WHEREAS, to fairly apportion the costs of such capital improvements and other capital expenditures among SMUD’s customers who will receive the benefits of such improvements, SMUD has determined to authorize the financing of such improvements and expenditures with bonds of SMUD; and

WHEREAS, to provide bond financing for such improvements and expenditures, it now appears necessary to increase the authorized issue of revenue bonds that may be issued by SMUD pursuant to the Act; and

WHEREAS, the Board of Directors of SMUD desires to inform its customers and the public of its plans for financing capital improvements and other capital expenditures to its system by specifying certain items for which the proceeds of said revenue bonds are to be used, which uses shall not include daily maintenance and operations costs; **NOW, THEREFORE**,

**BE IT RESOLVED BY THE BOARD OF DIRECTORS
OF SACRAMENTO MUNICIPAL UTILITY DISTRICT:**

Section 1. The Board of Directors of SMUD declares its intention to authorize the issuance of additional revenue bonds or Clean Renewable Energy Bonds for the purpose of financing, in whole or in part, the costs of the capital items identified in SMUD’s 2024 capital budget, 2022 and 2023 capital expenditures not previously financed, the prepayment of purchased power or natural gas and the purchase of natural gas reserves, pipelines or storage facilities, for all of which SMUD is authorized by law to issue such bonds. SMUD has paid or reasonably expects to pay certain expenditures (the “Reimbursement Expenditures”) in connection with such capital items prior to the issuance of such bonds, and hereby officially declares its intent to use certain proceeds of such bonds to reimburse the Reimbursement Expenditures. The declarations contained in this section are made solely for purposes of establishing compliance with Section 1.150-2 of the U. S. Treasury Regulations, and do not bind SMUD to make any expenditure, incur any indebtedness or proceed with the above-mentioned capital expenditures.

Section 2. The maximum principal amount of the additional revenue bonds proposed to be issued under this supplemental resolution is

\$400,000,000. Such maximum principal amount is in addition to the \$8,655,000,000 principal amount of revenue bonds authorized pursuant to the Prior Resolutions. Such additional bonds may be issued in series from time to time, and it shall not be necessary that all of the bonds proposed to be issued be issued at any one time.

Proceeds from the issuance of these bonds will be used to finance capital improvements identified in SMUD's 2024 capital budget, 2022 and 2023 capital expenditures not previously financed, capital expenditures for the prepayment of purchased power or natural gas and the purchase of natural gas reserves, pipelines, or storage facilities. The declarations in this section are made solely to establish compliance with Section 12852 of the California Public Utilities Code, and do not bind SMUD to make any expenditure, incur any indebtedness or proceed with the above-mentioned capital expenditures.

Section 3. The maximum term of any of such bonds is 40 years. In the event the maximum authorized amount under a series of bonds is divided into two or more series, the said maximum term shall be calculated in each case from the date of each divided series of bonds.

Section 4. The maximum rate of interest to be payable upon such bonds shall not exceed the interest rate per annum equal to the greater of fifteen percent (15 percent) per annum or the yield of United States Treasury bonds having a remaining term equal, as nearly as practicable, to the final maturity of such bonds, as determined by SMUD as of the date of sale of such

bonds, plus three percent (3 percent). The maximum discount with respect to such bonds shall not exceed ten percent (10 percent).

Section 5. This resolution shall take effect immediately, subject only to the right of referendum provided in Article 6a of Chapter 6 of Division 6 of the California Public Utilities Code (beginning at Section 12850 thereof).

Section 6. The Secretary of SMUD is hereby directed to publish a copy of this resolution once a week for two successive weeks in a newspaper of general circulation published within SMUD's boundaries. At any time within 60 days after the date of the second such publication, a referendum petition signed by voters in number equal to at least three percent (3 percent) of the total vote cast, as defined in Section 11507 of the California Public Utilities Code, demanding the submission of this resolution to a vote of the voters of SMUD for their assent to the issuance of the proposed bonds, may be filed with the Secretary of SMUD. Upon presentation to the Secretary of SMUD of such a referendary petition, this resolution shall not be of effect unless and until it has been assented to by the voters.

SSS No. LEG 2023-0131

BOARD AGENDA ITEM

STAFFING SUMMARY SHEET

Committee Meeting & Date N/A
Board Meeting Date December 14, 2023

TO	TO
1. Jose Bodipo-Memba	6.
2.	7.
3.	8.
4.	9. Legal
5.	10. CEO & General Manager

Consent Calendar		Yes	<input checked="" type="checkbox"/>	No <i>If no, schedule a dry run presentation.</i>	Budgeted	<input checked="" type="checkbox"/>	Yes	No <i>(If no, explain in Cost/Budgeted section.)</i>
FROM (IPR) Laura Lewis				DEPARTMENT Executive Office				MAIL STOP B308 EXT. 6123 DATE SENT 11/21/23

NARRATIVE:

Requested Action: Discuss possible merit increase to the Chief Executive Officer and General Manager’s base salary and/or performance bonus, pursuant to the Chief Executive Officer and General Manager’s employment contract.

Summary: The Chief Executive Officer and General Manager’s employment contract provides that the Board of Directors may authorize a merit increase and/or performance bonus, if deemed appropriate, based upon his annual evaluation and review. Any recommendation is typically made to the full Board by the Board President. The Board may adopt any such increase in compensation only in open session and following a discussion.

Board Policy: *(Number & Title)* Governance Process GP-1, Purpose of Board – d) Make certain operational decisions as designated by law and e) ...evaluate...the CEO.

Benefits: Allows the Board to discuss the Chief Executive Officer and General Manager’s compensation based upon his annual performance.

Cost/Budgeted: Contained in budget for internal labor.

Alternatives: Take no action.

Affected Parties: Chief Executive Officer and General Manager

Coordination: Board of Directors, Legal, and People Services & Strategies

Presenter: President Sanborn

Additional Links:

SUBJECT Compensation – Chief Executive Officer and General Manager	ITEM NO. <i>(FOR LEGAL USE ONLY)</i> <b style="color: blue; font-size: 1.2em;">13
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ITEMS SUBMITTED AFTER DEADLINE WILL BE POSTPONED UNTIL NEXT MEETING.

**RESOLUTION TO BE
DRAFTED BASED ON
BOARD MEMBERS'
DISCUSSION**