

Sacramento Municipal Utility District

Pocket/Greenhaven 69kV Underground Cable Reliability Project

Draft Initial Study and Proposed Mitigated Negative Declaration •
August 2019

Reflects Revisions Made in the Final IS/MND on October 7, 2019



Powering forward. Together.



Sacramento Municipal Utility District

Pocket/Greenhaven 69kV

Underground Cable Reliability Project

Draft Initial Study and Proposed Mitigated Negative Declaration • August 2019
Reflects Revisions Made in the Final IS/MND on October 7, 2019

Lead Agency:

Sacramento Municipal Utility District
6201 S Street, MS H201
Sacramento, CA 95817-1899

or

P.O. Box 15830 MS H201
Sacramento, CA 95852-1830
Attn: Rob Ferrera
(916) 732-6676 or rob.ferrera@smud.org

Prepared by:

Ascent Environmental
455 Capitol Mall, Suite 300
Sacramento, CA 95814
Contact: Cori Resha
Cori.Resha@ascentenvironmental.com

TABLE OF CONTENTS

1.0	INTRODUCTION	5
1.1	Project Overview	5
1.2	Purpose of Document	5
1.3	Public Review Process.....	6
1.4	SMUD Board Approval Process	6
1.5	Document Organization	7
1.6	Environmental Factors Potentially Affected	7
1.7	Determination	8
2.0	PROJECT DESCRIPTION	9
2.1	Project Location	9
2.2	Project Description.....	9
2.3	Potential Permits and Approvals Required.....	12
3.0	ENVIRONMENTAL IMPACT EVALUATION	13
3.0	Evaluation of Environmental Impacts	13
3.1	Aesthetics	15
3.2	Agriculture and Forestry Resources.....	17
3.3	Air Quality	19
3.4	Biological Resources	27
3.5	Cultural Resources	33
3.6	Energy	38
3.7	Geology and Soils.....	41
3.8	Greenhouse Gas Emissions	47
3.9	Hazards and Hazardous Materials	50
3.10	Hydrology and Water Quality	54
3.11	Land Use and Planning.....	59
3.12	Mineral Resources	60
3.13	Noise	61
3.14	Population and Housing	67
3.15	Public Services	68
3.16	Recreation	71
3.17	Traffic and Transportation	72
3.18	Tribal Cultural Resources.....	75
3.19	Utilities	78
3.20	Wildfire.....	80
3.21	Mandatory Findings of Significance	82
4.0	LIST OF PREPARERS	85
5.0	REFERENCES	87

APPENDICES

- A Air Emissions Modeling Data
- B Energy Calculations
- C Geotechnical Report

EXHIBITS

Exhibit 2-1	Project Location	10
Exhibit 2-2	Project Alignment.....	11

TABLES

Table 3.3-1	Criteria Air Pollutants	19
Table 3.3-2	Summary of Unmitigated Emissions Generated During Project Construction ..	23
Table 3.3-3	Summary of Mitigated Emissions Generated During Project Construction	24
Table 3.7-1	Project Alignment Soil Characteristics.....	43
Table 3.13-1	Typical Noise Levels	62
Table 3.13-2	Noise Emission Levels from Construction Equipment	64

ACRONYMS AND OTHER ABBREVIATIONS

AB	Assembly Bill
BACT	Best Available Control Technology
Basin Plan	Fifth Edition of the Water Quality Control Plan
BMP	best management practices
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standard
Cal EPA	California Environmental Protection Agency's
CalEEMod	California Emissions Estimator Model
CAP	Climate Action Plan
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CH ₄	methane
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	carbon monoxide
CPUC	California Public Utilities Commission
CRPR	California Rare Plant Ranks
CVRWQCB	Central Valley Regional Water Quality Control Board's
dB	decibels
DOC	California Department of Conservation's
Draft IS/MND	Draft Initial Study/Mitigated Negative Declaration
DTSC	California Department of Toxic Substances Control
EIA	U.S. Energy Information Administration
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ERCS	Environmental Resources and Customer Service
ESA	Endangered Species Act
Farmland	Farmland of Statewide Importance
FEMA	Federal Emergency Management Agency
FMMP	Farmland Mapping and Monitoring Program
FTA	Federal Transit Authority
GHG	greenhouse gases
H ₂ S	hydrogen sulfide
HFC	hydrofluorocarbons
I-5	Interstate 5
in/sec	inches per second
IPaC	Information, Planning, and Consultation System
lbs/day	pounds per day
L _{eq}	Equivalent Noise Level



Pocket/Greenhaven 69kV Underground Cable Reliability Project
August 2019, Updated October 7, 2019

L _{max}	Maximum Noise Level
MMRP	mitigation monitoring and reporting program
MRZ	Mineral Resource Zones
MS4	Municipal Separate Storm Sewer
MTCO _{2e}	metric tons of carbon dioxide equivalent
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NCIC	North Central Information Center
NO ₂	nitrogen dioxide
NOI	Notice of Intent
NO _x	oxides of nitrogen
NPDES	National Pollution Discharge Elimination System
NRCS	Natural Resources Conservation Service
O ₃	ozone
Pb	lead
PFC	perfluorocarbons
PM	particulate matter
PM ₁₀	particulate matter less than 10 microns in diameter
PM _{2.5}	particulate matter less than 2.5 microns in diameter
ppm	parts per million
PPV	peak particle velocity
PRC	Public Resources Code
project	Pocket/Greenhaven 69kV Underground Cable Reliability Project
ROG	reactive organic gases
SB	Senate Bill
SF ₆	sulfur hexafluoride
SFD	Sacramento Fire Department
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMUD	Sacramento Municipal Utility District
SO ₂	sulfur dioxide
SPD	Sacramento Police Department
SQIP	Stormwater Quality Improvement Plan
SVAB	Sacramento Valley Air Basin
SWPPP	stormwater pollution prevention plan
SWRCB	State Water Resources Control Board's
TAC	toxic air contaminants
TCR	tribal cultural resources"
tons/year	per year
UAIC	United Auburn Indian Community of the Auburn Rancheria
USFWS	U.S. Fish and Wildlife Service
UST	underground storage tanks
VdB	vibration decibels
WDR	waste discharge requirements

1.0 INTRODUCTION

1.1 Project Overview

The Sacramento Municipal Utility District (SMUD) proposes to replace approximately 2 miles of existing underground cable and construct up to 15 new manholes in the Pocket/Greenhaven neighborhood of the City of Sacramento. The project alignment begins southeast of the Florin Road interchange on Interstate 5 (I-5) at two riser poles located between I-5 and a drainage canal. The project alignment crosses beneath I-5 and runs in a northwest direction through a parking lot to Florin Road, where it heads west along the southern edge of Florin Road. The alignment continues to Gloria Drive, where it turns left and terminates at the Gloria-Florin distribution substation (approximately 400 feet west of Florin Road). The alignment splits at Havenside Drive, and continues south along Havenside Drive until it terminates at the Havenside-Canal distribution substation located immediately west of the Pocket Canal. For the areas beneath I-5 and Pocket Canal, existing underground lines would be removed and new line installed within conduit. For the remainder of the alignment, the underground cable would be replaced via open trenching.

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 Pocket/Greenhaven 69kV Underground Cable Reliability 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 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 the provisions of CEQA.

In accordance with provisions of CEQA, SMUD is distributing a Notice of Intent (NOI) to adopt an MND to solicit comments on the analysis and mitigation measures in the Draft IS/MND. The NOI will be distributed to property owners within 1,000 feet of the project alignment, as well as to the State Clearinghouse/ Governor's Office of Planning and Research and each responsible and trustee agency. The Draft IS/MND will be available a 30-day review and comment period from August 7, 2019 to September 6, 2019.



If you wish to send written comments (including via e-mail), they must be received by close of business on September 6, 2019. Written comments should be addressed to:

SMUD–Environmental Services
P.O. Box 15830 MS H201
Sacramento, CA 95852-1830
Attn: Rob Ferrera

E-mail comments may be addressed to rob.ferrera@smud.org. If you have questions regarding the NOI or Draft IS/MND, please call Rob Ferrera at (916) 732-6676.

Digital copies of the NOI and Draft IS/MND are available on the internet at: <https://www.smud.org/en/about-smud/company-information/document-library/CEQA-reports.htm>. Hardcopies 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 St.
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. The NOI is being distributed to all property owners within 1,000 feet of the project alignment, as well as to the State Clearinghouse/ Governor’s Office of Planning and Research and responsible and trustee agencies. The NOI identifies where the document is available for public review and invites interested parties to provide written comments for incorporation into a final IS/MND.

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) before it can approve the project. The project and relevant environmental documentation will be formally presented at a SMUD Environmental Resources and Customer Service (ERCS) Committee meeting for information and discussion. The SMUD Board of Directors will then consider adoption the final IS/MND and MMRP at its next regular 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 if 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: List of Preparers. This chapter lists the organizations and people that prepared the document.

Chapter 5: References. This chapter lists the references used in preparation of this Draft IS/MND.

1.6 Environmental Factors Potentially Affected

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

- | | | |
|---|---|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology / Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology / Water Quality |
| <input type="checkbox"/> Land Use / Planning | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation / Traffic | <input type="checkbox"/> Tribal Cultural Resources | <input type="checkbox"/> Utilities / Service Systems |
| <input type="checkbox"/> Mandatory Findings of Significance | <input checked="" type="checkbox"/> None With Mitigation | |

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.



July 31, 2019

Signature

Date

Rob Ferrera

Environmental Specialist

Printed Name

Title

Sacramento Municipal Utility District

Agency

2.0 PROJECT DESCRIPTION

2.1 Project Location

The project alignment is located in the Pocket/Greenhaven neighborhood in the southwestern area of the City of Sacramento, within western Sacramento County (see Exhibit 2-1). The project alignment extends generally from a connection point south of Florin Road and east of Interstate 5 (I-5) in Sacramento to two existing substations within the Pocket/Greenhaven neighborhood (see Exhibit 2-2). Between those points, the project is generally located along the southern edge of Florin Road, the southern edge of Gloria Drive between Florin Road and the Gloria-Florin distribution substation (approximately 400 feet west of Florin Road), and the north side of Havenside Drive between Florin Road and Havenside-Canal distribution substation.

2.2 Project Description

The project involves the installation of new underground concrete encased conduit duct bank and 69kV cable to replace approximately 2 miles of existing underground 69kV direct buried cable installed in the 1970s within existing right-of-way. The project also involves installation of up to 15 new manholes along the route to allow electric cable pulling, splicing and maintenance. The following provides a more detailed description of proposed improvements along the project alignment.

From the eastern terminus of the project alignment, the existing 69kV cable extends westward from two riser poles just east of I-5, beneath I-5. Due to the age of the existing cable, it is unknown whether the cable beneath I-5 is encased in conduit or direct buried. If the cable is within conduit, it will be replaced by pulling through the conduit. If the existing cable is direct-buried, the project would include installation of conduit and new cable beneath I-5 or a new overhead crossing over I-5. After crossing I-5, the project would involve the placement of cable by trenching through an existing apartment parking lot to the northeast corner of the existing Nugget Supermarket, along Florin Road just west of I-5.

From this location, the replacement 69kV underground duct bank would be located below-grade along the southern side (generally, the number one eastbound lane of Florin Road). At Havenside Drive, the underground duct bank splits, with one circuit proceeding along Florin Road and a second circuit proceeding south on Havenside Drive to the Havenside-Canal distribution substation located on the northside of Havenside Drive, immediately west of the Pocket Canal. The Havenside alignment crosses the canal immediately west of Los Positas Circle. East of the canal, two new manholes would be installed. The cable would go underneath the canal within existing conduit. This branch would terminate at the Havenside-Canal distribution substation, adjacent to the west side of the canal. For the portion of the project continuing along Florin Road past Havenside Drive, the replacement 69kV underground conduit duct bank would continue to be located along the southern edge of Florin Road to Gloria Drive, before turning left on Gloria Drive towards the Gloria-Florin distribution substation (approximately 400 feet west of Florin Road).

The proposed manholes would consist of pre-cast concrete, measuring 8' x 14' x 8' inside, requiring an excavation area of approximately 15' x 20' x 15', and would generally be spaced evenly throughout the alignment to allow for cable pulling, splicing, and maintenance of the 69kV cable. In general, manholes would be located in the street, with two located in a parking lot area near I-5 and two on the east side of I-5 near the existing riser poles with locations selected such that relocation of other existing utilities is not required.

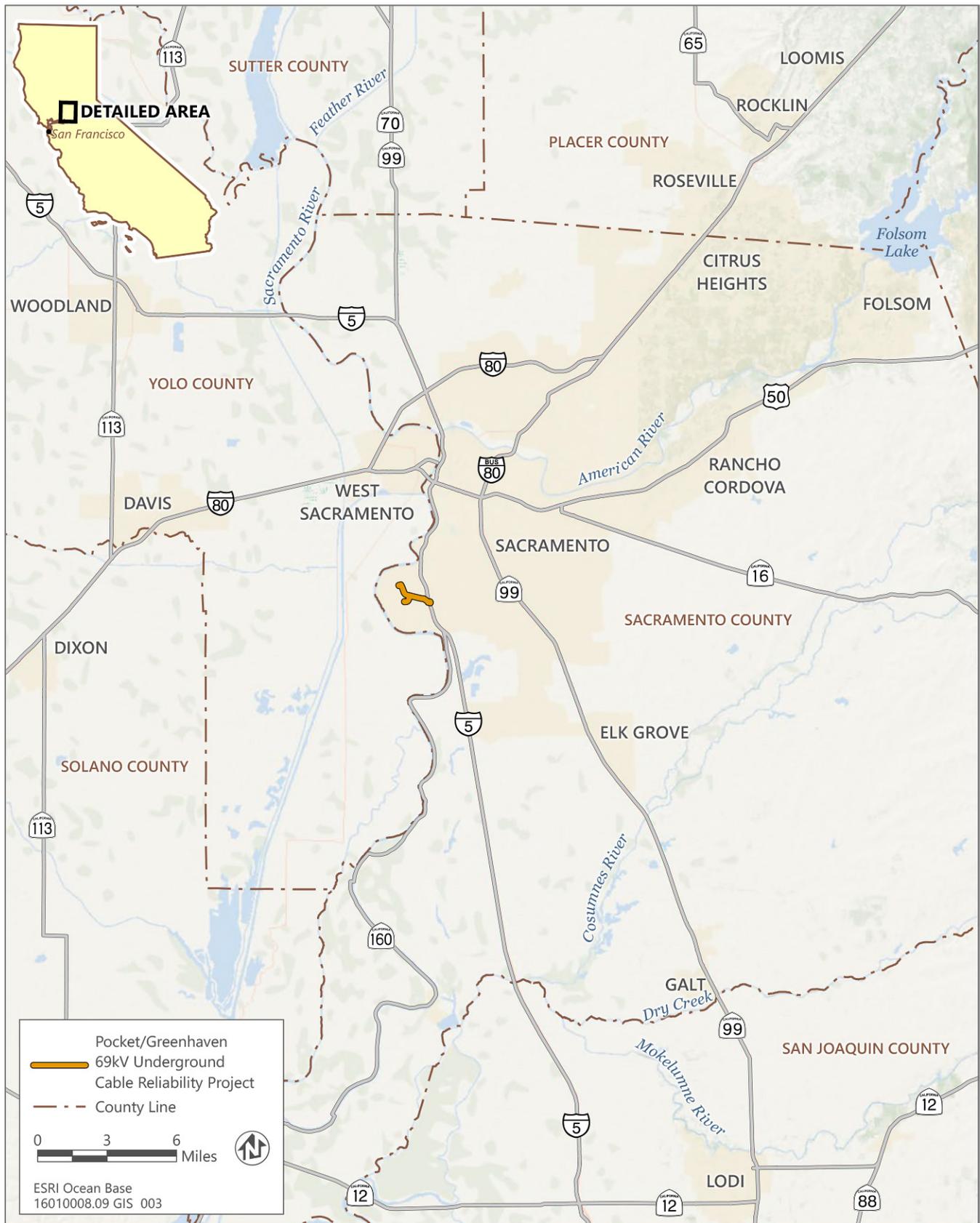


Exhibit 2-1

Project Location

**Exhibit 2-2**

In the open trenches, cable would be placed in a duct bank, a series of conduits encased in concrete. The trenches would then be backfilled with a cementitious slurry mixture or compacted aggregate base to the roadway subgrade elevation followed by replacement of the required aggregate base and pavement section.

Construction activities would likely take 8 months and are expected to begin as early as November 2019. While construction activities may not be continuous, they are expected to be completed by the end of 2020. City of Sacramento noise restrictions prohibit construction between 10:00 p.m. and 7:00 a.m.

While some areas of the project would use existing conduit, most construction would include open trenching to a maximum depth of 7 feet, though some deeper excavation may be necessary to avoid conflicts with existing utility lines. Dewatering of portions of the construction area are considered likely due to the high water-table of the area. Preliminary plans include the optional use of Baker tanks and/or filtration bags, if needed, to treat water prior to discharge into the City's stormdrain system and/or the sewer system, in a manner consistent with existing permitting requirements.

As noted above, construction activities would generally be conducted in roadway rights-of-way and would include the temporary closure of roads and sidewalks. Following construction activities each day, the open trenches would be covered, and equipment removed to allow reopening of the lanes. In residential areas, there may be slight delays but no prolonged inaccessibility for residents.

2.3 Potential Permits and Approvals Required

Elements of the project could be subject to permitting and/or approval authority of other agencies. As the lead agency pursuant to CEQA, SMUD is responsible for considering the adequacy of the IS and determining if the project should be approved. Other potential permits required from other agencies could include:

State

- **State Water Resources Control Board/Central Valley Regional Water Quality Control Board:** issues Construction Storm Water Discharge Permits for projects that disturb more than one acre of land. The permit would also require preparation and implementation of a stormwater pollution prevention plan (SWPPP) that would specify storm water best management practices (BMPs).
- **California Department of Transportation:** issues permits for movement of oversized or excessive loads on State Highways.

Local

- **Sacramento Metropolitan Air Quality Management District (SMAQMD):** issues the Authority to Construct/Permit to Operate pursuant to SMAQMD Regulation 2 (Rule 201 et seq.).
- **City of Sacramento:** issues encroachment and sewer discharge permits and approves improvement plans.

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 will 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 15063(c)(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 type="checkbox"/>	<input checked="" type="checkbox"/>

3.1.1 Environmental Setting

Topography within the project alignment is generally flat. Extensive suburban development exists along the alignment, including shopping centers, residences, and schools. Most structures in the area are one to two stories in height. Landscaping in the project alignment includes many mature trees and a variety of other medium and large trees, shrubs, and lawn areas.

The visual character of the project alignment and the surrounding area is typical of the Sacramento metropolitan area, which includes commercial and industrial buildings, residences, roads, utility lines, trees, and landscaping. Distant views consist of the Sierra Nevada foothills, although existing buildings, trees, and other city infrastructure preclude/limit these views in many locations.

3.1.2 Discussion

a) Have a substantial adverse effect on a scenic vista?

Less than Significant. A scenic vista is generally defined as a distant public view along or through an opening or corridor that is recognized and valued for its scenic quality, or a natural or cultural resource that is indigenous to the area. The *Sacramento 2035 General Plan Update* designates the American River and Sacramento River, including associated parkways, the State Capitol (as defined by the Capitol View Protection Ordinance), and important historic structures listed on the Sacramento Register of Historic and Cultural Resources, California and/or National Registers as scenic resources (City of Sacramento 2014a:4.13-4). The closest scenic resource to the project alignment is the Sacramento River, located more than three-quarters of a mile from the closest point of the project alignment. Between the project alignment and the

Sacramento River, there is extensive residential and commercial development that prevents views of the Sacramento River. Views in the project vicinity are limited because of the flat terrain and the level of development/landscaping that preclude long-range views. Views along the project alignment are short- to mid-range and typical reflect the urban character of the surroundings, which are not considered scenic vistas. Further, the project would not involve the operation of above-ground facilities that could further impede long-distance views in the area. Therefore, the project would have a **less-than-significant** impact related to a substantial adverse effect on a scenic vista, 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. While portions of I-5 are designated as scenic, the segment located adjacent to the project alignment is not designated as a state scenic highway (Caltrans 2019). The nearest designated scenic roadway is Route 160, approximately 3 miles south of the project area (Caltrans 2019). Because there are no designated state scenic highways within, adjacent to, or visible from the project area, the project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. The project would have **no impact**, and no mitigation is required.

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. During project construction, views in the area would be modified as a result of the temporary presence of construction equipment and activities. However, the appearance of construction equipment and activities would be consistent with the developed nature of the project alignment. Once construction activities are complete, the project alignment would appear nearly identical to existing conditions, with no above ground structures associated with the project, though new manhole covers would be visible to motorists, pedestrians, and bicyclists along the project alignment. However, the existing roadways along the project alignment include manhole covers currently, and the addition of up to 15 more manhole covers over a distance of approximately two miles would not substantially degrade the existing visual character of the project area. Because impacts would be largely limited to construction, and the project would be minimally visible during operation, the project would have a **less-than-significant** impact related to a scenic quality, 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?

No Impact. Construction activities would occur during daylight hours and would not require nighttime lighting. Construction equipment is unlikely to have reflective surfaces and would not be a substantial source of glare in the area. During project operation, all project features would be underground or flush with the pavement (i.e., manhole covers) and would not require any lighting during operation or create substantial glare. Therefore, the project would have a **no 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. 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 type="checkbox"/>	<input checked="" type="checkbox"/>

3.2.1 Environmental Setting

While the project area is predominantly non-agricultural, there are two areas along the project alignment that are zoned as Agricultural by the City of Sacramento (City of Sacramento 2014b). The area designated as Agricultural at the intersection of Florin Road and Gloria Drive is the site of John F. Kennedy High School. The area designated as Agricultural near the eastern end of the project alignment is a drainage canal. However, neither area currently serves an agricultural function.

The project alignment is identified as urban and built-up land by the California Department of Conservation's (DOC's) Farmland Mapping and Monitoring Program (FMMP) (DOC 2017).

According to the Sacramento County Important Farmland map, published by California Department of Conservation's (DOC) Division of Land Resource Protection, the project alignment is designated as Urban Built-Up Land, which is defined as land that generally

includes residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatments, and water control structures (DOC 2017). No portions of the project alignment or adjacent parcels are held under Williamson Act contracts (DOC 2015).

There are no areas either within or adjacent to the project alignment that have been designated as forest land or timberland.

3.2.2 Discussion

- a-e) **Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural uses; conflict with existing zoning for agricultural use, or a Williamson Act contract; conflict with existing zoning for, or cause rezoning of, forest land (as defined in 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)); result in the loss of forest land or conversion of forest land to non-forest use; or 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?**

No Impact. The project alignment does not contain any lands designated as Important Farmland (i.e., Prime Farmland, Unique Farmland, or Farmland of Statewide Importance) or zoned as forest land or a timberland area. While a small area of the project alignment is zoned as Agricultural, these sites include a drainage ditch and a high school. There are no active agricultural operations within or near the project alignment, and there are no Williamson Act contracts associated with the project alignment. No existing agricultural or timber-harvest uses are located on or near the project alignment. Therefore, the project would have **no impact** on agriculture or forest land, 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 checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" 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

The U.S. Environmental Protection Agency (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. These pollutants are: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO₂), ozone (O₃), particulate matter (which is categorized into particulate matter less than 10 microns in diameter [PM₁₀] and particulate matter less than 2.5 microns in diameter [PM_{2.5}]), and sulfur dioxide (SO₂). The State of California has also established the California Ambient Air Quality Standards (CAAQS) for these six pollutants, as well as sulfates, hydrogen sulfide (H₂S), vinyl chloride, and visibility-reducing particles. NAAQS and CAAQS were established to protect the public with a margin of safety, from adverse health impacts caused by exposure to air pollution. A brief description of the source and health effects of criteria air pollutants is provided below in Table 3.3-1.

Table 3.3-1 Criteria Air Pollutants

Pollutant	Sources	Effects
Ozone	Ozone is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG), also sometimes referred to as volatile organic compounds by some regulating agencies) and nitrogen oxides (NO _x). The main sources of ROG and NO _x , often referred to as ozone precursors, are	Ozone causes eye irritation, airway constriction, and shortness of breath and can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema.

Table 3.3-1 Criteria Air Pollutants

Pollutant	Sources	Effects
	products of combustion processes (including motor vehicle engines) and the evaporation of solvents, paints, and fuels.	
Carbon monoxide	CO is usually formed as the result of the incomplete combustion of fuels. The single largest source of CO is motor vehicle engines; the highest emissions occur during low travel speeds, stop-and-go driving, cold starts, and hard acceleration.	Exposure to high concentrations of CO reduces the oxygen-carrying capacity of the blood and can cause headaches, nausea, dizziness, and fatigue; impair central nervous system function; and induce angina (chest pain) in persons with serious heart disease. Very high levels of CO can be fatal.
Particulate matter	Some sources of particulate matter, such as wood burning in fireplaces, demolition, and construction activities, are more local in nature, while others, such as vehicular traffic, have a more regional effect.	Scientific studies have suggested links between fine particulate matter and numerous health problems, including asthma, bronchitis, and acute and chronic respiratory symptoms, such as shortness of breath and painful breathing. Recent studies have shown an association between morbidity and mortality and daily concentrations of particulate matter in the air.
Nitrogen dioxide	NO ₂ is a reddish-brown gas that is a by-product of combustion processes. Automobiles and industrial operations are the main sources of NO ₂ .	Aside from its contribution to ozone formation, NO ₂ can increase the risk of acute and chronic respiratory disease and reduce visibility.
Sulfur dioxide	SO ₂ is a combustion product of sulfur or sulfur-containing fuels such as coal and diesel.	SO ₂ is also a precursor to the formation of particulate matter, atmospheric sulfate, and atmospheric sulfuric acid formation that could precipitate downwind as acid rain.
Lead	Leaded gasoline, lead-based paint, smelters (metal refineries), and the manufacture of lead storage batteries have been the primary sources of lead released into the atmosphere, with lead levels in the air decreasing substantially since leaded gasoline was eliminated in the United States.	Lead has a range of adverse neurotoxic health effects.

Sources: EPA 2019

Notes: CO=carbon monoxide; NO₂= nitrogen dioxide; NO_x=nitrogen oxides; ROG=reactive organic gases; SO₂=sulfur dioxide

The project alignment is located in Sacramento County which is within the Sacramento Valley Air Basin (SVAB). The SVAB encompasses Butte, Colusa, Glenn, Tehama, Shasta, Yolo, Sacramento, Yuba, and Sutter Counties and parts of Placer, El Dorado, and Solano Counties. The SVAB is bounded on the north and west by the Coast Ranges, on the east by the southern portion of the Cascade Range and the northern portion of the Sierra Nevada, and on the south by the San Joaquin Valley Air Basin. 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 unclassifiable for all other federal and State ambient air quality standards. (SMAQMD 2017).

The Sacramento Metropolitan Air Quality Management District (SMAQMD) is the local agency responsible for air quality planning and development of the air quality plan in the project area. SMAQMD maintains an updated plan for achieving the State and federal ozone standards that was updated and approved by the SMAQMD Board and the California Air Resources Board (CARB) in 2017. There are currently no plans available for achieving the federal PM_{2.5} or State PM₁₀ standards. The air quality plan establishes the strategies used to achieve compliance with the NAAQS and California Ambient Air Quality Standard (CAAQS) in all areas within SMAQMD's jurisdiction. SMAQMD develops rules and regulations and emission reduction programs to control emissions of criteria air pollutants, ozone precursors (oxides of nitrogen [NO_x] and reactive organic gases [ROGs]), toxic air contaminants (TACs), and odors within its jurisdiction.

SMAQMD published the *Guide to Air Quality Assessment in Sacramento County*, which provides air quality guidance when preparing CEQA documents. This document was last updated in October 2016. SMAQMD's guide establishes thresholds of significance for criteria air pollutants that SMAQMD recommends using when evaluating air quality impacts in Sacramento County. CEQA-related air quality thresholds of significance are tied to achieving or maintaining attainment designation with the NAAQS and CAAQS, which are scientifically substantiated, numerical concentrations of criteria air pollutants considered to be protective of human health. As such, for the purposes of this project, the following thresholds of significance are used to determine if project-generated emissions would produce a significant localized and/or regional air quality impact such that human health would be adversely affected.

Per SMAQMD recommendations, air quality impacts are considered significant if the project would result in any of the following:

- NO_x emissions in excess of 85 pounds per day (lbs/day) during construction and 65 lbs/day during operations;
- ROG emissions in excess of 65 lbs/day during operations;
- PM₁₀ emissions in excess of 80 lbs/day and 14.6 tons per year (tons/year) during construction and operations;
- PM_{2.5} emissions in excess of 82 lbs/day and 15 tons/year during construction and operations;
- CO 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.

In addition to these thresholds, all SMAQMD-recommended BMPs (and use of Best Available Control Technology (BACT) shall be implemented 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 with Mitigation Incorporated. It is anticipated that operational activities associated with the project would include only occasional maintenance and repair; therefore, operational emissions from the project would be negligible. The project does not include any land uses or operational emission sources that would result in substantial increases in operational vehicle trips. Thus, long-term operational emissions of criteria air pollutants and precursors would not violate or substantially contribute to an existing or projected air quality violation or expose sensitive receptors to substantial pollutant concentrations such that adverse health impacts would occur. As discussed previously, SMAQMD developed these thresholds in consideration of achieving attainment for the NAAQS and CAAQS, which represent concentration limits of criteria air pollutants needed to adequately protect human health. Therefore, the project's contribution to operational criteria pollutants and precursors would not contribute to the exceedance of the NAAQS or CAAQS in the County nor result in greater health impacts compared to existing conditions. The project would be consistent with all applicable air quality plans for which these thresholds of significance were developed to support.

Construction activities would result in temporary generation and emissions of criteria air pollutants and precursors. Construction-related emissions were estimated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2 computer program (CAPCOA 2016), in accordance with recommendations by SMAQMD. Modeling was based on project-specific information, where available; reasonable assumptions based on typical construction activities; and default values in CalEEMod that are based on the project's location and land use type.

Project construction is anticipated to occur over an eight-month period. Construction-related activities would result in project-generated emissions of ROG, NO_x, PM₁₀, and PM_{2.5} from construction activities (e.g., site preparation, trenching, conduit duct bank installation, manhole installation, paving), off-road equipment, material delivery, and worker commute trips. Fugitive dust emissions of PM₁₀ and PM_{2.5} are associated primarily with site preparation and trenching, and vary as a function of soil silt content, soil moisture, wind speed, acreage of disturbance, and vehicle miles traveled on and off the site. Emissions of ozone precursors, ROG and NO_x, are associated primarily with construction equipment and on-road mobile exhaust. Paving results in off-gas emissions of ROG. Construction activities associated with the project would likely require the use of forklifts, cranes, excavators, rubber tiered dozers, paving equipment, rollers, concrete trucks, and generators, as well as other diesel-fueled equipment as necessary.

Although exact construction schedules are not known at this time, construction was assumed to be evenly spread over an eight-month period and all construction phases (e.g., site preparation, trenching, conduit duct bank installation and manhole installation, paving) were overlapped to account for construction activities occurring simultaneously in anticipation of periods with above-average construction activities.

It should be noted that as construction continues into the future, equipment exhaust emission rates would decrease as newer, more emission-efficient construction equipment replaces older, less efficient equipment. As noted in the project description, the project would adhere to strict daily construction hours to reduce interference with surrounding land uses and traffic patterns to the extent feasible. The construction analysis assumes that all construction equipment would be used for eight hours each day. Due to the strict timeframe during which project construction activities would occur, however, the actual daily usage of each construction equipment is expected to be less than eight hours. As such, reported emissions represent a conservative estimate of maximum daily emissions during the construction period. For assumptions and modeling inputs, refer to Appendix A.

Table 3.3-2 summarizes the modeled maximum daily emissions for all pollutants and annual emissions for particulate matter from construction activity without the application of BMPs and BACT.

Table 3.3-2 Summary of Unmitigated Emissions Generated During Project Construction

	Maximum Daily Emissions (lbs/day)				Annual Emissions (tons/year)	
	ROG	NO _x	PM ₁₀	PM _{2.5}	PM ₁₀	PM _{2.5}
Project Construction	6	57	9	6	1	<1
SMAQMD Threshold of Significance ^a	None	85	0	0	14.6	15
Exceeds Threshold?	No	No	Yes	Yes	No	No

Notes:

ROG = reactive organic gases; NO_x = oxides of nitrogen; PM₁₀ = respirable particulate matter; PM_{2.5} = fine particulate matter; lbs/day = pounds per day; SMAQMD = Sacramento Metropolitan Air Quality Management District

^a Represents SMAQMD Threshold of Significance without the application of Best Management Practices (BMPs) and Best Available Control Technology (BACT).

Maximum daily emissions represent overlapping construction phases. See Appendix A for details.

Source: Modeled by Ascent Environmental in 2019

As shown in Table 3.3-2, project construction would not generate emissions in excess of the SMAQMD thresholds for ROG and NO_x, nor would it result in a significant increase in annual emissions of PM₁₀ and PM_{2.5}. However, the project, without the application of BMPs and BACT, would generate daily emissions of PM₁₀ and PM_{2.5} in excess of the SMAQMD thresholds during construction activities. Therefore, the impact of construction activities would be potentially significant.

Mitigation Measure 3.3-1: Implement SMAQMD Basic Construction Emission Control Practices.

During construction, the contractor shall comply with and implement SMAQMD's Basic Construction Emission Control Practices, which includes SMAQMD-recommended BMPs and BACT, for controlling fugitive dust emissions. Measures to be implemented during construction include the following:

- *Water all exposed surfaces at least 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 (2) feet of freeboard space on haul trucks transporting soil, sand, or other loose material on the site. Cover any haul trucks that will be traveling along freeways or major roadways.*
- *Use wet power vacuum street sweepers to remove any visible track-out mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.*
- *Limit vehicle speed on unpaved roads to 15 miles per hour.*
- *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 (required by 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.*
- *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.*

Implementation of Mitigation Measure 3.3-1 would be considered application of BMPs and BACT and would result in the project generating emissions less than the SMAQMD thresholds for all pollutants, as shown in Table 3.3-3.

Table 3.3-3 Summary of Mitigated Emissions Generated During Project Construction

	Maximum Daily Emissions (lbs/day)				Annual Emissions (tons/year)	
	ROG	NO _x	PM ₁₀	PM _{2.5}	PM ₁₀	PM _{2.5}
Project Construction	6	57	6	4	<1	<1
SMAQMD Threshold of Significance	None	85	80	82	14.6	15
Exceeds Threshold?	No	No	No	No	No	No

Notes:

ROG = reactive organic gases; NO_x = oxides of nitrogen; PM₁₀ = respirable particulate matter; PM_{2.5} = fine particulate matter; lbs/day = pounds per day; SMAQMD = Sacramento Metropolitan Air Quality Management District
 Maximum daily emissions represent overlapping construction phases. See Appendix A for details.

Source: Modeled by Ascent Environmental in 2019

With implementation of Mitigation Measure 3.3-1, short-term construction emissions of criteria air pollutants and precursors would not violate or substantially contribute to an existing or projected air quality violation or expose sensitive receptors to substantial pollutant concentrations such that adverse health impacts would occur. As discussed previously, SMAQMD developed these thresholds in consideration of achieving attainment for the NAAQS and CAAQS, which represent concentration limits of criteria air pollutants needed to adequately protect human health. Therefore, implementation of Mitigation Measure 3.3-1 would reduce the impact of emissions generated during construction activities to a **less-than-significant** level.

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. Construction of the project would result in emissions of criteria air pollutants, while project operational emissions would be negligible. Sacramento County is currently in nonattainment for federal and State ozone, State PM₁₀, and federal PM_{2.5}. Ozone impacts are the result of cumulative emissions from numerous sources in the region and transport from outside the region. Ozone is formed in chemical reactions involving NO_x, ROG, and sunlight. Particulate matter also has the potential to cause significant local problems during periods of dry conditions accompanied by high winds, and during periods of heavy earth disturbing activities. Particulate matter (PM₁₀ and PM_{2.5}) may have cumulative local impacts if, for example, several unrelated grading or earth moving activities are underway simultaneously at nearby sites. This impact would be potentially significant.

Implementation of Mitigation Measure 3.3-1 would reduce project construction emissions and ensure that project related emissions of NO_x, ROG, PM₁₀, and PM_{2.5} would not exceed SMAQMD thresholds during construction activities. The project would implement SMAQMD BMPs and BACT to reduce fugitive dust emissions to the extent feasible. Construction emissions would be temporary and would not be generated following the completion of project construction. No long-term emissions would be generated during project operations. Therefore, short-term project-generated construction emissions and long-term operational emissions would not be cumulatively considerable and impacts would be **less than significant**.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant. Sensitive receptors are generally considered to include those land uses where exposure to pollutants could result in health-related risks to sensitive individuals, such as children or the elderly. Residential dwellings, schools, hospitals, playgrounds, and similar facilities are of primary concern because of the presence of individuals particularly sensitive to pollutants and the potential for increased and prolonged exposure of individuals to pollutants.

Construction-related activities would result in temporary, intermittent emissions of diesel particulate matter (PM) from the exhaust of off-road, heavy-duty diesel equipment. For construction-activity, diesel PM is the primary TAC of concern. The potential cancer risk from inhaling diesel PM outweighs the potential for all other diesel PM—related health impacts (i.e. noncancer chronic risk, short-term acute risk) and health impacts from other TACs (CARB 2003). Diesel PM is highly dispersive and can be estimated to decrease by approximately 70 percent at a distance of 500 feet from the source (Zhu et. al 2002).

The project is generally located adjacent to sensitive receptors along the entirety of the project site. These receptors include residences along Florin Road, Havenside Drive, and Gloria Drive, and two school sites (John F. Kennedy High School and School of Engineering and Sciences). At a minimum, construction activities would occur 50 feet away from sensitive receptors. Construction activities would only occur this close to any sensitive receptor over a short time period based on the linear construction plan. For the purposes of this analysis, it is assumed that construction would generally progress at a rate of approximately 80 linear feet per day, based on the length of the construction period and the linear length of the project alignment. Based on this assumption, project construction would only occur within a 500-foot radius of a given sensitive receptor for approximately two weeks.

Based on emission modeling, maximum daily emissions of exhaust PM_{2.5} would not exceed three (3) lbs/day during construction with the application of Mitigation Measure 3.3-1. As noted previously, these estimates represent a conservative analysis and would only occur nearby each sensitive receptor during a short period of time. The project would not generate emissions during operations.

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 near any one sensitive receptor, construction-related TACs would not expose sensitive receptors to an incremental increase in cancer risk that exceeds 10 in one million. The project would not generate any emissions during operations and would not result in long-term exposure of any sensitive receptors to TACs. As a result, this impact would be **less than significant**, and no mitigation would be required.

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

Less than Significant. Minor odors from the use of heavy-duty diesel equipment and the laying of asphalt during project construction activities would be intermittent and temporary, and would dissipate rapidly from the source within an increase in distance. While facilities would be constructed intermittently over an eight-month period, these types of odor-generating activities would not occur at any single location or for an extended period of time. Therefore, project construction is not anticipated to result in an odor-related impact. Activities associated with project operation would be limited and would not generate odors. Implementation of the project would not result in exposure of a substantial number of people to objectionable odors. Thus, this impact would be **less than significant**, and no mitigation would be 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 type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input 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 to such resources as a result of project implementation. To determine the biological resources that may be subject to impacts from the project, Ascent biologists reviewed several existing data sources including:

- a reconnaissance survey of the project alignment conducted by an Ascent biologist on March 14, 2019;
- a records search of the California Natural Diversity Database (CNDDDB) (CDFW 2019);
- a record search of the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants (CNPS 2019);

- a database search of the U.S. Fish and Wildlife Service (USFWS) Information, Planning, and Consultation System (IPaC) and a list of federally proposed, candidate, threatened, and endangered species that may occur in the project region (USFWS 2019a); and
- USFWS National Wetlands Inventory (USFWS 2019b).

Vegetation and Habitat Types

The project site ranges from approximately 6 feet to 17 feet in elevation. The project site is highly urbanized with residential, commercial, and recreational land uses and includes the Interstate 5 (I-5) right-of-way. Vegetation within the project site consists mostly of street trees, mowed parkland, and manicured landscaping; however, the portion of the project within the I-5 right-of-way contains a small portion of ruderal land cover along the freeway.

Special-status Species

Special-status species include botanical species (plants, lichen, and fungi) and animals that are legally protected or otherwise considered sensitive by federal, state, or local resource agencies and conservation organizations. In this document, special-status species are defined as botanical species and animals in the following categories.

- Listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (ESA).
- Designated as a candidate for listing as threatened or endangered under ESA.
- Listed, proposed for listing, or a candidate for listing as threatened or endangered under the California Endangered Species Act (CESA).
- Listed as fully protected under the California Fish and Game Code.
- Animals identified by California Department of Fish and Wildlife (CDFW) as species of special concern.
- Plants considered by CDFW to be “rare, threatened or endangered in California” (California Rare Plant Ranks [CRPR] of 1A, presumed extinct in California; 1B, considered rare or endangered in California and elsewhere; and 2, considered rare or endangered in California but more common elsewhere). The California Rare Plant Ranks correspond with and replace former California Native Plant Society listings. While these rankings do not afford the same type of legal protection as ESA or CESA, the uniqueness of these species requires special consideration under the California Environmental Quality Act (CEQA).
- Considered a locally significant species, that is, a species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region (CEQA Section 15125 [c]) or is so designated in local or regional plans, policies, or ordinances (State CEQA Guidelines, Appendix G).
- Otherwise meet the definition of rare or endangered under CEQA Sections 15380(b) and (d).

A preliminary list of special-status botanical and animal species with potential to occur in the project site was developed based on a review of the existing data sources described previously. An analysis of special-status animal and botanical species was conducted using documentation related to potential to occur in the project region, the presence of suitable habitat in the project site, and other factors.

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. Ground disturbance associated with the project is located primarily within the rights-of-way of city streets, sidewalks, and landscaped vegetation. Where the project site crosses ruderal areas along I-5, the cable would be pulled through existing underground conduit or new underground conduit would be installed using jack boring. Some ground disturbance would occur in this mowed ruderal habitat. A CNPS Inventory query for the nine U.S. Geological Survey 7.5-minute quadrangles surrounding the project site identified 28 special-status plant species documented in the search area (CNPS 2019). However, ground disturbance associated with the project would not occur in suitable habitat for special-status plant species; therefore, the proposed project would have no impact on special-status plants.

A query of the CNDDDB for the nine U.S. Geological Survey 7.5-minute quadrangles surrounding the project site identified 29 special-status animal species documented within the search area. Twenty-one of these special-status animal species were eliminated from further consideration due to the project occurring outside of the current range of the species, or lack of suitable habitat where ground disturbance would occur. Eight special-status animal species could occur within the project site or could be indirectly affected by the project outside of the project site. This impact is potentially significant.

Special-Status Fish Species

Project construction is expected to require dewatering of groundwater from trenches and existing conduit due to the high water-table in the project site. Groundwater that is pumped from construction areas may be treated using Baker tanks and/or filtration bags, if needed, prior to discharge into the City's stormdrain system and/or sewer system. Given the location of the project, it is assumed that this water would be discharged from the stormwater system to the Sacramento River. Six special-status fish have the potential to occupy the Sacramento River where this discharge would occur: Sacramento perch (*Archoplites interruptus*), Sacramento splittail (*Pogonichthys macrolepidotus*), Delta smelt (*Hypomesus transpacificus*), Central Valley steelhead (*Oncorhynchus mykiss irideus*), Central Valley spring-run chinook salmon (*Oncorhynchus tshawytscha*), and Sacramento River winter-run chinook salmon. The discharge of groundwater through the City's stormdrain system and/or sewer system into the Sacramento River would not result in substantial changes to water quality in the Sacramento River that would adversely affect special-status fish, because groundwater pumped from construction areas would be treated prior to entering the stormdrain system and/or sewer system and would be subject to discharge requirements to comply with the City's MS4 stormwater permit. Therefore, the project would have a less-than-significant impact on special-status fish species.

Special-Status and Common Nesting Birds

There are five CNDDDB records of nesting Swainson's hawks (*Buteo swainsoni*) within 1.5 miles of the project alignment (CDFW 2019). Four of these occurrences are within the riparian area along the Sacramento River to the west of the project alignment, and one occurrence is on a golf course to the east of I-5. While the project alignment is highly urbanized and disturbed, Swainson's hawks are known to nest in urban settings in some locations. Although the project alignment is within 10 miles of known Swainson's hawk nesting locations, because of its urban nature, the project alignment does not contain suitable foraging habitat for Swainson's hawk (e.g., row crops, field crops, pasture). The closest record of nesting burrowing owl (*Athene cunicularia*) is approximately 2.0 miles south of the project alignment, and the project alignment contains ruderal habitat, which is often associated with burrowing owl nests. However, the ruderal habitat within the project alignment is highly and regularly disturbed by mowing and other human activities, and, due to its condition, is considered unsuitable for burrowing owl nesting.

The nearest CNDDDB record for white-tailed kite (*Elanus leucurus*) is approximately 4.1 miles to the north, along the Barge Canal in West Sacramento. This species is known to nest in riparian areas, and within urban settings. Although the project alignment contains trees that could provide nesting sites for these species, foraging habitat is limited near the project alignment and therefore nesting potential is considered moderate for Swainson's hawk and white-tailed kite.

In addition to providing potential nesting sites for Swainson's hawk and white-tailed kite, mature trees in the project alignment and adjacent area could support nests of common raptors. The common raptors that may nest within the project include: Cooper's hawk (*Accipiter cooperii*), red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), and great horned owl (*Bubo virginianus*). Potential Cooper's hawk and red-shouldered hawk nests were observed during a reconnaissance survey by an Ascent biologist on March 14, 2019. In addition to common raptors, the project alignment 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 Fish and Game Code.

Mitigation Measure 3.4-1: Avoid disturbance of nesting birds

If construction will occur during the nesting season, a SMUD project biologist/biological monitor will conduct pre-construction nesting bird surveys to determine if birds are nesting in the work area.

The pre-construction nesting bird surveys will identify on-site bird species and any nest-building behavior. If no nesting birds are found in or within 500 feet of the project alignment during the pre-construction clearance surveys, construction activities may proceed as scheduled.

If pre-nesting behavior is observed, but an active nest 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 previous year's nesting materials and removal of partially completed nests in progress. Once 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.

Because bird species may breed multiple times in a season, monitoring for nesting birds will continue during the nesting season to address new arrivals. A qualified biologist will conduct bi-weekly nesting bird surveys of suitable nesting habitat in the construction area during the nesting season and deter establishment of nests by removing partial completed nests.

If an active nest is found in or within 500 feet of the project alignment 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 situation, 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 has determined that with implementation of an appropriate buffer, work activities would not disturb the birds nesting behavior.

If special-status bird species are found nesting in or within 500 feet of the project alignment, the project biologist/biological monitor shall notify SMUD’s project manager to notify CDFW or USFWS, as appropriate, within 24 hours of first nesting observation.

Implementation of Mitigation Measure 3.4-1 would minimize impacts to special-status bird species by requiring pre-construction nesting surveys for nesting birds, no-disturbance buffers around active nests, and monitoring of the project alignment to prevent new nests from being established during construction. With implementation of Mitigation Measure 3.4-1, potential impacts to nesting birds 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 alignment is located primarily within the rights-of-way of city streets, sidewalks, and landscaped vegetation and does not contain sensitive natural communities (e.g., riparian habitat, elderberry savanna, northern hardpan vernal pools). The project would result in **no impact** on listed sensitive natural communities, and no mitigation would be required.

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. The Havenside alignment of the project crosses beneath Pocket Canal immediately west of Los Positas Circle, which is a potentially state or federally protected water. Two new manholes would be installed in the street on either side of the canal. The cable would pass underneath the canal within existing conduit and would therefore not affect the canal.

The portion of the project alignment located within the right of way of I-5, where trenching will occur, was surveyed by Ascent biologists on May 23, 2019 and it was determined that no state or federally protected wetlands were present in the area. In addition, project construction is expected to require dewatering activities due to groundwater in the area. Preliminary plans include the potential for use of Baker tanks and/or filtration bags, if needed, to treat water prior

to discharge into the City's stormdrain system and/or the sewer system. Any discharge of groundwater to the City's stormdrain system and/or sewer system would need prior written authorization by the City and would need to comply with all conditions to comply with the City's MS4 stormwater permit. With the initial treatment of water prior to discharge into the stormdrain system and/or sewer system and the discharge requirements already in place for those systems, there would be no substantial adverse effect on state or federally protected wetlands and any impact would be **less than significant**, and no mitigation would be required.

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. The project alignment is located within an urban setting (see Exhibit 2-2) primarily within the rights-of-way of city streets, sidewalks, and landscaped vegetation. This urban and disturbed setting does not support native wildlife nursery sites. The project would not alter any existing wildlife corridor and would not interfere with the movement of migratory fish species. Therefore, the proposed project would result in **no impact** on movement of native resident or migratory fish or wildlife species, movement corridors, or native wildlife nursery sites, and no mitigation would be required.

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

Less than Significant. The project alignment is located primarily within the rights-of-way of I-5, city streets, sidewalks, and landscaped vegetation. Where activities would take place adjacent to the street, and within the right of way of I-5, trees may need to be removed.

Section 12.56.080(E) of the Sacramento City Code requires that before a public utility installs or performs maintenance on infrastructure that may cause injury to a city tree or private protected tree, the utility shall submit a plan for review by the City's Public Works Director. SMUD will coordinate with the City by providing tree work plans to the City for any work in the vicinity of any city tree or private protected tree. Because SMUD will comply with Section 12.56.080(E), this impact would be **less than significant** and 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. Two habitat conservation plans will be implemented near the project alignment. The South Sacramento Habitat Conservation Plan covers an area south of the City of Sacramento, and the Yolo Habitat Conservation Plan/Natural Communities Conservation Plan covers Yolo County including the area across the Sacramento River from the project alignment. However, the project is located outside of the plan areas for both plans and would not conflict with any of the provisions of either plan. Therefore, the project would result in **no impact**, and no mitigation would be 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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

Regional Prehistory

Although human occupation of the Central Valley may extend back 10,000 before present (B.P.), reliable evidence of such an early human presence is lacking and may be deeply buried. The prehistoric setting can be categorized into the following periods.

The Paleo-Indian Period: The Paleo-Indian Period (12,000 to 10,500 B.P.) saw the first demonstrated entry and spread of humans into California. Characteristic artifacts recovered from archaeological sites of this time period include fluted projectile points (constructed from chipped stones that have a long groove down the center called a “flute”) and large, roughly fashioned cobble and bifacially-flaked stone tools that were used in hunting the mastodon, bison, and mammoth that roamed the land during this time.

The Lower Archaic Period: The beginning of the Lower Archaic Period (10,500 to 7500 B.P.) coincides with that of the Middle Holocene climatic change which resulted in widespread floodplain deposition. This episode resulted in most of the early archaeological deposits being buried. Most tools were manufactured of local materials, and distinctive artifact types include large dart points and the milling slab and handstone.

The Middle Archaic Period: The Middle Archaic Period (7500 to 2500 B.P.) is characterized by warm, dry conditions which brought about the drying up of pluvial lakes. Economies were more diversified and may have included the introduction of acorn processing technology, although hunting remained an important source of food. Artifacts characteristic of this period include milling stones and pestles and a continued use of a variety of implements interpreted as large dart points.

The Upper Archaic Period: The Upper Archaic Period (2500 to 850 B.P.) corresponds with a sudden turn to a cooler, wetter, and more stable climate. The development of status distinctions based upon wealth is well documented in the archaeological record. The development of specialized tools, such as bone implements and stone plummets, as well as manufactured shell

goods, were prolific during this time. The regional variance of economies was largely because of the seasonality of resources, which were harvested and processed in large quantities.

The Emergent Period: Several technological and social changes distinguish the Emergent Period (850 B.P. to Historic) from earlier cultural manifestations. The bow and arrow were introduced, ultimately replacing the dart and throwing spear, and territorial boundaries between groups became well established. In the latter portion of this Period (450 to 1800 B.P.), exchange relations became highly regularized and sophisticated. The clam disk bead developed as a monetary unit of exchange, and increasing quantities of goods moved greater distances. It was at the end of this Period that contact with Euroamericans became commonplace, eventually leading to intense pressures on Native American populations.

Ethnographic Setting

The project alignment is located in the traditional Native American territory of the Nisenan. Nisenan territory once extended from the city of Oroville to south of the American River and from a few miles west of Lake Tahoe to the Sacramento River. Most Valley Nisenan lived in villages comprising several hundred individuals along the Sacramento River. Most Valley Nisenan lived in villages comprising several hundred individuals along the Sacramento River. The Nisenan were organized into “tribelets,” which were made up of politically independent primary villages with one or more surrounding subordinate, smaller villages. Villages usually contained family dwellings, acorn granaries, a sweathouse, and a dance house that was owned by the chief. Subsistence activities focused on gathering acorns, seeds, and other plant resources. Berries and other fruits and nuts were also gathered. Deer, rabbit, and large predators such as mountain lion and wildcat were among the animals that were hunted. The Nisenan also fished for a variety of fish species. Nisenan were involved in a trade network that extended from the coast to the east side of the Sierra Nevada.

Historic Setting

California was visited by most major European naval powers, but was claimed by the Spanish Empire ca. 1602. The first California mission was established in 1769, in San Diego. Over the next 50 years, the Spanish government, with the aid of various Roman Catholic orders, established 21 missions throughout Alta California. Lieutenant Gabriel Moraga and 13 soldiers traveled to the Sacramento Valley from Mission San Jose in 1808, but reported that the area would not be suitable for a mission site. However, a member of the expedition, enamored with the trees and the rivers, compared the region’s beauty to the Catholic Eucharist, or *sagrado sacramento* (SMUD 2018: 3.3-16).

Mexico’s independence from Spain in 1822 resulted in the secularization of the missions, in part to limit the influence of Roman Catholics loyal to Spain. Foreign fur trappers, primarily Canadian and American, gained a regional foothold. In 1826, Jedediah Smith camped near the present site of California State University, Sacramento, on assignment for the Hudson Bay Company. His success spurred an influx of trappers. They depleted the area of game until the early 1840s, when hunting and trapping were no longer profitable. The rapid influx of European and American trappers caused epidemics of malaria and smallpox that killed thousands of Nisenan and other indigenous people along the Sacramento River. Depopulation of the indigenous people from the project area through disease, relocation, and murder continued during Mexican secularization of Alta California (SMUD 2018:3.3-16).

California was ceded as a territory to the United States following the end of the Mexican-American War in 1848. During that time, the steadily growing population expanded into the surrounding countryside. As the commercial center of Sacramento began to favor the riverfront, more and more canvas and semi-permanent structures opportunistically arose in that area of the new town. When California was admitted to the Union in 1850, the population of Sacramento was nearly 12,000 (SMUD 2018:3.3-17).

In 1900, Sacramento had a population of 30,000, covering an area of about 4 square miles. The city streets averaged 80 feet wide and had electric lights. Water mains were established on an east-west orientation. By 1910 the population had increased to 45,000. New developments attracted middle-class and upper-class families away from the city core. The homes in the older parts of town were soon divided into rentals, demolished for new construction, or simply left to deteriorate (SMUD 2018:3.3-17).

Records Searches, Surveys, and Consultation

A records search of the project site and a 1/8-mile radius was conducted by the North Central Information Center (NCIC), at California State University, Sacramento (SAC-19-39) in March 2019. The following information was reviewed as part of the records search:

- site records of previously recorded sites,
- previous cultural studies,
- the National Register of Historic Places and the California Register of Historic Resources,
- the California Historic Resources Inventory, and
- the Office of Historic Preservation Historic Properties Directory.

The records search revealed no resources or studies within the project alignment or within a 1/8-mile radius of the project alignment. As 1) the entire project alignment has been historically developed, 2) a significant portion of the project site is paved, and 3) the records search did not identify any resources within the project site or within 1/8-mile of the site, further investigation was not warranted.

3.5.2 Discussion

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

Less than Significant with Mitigation Incorporated. No known historical resources were identified on the project alignment or within 1/8-mile of the project alignment (NCIC 2019). Therefore, no impact would occur to previously recorded historical resources in the project area. However, previously unknown buried resources could be discovered located beneath the ground surface during construction activities. The impact on previously unknown resources would be potentially significant.

Mitigation Measure 3.5-1: Worker awareness and response for cultural and tribal cultural resources

Prior to the start of construction, SMUD shall provide information to the construction contractor and SMUD's project superintendent regarding the potential for cultural and tribal cultural resources that could be encountered during ground disturbance, the regulatory protections afforded to such finds, and the procedures to follow in the event of discovery of a previously unknown resource, including notifying SMUD representatives.

If workers observe any evidence of prehistoric, historic, paleontological, or tribal cultural resources (e.g., freshwater shells, beads, bone tool remnants, bones, stone tools, grinding rocks, foundations or walls, structures, refuse deposits, or fossils), all work within 50 feet of the find shall cease immediately and SMUD representatives shall be notified. An archaeologist meeting the Secretary of the Interior's required qualifications or a paleontologist meeting the Society of Vertebrate Paleontology's minimum qualifications shall be consulted to assess the significance of the cultural or paleontological find and recommend appropriate measure for the treatment of the resource. Potential treatment may include no action (i.e., the resource is not significant), avoidance of the resource, or data recovery. If the resource may be of Native American origin, SMUD shall consult with the tribes to whom the resource could have importance.

Implementation of Mitigation Measure 3.5-1 would reduce potential impacts to previously-undiscovered resources by requiring worker awareness training and that steps be taken in the event that resources are encountered during project construction. With implementation of Mitigation Measure 3.5-1, this impact would be reduced to a **less-than-significant** level.

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 known archaeological resources were identified on the project alignment or within 1/8-mile of the project alignment (NCIC 2019). Therefore, no impact would occur to previously identified archaeological resources in the project area. Because the project alignment has been developed with roadways, sidewalks, and features associated with residential and non-residential development, most of the ground surface is not visible. Therefore, a field survey for archaeological resources was not conducted. Nonetheless, ground-disturbing activities could result in uncovering currently unknown resources and cause a substantial change in the significance of an undiscovered unique archaeological resource as defined in CEQA Guidelines Section 15064.5. The impact on previously unknown resources would be potentially significant.

Implementation of Mitigation Measure 3.5-1 would reduce potential impacts to previously undiscovered archaeological resources through worker awareness training and mandating that steps be taken in the event that archaeological resources are discovered during project construction. With implementation of Mitigation Measure 3.5-1, this impact would be reduced to a **less-than-significant** level.

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

Less than Significant with Mitigation Incorporated. Based on documentary research, no evidence suggests that any prehistoric or historic-era marked or unmarked human interments are present within or in the immediate vicinity of the project alignment. However, the location of grave sites and Native American remains can occur outside of identified cemeteries or burial sites. Therefore, it is possible that unmarked, previously unknown Native American or other graves could be present within the project alignment and could be uncovered during project construction activities. The impact on undiscovered or unrecorded human remains would be potentially significant.

Mitigation Measure 3.5-2: Halt ground disturbance upon discovery of human remains

If human remains are discovered during any project activities, potentially damaging ground disturbing activities within 100 feet of the remains shall be halted immediately, and SMUD shall notify the Sacramento County coroner and the NAHC immediately, as required by Public Resources Code Section 5097.98 and Health and Safety Code Section 7050.05. If the remains are determined by NAHC to be Native American, the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. SMUD shall also retain a professional archaeologist with Native American burial experience to conduct a field investigation of the specific site and consult with the Most Likely Descendant, if any, identified by the NAHC. Following the coroner's and NAHC's findings, the archaeologist, 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. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in PRC Section 5097.94.

Implementation of Mitigation Measure 3.5-2 would reduce impacts associated with human remains to a **less-than-significant** level because it would require the performance of professionally accepted and legally-compliant procedures in the event of discovery of human remains.

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

California relies on a regional power system composed of a diverse mix of natural gas, petroleum, renewable, hydroelectric, and nuclear generation resources.

- Petroleum:** Petroleum products (gasoline, diesel, jet fuel) are consumed almost exclusively by the transportation sector, and account for almost 99 percent of the energy used in California by the transportation sector, with the rest provided by ethanol, natural gas, and electricity (Bureau of Transportation Statistics 2015). Between January 2007 and May 2016, an average of approximately 672 billion gallons of gasoline were purchased in California (California State Board of Equalization 2016). Gasoline and diesel fuel sold in California for motor vehicles is refined in California to meet specific formulations required by the California Air Resources Board (CARB) (U.S. Energy Information Administration [EIA] 2018).
- Natural Gas:** Almost two-thirds of California households use natural gas for home heating, and about half of California’s utility-scale net electricity generation is fueled by natural gas (EIA 2018).
- Electricity and Renewables:** The California Energy Commission (CEC) estimates that 34 percent of California’s retail electricity sales in 2018 will be provided by RPS-eligible renewable resources (CEC 2018). California regulations require that electricity consist of 33 percent renewables by 2020 and 50 percent renewables by 2030 for all electricity retailers in the state.
- Alternative Fuels:** Conventional gasoline and diesel may be replaced (depending on the capability of the vehicle) with many alternative transportation fuels (e.g., biodiesel, hydrogen, electricity, and others). Use of alternative fuels is encouraged through various statewide regulations and plans (e.g., Low Carbon Fuel Standard, Assembly Bill [AB] 32 Scoping Plan).

Federal Regulations

The Energy Policy and Conservation Act of 1975 established nationwide fuel economy standards to conserve oil. Under this act, the National Highway Traffic and Safety Administration, is responsible for revising existing fuel economy standards and establishing new vehicle economy

standards. The Corporate Average Fuel Economy program was established to determine vehicle manufacturer compliance with the government's fuel economy standards. Three Energy Policy Acts have been passed, in 1992, 2005, and 2007, to reduce dependence on foreign petroleum, provide tax incentives for alternative fuels, and support energy conservation.

State Regulations

Warren-Alquist Act

The 1975 Warren-Alquist Act established the California Energy Resources Conservation and Development Commission, now known as the CEC. The Act established state policy to reduce wasteful, uneconomical, and unnecessary uses of energy by employing a range of measures. The California Public Utilities Commission (CPUC) regulates privately-owned utilities in the energy, rail, telecommunications, and water fields.

State of California Energy Action Plan

The CEC, CPUC, and now defunct Consumer Power and Conservation Financing Authority prepared the first State of California Energy Action Plan in 2003 to establish shared goals and specific actions to ensure that adequate, reliable, and reasonably-priced electrical power and natural gas supplies are achieved and provided through policies, strategies, and actions that are cost-effective and environmentally sound for California's consumers and taxpayers. The plan was updated in 2005 and 2008 to address policy the emerging importance of climate change, transportation-related energy issues, and research and development activities (CPUC et al. 2008).

Transportation-Related Regulations

Various regulatory and planning efforts are aimed at reducing dependency on fossil fuels, increasing the use of alternative fuels, and improving California's vehicle fleet. Senate Bill (SB) 375 aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. CARB, in consultation with the metropolitan planning organizations, provides each affected region with reduction targets for greenhouse gases (GHGs) emitted by passenger cars and light trucks in their respective regions for 2020 and 2035.

Pursuant to AB 2076 (Chapter 936, Statutes of 2000), CEC and the CARB prepared and adopted a joint agency report in 2003, Reducing California's Petroleum Dependence. Included in this report are recommendations to increase the use of alternative fuels to 20 percent of on-road transportation fuel use by 2020 and 30 percent by 2030, significantly increase the efficiency of motor vehicles, and reduce per capita VMT (CEC and CARB 2003).

AB 1007 (Chapter 371, Statutes of 2005) required CEC to prepare the State Alternative Fuels Plan to increase the use of alternative fuels in California.

In January 2012, CARB approved the Advanced Clean Cars program which combines the control of GHG emissions and criteria air pollutants, as well as requirements for greater numbers of zero-emission vehicles, into a single package of standards for vehicle model years 2017 through 2025. The program's zero-emission vehicle regulation requires battery, fuel cell, and/or plug-in hybrid electric vehicles to account for up to 15 percent of California's new vehicle sales by 2025.

Renewable Energy Regulations

SB X1-2 of 2011 requires all California utilities to generate 33 percent of their electricity from renewables by 2020. SB X1-2 also requires the renewable electricity standard to be met increasingly with renewable energy that is supplied to the California grid from sources within, or directly proximate to, California. SB X1-2 mandates that renewables from these sources make up at least 50 percent of the total renewable energy for the 2011-2013 compliance period, at least 65 percent for the 2014-2016 compliance period, and at least 75 percent for 2016 and beyond.

SB 100, signed in September 2018, requires that all California utilities, including independently-owned utilities, energy service providers, and community choice aggregators, supply 44 percent of retail sales from renewable resources by December 31, 2024, 50 percent of all electricity sold by December 31, 2026, 52 percent by December 31, 2027, and 60 percent by December 31, 2030. The law also requires that eligible renewable energy resources and zero-carbon resources supply 100 percent of retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 2045.

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. Energy would be consumed during project construction to operate and maintain construction equipment, transport construction materials, and for worker commutes. Levels of construction-related energy consumption by the project were calculated using the California Emissions Estimator Model Version 2016.3.2 and from fuel consumption factors in the EMFAC and OFFRAOD models (see Appendix B for detailed calculations). An estimated 1,636,105 gallons of gasoline and 23,744 gallons of diesel would be consumed during project construction, accounting for both onsite equipment use and offsite vehicle travel. This one-time energy expenditure required to construct the project would be nonrecoverable. The energy needs for project construction would be temporary and would not require additional capacity or increase peak or base period demands for electricity or other forms of energy.

The project would not generate additional vehicle trips or consume additional energy during operation. 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 would be 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 inefficient, wasteful, or unnecessary consumption of energy resources. Furthermore, the project includes the replacement of cable lines that would result in increased efficiency in transmitting energy between source and end destinations. Thus, 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 would be 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 checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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

In February 2019, Kleinfelder prepared a geotechnical investigation report for the project. This report is included in this IS/MND as Appendix C. The report presented the results from geotechnical and dewatering analyses and provided recommendations for the geotechnical and dewatering aspects of the project design and construction.

Geology

The project alignment is situated in the southwestern portion of Sacramento County, California, within the southern portion of the Sacramento Valley. The Sacramento Valley represents the northern portion of the Great Valley geomorphic province of California, which is bordered on the east by the foothills of the Sierra Nevada geomorphic province and on the west by the Coast

Range geomorphic province. The Great Valley is an asymmetrical trough approximately 400 miles long and 40 miles wide forming the broad valley along the axis of California. Erosion of the Coast Range and the Sierra Nevada has generated alluvial, overbank, and localized lacustrine sediments as thick as 50,000 feet. Subsequent deformation has folded these sediments into an asymmetrical syncline. Along the boundaries of the Sacramento Valley basin, these sediments decrease in thickness to the east and overlap older, alluvial and channel deposits associated with previous alignments of the American River and at greater depth, metamorphic terrain and crystalline basement rock of the Sierra Nevada (Kleinfelder 2019:8).

The project alignment is located along Florin Road, Gloria Drive, and Havenside Drive in Sacramento, California. The topography of the alignment is relatively flat except at the canal crossing where Havenside Drive and Gloria Drive meet (Kleinfelder 2019:10). Geologic mapping shows the near-surface soils within the project area consist primarily of historical and Holocene basin deposits (Helley and Harwood 1985; FWLA 2010). These basin deposits are characterized by fine sands, silts, and clays and are consistent with the soils encountered in the borings drilled for the project-specific geotechnical investigation report. These more recent alluvium deposits are underlain by Pleistocene-age Riverbank formation (Kleinfelder 2019:10).

Groundwater depths in the project alignment are between 5 to 6 feet below the ground surface. It is common in this area for groundwater levels to be at or near the ground surface during periods of elevated stage on the Sacramento River, since seepage under the levees contributes to the groundwater levels in this area. Further to the east near I-5, groundwater levels are between about 7 and 10 feet below the ground surface (Kleinfelder 2019:10-11).

Seismicity

The Great Valley is bounded on the west by the Great Valley fault zone and the Coast Ranges and on the east by the Foothills fault zone and the Sierra Nevada. Relatively few faults in the Great Valley have been active during the last 11,700 years. The closest faults to the project alignment with evidence of displacement during Holocene time are the Dunnigan Hills Fault (approximately 35 miles to the northwest) and the Cleveland Hills Fault (approximately 60 miles to the north). In general, active faults are located along the western margin of the Central Valley (e.g., the Great Valley Fault) and within the Coast Ranges (Jennings 1994).

Significant historic seismicity in the region includes the April 19, 1892 Vacaville earthquake which had an estimated magnitude of 6.6 along with significant seismicity associated with the San Andreas fault system (e.g. 1906 San Francisco Earthquake and 1868 Hayward Earthquake) and more recent 2014 South Napa Earthquake which had an estimated magnitude of 6.0 (Kleinfelder 2019:9).

According to the California Geological Survey Earthquake Shaking Potential for California, the Sacramento region would experience lower levels of shaking less frequently, due to the regions distance from known, active faults. However, very infrequent earthquakes could still cause strong shaking here (CGS 2016). The occurrence of liquefaction during an earthquake can potentially cause reduction in or loss of shear strength, seismically induced settlements, formation of boils, or lateral spreading of the liquefied soil. In order for liquefaction of soils due to ground shaking to occur, it is generally accepted that subsurface soils must be in a relatively loose state, soils must be saturated, soils must be sand like (e.g. non-plastic or of very low plasticity), and the ground motion is of sufficient intensity to act as a triggering mechanism. The

geotechnical report determined that the silty and sandy soils encountered in all four borings within the project alignment were potentially susceptible to liquefaction (Kleinfelder 2019:22).

Soils

A review of U.S. Natural Resources Conservation Service (NRCS) soil survey data indicates that the project alignment is composed of the Egbert Clay, Egbert–Urban Land Complex, San Joaquin–Urban Land Complex, and Xerarents–San Joaquin Complex (NRCS 2018). Table 3.7-1 shows the relevant characteristics of these soil types.

Table 3.7-1 Project Alignment Soil Characteristics

Soil Map Unit	Water Erosion Hazard ₁	Wind Erosion Hazard ₂	Shrink-Swell Potential ₃	Permeability ₄	Drainage Class
Egbert Clay	Low	4	High	Moderately low	Poorly drained
Egbert–Urban Land Complex	Low	4	High	Moderately low	Poorly drained
San Joaquin–Urban Land Complex	Moderate	6	Low	Moderately high	Moderately well drained
Xerarents-San Joaquin Complex	NR	NR	NR	NR	Well drained

Notes: NR = not rated

- ¹ Based on the erosion factor “Kw whole soil,” which is a measurement of relative soil susceptibility to sheet and rill erosion by water.
- ² The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible.
- ³ Based on percentage of linear extensibility. Shrink-swell potential ratings of “moderate” to “very high” can result in damage to buildings, roads, and other structures.
- ⁴ Based on standard U.S. Natural Resources Conservation Service saturated hydraulic conductivity (Ksat) class limits; Ksat refers to the ease with which pores in a saturated soil transmit water.

Source: NRCS 2018

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.)**

No Impact. Surface ground rupture along faults is generally limited to a linear zone a few yards wide. There are no Alquist-Priolo Earthquake Fault Zones within Sacramento County (CGS 2010). Consequently, the project is not expected to expose people or structures to adverse effects caused by the rupture of a known fault. There would be **no impact** associated with fault rupture, and no mitigation would be required.

ii. Strong seismic ground shaking?

Less than Significant. The project alignment is located in the center of 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).

Depending on the strength of groundshaking, it is possible that structures in the area could be damaged during such an event. However, project construction would conform to the standards contained within California Building Code (CBC) Title 24, which identifies specific design requirements to reduce damage from strong seismic ground shaking, ground failure, landslides, soil erosion, and expansive soils. This impact would be **less than significant**, and no mitigation would be required.

iii. Seismic-related ground failure, including liquefaction?

Less than Significant. Soil liquefaction most commonly occurs when ground shaking from an earthquake causes a sediment layer saturated with groundwater to lose strength and take on the characteristics of a fluid, thus becoming similar to quicksand. Liquefaction may also occur in the absence of a seismic event, when unconsolidated soil above a hardpan becomes saturated with water. Factors determining liquefaction potential are the soil type, the level and duration of seismic ground motions, the type and consistency of soils, and the depth to groundwater. Loose sands, peat deposits, and unconsolidated Holocene-age sediments are the most susceptible to liquefaction, while clayey silts, silty clays, and clays deposited in freshwater environments are generally stable under the influence of seismic ground shaking.

Older deposits, including the Pleistocene Riverbank formation which underlies the project alignment, are not generally susceptible to liquefaction; however, younger loose fluvial deposits overlying the Riverbank formation present a risk of liquefaction. As discussed above, the water table within the project alignment is shallow, increasing the potential for liquefaction. Liquefaction triggering analyses were performed for drilled borings and determined that there is a high potential for liquefaction that would likely cause severe damage to improvements not supported on deep foundations (Kleinfelder 2019:22).

Active seismic sources are a relatively long distance away and the project alignment is located on flat land with 0 to 2 percent slopes, is underlain by stable Pleistocene-age Riverbank formation sediments and has low shaking hazard potential. However, in the unlikely event of a significant earthquake, widespread liquefaction could occur resulting in significant damage. The project would comply with CBC Title 24, which includes specific design requirements to reduce damage from ground failure. The project would include dewatering activities, which would further reduce the potential for ground failure. In addition, emergency shutoffs would be installed to reduce risks involving seismic-related ground failure. Therefore, the potential of adverse effects involving ground failure, including liquefaction is low and this impact would be **less than significant**, and no mitigation would be required.

iv. Landslides?

No Impact. The project alignment is located in a flat area; there is no risk of landslides in such terrain. Consequently, the project would not expose people or structures to landslides and there would be **no impact** associated with landslide risk, and no mitigation would be required.

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

Less than Significant. As shown in Table 3.7-1, NRCS soil survey data indicate that the project alignment includes soils are moderately susceptible to wind and water erosion hazards. Construction activities would involve grading, excavating, trenching, moving, filling, and temporary stockpiling of soil within the project alignment. Construction activities would remove vegetative cover and existing paving and would expose site soils to erosion via wind in the summer months, and to surface water runoff during storm events. Sediment from construction activities could be transported within stormwater runoff and could drain to off-site areas and degrade local water quality.

However, the project would be subject to the National Pollutant Discharge Elimination System (NPDES) Statewide construction general NPDES permit for stormwater runoff (Order No. 99 - 08 – DWQ and NPDES No. CAS000002 [Construction General Permit]). In compliance with the Construction General Permit, a Stormwater Pollution Prevention Plan (SWPPP) would be developed for the project by a qualified SWPPP professional. The objectives of the SWPPP are to identify pollutant sources that may affect the quality of stormwater associated with construction activity and identify, construct, and implement stormwater pollution prevention measures to reduce pollutants in stormwater discharges during and after construction. Therefore, the SWPPP would include a description of potential pollutants, the management of dredged sediments, and hazardous materials present on the site during construction (including vehicle and equipment fuels). The SWPPP would also include details of how BMPs for sediment and erosion control would be implemented. Implementation of the SWPPP would comply with state and federal water quality regulations.

Furthermore, and as noted above, the project would be constructed in accordance with CBC standards. These standards require that appropriate soil and geotechnical reports be prepared and that site-specific engineering design measures, including those related to general site grading, clearing and grubbing, soil stabilization, and general erosion control, be implemented to appropriately minimize potential adverse impacts related to erosion at the infill site. This, coupled with preparation of a site-specific SWPPP, would minimize potential adverse impacts related to erosion and loss of topsoil at the project alignment. Impacts would be **less than significant**, and no mitigation would be 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?

Less than Significant. As described previously, there are no steep slopes within the project area, and therefore there would be no potential for on- or off-site landslide. Near surface soils encountered in the project alignment have a significant portion of clay and silt and are, therefore, anticipated to be moisture sensitive. Soil moisture content, shallow groundwater levels, and silty and clayey soils could become unstable and potentially result in lateral spreading, subsidence, liquefaction, or collapse. However, a geotechnical investigation was conducted for the project (see Appendix C of this IS/MND) and concluded that the project alignment would be suitable for the project using conventional open trench, shoring, dewatering, and reinforced concrete subsurface structure construction methods (Kleinfelder 2019:21), all of which would be implemented as part of project implementation. In addition, the project would comply with and implement all appropriate recommendations provided in the site-specific

geotechnical investigation report. Therefore, this impact would be **less than significant**, and no mitigation would be required.

- 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. Expansive soils shrink and swell as a result of moisture change. These volume changes can result in damage over time to building foundations, underground utilities, and other subsurface facilities and infrastructure if they are not designed and constructed appropriately to resist the damage associated with changing soil conditions. A review of NRCS (2018) soil survey data indicates that the locations where project-related earthmoving activities would occur are composed of soil types with a low to high shrink-swell potential (see Table 3.7-1). However, underground cable would be placed in a series of conduits encased in concrete. The trenches would then be backfilled with a cementitious slurry mixture or compacted aggregate base to the roadway subgrade elevation to reduce the risk of expansive soils. Therefore, this impact would be **less than significant**, and no mitigation would be 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?**

No Impact. The project would not require the use of septic tanks or alternative wastewater disposal systems. Thus, the project would have **no impact** related to soil suitability for use of septic tanks or alternative wastewater disposal systems, and no mitigation would be required.

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

Less than Significant Impact with Mitigation Incorporated. 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 to be paleontologically sensitive. Therefore, earthmoving activities in the Riverbank Formation could result in accidental damage to or destruction of previously unknown unique paleontological resources. This impact would be potentially significant.

Implementation of Mitigation Measure 3.5-1 would reduce potential impacts to previously undiscovered paleontological resources through worker awareness training and mandating the steps to be taken in the event that resources are discovered during project construction. With implementation of Mitigation Measure 3.5-1, this impact would be 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

Certain gases in the earth’s atmosphere, classified as greenhouse gases (GHGs), play a critical role in determining the earth’s surface temperature. Solar radiation enters the earth’s atmosphere from space. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead “trapped,” resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth.

Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulfur hexafluoride (SF₆). GHG emissions contributing to global climate change are attributable, in large part, to human activities associated with on-road and off-road transportation, industrial/manufacturing, electricity generation by utilities and consumption by end users, residential and commercial onsite fuel usage, and agriculture and forestry. It is “extremely likely” that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic forcing together (IPCC 2014: 5).

Climate change is a global problem. GHGs are global pollutants because even local GHG emissions contribute to global impacts. GHGs have long atmospheric lifetimes (one to several thousand years) and persist in the atmosphere long enough to be dispersed around the globe. Although the lifetime of any particular GHG molecule is dependent on multiple variables and cannot be determined with any certainty, it is understood that more CO₂ is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration (IPCC 2013:467).

Federal Plans, Policies, Laws, and Regulations

On December 7, 2009, the U.S. Environmental Protection Agency (EPA) issued findings regarding GHGs under the Clean Air Act (CAA). The *Final Endangerment and Cause or Contribute Findings for Greenhouse Gases* state that current and projected concentrations of the six key well-mixed GHGs in the atmosphere— CO₂, CH₄, N₂O, HFC, PFC, and SF₆— threaten the public health and welfare and that combined emissions of GHGs from new motor vehicles contribute to this issue. This allowed EPA to regulate GHGs under the CAA. For example, EPA and the National Highway Traffic Safety Administration issued two rules (81 Fed.

Reg. 73478 and 77 Fed. Reg. 62623) that require substantial improvements in fuel economy for all vehicles sold in the U.S. for model years 2017 through 2025 of passenger cars, light-duty trucks, and medium-duty passenger vehicles. In 2012, EPA issued the California Air Resources Board (CARB) a waiver that allows California to more strictly regulate pollution from cars than the federal government.

State Plans, Policies, Laws, and Regulations

Statewide GHG Emission Targets and the Climate Change Scoping Plan

Reducing GHG emissions in California has been the focus of the state government for approximately two decades (State of California 2018). GHG emission targets established by the state legislature include reducing statewide GHG emissions to 1990 levels by 2020 (Assembly Bill [AB] 32 of 2006) and reducing them to 40 percent below 1990 levels by 2030 (Senate Bill [SB] 32 of 2016). Executive Order (EO) S-3-05 calls for statewide GHG emissions to be reduced to 80 percent below 1990 levels by 2050. EO B-55-18 calls for California to achieve carbon neutrality by 2045 and achieve and maintain net negative GHG emissions thereafter. These targets are in line with the scientifically established levels needed in the United States to limit the rise in global temperature to no more than 2 degrees Celsius, the warming threshold at which major climate disruptions, such as super droughts and rising sea levels, are projected; these targets also pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius (UN 2015:3).

California's 2017 Climate Change Scoping Plan (2017 Scoping Plan), prepared by CARB, outlines the main strategies California will implement to achieve the legislated GHG emission target for 2030 and "substantially advance toward our 2050 climate goals" (CARB 2017:1, 3, 5, 20, 25–26). It identifies the reductions needed by each GHG emission sector (e.g., transportation, industry, electricity generation, agriculture, commercial and residential, pollutants with high global warming potential, and recycling and waste). The state has also passed more detailed legislation addressing GHG emissions associated with industrial sources, transportation, electricity generation, and energy consumption, as summarized below.

Local

Sacramento Metropolitan Air Quality Management District

SMAQMD is the primary agency responsible for addressing air quality concerns in all of Sacramento County and recommends measures for analyzing project-generated GHGs in CEQA analysis. SMAQMD developed thresholds of significance to provide a uniform scale to measure the significance of GHG emissions from land use and stationary source projects in compliance with CEQA and AB 32.

City of Sacramento

Although SMUD is not subject to the goals and policies of the City of Sacramento, the City's 2035 General Plan includes goals and policies relevant to climate change and GHG emissions for projects within city limits. Numerous policies within the 2035 General Plan address sustainable development, which influence operational mobile- and area-source emissions.

The City's adopted Climate Action Plan (CAP) was incorporated into the 2035 General Plan. The CAP includes GHG emission reduction targets, strategies, and implementation measures developed to help the city reach these targets. Reduction strategies address GHG emissions associated with transportation and land use, energy, water, waste management and recycling, agriculture, and open space.

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. The issue of global climate change is inherently a cumulative issue, because the GHG emissions of an individual project cannot be shown to have any material effect on global climate. Thus, the level of GHG emissions associated with implementation of the project is addressed as a cumulative impact.

GHG emissions associated with implementation of the project would be generated during project construction. The project would not generate any GHG emissions during operations as operational activities would be limited to occasional inspection and maintenance. Construction-related emissions of GHGs were estimated using CalEEMod Version 2016.3.2. A detailed discussion of the major construction activities and model assumptions is provided in Section 3.3, "Air Quality." Model outputs are included in Appendix A.

Project-related construction activities would result in the generation of GHG emissions from the use of heavy-duty off-road construction equipment and vehicle use during worker commute. Construction activities would include site preparation, trenching, conduit duct bank installation, manhole installation, and paving. Total construction activity would result in finite emissions of 409 metric tons of carbon dioxide equivalent (MTCO_{2e}).

SMAQMD has established quantitative significance thresholds for evaluating GHG emissions. For construction of all types, emissions due to land development projects, the established significance threshold is 1,100 MT CO_{2e} annually (SMAQMD 2018). Total construction-related GHG emissions for the project would be primarily generated in 2020 and would be no more than 409 MT CO_{2e}. Therefore, construction-related GHG emissions would not exceed SMAQMD's threshold of significance. This impact would be **less than significant**, and no mitigation would be 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 were developed with the purpose of reducing cumulative emissions related, primarily, to long-term operational emissions. As described previously, the project would not result in a cumulatively considerable increase in GHG emissions as a result of construction activities and would not generate any GHG emissions during operations. Thus, the project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing emissions of GHGs. There would be **no impact**, and no mitigation would be 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 type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>

3.9.1 Environmental Setting

The State Water Resources Control Board’s (SWRCB) GeoTracker website, which provides data relating to leaking underground storage tanks (USTs) and other types of soil and groundwater contamination, along with associated cleanup activities, did not identify any hazards related to USTs and other types of contamination within the project alignment (SWRCB 2019).

The California Department of Toxic Substances Control’s Envirostor Web site, which provides data related to hazardous materials spills and clean ups, also did not identify any hazards related to any cleanup sites within the project alignment (DTSC 2019).

There are two public schools adjacent to the project alignment, John F. Kennedy High School, located at the southeast corner of the intersection of Florin Road and Gloria Drive, and the School of Engineering and Sciences, located on the north side of Gloria Drive, directly west of the Pocket Canal. Two private preschools are located within one-quarter mile of the project alignment, Merryhill Preschool at 7335 Park City Drive and Angel’s Nest Preschool at 475 Florin Road.

Sacramento Executive Airport is a public airport located approximately 1 mile northeast of the easternmost edge of the project alignment. The area of the project alignment from just west of I-5 to the eastern terminus is within Approach-Departure Zone 2 of the airport's safety zones (SACOG 1999:39).

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, solvents, gasoline, asphalt, and oil. The use and storage of these materials could potentially expose and adversely affect workers, the public, or the environment as a result of improper handling or use, accident, environmentally unsound disposal methods, fire, explosion, or other emergencies, resulting in adverse health or environmental effects. Project operation would involve the use of electrical transmission lines and would not involve the use of hazardous materials.

The California Highway Patrol and Caltrans are responsible for enforcing regulations related to the transportation of hazardous materials on local roadways, and the use of these materials is regulated by the California Department of Toxic Substances Control (DTSC), as outlined in CCR Title 22. SMUD and its construction contractors would be required to comply with the California Environmental Protection Agency's (Cal EPA's) Unified Program, 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, which is the designated Certified Unified Program Agency, 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). Such compliance would reduce the potential for accidental release of hazardous materials during project construction.

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. Compliance with applicable regulations would ensure that this impact would be **less than significant**, and no mitigation would be 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. As discussed above, there are no existing hazardous conditions within the project alignment and no hazardous materials would be used during project operation. Project construction, however, would involve the use of hazardous materials, which could be accidentally upset or released into the environment. Potential hazardous materials that could be used include asphalt and other construction materials. As discussed in item a) above, compliance with applicable laws and regulations regarding the transport, use, and disposal of hazardous materials would ensure that the project would result in a **less-than-significant** impact related to upset or accidental release of hazardous materials, and no mitigation would be required.

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

Less than Significant. As discussed above, there are two public schools adjacent to the project alignment and two private preschools within one-quarter mile of the project alignment. Small quantities of hazardous materials such as fuels, oils, and lubricants would be used during project construction. The project would be required to comply with existing regulations associated with the transport, use, and disposal of hazardous materials. Compliance with applicable regulations regarding hazardous materials would reduce the potential for hazardous emissions within one-quarter mile of existing schools. Therefore, this impact would be **less than significant**, and no mitigation would be 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?**

No Impact. Government Code Section 65962.5 requires that DTSC compile and maintain a list of hazardous waste facilities subject to corrective action, land designated as hazardous waste property, or hazardous waste disposals on public land. This list is known as the Cortese List, which can be accessed on Cal EPA's website. The project alignment is not located on a site included on a list of hazardous materials sites (DTSC 2019). There would be **no impact**, and no mitigation would be required.

- 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?**

Less than Significant. Sacramento Executive Airport is located approximately 1 mile northeast of the easternmost terminus of the project alignment. A portion of the project alignment from just west of I-5 to the eastern terminus is within Approach-Departure Zone 2 of the airport's safety zones (SACOG 1999:39). The airport's comprehensive land use plan identifies prohibited uses within the various safety zones (SACOG 1999:33-38). While underground electricity transmission lines are not specifically listed in the table of compatibility guidelines, the list of allowed and prohibited uses and features generally center around limiting large gatherings of people, structures that might interfere with aircraft navigation, and prohibiting flammable or explosive features to be located above-ground (SACOG 1999:38). All project features within Approach-Departure Zone 2 would be underground, and no project features would be above the surface in this area. While the project alignment includes land within Approach-Departure Zone 2 of Sacramento Executive Airport, the project would not conflict with the safety requirements of the airport's comprehensive land use plan. Therefore, this impact would be **less than significant**, and no mitigation would be required.

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

Less than Significant. Project construction would require temporary lane closures and other roadway effects on Florin Road, Gloria Drive, and Havenside Drive that could interfere with or slow down emergency vehicles, temporarily increasing response times and impeding existing services on these roadways. However, any project activities that may involve public ROW would

be required to obtain an encroachment permit from either Caltrans or the City of Sacramento. As part of this encroachment permit application, SMUD would be required to prepare and then later implement a traffic control plan, which would require the provision of temporary traffic controls and maintenance of emergency access during construction. Once project construction is complete, all roads would return to their pre-construction state and project operations would not interfere with emergency repose or evacuation plans. As a result, this impact would be **less than significant**, and no mitigation would be required.

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

No Impact. The project is located in an urbanized area of Sacramento that is not adjacent to wildlands, therefore implementation of the project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas. There would be **no impact** related to wildland fires, and no mitigation would be 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:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 City of Sacramento is located at the confluence of the Sacramento and American Rivers within the Sacramento River Basin. The Sacramento River Basin encompasses about 27,000 square miles and is bounded by the Sierra Nevada to the east, the Coast Ranges to the west, the Cascade Range and Trinity Mountains to the north, and the Delta to the southeast. The Sacramento River Basin is the largest river basin in California, capturing, on average, approximately 22 million acre-feet of annual precipitation (City of Sacramento 2014c:6-43).

The westernmost extent of the project alignment is approximately 0.75 mile southwest of the Sacramento River. The project alignment includes two canals; one canal runs in a north-to-south direction and is located adjacent to the east side of I-5. The other canal, known as the Pocket Canal, also runs north-to-south and intersects with Havenside Drive just east of the Havenside-Canal distribution substation.

Water Quality

The City operates under a Phase I National Pollution Discharge Elimination System (NPDES) permit for stormwater municipal discharges to surface waters (NPDES No. CAS082597). The permit requires that the City impose water quality and watershed protection measures for all development projects. The intent of the waste discharge requirements in the permit is to attain water quality standards and protection of beneficial uses consistent with the Central Valley Regional Water Quality Control Board's (CVRWQCB) Basin Plan. The NPDES permit prohibits discharges from causing violations of applicable water quality standards or result in conditions that create a nuisance or water quality impairment in receiving waters. A key component of the NPDES permit is the implementation of the Stormwater Quality Improvement Plan (SQIP), which consists of six Minimum Control elements 1) public education and outreach, 2) commercial/industrial control, 3) detection and elimination of illicit discharges, 4) construction stormwater control, 5) postconstruction stormwater control for new development and redevelopment 6) pollution prevention/good housekeeping for municipal operations). In addition, the City's Land Grading and Erosion Control Ordinance and Stormwater Management and Discharge Control Code provide additional regulation and guidance to prevent degradation of water quality (City of Sacramento 2014a:4.7-15).

Groundwater

The project alignment is within the South American Groundwater Subbasin, which is part of the larger Sacramento Valley Groundwater Basin (City of Sacramento 2014c:6-48). The geotechnical study prepared for the project (see Appendix C of this IS/MND) evaluated groundwater depths in the project area and noted that groundwater levels in the project area vary. Groundwater in the project area is commonly at or near the ground surface during periods of elevated stage on the Sacramento River since seepage under the levees contributes to groundwater levels in the project area (Kleinfelder 2019:10-11).

Flooding

The project alignment is within an area with reduced flood risk due to levee (Zone X) as identified on Federal Emergency Management Agency (FEMA) flood maps (FEMA 2012).

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. Drainage from the project alignment flows into the City of Sacramento stormdrain system and is discharged to the Sacramento River, which is located within the Sacramento River Basin. As such, the applicable water quality standards are listed in the Fifth Edition of the Water Quality Control Plan (Basin Plan) For the Sacramento River and San Joaquin River Basins (CRWQCB 2018). Construction of the project would occur within the City of Sacramento and would disturb more than one acre of land surface. Therefore, the applicable waste discharge requirements (WDR) are the Municipal Separate Storm Sewer (MS4) stormwater NPDES permit (Order No. R5-2002-0206 and NPDES No. CAS082597 [Municipal Stormwater NPDES Permit) and the Statewide construction general NPDES permit for stormwater runoff (Order No. 99 - 08 – DWQ and NPDES No. CAS000002 [Construction

General NPDES Permit]), and the dewatering and low threat discharges general NPDES permit (Order No. R5-2008-0081 and NPDES No. CAG995001 [Dewatering General NPDES Permit]).

To reduce or eliminate construction-related water quality effects, the City of Sacramento's Grading Ordinance would require future public or private contractors to comply with the requirements of the City's Stormwater Quality Improvement Plan (SQIP). In addition, before the onset of any construction activities, where the disturbed area is one acre or more in size, the City would require any public or private contractors to obtain coverage under the NPDES General Construction Permit and include erosion and sediment control plans. BMPs may consist of a wide variety of measures taken to reduce pollutants in stormwater and other non-point source runoff. The City's SQIP and the Stormwater Quality Design Manual for the Sacramento Region include BMPs to be implemented to mitigate impacts from new development and redevelopment projects. Construction BMPs that implement the SQIP and General Construction Permit may include, but are not limited to the following measure:

Prior to issuance of a construction permit, the City would require public and/or private contractors to provide an erosion and sediment control plan. The City would verify that a state general permit was obtained including verification that a Notice of Intent has been filed with the Central Valley Regional Water Quality Control Board and a SWPPP has been developed before allowing construction to begin. The City would perform inspections of the construction area to verify that the BMPs specified in the erosion and sediment control plan are properly implemented and maintained. The City would notify contractors immediately if there is a noncompliance issue and would require compliance. Control of erosion and sediment transport during the construction phase would effectively mitigate potential sediment impairment of receiving waters.

Consequently, violation of WDRs or water quality standards 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 alignment is underlain by the South American Groundwater Subbasin, which is part of the larger Sacramento Valley Groundwater Basin. The South American River Subbasin is estimated to have a groundwater storage capacity of 4,816,000 acre-feet (DWR 2004:2). Given the high level of the water table in the project area, project construction would include dewatering activities. Preliminary plans include the potential use of Baker tanks and/or filtration bags, if needed, to treat water prior to discharge into the City's stormdrain system and/or sewer system. Dewatering activities would be temporary and the volume of groundwater withdrawn would be very small relative to the subbasin's capacity. Furthermore, the geotechnical study prepared for the project evaluated dewatering activities and recommended appropriate methods for construction dewatering activities (Kleinfelder 2019). No groundwater would be withdrawn during project operation.

Because the project would involve construction activities within previously-developed areas, which are primarily paved areas, the project would not involve construction practices or develop facilities that would substantially prevent or otherwise redirect groundwater resources in the project alignment. Implementation of the project would result in a very limited increase in impervious surface area, if any, and there would be no change in surface infiltration

characteristics affecting groundwater recharge. For all these reasons, there would be a **less-than-significant** impact on groundwater supplies and groundwater recharge, and no mitigation would be 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;**

Less than Significant. Project construction activities would involve excavation and movement of soil, which could result in erosion and siltation. These activities have the potential to cause or increase soil erosion and could accidentally discharge wastes into waterways in runoff. The existing submittal and approval requirements associated with the Stormwater Management and Control Code, the Grading, Erosion and Sediment Control Ordinance, as well as the NPDES Regional MS4 Permit would be sufficient to ensure that the project does not result in substantial long-term effects on water quality. As a result, this impact would be **less than significant**, and no mitigation would be required.

- ii) **Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;**

Less than Significant. Project construction activities would occur within areas of existing rights-of-way, which are predominantly paved areas. While the project would generally return the project alignment to its pre-construction condition, it is possible that a small amount of impervious surface could be added if manhole covers are installed in areas that are currently not paved. However, any addition of impervious surface would be minimal and would not be expected to substantially increase the rate or amount of surface runoff in or near the project alignment. Therefore, this impact would be **less than significant**, and no mitigation would be required.

- 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**

Less than Significant. As described in Chapter 2, "Project Description," project construction would require dewatering due to the high water-table of the area. Preliminary plans include the potential use of Baker tanks and/or filtration bags, if needed, to treat water prior to discharge into the City's stormdrain system and/or sewer system. SMUD and its construction contractor would coordinate with the City to determine the maximum amount that could be discharged to the stormdrain system so that the project, in conjunction with other sources of stormwater, would not exceed the capacity of the existing system. If the construction dewatering rate exceed the maximum discharge rate, the water would be stored in Baker tanks prior to discharge and could be retained in the tanks as needed until there is adequate capacity for discharge. If needed, water would be treated with filtration bags prior to discharge to ensure that the discharge meets all applicable water quality requirements. The project alignment would be substantially returned to its pre-construction condition and would not generate substantially new or polluted runoff. Therefore, the project would not exceed existing or planned stormwater capacity or provide polluted runoff. This impact would be **less than significant**, and no mitigation would be required.

iv) Impede or redirect flood flows?

Less than Significant. The project alignment is in an area protected from flooding by levees (FEMA 2012). While not expected, flooding could occur in the area. Project construction could temporarily impede or redirect flood flows as construction equipment would be located within existing rights-of-way, which could include gutters and areas near stormdrain inlets. Construction impacts would be temporary and project operation would not require above-ground features that could impede or redirect flood flows. Therefore, this impact would be **less than significant**, and no mitigation would be required.

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

No Impact. The project alignment is located within an area of reduced flood risk due to levee protection (Zone X) (FEMA 2012). The project is in an area of mostly flat terrain with no large open bodies of water. For these reasons, the project would not be expected to be inundated. There would be **no impact**, and no mitigation would be required.

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

Less than Significant. Project construction would be subject to the City's water quality and watershed protection measures as required by the Phase I NPDES Permit and implemented through the SQIP. During operation, the project would not generate wastewater or stormwater runoff, so there would be no conflict with or obstruction of a water quality control plan during project operation. While project construction would require dewatering due to the high level of the water table in the project area, the groundwater removed would be minimal compared with the groundwater supply. Project operation would not require the use of any potable water, including groundwater. Because the project's potential impacts would be limited to construction activities, this impact would be **less than significant**, and no mitigation would be 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 checked="" type="checkbox"/>	<input type="checkbox"/>

3.11.1 Environmental Setting

The project alignment is located within the Pocket/Greenhaven neighborhood in the city of Sacramento in Sacramento County. The project alignment includes roadways, rights-of-way, and areas of utility easements that run through an existing commercial and residential community. The project would replace existing underground cable and install up to 15 new manholes with manhole covers to be located within roadways.

3.11.2 Discussion

a) Physically divide an established community?

No Impact. The project would replace existing underground cable and install new manholes in a highly developed area of Sacramento. Because the cable is underground, there is no hindrance to the surrounding community as it does not interfere with the community life. The project would not lead to a physical division of an established community. There would be **no impact**, and no mitigation would be required.

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?

Less than Significant. Project construction would occur within existing roadways, rights-of-way, and utility easements. As discussed in Section 3.4, Biological Resources,” implementation of Mitigation Measure 3.4-2 would require compliance with the City of Sacramento’s tree ordinance as it applies to public utilities. The project would not result in any land use changes, and would not conflict with any adopted plans, policies, or regulations adopted for avoiding or mitigating an environmental effect. Therefore, this impact would be **less than significant**, and no mitigation would be 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 Surface Mining and Reclamation Act directs the State Geologist to classify (identify and map) the non-fuel mineral resources of the State to show where economically significant mineral deposits occur and where they are likely to occur based upon the best available scientific data. Areas known as Mineral Resource Zones (MRZs) are classified on the basis of geologic factors, without regard to existing land use and land ownership. The areas are categorized into four general classifications (MRZ-1 through MRZ-4). Of the four, the MRZ-2 classification is recognized in land use planning because the likelihood for occurrence of significant mineral deposits is high, and the classification may be a factor in the discovery and development of mineral deposits that would tend to be economically beneficial to society.

The project alignment is classified as MRZ-1 which means adequate information indicates no significant mineral deposits in that area (DOC 1999). The project alignment is not designated as a locally important mineral resource recovery site in the *Sacramento 2035 General Plan Update* (City of Sacramento 2014c).

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?**

No Impact. The project alignment is classified as MRZ-1. No known mineral deposits are present in the project alignment. Therefore, there would be **no impact**, and no mitigation would be required.

- 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 alignment is not designated as a locally important mineral resource recovery site in the *Sacramento 2035 General Plan Update* (City of Sacramento 2014c:Figure 6-11). Thus, project implementation would not result in a loss of availability of locally important mineral resources, and the project would have **no impact** related to the loss of availability of a locally important mineral resource discovery site, and no mitigation would be 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.13.1 Environmental Setting

Acoustic Fundamentals

Acoustics is the scientific study that evaluates 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. Gradual hearing loss is caused by sustained exposure to moderately high noise levels over a period of time; traumatic hearing loss is caused by sudden exposure to extremely high noise levels over a short period. 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 communications, sleep, and learning.

Noise is typically expressed in decibels (dB), which is a common measurement of sound energy. A decibel is logarithmic; it does not follow normal algebraic methods and cannot be directly summed. For example, a 65-dB source of sound, such as a truck, when joined by another 65-dB source results in a sound amplitude of 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by 3 dB). A sound level increase of 10 dB corresponds to 10 times the acoustical energy, and an increase of 20 dB equates to a 100-fold increase in acoustical energy. The human ear is not equally sensitive to loudness at all frequencies in the audible spectrum. To better relate overall sound levels and loudness to human perception, frequency-dependent weighting networks were developed, identified as A through E. There is a strong correlation between the way humans perceive sound and A-weighted sound levels. For this reason, the A-weighted sound levels are used to predict community response to noise from the environment, including noise from transportation and stationary sources, and are expressed as A-weighted decibels. All sound levels discussed in this section are A-weighted decibels unless otherwise noted.

The intensity of environment noise fluctuates over time, and several different descriptors of time-average noise levels are used. The noise descriptors used in this chapter include:

- Equivalent Noise Level (L_{eq}): The equivalent steady-state noise level in a stated period of time that would contain the same acoustic energy as the time-varying noise level during the same period (i.e., average noise level)
- Maximum Noise Level (L_{max}): The highest instantaneous noise level during a specific time period.

Noise Generation and Attenuation

Noise can be generated by many sources, including mobile sources such as automobiles, trucks, and airplanes and stationary sources such as activity at construction sites, machinery, and commercial and industrial operations. As sound travels through the atmosphere from the source to the receiver, noise levels attenuate (i.e., decrease) depending on a variety of factors. Atmospheric conditions such as wind speed, wind direction, turbulence, temperature gradients, and humidity alter the propagation of noise and affect levels at a receiver. The presence of a barrier (e.g., topographic feature, intervening building, and dense vegetation) between the source and the receptor can provide substantial attenuation of noise levels at the receiver. Natural (e.g., berms, hills, and dense vegetation) and human-made features (e.g., buildings and walls) may function as noise barriers. To provide some context to noise levels described throughout this section, common sources of environmental noise and associated noise levels are presented in Table 3.13-1.

Table 3.13-1 Typical Noise Levels

Common Outdoor Activities	Noise Level (dB)	Common Indoor Activities
	110	Rock band
Jet flyover at 1,000 feet	100	
Gas lawnmower at 3 feet	90	
Diesel truck moving at 50 mph at 50 feet	80	Food blender at 3 feet, Garbage disposal at 3 feet
Noisy urban area, Gas lawnmower at 100 feet	70	Vacuum cleaner at 10 feet, Normal speech at 3 feet
Commercial area, Heavy traffic at 300 feet	60	
Quiet urban daytime	50	Large business office, Dishwasher in next room
Quiet urban nighttime	40	Theater, Large conference room (background)
Quiet suburban nighttime	30	Library, Bedroom at night, Concert hall (background)
Quiet rural nighttime	20	Broadcast/Recording Studio
	10	
Threshold of Human Hearing	0	Threshold of Human Hearing

Notes: dB = A-weighted decibels; mph = miles per hour
Source: Caltrans 2013

Ground Vibration

Vibration is the periodic oscillation of a medium or object with respect to a given reference point. Sources of vibration include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) and those introduced by human activity (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, (e.g., operating factory machinery or transient in nature, explosions). The existing ambient vibration environment in the project vicinity is extremely low.

Noise- and Vibration-Sensitive Land Uses and Receptors

Noise- and vibration-sensitive land uses generally include those uses where noise exposure could result in health-related risks to individuals, places where a quiet setting is an essential element of the intended purpose (e.g., schools and libraries), and historic buildings that could sustain structural damage due to vibration. The project is in relatively developed and populated area and would occur adjacent to sensitive receptor through the duration of the project. Nearby sensitive receptors include primarily single-family residential units and schools.

Local Noise Regulations

Although SMUD is not subject to the goals and policies of the City of Sacramento, the City's 2035 General Plan Environmental Constraints Element contains noise policies and standards (e.g., exterior and interior noise-level performance standards for new projects affected by or including non-transportation noise sources, and maximum allowable noise exposure levels for transportation noise sources) and the City Noise Ordinance contains noise limits for sensitive receptors that are considered relevant to the evaluation of potential noise impacts as a result of the project.

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. In the project area, the dominant noise source is roadway traffic, primarily from vehicles along I-5 and Florin Road. The project would result in temporary increase in noise levels during construction as a result of heavy equipment movement and pavement removal, but no permanent increases in ambient noise levels would occur during operation. Construction-related noise sources would include both mobile and stationary on-site equipment (e.g., dozers, loaders, generators). Construction noise would be short-term and temporary, and operation of heavy-duty construction equipment would be intermittent throughout the day during construction.

Within the City of Sacramento, the City's Municipal Code Section 8.28.060 exempts certain activities, including construction, from the City's noise standards as long as the activities are limited to the hours of 7 a.m. to 6 p.m. Monday through Saturday, and 9 a.m. to 6 p.m. on Sunday. This exemption provides that construction equipment must include appropriately maintained exhaust and intake silencers. However, the City does not specify limits in terms of maximum noise levels that may occur during the allowable construction hours.

Construction activities would generate noise near individual sensitive receptors throughout the duration of the construction period, but only for a short period of time due to the linear nature of construction activities. As noted in Section 3.3, “Air Quality,” construction activities may occur within 500 feet of any one sensitive receptor (residence) for approximately two weeks. Further, the project would comply with the City’s noise ordinance and restrict construction activities to occur within the ordinance’s identified timeframes. In addition, due to the location of the project alignment within existing roadway rights-of-way, construction activities would either not occur or be substantially limited during peak-hours of vehicular travel along adjacent major roadways and during school pick-up and drop-off times. Reducing construction noise during these times would result in construction activities generating a minimal increase in noise levels during time periods where the existing noise levels from roadway traffic are greatest.

Site preparation and trenching phases typically generate the most substantial noise levels because of the on-site equipment associated with excavation are typically the noisiest. Site preparation and trenching equipment and activities include backhoes, dozers, loaders, graders, excavation equipment, and generators. Installation of prefabricated manholes may require the use of a crane for placement and assembly tasks, which may also generate noise levels. Noise levels from these types of construction equipment are shown in Table 3.13-2 below.

Table 3.13-2 Noise Emission Levels from Construction Equipment

Equipment Type	Typical Noise Level (dBA) @ 50 feet
Air Compressor	81
Backhoe	80
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Crane, Mobile	83
Dozer	85
Generator	81
Grader	85
Jack Hammer	88
Loader	85
Paver	89
Pneumatic Tools	85
Rail Saw	90
Roller	74
Scraper	89
Trucks	74–88
Water Pump	76

Notes: Assumes all equipment is fitted with a properly maintained and operational noise control device, per manufacturer specifications. Noise levels listed are manufacture-specified noise levels for each piece of heavy construction equipment.

Source: FTA 2018

Based on the information provide and accounting for typical usage factors of individual pieces of equipment and activity types along with typical attenuation rates, on-site construction related activities could result in hourly average noise levels of approximately 87 L_{eq} and 91 L_{max} at 50 feet. As noted previously, construction activities would only occur at a minimum 50 feet from a sensitive receptor for a brief period of time. At a distance of 500 feet, construction related activities could result in hour average noise levels of approximately 67 L_{eq} and 72 L_{max} .

Construction activities would occur within the timeframe identified by the City's noise ordinance for exemption. In addition, the project would self-impose additional time constraints to further reduce noise generated during peak-noise levels along the existing roadways. Thus, the project would not generate a substantial temporary increase in ambient noise levels in excess of allowable standards in the vicinity of the project. The impact would be **less than significant**, and no mitigation would be required.

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

Less-than-significant. Construction activities would result in ground vibration from the use of heavy-duty construction equipment. Construction may result in varying degrees of temporary ground vibration and noise levels due to the intermittent operation of various types of construction equipment and activities. Although a detailed construction equipment list is not currently available, based on the types of construction activities associated with the project (e.g., site preparation, trenching, conduit duct bank installation, manhole installation, and paving) and the location of the project alignment, the use of heavy-duty equipment such as large dozers would be associated with the maximum ground vibration and noise levels during construction activities.

According to the Federal Transit Authority (FTA), large dozers produce groundborne vibration levels that could result in 0.089 inches per second (in/sec) peak particle velocity (PPV) and 87 vibration decibels (VdB) within 25 feet of operational construction equipment (FTA 2006). Caltrans recommends a level of 0.2 in/sec PPV with respect to structural damage and FTA recommends a maximum acceptable level of 80 VdB with respect to human response for residential uses (i.e., annoyance). FTA guidance for maximum acceptable VdB levels are primarily concerned with sleep disturbance in residential areas and can be avoided by keeping exposures at or below 80 VdB during typical sleeping hours, or if the vibration events are infrequent (i.e., 30 per day). The project would occur at a minimum 50 feet from sensitive receptors and would only generate vibration levels at this minimum distance for a brief period of time. As the project alignment would not be within 25 feet of sensitive land uses (i.e., 50 feet or more), these values would attenuate accordingly.

Sensitive receptors would not be expected to experience exposure to 0.2 in/sec PPV or 80 VdB as a result of project construction activities. Project construction activities would not occur during typical sleep hours (i.e., construction would only occur between 7 a.m. and 6 p.m.). Thus, the project would not result in the exposure of the existing off-site receptors to excessive ground vibration levels. The impact would be **less than significant**, and no mitigation would be 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 located approximately one mile southwest of the Sacramento Executive Airport and 3.5 miles north of the Borges-Clarksburg Private Airport. No other airports or airstrips, public or private, exist in the area. The project would not result in expansion of aviation operations at any airport nor would it result in the addition of sensitive receptors to the project alignment. Further, the project would not build any structure that would be above the existing ground or nearby building levels in the project, and would not affect air traffic patterns. Thus, the project would have **no impact** on existing aviation operations or expose new receptors to aviation related noise, and no mitigation would be 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 type="checkbox"/>	<input checked="" type="checkbox"/>

3.14.1 Environmental Setting

The project involves the replacement of underground cables and installation of new manholes within roadways, rights-of-way, or utility easements. The project would not generate any new residents in the area, or provide any new jobs.

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 project involves the replacement of an underground cable that does not include new homes or businesses that would induce or generate population growth. Therefore, the project would have *no impact*, and no mitigation would be required.

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

No Impact. No persons or homes would be displaced as a result of project construction or operation. Therefore, the project would have *no impact*, and no mitigation would be 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 alignment is located within the Pocket/Greenhaven neighborhood in the city of Sacramento in Sacramento County. The project alignment extends approximately 2 miles along Florin Road from I-5 and continues down to Gloria Drive with a split to run down Havenside Drive. The project would replace existing underground utility lines and install up to 15 new manholes within the roadways, rights-of-way, and utility easements.

Fire Protection Services

The Sacramento Fire Department (SFD) provides fire protection services to the project alignment, as well as the entire city. The project alignment is within the response zone of Fire Station #11 (SFD 2019). Fire Station #11 is located at 785 Florin Road, adjacent to the project alignment at the northwest corner of the intersection of Florin Road and Havenside Drive.

Police Protection Services

The Sacramento Police Department (SPD) is principally responsible for providing police protection services in the city of Sacramento, including the project area.

The project alignment is located within the South Command and beat 4C (SPD 2016:8). The South Command is based at the Joseph E. Rooney Police Facility located at 5303 Franklin Boulevard, approximately 3 miles northeast of the project alignment.

Schools

There are two public schools adjacent to the project alignment, John F. Kennedy High School, located at the southeast corner of the intersection of Florin Road and Gloria Drive, and the School of Engineering and Sciences, located on the north side of Gloria Drive, directly west of the Pocket Canal. Two private preschools are located within one-quarter mile of the project alignment, Merryhill Preschool at 7335 Park City Drive and Angel's Nest Preschool at 475 Florin Road.

Parks and Other Public Facilities

The nearest park to the project alignment is Seymour Park, a beltway park that extends north and south of Florin Road, approximately one-tenth mile east of Havenside Drive. Seymour Park provides open space for citizens to walk or bike around in the area. Athletic fields at John F. Kennedy High School are also available for public use. The Pocket Canal Parkway is adjacent to the east side of the Pocket Canal where it intersects with Havenside Drive. The Pocket Canal Parkway provides a paved trail for bicyclists and pedestrians.

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 Protection

No Impact. Implementation of the project would not increase demand for SFD fire protection services because the project would not generate new residents, which is the driving factor for fire protection services, nor would it result in the operation of additional structures within the project area that could generate calls for service. Because the project would not increase demand for fire protection services, no construction of new or expansion of existing fire service facilities would be required. Therefore, the project would have **no impact** on fire protection services, and no mitigation would be required.

Police Protection

No Impact. Implementation of the project would not increase demand for SPD police protection services because the project would not generate new residents, which is the driving factor for police protection services, nor would it result in the operation of additional structures within the project area that could generate calls for service. Because the project would not increase demand for police protection services, no construction of new or expansion of existing police service facilities would be required. Therefore, the project would have **no impact** on police facilities, and no mitigation would be required.

Schools

No Impact. The project would not provide any new housing that would generate new students in the community nor result in an increase in employment opportunities that could indirectly contribute new students to the local school district. Therefore, the project would have **no impact** on school services and facilities, and no mitigation would be required.

Parks

No Impact. The project would not provide any new structures that could result in additional residents/employees, which could necessitate new or expanded park facilities. Therefore, the project would have **no impact** on parks, and no mitigation would be required.

Other Public Facilities

No Impact. No other public facilities exist in the project area that could be affected by implementation of the project. Therefore, the project would have **no impact** on other public facilities, and no mitigation would be 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 located within the Pocket/Greenhaven neighborhood in the city of Sacramento in Sacramento County. Seymour Park is a beltway park that extends north and south of Florin Road, approximately one-tenth mile east of Havenside Drive. Seymour Park provides open space for citizens to walk or bike around in the area. Athletic field at John F. Kennedy High School adjacent to the project alignment are also available for public use. The Pocket Canal Parkway is adjacent to the east side of the Pocket Canal where it intersects with Havenside Drive. The Pocket Canal Parkway provides a paved trail for bicyclists and pedestrians.

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 any new development that could increase the use of existing parks or recreational facilities. Therefore, the project would have **no impact**, and no mitigation would be 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 any new development that could necessitate new or expanded recreational facilities. Therefore, the project would have **no impact**, and no mitigation would be required.

3.17 Traffic and Transportation

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
XVII. Transportation/Traffic. 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.17.1 Environmental Setting

The project involves open trenching and other construction activities within existing rights-of-way, including public roads, curbs, gutters, and sidewalks. Most of the project alignment is within Florin Road and Havenside Drive, with some work occurring along Gloria Drive and within the parking lot of an apartment complex. Multiple transit stops are located along Florin Road in the project area.

On-street bicycle lanes are provided along many streets within and near the project alignment. An overhead bridge for pedestrians and bicycles crosses over Florin Road to connect Seymour Park. The Pocket Canal Parkway includes a dedicated off-street route for bicycles and pedestrians. The project alignment crosses the canal along Havenside Drive, just east of the Havenside-Canal distribution substation.

3.17.2 Discussion

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

Less than Significant with Mitigation Incorporated. Project construction would temporarily interfere with existing vehicle, transit, bicycle, and pedestrian circulation as it would include temporary closures of roads, sidewalks, transit stops, and bike lanes. Upon completion of construction, all facilities would be returned to their pre-project condition. Project operation would not generate additional vehicle, transit, pedestrian, or bicycle use, so there would be no conflicts with programs, plans, ordinances, or policies related to circulation. Because project construction activities could affect the existing circulation system, this impact would be potentially significant.

Mitigation Measure 3.17-1: Traffic Control Plan

Prior to project construction within or adjacent to public roadways, SMUD's construction contractor shall develop a traffic control plan for the project and submit the plan to the City of Sacramento's Department of Public Works. The plan shall identify temporary lane, sidewalk, bicycle lane, and transit stop closures and provide information regarding how access and connectivity will be maintained during construction activities. The plan shall include details regarding traffic controls that would be employed, including signage, detours, and flaggers. The traffic control plan shall be implemented by the contractor during construction to allow for the safe passage of vehicles, pedestrians, and cyclists along the project route.

Implementation of Mitigation Measures 3.17-1 would reduce impacts related to the circulation system by ensuring that accessibility and connectivity are maintained during construction activities. Therefore, this impact would be reduced to a **less-than-significant** level.

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

Less than Significant. Temporary construction activities would result in slight increases in vehicle trips associated with worker commutes and materials delivery. However, these additional trips would only occur during the 8-month construction period. During operation, no new vehicle trips would be generated as the project involves existing facilities with existing maintenance and operations activities. Because the project would not change the amount of development projected for the area, would be consistent with the population growth and VMT projections in regional and local plans, and would have only a slight increase in VMT during construction, this impact would be **less than significant**, and no mitigation would be 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 with Mitigation Incorporated. Project operation would not result in any changes in road geometry or new uses. As discussed above, project construction would require temporary closure of vehicle lanes as well as sidewalks, bike lanes, and transit stops. This impact would be potentially significant.

Implementation of Mitigation Measures 3.17-1 would reduce impacts related to traffic hazards during construction by requiring a plan to maintain access and provide safety information. As part of the plan, requirements would be established to allow for the safe, controlled passage of vehicles through the project area. Therefore, impacts related to traffic hazards would be reduced to a **less-than-significant** level.

d) Result in inadequate emergency access?

Less than Significant with Mitigation Incorporated. As discussed above, project operation would not change any existing roads, including areas provided for emergency access. Project construction would involve temporary lane closures, which has the potential to impact access for emergency vehicles. This impact would be potentially significant.



Implementation of Mitigation Measures 3.17-1 would reduce impacts related to inadequate emergency access during construction by requiring implementation of a plan to maintain access for emergency vehicles during construction. Therefore, impacts related to emergency access would be reduced to a ***less-than-significant*** level.

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

Assembly Bill (AB) 52, signed by Governor Edmund G. Brown, Jr., in September 2014, established a new class of resources under CEQA: “tribal cultural resources” (TCRs). AB 52, as provided in Public Resource Code Sections 21080.3.1, 21080.3.2, and 21082.3, requires that lead agencies undertaking CEQA review must, upon written request of a California Native American Tribe, begin consultation once the lead agency determines that the application for the project is complete, prior to the issuance of a NOP of an EIR or notice of intent to adopt a negative declaration or mitigated negative declaration.

AB 52 applies to those projects for which a lead agency had issued a NOP of an EIR or notice of intent to adopt a negative declaration or mitigated negative declaration on or after July 1, 2015. Therefore, the requirements of AB 52 apply and SMUD has initiated consultation with tribes that have requested consultation.

Tribal Consultation

On March 19, 2019, an email was sent to the NAHC to request a Sacred Lands File search for known cultural resources within the project alignment and a 1/8-mile buffer. The NAHC provided a positive response to this request on May 15, 2019. The NAHC’s letter advised SMUD to contact the United Auburn Indian Community of the Auburn Rancheria and the Wilton Rancheria for more information. The NAHC also provided a list and contact information for six additional Native American contacts who may have interest in the project.

On May 9, 2019, SMUD sent emails and certified letters to the lone Band of Miwok Indians, United Auburn Indian Community of the Auburn Rancheria (UAIC), and Wilton Rancheria. All three tribes have requested to consult on the project. The specific details of the consultations are confidential pursuant to California law, however, as summary of events related to communication between the tribes and SMUD is provided below:

- May 10, 2019: lone Band of Miwok Indians replied to SMUD's letter indicating a desire to consult.
- May 13, 2019: Wilton Rancheria replied to SMUD's letter indicating a desire to consult and requesting copies of cultural resource assessments and records searches.
- May 29, 2019: SMUD shared an excerpt of the Cultural Resources and Tribal Cultural Resources sections of the administrative draft IS/MND to the lone Band of Miwok Indians and Wilton Rancheria. At this time, SMUD also provided KMZ files depicting the project alignment.
- May 31, 2019: UAIC replied to SMUD's email indicating a desire to consult and requesting copies of all existing cultural resource assessments and records searches. UAIC also requested that the project's environmental documents incorporate measures recommended by UAIC.
- June 3, 2019: SMUD shared the excerpt of the Cultural Resources and Tribal Cultural Resources sections of the administrative draft IS/MND and project KMZ files with UAIC.
- June 13, 2019: UAIC requests additional information and submits proposed mitigation measure language.
- June 19, 2019: SMUD and Wilton Rancheria representatives conduct site visit.
- July 1, 2019: SMUD and Wilton Rancheria representatives conduct conference call. Wilton Rancheria requests a mitigation measure be included that provides for tribes to periodically visit the project alignment.

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)?**
- 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. In compliance with AB 52, SMUD sent letters to three Native American tribes on May 9, 2019. SMUD received three responses, from the Lone Band of Miwok Indians, Wilton Rancheria, and UAIC. Consultation was initiated and included a site visit and conference call with Wilton Rancheria, sharing of the administrative draft version of project mitigation measures, and discussion regarding mitigation measures. While no specific areas of concern or specific tribal cultural resources were identified during the consultation process, the tribes expressed general concern due to the historic significance of the Pocket/Greenhaven area and the villages along the Sacramento River that were displaced with construction of the levees. In particular, tribes expressed concern regarding manhole excavation as it would involve depths beyond existing underground infrastructure in the area and would disturb soils that have been previously undisturbed. As a result, this impact is potentially significant.

Mitigation Measure 3.18-1: Periodic Monitoring for Potential Unknown Tribal Cultural Resources

SMUD shall periodically invite representatives of interested Native American tribes to inspect the active areas of the project alignment, including any soil piles, trenches, or other disturbed areas. Invitations shall be extended to the tribe at least 24 hours prior to excavation of manholes and would allow for inspection to occur within 7 days of the invitation. In the event that tribal representatives or construction workers find evidence of potential tribal cultural resources, the procedures identified in Mitigation Measure 3.5-1 shall be implemented.

Implementation of Mitigation Measure 3.18-1 would reduce potential impacts to tribal cultural resources by ensuring interested tribes have opportunities to visit the project alignment during construction, with timing for the visits triggered by pending manhole excavation. Prior to the start of construction, workers shall receive information regarding the potential for tribal cultural resources that could be encountered during ground disturbance, as required in Mitigation Measure 3.5-1. Should any previously unknown tribal cultural resources be discovered during project construction, implementation of Mitigation Measure 3.5-1 would reduce impacts by mandating the steps to be taken in the event that potential tribal cultural resources are discovered during project construction. With implementation of Mitigation Measures 3.18-1 and 3.5-1, this impact would be reduced to a ***less-than-significant*** level.

3.19 Utilities

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 sufficient 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 type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?	<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) 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 involves replacement of existing electrical utility lines and would not require water supply or generate wastewater requiring disposal. Project construction would require extensive dewatering activities, and the water could be retained in Baker tanks and/or conveyed through filtration bags, if needed, prior to being released to the City's stormdrain system and/or sewer system. For more information regarding dewatering and discharge, see Section 3.10, "Hydrology and Water Quality."

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 would install new conduit duct bank to replace the existing direct buried underground electrical lines and would not require the use or construction of water treatment, wastewater treatment, natural gas, or telecommunications infrastructure or facilities. As discussed above, project construction would include dewatering and the water may be temporarily stored in Baker tanks and/or conveyed through filtration bags, if needed, prior to

being discharged into the City's stormdrain system and/or sewer system. Discharge to the stormdrain system and/or sewer system would be temporary and would not exceed system capacity as water could be retained on the project site until there is adequate capacity. Project operation would not require any utility infrastructure or service. This impact would be **less than significant**, and no mitigation would be required.

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

No Impact. The project would not include any use that would require potable water. Because the project would not require water supplies, there would be **no impact** related to water supplies, and no mitigation would be required.

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

No Impact. The project would not require the use of wastewater systems. Therefore, the project would have **no impact** related to wastewater treatment capacity, and no mitigation would be 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?

Less than Significant. The project would generate a small amount of solid waste during construction, but would not generate solid waste during project operation. Construction debris could include asphalt, concrete, scrap lumber, finishing materials, metals, and organic materials. Compliance with the 2013 CALGreen Code and the City Construction and Demolition Debris Recycling Ordinance would result in a reduction of construction waste and demolition debris and increase recycling. In addition, the construction contractor would comply with goals of the Sacramento 2035 General Plan Update also contains goals regarding solid waste generation and recycling.

The majority of landfilled waste would be delivered to the Sacramento Recycling and Transfer Station, the Sacramento County Kiefer Landfill, the Yolo County Landfill, L and D Landfill, Florin Perkins Landfill, and Elder Creek Transfer Station. Combined, these landfills have a large volume of landfill capacity available to serve the project during construction. The project involves the replacement of existing underground electrical lines and would not generate solid waste during operation. This impact would be **less than significant**, and no mitigation would be required.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less than Significant. The project would cause a temporary increase in the generation of solid waste as a result of construction activities. However, the operation of the project would not generate solid waste. Compliance with the City of Sacramento policies regarding solid waste would prevent landfills from being overloaded due to the project construction activities. This impact would be **less than significant**, and no mitigation would be 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?				
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
	<input type="checkbox"/> Yes		<input checked="" type="checkbox"/> No	
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 alignment is located within a local responsibility area that is designated as a non-Very High Fire Hazard Severity Zone (non-VHFHSZ) (CAL FIRE 2008).

3.20.2 Discussion

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less than Significant. Construction of the project would require road lane closures that could temporarily impair emergency response plans or evacuation plans. As required by Mitigation Measure 3.17-1, SMUD and its construction contractor would develop and implement a traffic control plan that would maintain access and connectivity during project construction activities. Because access and connectivity would be maintained during construction, the project would not substantially impair an emergency response plan or evacuation plan. Once construction is complete, the project alignment would be returned to its pre-construction condition and there would not be any above-ground features that would potentially impair emergency response or evacuation. Because adequate access would be maintained throughout construction activities, this impact would be **less than significant**, and no mitigation would be required.

- 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?**

No Impact. The project would not exacerbate wildfire risks as the project site is not located within a wildfire hazard zone, is substantially surrounded by developed land, and is not near wildland areas. There would be **no impact**, and no mitigation would be required.

- 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?**

No Impact. The project does not require the installation of infrastructure that could exacerbate fire risk because the project would locate all electrical facilities below the ground surface. There would be **no impact**, and no mitigation would be required.

- 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 is in an area of flat terrain and would not involve the changing to slopes that could expose people to risks of flooding from post-fire slope instability. Project facilities would be located under the ground surface and would not result in changes to existing drainage. There would be **no impact**, and no mitigation would be required.

3.21 Mandatory Findings of Significance

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. 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 checked="" type="checkbox"/>	<input 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"/>

Authority: Public Resources Code Sections 21083, 21083.5.

Reference: Government Code Sections 65088.4, Public Resources Code Sections 21080, 21083.5, 21095; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

3.21.1 Discussion

- a) **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, project construction would occur primarily within rights-of-way or other paved areas but the project would not result in significant impacts on biological resources with implementation of Mitigation Measures 3.4-1 and 3.4-2.

As discussed in Section 3.5, “Cultural Resources,” there are no known cultural resources on the project site. Because there is the potential for discovery of previously-unknown resources, Mitigation Measures 3.5-1 and 3.5-2 would be implemented to reduce impacts to a less-than-significant level. Also, implementation of Mitigation Measures 3.18-1 and 3.5-1 would reduce impacts on tribal cultural resources to a less-than-significant level.

Implementation of project mitigation measures, along with adherence to applicable regulations and requirements, would ensure that the project would not substantially degrade the quality of the environment. This impact would be ***less than significant***.

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

Less than Significant with Mitigation Incorporated. Project impacts would be individually limited and not cumulatively considerable due to the site-specific nature of the potential impacts. The potentially significant impacts that can be reduced to a less-than-significant level with implementation of recommended mitigation measures include the following areas: air quality, biological resources, cultural resources, traffic and transportation, and tribal cultural resources. These impacts would primarily be related to construction activities, would be temporary in nature, and would not substantially contribute to any potential cumulative impacts associated with these topics.

Potentially significant air quality impacts would be reduced to a less-than-significant level with implementation of Mitigation Measure 3.3-1. Potentially significant biological resources impacts would be reduced to a less-than-significant level with implementation of Mitigation Measures 3.4-1 and 3.4-2. Potentially significant cultural resources impacts would be reduced to less-than-significant levels with implementation of Mitigation Measures 3.5-1 and 3.5-2. Potentially significant impacts related to geology and soils would be reduced to less-than-significant levels with implementation of Mitigation Measures 3.7-1 and 3.7-2. Potentially significant transportation impacts would be reduced to less-than-significant levels with implementation of Mitigation Measure 3.17-1. Potentially significant tribal cultural resources impacts would be reduced to a less-than-significant level with implementation of Mitigation Measures 3.18-1 and 3.5-1.

The project would have no impact or less than significant impacts to the following environmental areas: aesthetics, agriculture and forestry resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, utilities and service systems, and wildfire. Therefore, the project would not substantially contribute to any potential cumulative impacts for these topics. All environmental impacts that could occur as a result of the project would be reduced to a less-than-significant level through the implementation of the mitigation measures recommended in this document. Implementation of these measures would ensure that the impacts of the project would be below established thresholds of significance and that these 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 the following areas: air quality, biological resources, cultural resources, transportation, 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 LIST OF PREPARERS

SMUD

Rob Ferrera Environmental Specialist

Ascent

Chris Mundhenk..... Principal

Cori Resha, J.D.....Project Manager

Kim Untermoser Environmental Planner

Megan Diliberti..... Environmental Planner

Ricky Williams..... Transportation and Environmental Planner

Poonam Boparai Senior Air Quality Specialist

Ted Thayer Senior Biologist

Carlos Alvarado Wildlife Biologist

Shannon Hickey..... Botanist

Steve Henderson Senior Biologist

Lisa Merry GIS Specialist

Phi Ngo GIS Specialist

Brian Perry..... Graphics Specialist

Gayiety Lane..... Document Specialist

Michele Mattei..... Document Specialist



This page intentionally left blank.

5.0 REFERENCES

- Bureau of Transportation Statistics. 2015. Table 7-1: Transportation Energy Consumption by Energy Source. Available:
https://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/state_transportation_statistics/state_transportation_statistics_2014/index.html/chapter7/table7-1. Accessed August 24, 2018.
- CAL FIRE. See California Department of Forestry and Fire Protection.
- California Air Resources Board. 2003. *HARP User Guide*. Sacramento, CA.
- . 2017 (November). *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target*. Available:
https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed August 2018.
- California Department of Conservation, California Geological Survey. 2010 (January). Alquist-Priolo Earthquake Fault Zones, Table 4, Cities and Counties Affected by Alquist-Priolo Earthquake Fault Zones. Available:
www.conservation.ca.gov/cgs/rghm/ap/Pages/affected.aspx. Accessed April 8, 2019.
- . 2016. Earthquake Shaking Potential for California. Available:
https://www.conservation.ca.gov/cgs/Documents/MS_48.pdf. Accessed May 17, 2019.
- California Department of Conservation. 1999. Mineral Land Classification Map of PCC-Grade Aggregate Resources in Sacramento County. 1:90,000 Scale. Sacramento, CA.
- . 2015. Sacramento County Williamson Act FY 2011/2012. Scale: 1:100,000. Division of Land Resource Protection, Conservation Program Support. Available:
ftp://ftp.consrv.ca.gov/pub/dlrp/wa/Sacramento_15_16_WA.pdf.
- . 2017 (July). Sacramento County Important Farmland Map 2016. Scale: 1:100,000. Division of Land Resource Protection, Farmland Mapping and Monitoring Program. Available: <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/>.
- California Department of Fish and Wildlife. 2019. Rarefind 5. Commercial Version dated March 2, 2019. An online subscription database application for the use of the California department of fish and Wildlife's natural diversity database. California Natural Heritage Division, California Department of Fish and Wildlife, Sacramento, CA. Accessed March 2019.
- California Department of Forestry and Fire Protection. 2008 (July 30). Sacramento County, Very High Fire Hazard Severity Zones in LRA. 1:100,000 Scale. Sacramento, CA.
- California Department of Toxic Substances Control. 2019. EnviroStor map. Available:
www.envirostor.dtsc.ca.gov. Accessed June 3, 2019.
- California Department of Transportation. 2019. California Scenic Highway Mapping System, Sacramento County. Available:
http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/ Accessed May 22, 2019.

- . 2013 (September). *Technical Noise Supplement*. California Department of Transportation Division of Environmental Analysis. Sacramento, CA. Prepared by ICF Jones & Stokes.
- California Department of Water Resources. 2004. *California's Groundwater*. Bulletin 118, South American Subbasin. Last updated February 27, 2004. Sacramento, CA.
- California Energy Commission. 2018. *2018 Integrated Energy Policy Report Update*. Available: https://www.energy.ca.gov/2018_energypolicy/. Accessed on May 16, 2019.
- California Energy Commission and California Air Resources Board. 2003 (July). *Reducing California's Petroleum Dependence*.
- California Historical Resources Information System, Northern California Information Center. 2019 (March 11). *Re: 16010008.09-SMUD-69kv Underground Cable Replace*. Letter memorandum to Alta Cunningham of Ascent Environmental. Sacramento, CA.
- California Native Plant Society, Rare Plant Program. 2019. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. Available: <http://www.rareplants.cnps.org>. Accessed March 2019.
- California Public Utilities Commission, California Energy Commission, and California Power Authority. 2008 (February). *Energy Action Plan*. Available: https://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy_-_Electricity_and_Natural_Gas/2008%20Energy%20Action%20Plan%20Update.pdf. Accessed on May 16, 2019.
- California Regional Water Quality Control Board. 2018 (May). The Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board Central Valley Region, Fifth Edition, the Sacramento River Basin and the San Joaquin River Basin. Rancho Cordova, CA.
- California State Board of Equalization. 2016. Net Taxable Gasoline Gallons. Available: http://www.boe.ca.gov/sptaxprog/reports/MVF_10_Year_Report.pdf. Accessed August 24, 2018.
- Caltrans. See California Department of Transportation.
- CARB. See California Air Resources Board.
- CEC. See California Energy Commission.
- CGS. See California Department of Conservation, California Geological Survey.
- City of Sacramento. 2014a (August). *Draft Master Environmental Impact Report for the City of Sacramento 2035 General Plan Update*. State Clearinghouse No. 2012122006. Sacramento, CA. Prepared by Ascent Environmental, Sacramento, CA.
- . 2014b (September 3). Planning and Development Code, Base Zones. Sacramento, CA.

- . 2014c (August). *Sacramento 2035 General Plan Background Report*. Sacramento, CA.
- CPUC. See California Public Utilities Commission.
- CRWQCB. See California Regional Water Quality Control Board.
- DOC. See California Department of Conservation.
- DTSC. See California Department of Toxic Substances Control.
- EIA. See U.S. Energy Information Administration.
- EPA. See U.S. Environmental Protection Agency.
- Federal Emergency Management Agency. 2012. National Flood Hazard Layer. Panel 0195H Effective August 16, 2012. Available: <http://www.msc.fema.gov>.
- FEMA. See Federal Emergency Management Agency.
- Federal Transit Administration. 2006. *Transit Noise and Vibration Impact Assessment*. Washington, D.C. Available: <https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/fta-noise-and-vibration-impact-assessment>. Accessed July 3, 2017.
- . 2018. *Transit Noise and Vibration Impact Assessment Manual*. Available at https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed on April 29, 2019.
- FTA. See Federal Transit Administration.
- Fugro William Lettis & Associates. 2010. Surficial Geologic Map and Geomorphic Assessment, DWR Urban Levee Geotechnical Evaluation Project, Sacramento River (East Side) Study Area, Sacramento, California. Cited in Kleinfelder 2019.
- FWLA. See Fugro William Lettis & Associates.
- Helley and Harwood. 1985. Geologic Map of the Late Cenozoic Deposits of the Sacramento Valley and Northern Sierran Foothills, California.
- Intergovernmental Panel on Climate Change. 2013. Chapter 6, Carbon and Other Biogeochemical Cycles. Pages 465–570 in *Climate Change 2013: The Physical Science Basis*. Working Group I Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Available: http://www.climatechange2013.org/images/report/WG1AR5_ALL_FINAL.pdf. Accessed August 2018.
- . 2014. *Climate Change 2014 Synthesis Report: Summary for Policymakers*. Available: https://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf. Accessed August 2018.
- IPCC. See International Panel on Climate Change.

- Jennings, C. W. (1994), Fault Activity Map of California and Adjacent Areas with Locations and Ages of Recent Volcanic Eruptions, California Department of Conservation, Division of Mines and Geology.
- Kleinfelder. 2019 (February 15). Geotechnical Investigation Report Proposed SMUD Pocket 69kV Cable Replacement, Sacramento, California.
- Natural Resources Conservation Service. 2018 (September). Web Soil Survey National Cooperative Soil Survey. Available:
<https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>. Accessed June 3, 2019.
- NCIC. See California Historical Resources Information System, Northern California Information Center.
- NRCS. See Natural Resources Conservation Service.
- SACOG. See Sacramento Area Council of Governments.
- Sacramento Area Council of Governments. 1999. *Sacramento Executive Airport Comprehensive Land Use Plan*. May 1998, amended May 1999. Sacramento, CA.
- Sacramento Fire Department. 2019. Engine Company First-In Districts and Response Zones - BARB Configuration. Available: <https://www.cityofsacramento.org/-/media/Corporate/Files/Fire/Maps/Engine-Districts-20120423.pdf?la=en>. Accessed June 3, 2019.
- Sacramento Metropolitan Air Quality Management District. 2017. *Air Quality Pollutants and Standards*. Available at <http://www.airquality.org/air-quality-health/air-quality-pollutants-and-standards>. Accessed on April 29, 2019.
- . 2018 (August). *Guide to Air Quality Assessment in Sacramento County, Chapter 6: Greenhouse Gas Emissions*. Available:
<http://www.airquality.org/LandUseTransportation/Documents/Ch6GHGFinal5-2018.pdf>. Accessed on May 16, 2019.
- Sacramento Metropolitan Utility District. 2018 (July). *Sacramento Municipal Utility District Headquarters Campus Master Plan Draft Environmental Impact Report*. Draft dated April 2018; amended by Final EIR in July 2018. State Clearinghouse No. 2017092050. Sacramento, CA. Prepared by Ascent Environmental, Sacramento, CA.
- Sacramento Police Department. 2016. *Sacramento Police Department 2016 Annual Report*. Available: <https://www.cityofsacramento.org/-/media/Corporate/Files/Police/About-SPD/Annual-Reports/ar16.pdf?la=en>. Accessed June 3, 2019.
- SMAQMD. See Sacramento Metropolitan Air Quality Management District.
- SMUD. See Sacramento Metropolitan Utility District.
- State of California. 2018. California Climate Change Legislation. Available:
<http://www.climatechange.ca.gov/state/legislation.html>. Accessed August 2018.

State Water Resources Control Board. 2019. GeoTracker Map. Available:
<https://geotracker.waterboards.ca.gov>. Accessed June 3, 2019.

SWRCB. See State Water Resources Control Board.

UN. See United Nations.

United Nations. 2015 (December 13). *Historic Paris Agreement on Climate Change: 195 Nations Set Path to Keep Temperature Rise Well Below 2 Degrees Celsius*. Available:
<https://unfccc.int/news/finale-cop21>. Accessed August 2018.

U.S. Energy Information Administration. 2018. *Annual Energy Outlook 2018*. Available:
<https://www.eia.gov/outlooks/aeo/>. Accessed August 30, 2018.

U.S. Environmental Protection Agency. 2019. Criteria Air Pollutants. Available at
<https://www.epa.gov/criteria-air-pollutants>. Accessed: June 12, 2019.

U.S. Fish and Wildlife Service. 2019a. Information for Planning and Consultation Database (IPaC). Available: <https://ecos.fws.gov/ipac> Accessed: February 2019.

———. 2019b. National Wetlands Inventory Online Wetland Mapper. Available:
<https://www.fws.gov/wetlands/data/mapper.html> Accessed: February 2019.

USFWS. See U.S. Fish and Wildlife Service.

Zhu Y, WC Hinds, S Kim, S Shen, and C Sioutas. 2002. Study of Ultrafine Particles Near a Major Highway with Heavy-duty Diesel Traffic. In *Atmospheric Environment* 36:4323–4335.



This page intentionally left blank.