SMUD Franklin Electric Transmission Project

Final
Initial Study Mitigated Negative Declaration

September 2016

Lead Agency:
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Mitigated Negative Declaration

**Introduction**

This Final Initial Study (IS) and Mitigated Negative Declaration (MND) has been prepared to evaluate Sacramento Municipal Utility District’s (SMUD) proposed Project for compliance under the California Environmental Quality Act (CEQA). SMUD is the lead agency responsible for complying with the provisions of CEQA. SMUD proposes the Franklin Electric Transmission Project (also referred to as “proposed Project”).

**Project Description**

SMUD is proposing to construct and operate a new bulk transmission substation (Franklin Bulk substation), construct and operate a new distribution substation (Franklin Distribution substation), modify existing and construct new overhead 69 kilovolt (kV) and 230kV power lines that would link the substations to the electrical grid, and dismantle a nearby distribution substation. Project features would include the Franklin Bulk substation, the Franklin Distribution substation, subtransmission lines, transmission lines, and a fiber optic network connection.

**Findings**

As lead agency for compliance with CEQA, SMUD finds that the proposed Project would be implemented without causing a significant adverse impact on the environment. SMUD will implement mitigation measures for potential impacts associated with air quality, biological resources, cultural resources, geology and soils, greenhouse gases, and hazards and hazardous materials through adoption of a mitigation monitoring and reporting program (see Chapter 4).

**Cumulative Impacts**

CEQA requires that SMUD assess whether its proposed Project’s incremental effects are significant when viewed in connection with the effects of other projects. Based on the analysis presented in the IS/MND, the proposed Project would not contribute incrementally to considerable environmental changes when considered in combination with other past, present, or future projects within the vicinity of the Project Area. The proposed Project’s contribution to any cumulative impacts would be less than considerable.

**Growth-inducing Impacts**

SMUD’s primary purpose is to supply electrical energy to customers in the Sacramento area. It has an obligation to serve all new development approved by local agencies and Sacramento County. The proposed Project’s purpose is to maintain SMUD’s electric system reliability and to increase the electric system capacity to meet expected customer electrical load growth as a result of planned land development in the southwest area of Sacramento County. The construction and operation of the proposed Project would not induce population growth; rather,
it would accommodate the electrical service needs of growth that is already expected due to planned development. Therefore, SMUD projects are not considered to be "growth inducing," as defined by CEQA. In addition, SMUD's proposed Project would not cause increased demand on public infrastructure, public services, housing, circulation, or other resources.

**Determination**

On the bases of this evaluation, SMUD concludes:

The proposed Project does not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered species, or eliminate important examples of the major periods of California history or prehistory.

The proposed Project would not achieve short-term environmental goals to the disadvantage of long-term environmental goals.

The proposed Project would not have impacts that are individually limited, but cumulatively considerable.

The proposed Project would not have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly.

No substantial evidence exists to demonstrate that the proposed Project would have a substantive negative effect on the environment.

_________________________  9-14-14
Signature                        Date

Kim Crawford, Environmental Management Specialist
SMUD
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Acronyms and Abbreviations

AC  alternating current
BMPs  best management practices
CCR  California Code of Regulations
CDE  California Department of Education
CDFW  California Department of Fish and Wildlife
CDHS  California Department of Health Services
CEQA  California Environmental Quality Act
Corps  U.S. Army Corps of Engineers
CPUC  California Public Utilities Commission
CWA  Clean Water Act
EGUSD  Elk Grove Unified School District
EIR  Environmental Impact Report
EMF  Electric and Magnetic Fields
EPRI  Electric Power Research Institute
ERCS  Energy Resources and Customer Services
FDCP  Fugitive Dust Control Plan
HMBP  Hazardous Materials Business Plan
HSCERP  Hazardous Substance Control and Emergency Response Plan
Hz  hertz
ICES  International Committee on Electromagnetic Safety
ICNIRP  International Committee on Non-Ionizing Radiation Protection
IS  Initial Study
IS/MND  Initial Study/Mitigated Negative Declaration
kV  kilovolt
kV/m  kilovolts/meter
Mg  milligauss
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLD</td>
<td>Most Likely Descendant</td>
</tr>
<tr>
<td>MND</td>
<td>Mitigated Negative Declaration</td>
</tr>
<tr>
<td>MS4</td>
<td>Municipal Separate Storm Sewer System</td>
</tr>
<tr>
<td>MT\text{CO}_2e/\text{year}</td>
<td>metric tons of CO2 equivalents per year</td>
</tr>
<tr>
<td>ND</td>
<td>Negative Declaration</td>
</tr>
<tr>
<td>NAHC</td>
<td>Native American Heritage Commission</td>
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<tr>
<td>NIEHS</td>
<td>National Institute of Environmental Health Sciences</td>
</tr>
<tr>
<td>NOI</td>
<td>Notice of Intent</td>
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<tr>
<td>NO$_x$</td>
<td>Nitrous Oxide</td>
</tr>
<tr>
<td>NPDES</td>
<td>National Pollution Discharge Elimination System</td>
</tr>
<tr>
<td>Project</td>
<td>Franklin Electric Transmission Project</td>
</tr>
<tr>
<td>ROW</td>
<td>right-of-way</td>
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<tr>
<td>RWQCB</td>
<td>Regional Water Quality Control Board</td>
</tr>
<tr>
<td>SMAQMD</td>
<td>Sacramento Metropolitan Air Quality Management District</td>
</tr>
<tr>
<td>SMUD</td>
<td>Sacramento Municipal Utility District</td>
</tr>
<tr>
<td>SPCC</td>
<td>Spill Prevention, Control, and Countermeasure</td>
</tr>
<tr>
<td>SPRP</td>
<td>Spill Prevention and Response Plan</td>
</tr>
<tr>
<td>SWPPP</td>
<td>Storm Water Pollution Prevention Plan</td>
</tr>
<tr>
<td>UPRR</td>
<td>Union Pacific Railroad</td>
</tr>
<tr>
<td>USFWS</td>
<td>United States Fish and Wildlife Service</td>
</tr>
<tr>
<td>VELB</td>
<td>Valley elderberry longhorn beetle</td>
</tr>
<tr>
<td>VPFS</td>
<td>vernal pool fairy shrimp</td>
</tr>
<tr>
<td>VPTS</td>
<td>vernal pool tadpole shrimp</td>
</tr>
<tr>
<td>WEAT</td>
<td>Worker Environmental Awareness Training</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
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</table>
1.0 Introduction

1.1 Introduction

The Sacramento Municipal Utility District (SMUD) is proposing the Franklin Electric Transmission Project (also referred to as "proposed Project"). Under the proposed Project, SMUD would construct and operate a new bulk transmission substation (Franklin Bulk substation), construct and operate a new distribution substation (Franklin Distribution substation), modify existing and construct new overhead 69 kilovolt (kV) and 230kV power lines that would link the substations to the electrical grid, and dismantle a nearby distribution substation. Project features would include the Franklin Bulk substation, the Franklin Distribution substation, subtransmission lines, transmission lines, and a fiber optic network connection.

1.1.1 Project Location

The proposed Project is located in southwestern Sacramento County, California (Figures 1 and 2 in the Draft IS/MND). The proposed Project is primarily located in unincorporated Sacramento County and the subtransmission pole modifications extend into the city limits of the City of Elk Grove, California. Specifically, the proposed Project is located on the Florin and Bruceville, California U.S. Geological Survey 7.5-minute quadrangle topographic maps within Township 6 North, Range 5 East in Sections 5, 8, 17, 20, 29, and 32, and within Township 5 North and Range 5 East in Section 4, of the Mt. Diablo Base and Meridian. The approximate geographic coordinates at the center of the substation site are longitude -121.452564° west and latitude 38.374602° north.

The proposed Franklin Bulk and Franklin Distribution substations would be co-located within the Project’s substation footprint. This area is referred to as the substation site in this Initial Study/Mitigated Negative Declaration (IS/MND) and would occupy an approximately 17-acre site located southeast of the intersection of Franklin Boulevard and Hood Franklin Road and adjacent to an existing 230kV SMUD electrical transmission corridor and Union Pacific Railroad (UPRR) tracks to the east. The subtransmission (69 kV) overhead line modifications would primarily be located along Franklin Boulevard from Elk Grove Boulevard to Lambert Road, and the transmission line modification would be limited to the transmission corridor east of the proposed Franklin Bulk substation (See Figure 2 in the Draft IS/MND for a Proposed Project Overview). The Project Area includes the approximately 17-acre proposed substation site, the existing Franklin-Bilby Distribution substation, and all areas of subtransmission and transmission line modifications associated with the Project and with future phases of the Project.

1.1.2 Project Objectives

SMUD’s mission includes providing safe and reliable electric service to its customers. To meet this mission, the objective of the proposed Project is to maintain SMUD’s electric system reliability and to increase the electric system capacity to meet expected customer electrical load growth as a result of planned land development in the southwest area of Sacramento County.
Currently SMUD customers in this area are served from SMUD’s existing Elk Grove and Pocket bulk substations, and existing SMUD customers in the area of Franklin Boulevard and Bilby Road are currently served by the existing Franklin-Bilby Distribution substation. As a result of the planned development in southwest portion of Sacramento County, the projected electrical load will eventually exceed the capacity of these substations. Increasing the capacity of these substations is not feasible since the existing substation sites are fully utilized with no room for installing additional capacity. Therefore, installation of the proposed substations and associated overhead lines in the growth area is the only available, as well as the most efficient and reliable, means of serving this new electrical load.

1.1.3 Proposed Project

The Project consists of constructing and operating a new bulk transmission substation (Franklin Bulk substation) that would receive 230kV and step it down to 69kV, constructing and operating a new co-located distribution substation (Franklin Distribution substation) that would receive 69kV and step it down to 12kV, and modifying existing and constructing new overhead 69kV and 230kV power lines that would link the substations to the existing electrical grid. (For a complete description of the proposed Project, please see the Draft IS/MND in Appendix A.)

1.2 Environmental Process Summary

The purpose of this IS/MND is to disclose environmental impacts that may result from the proposed Project. This IS/MND assesses the environmental effects of the proposed Project, as required by the California Environmental Quality Act (CEQA), and is in compliance with state CEQA Guidelines (14 California Code of Regulations [CCR] Section 15000, et seq.), which requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects.

As CEQA Lead Agency for the proposed Project, SMUD has prepared the IS to determine if the proposed Project may have a significant impact on the environment. In accordance with CEQA Guidelines Sections 15063 and 15074, an Environmental Impact Report (EIR) must be prepared if there is substantial evidence supporting a fair argument that the proposed project under review may have a potentially significant impact on the environment. A Negative Declaration (ND) is a written statement prepared by the Lead Agency describing the reasons why the proposed project would not have a significant impact on the environment, and therefore would not require preparation of an EIR (CEQA Guidelines Section 15371). According to CEQA Guidelines Section 15070, an ND or MND shall be prepared for a project subject to CEQA when either:

- The IS shows that there is no substantial evidence, in light of the whole record before the Lead Agency, that the project may have a significant impact on the environment, or

- The initial study identifies potentially significant impacts, but:
Revisions in the project plans or proposals made by or agreed to by the applicant before the proposed MND and IS are released for public review would avoid the impacts or mitigate the impacts to a point where clearly no significant impacts would occur; and

There is no substantial evidence, in light of the whole record before the agency, that the proposed project as revised may have a significant impact on the environment.

As stated below, SMUD has analyzed the potential environmental impacts created by the proposed Project, determined that proposed Project impacts can be reduced to a less-than-significant level with mitigation, and has prepared a MND.

1.2.1 Public Review Process

The Draft IS/MND was circulated for a 32-day public review period (April 19, 2016 to May 20, 2016) to the Governor’s Office of Planning and Research, State Clearinghouse; local libraries; and appropriate resource agencies. A Notice of Intent (NOI) was also distributed to all property owners of record identified by the Sacramento County Assessor’s office and current occupants or tenants within at least 500 feet of the Project boundaries. The NOI identified where the document is available for public review and invited interested parties to provide written comments for incorporation into the Final IS/MND. The NOI also invited interested parties to attend a public meeting on the proposed Project, which was held on May 11, 2016, at the Franklin Elementary School.

1.2.2 Preparation of the Final IS/MND

SMUD received 13 comment letters on the Draft IS/MND (Chapter 2.0). Responses have been prepared and, where necessary, minor changes and edits have been made to the Draft IS/MND, as reflected in Chapter 3.0 Additions and Errata to the Draft IS/MND.

1.2.3 State CEQA Guidelines

State CEQA Guidelines Section 15073.5 outlines the requirements for recirculation of a ND prior to adoption. Section 15073.5(a) states:

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

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

1. A new, avoidable significant effect is identified and mitigation measures or project revisions must be added in order to reduce the effect to insignificance, or
(2) The lead agency determines that the proposed mitigation measures or project revisions will not reduce potential effects to less than significance and new measures or revisions must be required.

Circumstances under which recirculation is not required include (Section 15073.5(c)):

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

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

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

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

1.2.4 Analysis

The minor edits made to the Draft IS/MND as briefly described above in Section 1.2.2 and in more detail in Chapter 3, do not constitute a substantial revision. Since circulation of the Draft IS/MND, no new avoidable significant effects were identified that would require mitigation measures or project revisions to reduce a previously identified effect to a less-than-significant level. SMUD has determined that none of the aforementioned conditions requiring recirculation have been met, and as a result, recirculation of the Draft IS/MND is not required. Therefore, SMUD as the lead agency may approve the Final IS/MND with the incorporated revisions.

1.2.5 SMUD Board Approval Process

The SMUD Board of Directors must adopt the IS/MND and approve the mitigation monitoring and reporting program (Chapter 4) before it can approve the proposed Project. The proposed Project and environmental documentation pertaining thereto will be formally presented to the SMUD Board of Directors for information at an Energy Resources and Customer Services (ERCS) Committee meeting on October 5, 2016. The SMUD Board of Directors will then consider adopting the Final IS/MND at the next Board of Directors meeting on October 20, 2016. The ERCS Committee and Board of Directors meetings are held at SMUD’s Headquarters Building (6201 S Street, Sacramento, CA 95817-1899) and are open to the public. The public may comment at both meetings. If the SMUD Board of Directors decides to adopt the IS/MND, the Board may render a decision on Project approval or defer such a decision to a later date.
1.3 Environmental Factors Potentially Affected

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

☐ Aesthetics
☒ Biological Resources
☒ Greenhouse Gas Emissions
☐ Land Use/Planning
☐ Population/Housing
☐ Transportation/Traffic

☐ Agriculture & Forestry Resources
☒ Cultural Resources
☒ Hazards & Hazardous Materials
☐ Mineral Resources
☐ Public Services
☐ Utilities/Services Systems

☒ Air Quality
☒ Geology/Soils
☒ Hydrology/Water Quality
☐ Noise
☐ Recreation
☒ Mandatory Findings of Significance
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 proposed project have been made by or agreed to by the proposed project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

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

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

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

__________________________  ________________
Signature                   Date

Kim Crawford               9-16-16
______________________________
Printed Name

______________________________
Sacramento Municipal Utility District
______________________________
Lead Agency
2.0 Comments and Responses

This chapter identifies the comments submitted by members of the public and government agencies on the Draft IS/MND. Comments pertinent to the environmental effects of the proposed Project have been bracketed for response. The following sections provide the complete, bracketed comment letters, summaries for each comment, and SMUD’s response to these comments.

2.1 Introduction

The Draft IS/MND was circulated for a 32-day public review period (April 19, 2016 to May 20, 2016). During the public comment period 12 comments were received by SMUD. One additional comment was received by SMUD after the conclusion of the public comment period, but has been included with the timely comments. Table 2-1 provides a summary of the comments that were received on the Draft IS/MND. Abbreviated designations identifying the commenter appear in the parentheses.

<table>
<thead>
<tr>
<th>Commenter</th>
<th>Dated</th>
<th>Comment Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ray Kapahi (RK)</td>
<td>April 17, 2016</td>
<td>Request for more information.</td>
</tr>
<tr>
<td>Cindy Qian (CQ)</td>
<td>April 22, 2016</td>
<td>Health risk concerns.</td>
</tr>
<tr>
<td>Phea and Phana Yin (PY)</td>
<td>April 30, 2016</td>
<td>Health risk concerns; siting of proposed facility.</td>
</tr>
<tr>
<td>Pearl Ofodire (PO)</td>
<td>May 1, 2016</td>
<td>Health risk concerns.</td>
</tr>
<tr>
<td>Agustin Sandoval (AS)</td>
<td>May 4, 2016</td>
<td>Health risk concerns.</td>
</tr>
<tr>
<td>Gary Rivera (GR)</td>
<td>May 5, 2016</td>
<td>Request for more information.</td>
</tr>
<tr>
<td>Whitney Merten (WM)</td>
<td>May 5, 2016</td>
<td>Size of proposed facility; proximity to school; proximity to wildlife preserve.</td>
</tr>
<tr>
<td>Central Valley Regional Water Quality Control Board (CVRWQCB)</td>
<td>May 10, 2016</td>
<td>Summary of potential permits and clearances required.</td>
</tr>
<tr>
<td>Office of Planning and Research (OPR)</td>
<td>May 18, 2016</td>
<td>Confirms compliance with the State Clearinghouse’s review requirements, pursuant to CEQA.</td>
</tr>
<tr>
<td>Dennis Buscher (DB)</td>
<td>May 19, 2016</td>
<td>No comment on Project.</td>
</tr>
<tr>
<td>Norman Merrill (NM)</td>
<td>May 19, 2016</td>
<td>Health risk concerns; visual impacts; siting of proposed facility.</td>
</tr>
<tr>
<td>Casey Caietti (CS)</td>
<td>May 20, 2016</td>
<td>Health risk concerns; loss of property value; siting of proposed facility.</td>
</tr>
<tr>
<td>Marc Leonard (ML)</td>
<td>June 15, 2016</td>
<td>Impacts to cultural resources; visual impacts; siting of proposed facility.</td>
</tr>
</tbody>
</table>

2.2 Response to Comments

The comment letters identified above and SMUD’s responses to comments pertinent to the environmental consequences of the proposed Project are provided on the following pages.
From: R Kapahi <rkapahi@yahoo.com>
Sent: Sunday, April 17, 2016 9:37 AM
To: Kim Crawford
Subject: Request Copy of IS/MND for Franklin Transmission Project

Request copy of IS/MND for the proposed Franklin Electric Transmission Project.  

Thank you,

Ray Kapahi
3499 Delta Queen Ave
Sacramento, CA 95833
2.2.1 Response to Ray Kapahi

The following section provides SMUD’s response to comments submitted on the Draft IS/MND by Ray Kapahi on April 17, 2016.

2.2.1.1 Response to RK-1

Comment Summary

Commenter requests to receive a copy of the Draft IS/MND.

SMUD Response

A response was provided to Mr. Kapahi on April 18, 2016 indicating that the Project documents are available on SMUD’s website. The commenter was also informed that if he had follow-up questions, that he could contact Kim Crawford at SMUD.
From: Cindy Qian <cindyqian@yahoo.com>
Sent: Friday, April 22, 2016 8:49 PM
To: Kim Crawford
Subject: Franklin Electric Transmission Project
Attachments: EHS Electric+Transmission+and+Distribution.pdf

Hi,

I just received a letter from your agency regarding the proposed Franklin Electric Transmission Project, saw the proposed site on the map and quite shocking.

I am the homeowner who owns a 2-year-old residential property on Ice Age Way, which is only 500 ft away from the proposed bulk transmission substation site. My other neighbors' properties in the same community are even less than 150 ft away from the proposed site. Per “Environmental, Health, and Safety Guidelines for Electric Power Transmission and Distribution” (published by World Bank Group), siting new facilities as to avoid or minimize exposure to the public; installation of transmission lines or other high voltage equipment above or adjacent to residential properties should be avoided.

I attached the guidelines for your reference. Below recommendation is in page 6 of the attached guidelines.

I’d like my voice be heard. And let me know what I can do to vote against this proposal of constructing the bulk transmission substation near my property.
materials. Magnetic fields pass through most materials and are difficult to shield. Both electric and magnetic fields decrease rapidly with distance. Power frequency EMF typically has a frequency in the range of 50 – 60 Hertz (Hz), and is considered Extremely Low Frequency (ELF).14

Although there is public and scientific concern over the potential health effects associated with exposure to EMF (not only high-voltage power lines and substations, but also from everyday household uses of electricity), there is no empirical data demonstrating adverse health effects from exposure to typical EMF levels from power transmission lines and equipment.15 However, while the evidence of adverse health risks is weak, it remains below the ICNIRP recommendation for Public Exposure.16

• Considering siting new facilities so as to avoid exposure to the public, installation of transmission other high voltage equipment above residential properties or other locations intense frequent human occupancy, (e.g. schools or at should be avoided.

• If EMF levels are confirmed or expected to be (re) recommended exposure limits, application of techniques should be considered to reduce the produced by power lines, substations, or transmission Examples of these techniques include:
  o Shielding with special metal alloys.19
  o Burying transmission lines.20
  o Increasing height of transmission towers.
  o Modifications to size, spacing, and other conductors.
2.2.2 Response to Cindy Qian

The following section provides SMUD's response to comments submitted on the Draft IS/MND by Cindy Qian on April 22, 2016.

2.2.2.1 Response to CQ-1

Comment Summary

Commenter is concerned about the potential health risks to nearby residents as a result of the proposed Project; particularly issues associated with Electric and Magnetic Fields (EMFs).

SMUD Response

SMUD takes very seriously the community's concerns about the health effects of our energy projects. The potential hazardous effects of the proposed bulk substation were discussed in the Draft IS/MND, beginning on page 110 (Appendix A). EMF is specifically addressed on page 117. The IS/MND incorporates the following mitigation measures to address risks associated with the transport, storage, and handling of hazardous materials (please see the Draft IS/MND for a complete description of each measure):

Mitigation Measure GEO-1: Storm Water Pollution Protection Plan

Mitigation Measure HAZ-1: Worker Training for Hazardous Materials

Mitigation Measure HAZ-2: Spill Prevention, Control, and Countermeasures Plan

Mitigation Measure HAZ-3: Hazardous Materials Business Plan

The following provides additional information about the effects of EMF, and has been added to the IS/MND to provide the public with further clarification on this issue (see Chapter 3).

Electrical and Magnetic Fields

Background

Power frequency (60 hertz [Hz] cycles per second) EMF are invisible fields of force created by electric voltage (electric fields) and by electric current (magnetic fields). These fields are associated with all powerlines, electric appliances, and with the wiring in buildings of homes, schools, and work structures. Voltage on any wire produces an electric field in the area surrounding the wire. Magnetic fields are produced from the flow of electricity (current) in a conductor (circuit) and can be calculated and measured.

SMUD’s Board of Director’s adopted Resolution No. 91-04-08 on April 8, 1991, approving an EMF policy statement and authorizing the implementation of an EMF program. Since 1991, SMUD has followed studies on EMF, adopted practices where practicable, minimized potential EMF exposure from new transmission and distribution facilities, and included a practice of
prudent avoidance in designing and building future facilities. SMUD has also contributed funds to the National EMF Research program and the California Department of Health Services (CDHS) EMF Program (CDHS EMF Risk Assessment completed in October 2002). The results from many research studies have been reported by both national and California EMF programs that were initiated to determine if EMF poses any health risk.

The medical and scientific communities generally agree that the available research evidence has not demonstrated that EMF creates a health risk. However, they also agree that the evidence has not dismissed the possibility of such a risk. Finally, they agree that while this is an important issue that needs resolution, it is uncertain when such a resolution will occur. The present scientific uncertainty means that public health officials cannot establish any standard or level of exposure that is known to be either safe or harmful.

In written testimony presented to the California Public Utilities Commission (CPUC), Dr. Patricia Buffler, Professor of Epidemiology at the School of Public Health, University of California, Berkeley, and an EMF health effects expert, stated:

> There is an emerging consensus among the medical and scientific communities that there is insufficient evidence to conclude that EMF causes adverse health effects. Hundreds of EMF studies have been conducted over the last 20 years in the areas of epidemiology, animal research, molecular biology, and exposure assessment. Neither the medical nor the scientific communities have been able to provide foundation upon which regulatory bodies could establish a standard or level of exposure that is known to be either safe or harmful.

> A number of nationally and internationally recognized multi-disciplinary expert panels have performed comprehensive reviews of the body of scientific knowledge on EMF. None of these groups has concluded that EMF causes adverse health effects or that the development of standards was appropriate or would have a scientific basis.

> Reports by the National Research Council/National Academy of Sciences, American Medical Association, American Cancer Society, National Institute of Environmental Health Sciences, World Health Organization – International Agency for Research on Cancer, and the California EMF Program conclude that insufficient scientific evidence exists to warrant the adoption of specific health-based EMF mitigation measures.¹

As a result of this uncertainty, SMUD implements no-cost and low-cost steps to reduce EMF levels for new electric facilities. SMUD also encourages the public to use prudent avoidance when they are near EMF.

Description of Electric and Magnetic Fields

Generation of electric fields and magnetic field and exposure to such fields is described separately. The electric fields from powerlines are relatively stable because line voltage has little significant variation, yet magnetic fields can fluctuate greatly with changing loads (changing current level). Magnetic fields in this report are described as averages (statistical means).

Electric and magnetic fields occur throughout nature. Electric fields are created between two objects that have a different voltage potential. Magnetic fields are created only when there is current flowing through a conductor or device. For example, when you plug a lamp into a wall socket, an electric field is created around the cord to the lamp. A magnetic field is only present when the lamp is turned on and current flows through the light bulb. The electric field is proportional to the difference in voltage between the two objects – the greater the difference in voltage, the greater the electric field. A magnetic field is proportional to the amount of current flowing through the device or conductor – the greater the current, the greater the magnetic field. All household appliances that use electricity produce electric and magnetic fields.

Although overhead electric powerlines produce electric fields, these electric fields are not a subject of concern. Electric fields can easily be diverted, or shielded, by almost any object such as trees, shrubs, walls, fences, the human body, and other conductors. A house will shield most of the electric field from outside sources before it reaches occupants. Underground power lines do not produce electric fields, because the earth shields the electric field. In fact, care has to be exercised when you are measuring electric fields so that your body does not distort the measurement.

Magnetic fields, on the other hand, are much more difficult to screen or divert. Some special metal alloys have been shown to block magnetic fields; however, they are very expensive. All magnetic fields attenuate or diminish at a rate that is inversely proportional to the distance from the source squared. In other words, if a magnetic field reading is taken at a certain distance away from the source (for example, initial measurement of 36 milligauss\(^2\) (mG) at 10 feet from the source), and then a measurement is taken twice as far away from the source, the field will be one-fourth as strong as the initial measurement (e.g., \(36/4=9\) mG at 20 feet). Likewise, if the field is measured three times the initial distance, the field will be one-ninth as strong (e.g., \(36/9=4\) mG at 30 feet).

Average Magnetic Field Exposures in the United States

In June 2002, the National Institute of Environmental Health Sciences (NIEHS) of the National Institutes of Health prepared a “Questions & Answers” booklet on EMF, Electric and Magnetic Fields Associated with the Use of Electric Power (the NIEHS report; NIEHS 2002). The estimated average magnetic field exposure of the United States population presented in the NIEHS report is presented as the percentage of the population that is exposed to an average 24-hour field (mG) that exceeds specified levels. For example, 76.3% of the population is

\(^2\) Gauss is the unit of measurement of magnetic flux density (or “magnetic induction”).
exposed to an average 24-hour field that exceeds 0.5 mG, and 43.6% of the population is exposed to an average 24-hour field that exceeds 1 mG. The exposure to >2 mG average drops to 14.3% of the population, and only 0.17% of the population is exposed to >15 mG average. A study by Electric Power Research Institute (EPRI) found that a mean resultant alternating current (AC) magnetic field in residential United States homes was about 0.9 mG (at 1-meter aboveground level) (EPRI 2010).

Magnetic fields are associated with all powerlines, electric appliances, and with the wiring in buildings of homes, schools, and work structures. The following tables present magnetic fields at home and outside the home as adapted by Gauger 1985 and EPRI Appliance Measurement Study 2010.

Table 2-2. Magnetic Fields at Home

<table>
<thead>
<tr>
<th>Appliance</th>
<th>1.2” away</th>
<th>12” away</th>
<th>36” away</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microwave Oven</td>
<td>750 to 2,000</td>
<td>40 to 80</td>
<td>3 to 8</td>
</tr>
<tr>
<td>Clothes Washer</td>
<td>8 to 400</td>
<td>2 to 30</td>
<td>0.1 to 2</td>
</tr>
<tr>
<td>Electric Range</td>
<td>60 to 2,000</td>
<td>4 to 40</td>
<td>0.1 to 1</td>
</tr>
<tr>
<td>Compact Fluorescent Bulb</td>
<td>0 to 32.8</td>
<td>0 to 0.1</td>
<td>0</td>
</tr>
<tr>
<td>Hair Dryer</td>
<td>60 to 20,000</td>
<td>1 to 70</td>
<td>0.1 to 3</td>
</tr>
<tr>
<td>LCD/Plasma TV</td>
<td>1.1 to 73.6</td>
<td>0 to 2.5</td>
<td>0 to 2.2</td>
</tr>
</tbody>
</table>

Source: Adapted from Gauger 1985 & EPRI Appliance Measurement Study 2010

Table 2-3. Magnetic Fields Outside

<table>
<thead>
<tr>
<th>Lines</th>
<th>1 to 80 milligauss under the line</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distribution Lines</td>
<td></td>
</tr>
<tr>
<td>Transmission Lines</td>
<td>1 to 300 milligauss edge of right-of-way</td>
</tr>
</tbody>
</table>

Impacts Analysis of EMF and Exposure Reduction Strategies for Project

There are four basic factors that affect the strength of EMF:

- Distance,
- Conductor spacing,
Typically, the main sources for EMF associated with a substation are the powerlines that enter and exit the substation. AC powerlines typically consist of three energized phase wires. The spacing between these phases (the three wires) is farther apart for overhead powerlines than similar lines that are installed in underground conduit (i.e., the phase conductors are usually placed in closer proximity to each other in an underground configuration). Therefore, magnetic field attenuation is spatially more persistent (i.e., the magnetic field level will decrease more slowly) for an overhead configuration than for an underground configuration. However, the distance from the energized conductors to a sensitive receptor (such as a person) is typically much less for an underground configuration than for an overhead configuration. Therefore, magnetic field levels would typically be higher directly above an underground conduit than underneath an overhead line; however, magnetic fields from an underground configuration would attenuate faster with distance. Usually magnetic fields from underground lines attenuate to background levels within approximately 30-40 feet away from the line (depending upon phase spacing, burial depth, phasing arrangement, loading conditions, and other parameters).

Overhead electric powerlines will also produce electric fields, although a house will shield most of the electric field from outside sources (other objects, such as trees, shrubs, walls, and fences, will also provide electric field shielding). Underground subtransmission lines do not produce electric fields, since the earth shields the electric field.

**Analysis Criteria for Impact Evaluation**

No CEQA standards or any health-based standards exist that indicate that EMF emissions should be considered a “significant” impact. The project meets applicable school siting guidelines established by the California Department of Education (CDE) (putting 69 kV facilities at least 100 feet from the nearest school and 230 kV facilities at least 150 feet from the nearest school).

The NIEHS report identifies that the United States has no federal standards limiting occupational or residential exposure to 60-Hz EMF; however six states (not including California) have set standards for powerline electric fields, and two of these have established standards for magnetic fields. In most cases, the maximum fields permitted by each state are the maximum fields that existing lines produce at maximum load-carrying conditions. Some states further limit electric field strength at road crossings to ensure that electric current induced into large metal objects such as trucks and buses does not represent an electric shock hazard. The lowest electric field exposure limit is established by Montana’s standard, which allows 7,000 volts/meter (7 kV/m) maximum for highway crossings and 1 kV/m at the edge of the right-of-way (ROW). New York and Florida have established a magnetic field threshold for 69-230 kV lines of 200 mG at maximum load at the edge of ROW. (NIEHS 2002)
There are no magnetic field exposure standards for the State of California. The State of California has considered this subject but did not find a basis for setting numerical standards or guidelines. After a careful review of research on magnetic fields, the CPUC stated in its conclusion of law (CPUC Decision 93-11-013): “It is not appropriate to adopt any specific numerical standard in association with EMFs until we have a firm scientific basis for adopting any particular value.”

The CPUC Decision 93-11-013 created the California Electric and Magnetic Fields Program to research and provide education and technical assistance on the possible health effects of exposure to EMF from powerlines and other uses of electricity. The California Electric and Magnetic Fields Program concluded: “Nobody knows for sure whether exposure to 50 and 60 Hz fields is a health risk…. Studies do not show a clear pattern of health hazards…. California has no formal rules or guidelines but advocates ‘no and low cost’ EMF avoidance and measures in construction of new and upgraded utility projects…. Right now there is not enough evidence to justify making regulations governing EMF (CDHS 1999).”

In 2006, the CPUC updated its EMF Policy in Decision 06-01-042. The decision re-affirmed that health hazards from exposures to EMF have not been established and that state and federal public health regulatory agencies have determined that setting numeric exposure limits is not appropriate. The CPUC also re-affirmed that the existing no-cost and low-cost precautionary-based EMF policy should be continued. (CPUC 2006)

Although currently there are no national or California electric or magnetic field exposure guidelines, there have been guidelines established by several international organizations. The International Committee on Electromagnetic Safety (ICES) under the auspices of the Institute of Electrical and Electronics Engineers has established exposure guidelines for 60-Hz EMF (ICES 2002). The ICES recommended limits for occupational exposures are 20 kV/m for electric fields and 27,100 mG for magnetic fields. The recommended limits for the general public are lower: 5 kV/m for the general public, except on power line rights-of-way where the limit is 10 kV/m; and 9,040 mG for magnetic fields.

More recently the International Committee on Non-ionizing Radiation Protection (ICNIRP), working in cooperation with the World Health Organization (WHO) has developed guidelines for occupational and public exposures to EMF (ICNIRP 2010). For occupational exposures at 60 Hz, the recommended limits to exposure are 8.3 kV/m for electric fields and 4.2 Guass (4,200 mG) for magnetic fields.

A summary of published guidelines for occupational and public exposures to EMF is provided in Table 2-4 below.
### Table 2-4.
Published Guidelines for EMF Exposure Limits

<table>
<thead>
<tr>
<th>Source</th>
<th>Electric Field Recommended Threshold (kV/m)</th>
<th>Magnetic Field Recommended Threshold (mG)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NIEHS: Montana</td>
<td>7 kV/m at highway crossings</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 kV/m at edge of ROW</td>
<td></td>
</tr>
<tr>
<td>NIEHS: New York/Florida</td>
<td>200 mG at edge of ROW</td>
<td></td>
</tr>
<tr>
<td>ICES: Occupational exposure</td>
<td>20 kV/m</td>
<td></td>
</tr>
<tr>
<td>ICES: Public exposure</td>
<td>5 kV/m</td>
<td>9,040 mG</td>
</tr>
<tr>
<td>ICNIRP: Occupational exposure</td>
<td>8.3 kV/m</td>
<td>4,200 mG</td>
</tr>
<tr>
<td></td>
<td>10 kV/m at power line ROW</td>
<td></td>
</tr>
</tbody>
</table>

### Magnetic Field Calculations and Modeling

To address concerns regarding EMF exposure, SMUD conducted an analysis of magnetic field strengths using modeling and calculations of existing and post-project levels. Post-project magnetic field strengths were modeled using the overhead power line design software PLS-CADD (version 14.11), as calculated by the EPRI *Transmission Line Reference Book* (Second Edition, 1982). A description of existing conditions and modeling results follows.

**Existing Conditions**

In addition to the existing EMF that are present from the electrification of the houses and businesses in the area there is an existing double-circuit 230 kV transmission line located east of the proposed project and adjacent to the UPRR tracks. These lines will be used to connect the proposed substation to SMUD’s existing electrical grid.

The magnetic field present from the existing transmission lines varies with the electrical current passing through the overhead conductors. Modeling and calculations were done for the historical average current and maximum current over the past ten years. The maximum current is generally experienced for several hours during five to six days per year during the summer months. This time period is when SMUD’s electric system is experiencing the largest demand.

Below are the modeled historical magnetic field strengths for the average current and the maximum current for the past ten years measured in mG, a standard unit of measurement for EMF (Table 2-5). The modeled existing magnetic field strengths are under the transmission pole and at a distance of 30 feet, 50 feet and 70 feet from the pole. As the data shows, the magnetic field strength reduces significantly with the distance from the overhead conductor.
Table 2-5
Existing Magnetic Field Strengths (mG)

<table>
<thead>
<tr>
<th>Distance From Pole (feet)</th>
<th>At Pole</th>
<th>30</th>
<th>50</th>
<th>70</th>
</tr>
</thead>
<tbody>
<tr>
<td>For Average Current</td>
<td>7.8</td>
<td>5.2</td>
<td>3.2</td>
<td>1.8</td>
</tr>
<tr>
<td>For Maximum Current</td>
<td>42</td>
<td>22</td>
<td>12</td>
<td>6.2</td>
</tr>
</tbody>
</table>

Note: Modeled by PLS-CADD version 14.11, as calculated by the EPRI red book methods (EPRI 1982).

Post Franklin Substation Construction

SMUD has also performed modeling and calculations forecasting what the magnetic field strengths that will be expected after the construction of Franklin Substation. Below are the forecasted future magnetic field strengths as determined by the model for the eastern side of the existing transmission line (Table 2-6). Figure 2-1 displays the post-project modeled EMF levels around the Franklin substation.

Table 2-6
Forecasted Magnetic Field Strengths (mG)

<table>
<thead>
<tr>
<th>Distance From Pole (feet)</th>
<th>At Pole</th>
<th>30</th>
<th>50</th>
<th>70</th>
</tr>
</thead>
<tbody>
<tr>
<td>For Average Current</td>
<td>8.2</td>
<td>6.3</td>
<td>4.1</td>
<td>2.0</td>
</tr>
<tr>
<td>For Maximum Current</td>
<td>39</td>
<td>28</td>
<td>18</td>
<td>10</td>
</tr>
</tbody>
</table>

Note: Modeled by PLS-CADD version 14.11, as calculated by the EPRI red book methods (EPRI 1982).

The magnetic field strength on the western side of the transmission line (Figure 2-1) will change due to the routing of the overhead conductor from the transmission line to the substation over the existing UPRR tracks. The magnetic field strength is expected to be approximately 7.9 mG on average and 34.5 mG during maximum load periods.

The proposed SMUD Franklin substation will also create magnetic fields because of the proposed interior electrical equipment, buss and conductor. The western property line will include the 69kV overhead lines that will be exiting the substation to provide power to the local distribution substation grid. The western boundary of the substation is expected to have magnetic field levels on average of 5.5 mG with a maximum field strength expected to be approximately 15.7 mG (Figure 2-1). The north and south property lines are expected to have magnetic field strength levels on average of 0.6 mG and 4.5 mG, respectively, to a maximum of 1.5 mG and 6.5 mG during maximum load periods (Figure 2-1).
Figure 2-1. Forecasted Magnetic Field Strengths
The proposed Project would also replace approximately 5 miles of existing single-circuit 69kV line along Franklin Boulevard with double-circuit 69kV line. Adding the double circuit would result in a small increase in EMF compared to existing conditions. SMUD has in the past performed magnetic field calculations for double-circuit 69 kV overhead lines. Calculated field levels are higher at midspan than at the pole, because the energized conductors sag closer to the ground. Calculations were performed for two loading conditions (medium and heavy). Field levels were calculated at a location directly underneath of the proposed powerlines and proceeding away from the line out to 150-feet from either side of centerline. The calculated magnetic field at midspan ranges from a maximum of about 5.3 mG to 14.5 mG at midspan under the overhead conductor for heavy loading conditions to 2.9 mG to 8.0 mG for medium loading conditions) directly underneath the proposed subtransmission line down to about 0.5 mG to 0.1 mG at a distance of 150-feet away.

**Exposure Reduction Considerations**

The medical and scientific communities generally agree that evidence from available research has not demonstrated that EMF creates a health risk. However, they also agree that the evidence has not completely dismissed the possibility of such a risk, either. Given the uncertainty of the issue, the medical and scientific communities have been unable to determine that usual residential exposures to EMF cause health effects or to establish any standard or level of exposure that is known to be either safe or harmful.

Because of the uncertainty surrounding the health effects of EMF, SMUD routinely implements no-cost and low-cost steps to reduce EMF levels for new and upgraded electric facilities. SMUD reduces magnetic field strength by installing taller poles (55-feet or higher), and arranging the phases of the overhead conductors to best attenuate the magnetic field level. The proposed Project incorporates these standard low-cost design measures to reduce EMF levels.

**Summary of Impacts**

As described above, the proposed Project would not result in an appreciable increase in EMF exposure to nearby residents over existing conditions, and exposure levels would remain well below the ICES and ICNIRP EMF guidelines (Table 2-4). Given this and the design measures that are already incorporated into the project to reduce EMF levels, SMUD maintains its conclusion to Questions A and B from the Hazards and Hazardous Materials section of the Draft IS/MND that potential impacts associated with EMF are considered less than significant. Therefore, the proposed Project would not have a significant effect on public health related to EMF emissions. No mitigation is required.
CAUTION EXTERNAL SENDER: Do not open links/attachments if uncertain about the sender......

April 30, 2016
Phea and Phana Yin
4860 Tusk Way
Elk Grove, CA 95757
(678) 739-6484
Pheastoc@aol.com

Dear Kim Crawford,

We are writing to you regarding your recent notification of SMUD’s plan to build an electric transmission substation next to our neighborhood, (Bilby Rd/Hood-Franklin Rd).

We are against this project because of the high health risks due to the substation’s close proximity to our home.

Thanks for your time and consideration.

Sincerely yours,
Phea and Phana Yin
2.2.3 Response to Phea and Phana Yin

The following section provides SMUD’s response to comments submitted on the Draft IS/MND by Phea and Phana Yin on April 30, 2016.

2.2.3.1 Response to PY-1

Comment Summary

The commenter is concerned about the potential health risks of placing the proposed bulk substation close to their home.

SMUD Response

Please see response to Comment CQ-1.
From: PEARL OFODIRE <pearlofodire@yahoo.com>
Sent: Sunday, May 1, 2016 10:32 PM
To: Kim Crawford
Subject: STOP SMUD

....CAUTION EXTERNAL SENDER: Do not open links/attachments if uncertain about the sender.......

To whom it may concern,
The planned electric transmission substation planned next to my neighborhood is an endangerment to our health.
SMUD, Please STOP from proceeding. STOP this project!!!
Pearl Ofodire
2.2.4 Response to Pearl Ofodire

The following section provides SMUD’s response to comments submitted on the Draft IS/MND by Pearl Ofodire on May 1, 2016.

2.2.4.1 Response to PO-1

Comment Summary

The commenter is concerned about the potential health risks of the proposed bulk substation.

SMUD Response

Please see response to Comment CQ-1.
From: Agustin Sandoval <futbol4762@gmail.com>
Sent: Wednesday, May 4, 2016 11:38 AM
To: Kim Crawford
Subject: electric transmission substation

-----CAUTION EXTERNAL SENDER: Do not open links/attachments if uncertain about the sender-----

Dear Kim Crawford, I understand an electric transmission station is planned near my neighborhood and I'm deeply concerned about the health risks it could pose to our children and our community. My name is Agustin Sandoval and I live in the new Rancho Verde development in Elk Grove CA. I'm opposed to its construction along with my neighbors.
2.2.5 Response to Agustin Sandoval

The following section provides SMUD’s response to comments submitted on the Draft IS/MND by Agustin Sandoval on May 4, 2016.

2.2.5.1 *Response to AS-1*

**Comment Summary**

The commenter is concerned about the potential health risks of the proposed bulk substation.

**SMUD Response**

Please see response to Comment CQ-1.
From: Gary Rivera <mgrthemogul@gmail.com>
Sent: Thursday, May 5, 2016 6:01 PM
To: Kim Crawford
Cc: Melissa Wood
Subject: Elk Grove Electric Transmission Substation?

Hello Kim,

I recently received information that SMUD is planning on building a substation close to my development. I live at 4853 Tusk Way Elk Grove, CA 95757. Would you please send more information about the plan?

Thank you

--
Gary Rivera | mgrthemogul@gmail.com | 415.609.0737
2.2.6 Response to Gary Rivera

The following section provides SMUD’s response to comments submitted on the Draft IS/MND by Gary Rivera on May 5, 2016.

2.2.6.1 Response to GR-1

Comment Summary

The commenter requested additional information about the proposed Project.

SMUD Response

A response was provided to Mr. Rivera on May 6, 2016, indicating that the Project documents are available on SMUD’s website. The commenter was also informed that if he had follow-up questions, he could contact Kim Crawford at SMUD via phone or email.
From: Whitney Merten <whitney.merten@hotmail.com>
Sent: Thursday, May 5, 2016 4:51 PM
To: Kim Crawford
Subject: Electric transmission substation

.........CAUTION EXTERNAL SENDER: Do not open links/attachments if uncertain about the sender.........

Hello,

I recently received a notice that there is a proposed plan to construct a 17 acre electric transmission substation near my home in Elk Grove. My neighbors, family, and I are vehemently opposed to this idea. Not only is 17 acres grossly large for our area, it is extremely close to an elementary school and wildlife preserve. We do NOT support the proposal for this substation and are willing to go to great lengths to prevent it from being built.

Whitney Merten
2.2.7 Response to Whitney Merten

The following section provides SMUD’s response to comments submitted on the Draft IS/MND by Whitney Merten on May 5, 2016.

2.2.7.1 Response to WM-1

Comment Summary

The commenter is opposed to the proposed Project’s size and its proximity to a nearby elementary school and wildlife preserve.

SMUD Response

Size of the Proposed Project

Per SMUD’s current site selection guidelines, a bulk substation requires approximately 15 acres. The size of the substation is necessitated by the electrical equipment for initial service and full build out, support infrastructure such as the control building and the detention basin, and sufficient spacing between the equipment to meet industry design codes for safety, fire, and maintenance access requirements. Because the proposed Project includes co-located bulk and distribution substations, a larger site was needed. Therefore, a 17 acre proposed site was selected and was analyzed in the Draft CEQA document.

The length of the proposed subtransmission line upgrades (5 miles) is necessitated by the need to increase the capacity of the subtransmission lines in order to utilize the new bulk substation capacity to support existing adjacent bulk substations and distribute the 69kV voltage to distribution substations that serve existing and new customers throughout the project area.

Proximity to School

The CDE has specific criteria used in the school site selection and acquisition process. One of the twelve site selection criteria is proximity to high-voltage power transmission lines. The criteria states:

*In consultation with the State Department of Health Services (DHS) and electric power companies, the Department has established the following limits for locating any part of a school site property line near the edge of easements for high-voltage power transmission lines:*

- 100 feet from the edge of an easement for a 50-133kV (kilo volts) line
- 150 feet from the edge of an easement for a 220-230kV line
- 350 feet from the edge of an easement for a 500-550kV line

The Franklin Elementary school is currently approximately 1,000 feet from a 230kV line and 400 feet from a 69kV line. The proposed Project would not change these distances.
In addition, SMUD reached out to the Planning Director at the Elk Grove Unified School District (EGUSD) in March 2016 regarding the proposed Project. A response to the proposed Project (Heinicke pers. comm.) stated:

*The distance of the proposed facility from Franklin Elementary School exceeds any required setback from powerlines as established by the California Department of Education, the greatest of which would be 350 feet. The proposed subtransmission line along Franklin Blvd also exceeds the 100-foot setback for the proposed 69kV lines. Therefore, based on this information, EGUSD believes our facilities are adequately distant from this project.*

Given the fact that the proposed substation and related transmission lines exceed DHS’ criteria and that EGUSD has confirmed that the proposed facility is adequately distant from the school, SMUD reaffirms its conclusion that potential impacts to the elementary school from hazardous emissions associated with the proposed Project would be less than significant. Additional information has been added to the Hazards and Hazardous Materials section, question C, of the Draft IS/MND to further clarify this topic.

**Proximity to Wildlife Preserve**

As part of the proposed Project, approximately 5 miles of existing single-circuit 69kV line with 12kV underbuilt would be rebuilt as a double-circuit 69kV line with 12kV underbuilt, which would require replacing the existing poles. Approximately 1.75 miles of these proposed upgrades would parallel the eastern boundary of the Stone Lakes National Wildlife Refuge and the proposed substation site would be located approximately 0.25 mile from the refuge. Replacement of the existing 69kV subtransmission poles with new poles would not adversely change conditions for wildlife using the refuge. Potential impacts to biological resources as a result of the construction and operation of the proposed Project were discussed in the Draft IS/MND, beginning on page 73. As described in the Draft IS/MND all potential impacts to special-status wildlife species can be mitigated to less-than-significant levels. Mitigation measures identified include the following (please see the Draft IS/MND for a complete description of each measure):

**Mitigation Measure BIO-1: Worker Environmental Awareness Training Program**

**Mitigation Measure BIO-2: General Construction Measures**

**Mitigation Measure BIO-3: Pre-construction Special-status Plant Surveys**

**Mitigation Measure BIO-4: Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp Avoidance and Minimization Measures**

**Mitigation Measure BIO-5: Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp Compensation Measures**

**Mitigation Measure BIO-6: Valley Elderberry Longhorn Beetle Avoidance and Minimization Measures**
Mitigation Measure BIO-7: Giant Garter Snake and Western Pond Turtle Avoidance and Minimization Measures

Mitigation Measure BIO-8: Avoid Disturbance or Harm to Wildlife Species

Mitigation Measure BIO-9. Tricolored Blackbird Protection

Mitigation Measure BIO-10. Burrowing Owl Protection

Mitigation Measure BIO-11. Swainson’s Hawk Compensation Measures

Mitigation Measure BIO-12. Avian-safe Pole and Substation Configuration

Mitigation Measure BIO-13. Clean Water Act Permitting

Mitigation Measure BIO-14. Avoid Wetlands during Subtransmission Line Pole Replacement and Future Subtransmission Line Pole Installation
10 May 2016

Kim Crawford
Sacramento Municipal Utility District
6201 S Street, MS H201
Sacramento, CA 95817

CERTIFIED MAIL
91 7199 9991 7035 8360 7931

COMMENTS TO REQUEST FOR REVIEW FOR THE MITIGATED NEGATIVE DECLARATION, FRANKLIN ELECTRIC TRANSMISSION PROJECT, SCH# 2016042050, SACRAMENTO COUNTY

Pursuant to the State Clearinghouse's 18 April 2016 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the Request for Review for the Mitigated Negative Declaration for the Franklin Electric Transmission Project, located in Sacramento County.

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

I. Regulatory Setting

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

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources Control Board (State Water Board), Office of Administrative Law (OAL) and in some cases,
the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues.

For more information on the Water Quality Control Plan for the Sacramento and San Joaquin River Basins, please visit our website:
http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/

**Antidegradation Considerations**

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 69-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Policy is available on page IV-15:01 at:
http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacjrv.pdf

In part it states:

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

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

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

**II. Permitting Requirements**

**Construction Storm Water General Permit**

Dischargers whose project disturb one or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan.
For more information on the Construction General Permit, visit the State Water Resources Control Board website at:

**Phase I and II Municipal Separate Storm Sewer System (MS4) Permits**
The Phase I and II MS4 permits require the Permittees to reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/

For more information on the Caltrans Phase I MS4 Permit, visit the State Water Resources Control Board at:

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:

**Industrial Storm Water General Permit**
Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 2014-0057-DWQ.

For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:

**Clean Water Act Section 404 Permit**
If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the

---

1 Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional small MS4s, which include military bases, public campuses, prisons, and hospitals.
United States Army Corps of Engineers (USACOE). If a Section 404 permit is required by the USACOE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements.

If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACOE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification
If an USACOE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

Waste Discharge Requirements – Discharges to Waters of the State
If USACOE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

For more information on the Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:

Dewatering Permit
If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Risk General Order) 2003-0003 or the Central Valley Water Board’s Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Risk Waiver) RS-2013-0145. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

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


**Regulatory Compliance for Commercially Irrigated Agriculture**

If the property will be used for commercial irrigated agricultural, the discharger will be required to obtain regulatory coverage under the Irrigated Lands Regulatory Program. There are two options to comply:

1. **Obtain Coverage Under a Coalition Group.** Join the local Coalition Group that supports land owners with the implementation of the Irrigated Lands Regulatory Program. The Coalition Group conducts water quality monitoring and reporting to the Central Valley Water Board on behalf of its growers. The Coalition Groups charge an annual membership fee, which varies by Coalition Group. To find the Coalition Group in your area, visit the Central Valley Water Board's website at: http://www.waterboards.ca.gov/centralvalley/water_issues/irrigated_lands/for_growers/apply_coalition_group/index.shtml or contact water board staff at (616) 684-4611 or via email at IrrLands@waterboards.ca.gov.

2. **Obtain Coverage Under the General Waste Discharge Requirements for Individual Growers, General Order R5-2013-0100.** Dischargers not participating in a third-party group (Coalition) are regulated individually. Depending on the specific site conditions, growers may be required to monitor runoff from their property, install monitoring wells, and submit a notice of intent, farm plan, and other action plans regarding their actions to comply with their General Order. Yearly costs would include State administrative fees (for example, annual fees for farm sizes from 10-100 acres are currently $1,084 + $6.75/Acre), the cost to prepare annual monitoring reports; and water quality monitoring costs. To enroll as an individual Discharger under the Irrigated Lands Regulatory Program, call the Central Valley Water Board phone line at (616) 484-4611 or e-mail board staff at IrrLands@waterboards.ca.gov.

**Low or Limited Threat General NPDES Permit**

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for Dewatering and Other Low Threat Discharges to Surface Waters (Low Threat General Order) or the General Order for Limited Threat Discharges of Treated/Untreated Groundwater from Cleanup Sites, Wastewater from Superchlorination Projects, and Other Limited Threat Wastewaters to Surface Water...
Franklin Electric Transmission Project
Sacramento County

(Limited Threat General Order). A complete application must be submitted to the Central Valley Water Board to obtain coverage under these General NPDES permits.

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

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

If you have questions regarding these comments, please contact me at (916) 464-4644 or Stephanie.Tadlock@waterboards.ca.gov.

Stephanie Tadlock
Environmental Scientist

cc: State Clearinghouse unit, Governor’s Office of Planning and Research, Sacramento
2.2.8 Response to Central Valley Regional Water Quality Control Board

The following section provides SMUD’s response to comments submitted on the Draft IS/MND by CVRWQCB on May 10, 2016.

2.2.8.1 Response to CVRWQCB-1

CVRWQCB-1 Summary

All wastewater discharged must comply with the Anti-degradation Policy and the Anti-degradation Implementation Policy contained in the Basin Plan. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

SMUD Response

Potential impacts to surface water and groundwater are addressed in the Draft IS/MND, beginning on page 121. The Draft IS/MND identifies mitigation measures to address potential impacts to surface and groundwater quality. Measures identified include the following (please refer to the Draft IS/MND for a complete description of each measure):

Mitigation Measure BIO-14. Avoid Wetlands during Subtransmission Line Pole Replacement and Future Subtransmission Line Pole Installation

Mitigation Measure GEO-1: Storm Water Pollution Protection Plan

Mitigation Measure HAZ-1: Worker Training for Hazardous Materials

Mitigation Measure HAZ-2: Spill Prevention, Control, and Countermeasures Plan

Mitigation Measure HAZ-3: Hazardous Materials Business Plan

2.2.8.2 Response to CVRWQCB-2

CVRWQCB-2 Summary

A General Permit for Store Water Discharges Associated with Construction Activities (Construction General Permit) is required for projects that disturb one or more acres of soil.

SMUD Response

Construction of the proposed Project will disturb more than one acre of soil, and as such, compliance with the Construction General Permit will be required (pg. 104, Draft IS/MND). Furthermore, as specified in Mitigation Measure GEO-1, the project will obtain and comply with the Construction General Permit, and prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) (pg. 104, Draft IS/MND). SMUD will ensure its staff and contractors comply with the requirements in the Construction General Permit obtained for the proposed Project.
2.2.8.3  Response to CVRWQCB-3

CVRWQCB-3 Summary

Phase I and II Municipal Separate Storm Sewer System (MS4) permits have specific design concepts and development standards for permittees.

SMUD Response

As described in the Draft IS/MND, the onsite drainage system would be designed per County of Sacramento Drainage Manual, Hydrology Standards, Volume 2 (Sacramento County 1996). The primary discharge point will be to the existing drainage ditch along Franklin Boulevard. In order to minimize drainage impacts, proposed onsite detention basin(s) will be provided to allow storm water to slow down, pollutants to be captured by the vegetation, and for the storm water outflows to be discharged at a controlled rate. This will result in a slower rate and lower volume of water that would subsequently be discharged to the existing drainage ditch along Franklin Road and ultimately into the two existing, off-site culverts located downstream of the SMUD property, thereby minimizing downstream impacts. (Draft IS/MND; pg. 127).

Given these design considerations, the project will be consistent with Sacramento County’s MS4 permit.

2.2.8.4  Response to CVRWQCB-4

CVRWQCB-4 Summary

Storm water discharges associated with industrial sites must comply with the Industrial Storm Water General Permit.

SMUD Response

The Industrial Storm Water General Permit requires that manufacturing facilities obtain coverage under this permit where industrial materials, equipment, or activities are exposed to storm water. The proposed substation does not fall under any of the facility categories identified in general industrial permit. Therefore, the Industrial Storm Water General Permit would not apply to the proposed Project.

2.2.8.5  Response to CVRWQCB-5

CVRWQCB-5 Summary

Projects that involve the discharge of dredged or fill material in navigable waters or wetlands require a permit pursuant to Section 404 of the Clean Water Act (CWA).

SMUD Response

As described in the Biological Resources section of the Draft IS/MND, implementation of the project would result in less than 0.1 acre of temporary and permanent impacts to waters of the
U.S. and State (Draft IS/MND; pg. 85). As described Mitigation Measures BIO-13 and BIO-15, SMUD will obtain a CWA Section 404 permit and Section 401 certification and compensate for permanent loss of wetlands (see Draft IS/MND for a full description of these measures).

**Mitigation Measure BIO-13. Clean Water Act Permitting**

**Mitigation Measure BIO-15. Compensate for Permanent Loss of Wetlands**

2.2.8.6  *Response to CVRWQCB-6*

**CVRWQCB-6 Summary**

Projects that disturb waters of the U.S., including streams or wetlands, would be required to obtain a Section 401 Water Quality Certification from the CVRWQCB.

**SMUD Response**

As described in the response to comment CVRWQCB-5, implementation of the proposed Project will require SMUD to obtain a CWA Section 404 from the U.S Army of Corps of Engineers (Corps) and, subsequently, a Section 401 permit from the Regional Water Quality Control Board (RWQCB). (See Mitigation Measure BIO-13.)

2.2.8.7  *Response to CVRWQCB-7*

**CVRWQCB-7 Summary**

Projects that affect waters of the State (“non-federal” waters of the State) would require a Waste Discharge Requirement permit from the CVRWQCB.

**SMUD Response**

The Corps issued a preliminary jurisdictional determination on October 30, 2015, indicating that aquatic features identified within the Project area may be waters of the U.S. No isolated wetland or other non-federal waters of the state are present in the Project area.

2.2.8.8  *Response to CVRWQCB-8*

**CVRWQCB-8 Summary**

If the Project includes construction or groundwater dewatering to be discharged to land, the proponent may need to apply for coverage under State Water Board General Water Quality Order 2003-0003 or the Waiver of Report of Waste Discharge and Waste Discharge Requirements (R5-2013-0145).
SMUD Response

If Project construction requires groundwater dewatering and discharge to land, SMUD would apply for coverage under the Low Risk General Order.

2.2.8.9 Response to CVRWQCB-9

CVRWQCB-9 Summary

If the property will be used for commercial irrigated agriculture, the discharger will be required to obtain regulatory coverage under the Irrigated Lands Regulatory Program.

SMUD Response

The proposed Project includes the construction of an electric substation and related structures. The substation site will not be used for commercial irrigated agriculture.

2.2.8.10 Response to CVRWQCB-10

CVRWQCB-10 Summary

If the proposed Project includes construction dewatering into waters of the U.S., the project will require coverage under a National Pollution Discharge Elimination System (NPDES) permit.

SMUD Response

While the project requires coverage under a NPDES permit, it will not discharge construction dewatering into waters of the U.S. If necessary, dewatering of groundwater during construction would be discharged to land under the Low Risk General Order (see CVRWQCB-8 above).
May 18, 2016

Kim Crawford
Sacramento Municipal Utility District
6201 S St, MS1201
Sacramento, CA 95817

Subject: Franklin Electric Transmission Project
SCH#: 2016042059

Dear Kim Crawford:

The State Clearinghouse submitted the above named Mitigated Negative Declaration to several state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on May 17, 2016, and all comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project’s ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

“A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. These comments shall be supported by specific documentation.”

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Encl.
cc: Resources Agency
Franklin Electric Transmission Project
September 2016

### Document Details Report

#### State Clearinghouse Data Base

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<tr>
<td>Lead Agency</td>
<td>Sacramento Municipal Utility District</td>
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<tr>
<td>Type</td>
<td>MND Mitigated Negative Declaration</td>
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<td>Description</td>
<td>SMUD is proposing to construct and operate an new bulk transmission substation and a new co-located distribution substation, modify approximately 8 mile of overhead transmission power lines, construct approximately 0.5 mile of new overhead subtransmission lines and four new transmission poles that would link the substations to the electrical grid, and dismantle an existing distribution substation.</td>
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#### Lead Agency Contact

<table>
<thead>
<tr>
<th>Name</th>
<th>Kim Crawford</th>
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<tr>
<td>Agency</td>
<td>Sacramento Municipal Utility District</td>
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<tr>
<td>Phone</td>
<td>(916) 732-5063</td>
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<tr>
<td>email</td>
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<tr>
<td>Address</td>
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#### Project Location

| County | Sacramento |
| City   | Elk Grove  |
| Region |            |
| Lat/Lng| 38° 22' 28.58" N / -121° 27' 9.226" W |
| Cross Streets | Franklin Blvd/Hood Franklin Rd, and Franklin Blvd from Elk Grove and Lambert Rd |
| Parcel No. | 132-0132-029-044 |

#### Proximity to:

| Highways | 1-5 |
| Airports | Flying B Ranch |
| Railways | Western Pacific Railroad |
| Waterways | Stone Lake, Snoadgrass Slough, Irrigation Basins, emergency |
| Schools  | ES |
| Land Use | Substation site, present land use: Ag |

#### Project Issues

Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Abatement; Flood Plain/Flooding; Geology/Solvent; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Septic Systems; Soil Erosion/Composting/Grazing; Solid Waste; Toxic/Toxics; Traffic Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Growth Inducing; Landuse; Cumulative Effects

#### Reviewing Agencies

Resource Agency; Department of Fish and Wildlife, Region 2; Department of Parks and Recreation; Department of Water Resources; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 2; Regional Water Quality Control Bd., Region 5 (Sacramento); California Energy Commission; Native American Heritage Commission; Public Utilities Commission

Date Received: 04/18/2016
Start of Review: 04/19/2016
End of Review: 05/17/2016

Note: Blanks in data fields result from insufficient information provided by lead agency.
2.2.9 Response to Office of Planning and Research

The following section provides SMUD’s response to comments submitted on the Draft IS/MND by OPR on May 18, 2016.

2.2.9.1 Response to OPR-1

OPR-1 Summary

The Governor’s Office of Planning and Research State Clearinghouse and Planning Unit’s letter states that they have reviewed the CEQA document and clarifies their role in the review.

SMUD Response

Comment noted.
Hi Susan

Sorry for not getting back to you earlier. I really have no comment on the Substation. That area is going to be drastically changed with the 6 lane connector route from I-5 to Grantline Road with a raised overpass over the railroad. There really is nothing beneficial that could otherwise be put there.

Dennis Buscher

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From: Susan Oto <Susan.Oto@smud.org>
To: thebluevictorian@frontiernet.net, thebluevictorian@frontiernet.net
Sent: Thursday, May 19, 2016 3:18 PM
Subject: SMUD project on Franklin Boulevard: Deadline for comment on the draft environmental study is Friday, May 20

Hello Mr. Buscher,

Tomorrow, Friday, May 20 is the deadline to submit comments on the draft initial environmental study for the proposed Franklin Electric Transmission project, which includes a substation at the corner of Franklin Boulevard and Hood-Franklin Road and the replacement of power poles along Franklin Boulevard. I have included a link to the web site which has the initial study and mitigated negative declaration (ISMND) for the project.

You can submit comments online to Kim Crawford@smud.org Kim is the environmental specialist working on the report. Or send comments to me by replying to this email and I will ensure that Kim receives them.


regards,

Susan

Susan Oto
Government Affairs Representative, Regional & Local Government Affairs
Sacramento Municipal Utility District
6301 S Street, Mail Stop A313, Sacramento, CA 95817
P.O. Box 19333, Sacramento, CA 95817-0333
w 916-732-6612 | c 916-719-2633 | Susan.Oto@smud.org
2.2.10 Response to Dennis Buscher

The following section provides SMUD’s response to comments submitted on the Draft IS/MND by Dennis Buscher on May 19, 2016.

2.2.10.1 Response to DB-1

DB-1 Summary

Commenter states that he has no comment on the proposed Project, as he does not think anything beneficial could otherwise be used at the site.

SMUD Response

SMUD has noted your comment and appreciates your response regarding the proposed Project.
May 19, 2016

Ms. Kim Crawford, Environmental Specialist
Sacramento Municipal Utilities District
5201 S Street, MS H201
Sacramento, CA 95817-1899

RE: SMUD FRANKLIN ELECTRIC TRANSMISSION PROJECT

Dear Ms. Crawford:

Thank you holding the informative Public Meeting on May 11, 2016 (Meeting) regarding the proposed SMUD Franklin Electric Transmission Project (Project). After attending the Meeting, speaking with SMUD representatives and reading the Draft Initial Study and Mitigated Negative Declaration dated April 2016 (Document), I have some concerns regarding the Project.

According to the information provided at the Meeting, SMUD proposes to construct a bulk transmission substation southeast of the intersection of Franklin Boulevard and Hood Franklin Road. The proposed site for the substation was chosen because of its proximity to the existing 230kV transmission lines, central location between two existing substations and proximity to existing 69kV distribution lines. Section 2.4 of the Document, SMUD Bulk Substation Site Selection Guidelines, lists many of the factors considered when choosing this site. All of the factors mentioned in the Meeting and in the Document are met by this site except the minimization of residential communities‘ visual impacts, and electric and magnetic field (EMF) exposure.

The proposed site is adjacent to the rural community of Franklin, adjacent to a newly constructed residential neighborhood with over three hundred (300) homes and less than one thousand (1,000) feet from Franklin Elementary School. The proposed site has a major visual impact to this community.

Both the Document and information provided at the Meeting indicate that there have been studies into the increased levels of EMF that will be created by the Project. While the studies show that the increase will be minimal, the information provided by SMUD states that “Available medical and scientific research has not demonstrated that EMF creates a health risk. However, research has not dismissed the possibility of such a risk.” The proposed site will create additional EMF for this community.

Information in the Document indicates that between one (1) and two (2) miles south of the proposed site there is land that meets the same requirements as the proposed site. However, this land is not adjacent to the rural community of Franklin, it is not adjacent to a residential neighborhood and is not in close proximity to an elementary school. This land would further minimize the visual impact and not increase the level of EMF for the community.

Thank you for allowing me to comment on the Project.

Sincerely,

Norman Merrill
10548 Buckland Way
Elk Grove, CA 95757
2.2.11 Response to Norman Merrill

The following section provides SMUD’s response to comments submitted on the Draft IS/MND by Norman Merrill on May 19, 2016.

2.2.11.1 Response to NM-1

NM-1 Summary

Commenter states that construction of the proposed substation will have a visual impact on the community.

SMUD Response

Potential impacts to the visual quality of the Project site and its surroundings (including impacts to the nearby residential community) are discussed in the Aesthetics section of the Draft IS/MND, starting on page 22. SMUD acknowledges that local residents are concerned with the Project’s potential for adverse visual change to the community. To this end, SMUD has made an effort to site the proposed substation in a location that will minimize the visual effect on residents. While a change to the visual conditions of the community would occur upon buildout of the project, the anticipated differences would not change the visual character of the area or result in a significant impact to aesthetics. SMUD completed pre- and post-project photo simulations to depict what the proposed Project would look like to residents, motorists, and community members (see Figures 4 through 8 beginning on page 28 of the Draft IS/MND). The largest number of local home owners near the proposed Project would be within the Elk Grove Rancho Verde development east of the proposed substation site. As noted on page 26 of the Draft IS/MND, the four proposed transmission poles and the uppermost portion of the proposed substation would be visible from the Rancho Verde neighborhood. While the project’s tall vertical elements will be visible to these residents, most of the substation site will be obscured by an existing sound barrier wall and vegetation (see Figure 8, Draft IS/MND; pg. 32).

The proposed substation would be visible to residents and visitors to the Franklin Boulevard community north of the Hood-Franklin/Franklin Boulevard intersection (Figure 7 in the Draft IS/MND). Views of the new substation from historic buildings in the community of Franklin (e.g., 10460 – 10466 Franklin Boulevard) would be partially obscured by existing built structures, fences and vegetation. As noted in the Draft IS/MND, the proposed Project would alter views in the Project area.

The document concludes that the proposed substation would be located in an area that currently marks the transition from agricultural uses to the south to the more suburban uses associated with the City of Elk Grove to the north and east. Visual elements within and around the Project include existing electrical infrastructure, such as overhead utility lines; auto yards; the UPRR tracks; open agricultural fields; a cemetery; an elementary school; and residential uses. Moreover, the Southeast Connector Expressway (Kammerer Road extension project) is proposed to be sited south of the substation and will be implemented even if the substation
were not to be constructed and accordingly is an appropriate part of the environmental baseline for the Project. Therefore, while the proposed Project will introduce new visual elements (e.g., transformers, power circuit breakers, and other steel structures), these objects are not inconsistent with the existing aesthetic of Franklin Boulevard. Overall aesthetic impacts to local residents are considered less than significant.

At the time of the Draft IS/MND release, SMUD proposed a minimum 9-foot chain link fence with barbed wire and razor ribbon around the substation site for site security and public safety, with the future option to allow for the installation of a perimeter block wall and landscaping in the event that future requirements for walls and landscaping are established by Sacramento County.

Since release of the Draft IS/MND, SMUD has been coordinating with Sacramento County, Franklin community representatives and community stakeholders regarding the proposed Project and other potential landscaping and security options. SMUD is considering additional visual screening along Franklin Boulevard and along the eastern perimeter of the substation or within portions of the Rancho Verde neighborhood in order to address the community’s concerns. These potential site design changes would not constitute a substantial change to the project and would not require additional CEQA analysis. Any such design changes would be determined at the discretion of SMUD prior to project construction.

2.2.11.2 Response to NM-2

**NM-2 Summary**

Commenter states that construction of the proposed substation will generate additional EMF in the community.

**SMUD Response**

Please see the response to comment CQ-1.

2.2.11.3 Response to NM-3

**NM-3 Summary**

Commenter states that construction of the proposed substation in a different location, would avoid hazard (EMF) and visual impacts to the community.

**SMUD Response**

The need for a new bulk substation in the southwest portion of the County was initially identified by SMUD prior to 1999 in response to the planned significant growth in the area. Therefore, starting in 1999, SMUD conducted thorough constraints analyses and market research based on SMUD’s bulk substation site selection guidelines in order to locate a future bulk substation site. Based on the projected growth of the southwest area of Sacramento County and the locations of the existing bulk substations, transmission, and subtransmission system, SMUD
identified that a bulk substation could be electrically feasible within an approximate 1.5 square mile area located adjacent to the existing SMUD Pocket-Rancho Seco 230kV transmission lines south of Bilby Road, east of Franklin Boulevard, north of Core Road, and west of Bruceville Road. The area of electric feasibility yielded twelve potential parcels that were then reviewed based on several key site selection guidelines including:

- parcel size and shape,
- access from major roads
- existing parcel improvements,
- zoning,
- adjacent land uses including rail roads, pipelines and freeway/highways
- proximity to existing SMUD transmission lines and subtransmission lines
- planned future development including the proposed Southeast Connector Expressway (Kammerer Road extension project),
- property improvements,
- potential impacts to sensitive receptors,
- potential residential visual impacts and EMF exposure,
- Williamson Act contracts,
- potential biological, agricultural and cultural constraints,
- 100-year flood zone including site accessibility and associated costs if the site needed to be raised,
- scope of new 69kV facilities needed to integrate the bulk substation into the existing subtransmission system, and
- parcels with a willing seller

After the site selection guidelines were considered, the area where it would be feasible to site a bulk substation was significantly narrowed to two parcels. The site selection feasibility was primarily restricted due to the presence of the 100-year flood zone located south of the proposed substation site, which would limit site accessibility during major storm events and significantly increase costs to raise the substation site to be out of the flood zone. Additionally, even if the selected site was raised, the access road(s) would still be under water and access would be limited during major storm events. Furthermore, the presence of Williamson Act contracts, which restricts parcels of land to agricultural or related open space uses, eliminated a number of other parcels.
Based on the site selection process, three parcels meet the feasibility criteria and SMUD contacted land owners to determine willingness to sell and the requested compensation. In 2008, SMUD purchased one of the parcels that had been identified as feasible during the site selection process. The parcel purchased in 2008 was a 15-acre parcel which represents the southern portion of the proposed substation site. Currently, SMUD is planning to purchase the north adjacent 13-acre parcel, which was also identified as feasible during the site selection process. Although the existing SMUD-owned property is likely large enough for the proposed substation, the additional property purchase would avoid the need to fill in and reroute an existing irrigation basin, which bisects the northern portion of the SMUD-owned property. In addition, purchase of the northern property accommodates the City of Elk Grove’s proposed Southeast Connector Expressway (Kammerer Road extension project), which would widen and extend Kammerer Road from State Route 99 to Interstate 5, and may require the use of the southern portion of the SMUD-owned property.
Hello Kim-

I live in the Rancho Verde development that this 17 acre project will back up to and I attended the 5/11/16 meeting at Franklin Elementary. At that time I voiced my concerns at this project moving forward in its current proposal. My concerns were threefold: health safety with special regard to children with an elementary school so close and housing development full of young children even closer, the severe loss in property value to my home and those around me as a result of this project and lastly the placement of this project.

It was offered by a SMUD employee at the meeting that the plant would be no more detrimental to health than an ice machine when in fact that is blatantly untrue after further research. The same employee scoffed at the idea of a loss of property value—also not true as further research on that item bear out a $20,000 or more loss in sales. Lastly it was pointed out that there are 2 other such sub stations in Elk Grove that now meet the needs of the current population. This project was presented as a need item for future development...yet rather than placing it further south were that growth will take place SMUD wants to put it in my backyard! Let the "future" developers plan accordingly for it and likewise let future buyers be aware as to the affect it will have on their property values.

We were told that both Elk Grove and the County of Sacramento required a sub station like to be in a utility corridor, however, but SMUD's own map noting such that corridor extends further south and a big sub station like this could be placed further down the corridor and with more forward planning not be such a detrimental impact and loss of dollars to homeowners.

I find the lack of concern and the willingness to "stick it" to existing property owners for future development appalling. I will be mounting a neighborhood protest to this project by going door to door with a picture of what this will look like from our streets, windows, and backyards. I will also provide a more factual statistic on the implications to our children and give each homeowner contact and meeting time information to either send written protests and/or go to public hearings and be visible at private meetings.

Obviously myself and many of my neighbors are upset about this project and they way in which we have been made aware of it and the short time frame so as to seriously hamper our dissention.

I would expect from here on out that each and every homeowner gets a mailed notice in a reasonable advance setting of all meetings, times and places.

Thank you,

C. "Casey" Caietti
2.2.12 Response to Casey Caietti

The following section provides SMUD’s response to comments submitted on the Draft IS/MND by Casey Caietti on May 20, 2016.

2.2.12.1 Response to CC-1

CC-1 Summary

The commenter notes concern with the proposed Project in three specific areas: 1) safety, particularly of children; 2) loss of property value; and 3) siting of the proposed substation.

SMUD Response

Health and Safety

Please see SMUD’s responses to comments CQ-1 (regarding hazards issues associated with EMF) and WM-1 (regarding proximity of the proposed Project to the elementary school).

Loss of Property Value

SMUD recognizes local homeowners’ concerns about the effect of their projects on property values. Economic and social changes resulting from a project, such as loss of property value, are not treated as significant effects on the environment under CEQA (CEQA Guidelines Section 15064e) unless those economic changes result in physical changes to the environment (e.g., urban decay or blight and the physical deterioration of formerly functioning developed areas). These changes are not anticipated as a result of the proposed Project.

Nonetheless, SMUD did commission a valuation study by Real Estate Appraisers Pattison and Associates, Inc. to evaluate the potential impacts on residential property values adjacent to a transmission bulk substation. The appraisers were tasked with determining the value impact, if any, to nearby residential properties due to the development of the proposed Franklin Bulk substation.

The study compared residential properties in the Anatolia Sun Ridge subdivision area that are adjacent to an existing SMUD Cordova transmission bulk substation in comparison to similar properties that are within the same subdivision that are not adjacent to the substation, to determine the value impacts (if any) from being adjacent to the substation. The Sun Ridge subdivision was chosen for comparison because the Cordova Substation was constructed in 2009 after the houses adjacent to the substation were completed and because of the similarity to the proposed Franklin substation. Franklin substation is comparable in design to the Cordova substation. Also the Cordova Substation has a transmission line corridor/open space between the subdivision and the substation similar to the proposed Franklin substation. The appraisers evaluated the sale price for six properties that are adjacent to the existing SMUD Cordova substation to similar properties that also sold in the same time frame that were located interior to the subdivision and not adjacent to the substation. The appraiser found that the six sales
adjacent to the Cordova Substation (i.e., properties backing up to the open space/substation) did not sell for a measurable amount less than the properties in the interior of the subdivision. Therefore, the appraiser concluded that because of the similar corridor separating the proposed Franklin Substation and the Rancho Verde subdivision and the additional presence of a railroad line, the effects of the proposed Franklin substation on the property values in the Rancho Verde subdivision would be negligible or unmeasurable.

**Siting of the Proposed Project**

Please see response to comment NM-4.

2.2.12.2 *Response to CC-2*

**CC-2 Summary**

The commenter indicates that SMUD’s comparison of EMFs given off by an ice machine versus a bulk substation at a public workshop on the proposed Project was misleading.

**SMUD Response**

The purpose of the discussion of the ice machine versus a substation was not intended to suggest that the former gives off more EMFs than the latter, but rather to illustrate that everyday electronics such as microwaves, refrigerators, and TVs, give off some level of EMF and, therefore, we are constantly exposed to EMF. As more fully discussed in SMUD’s response to comment CQ-1, the generation of EMFs from operation of the proposed Project is not expected to be hazardous to the surrounding community.

2.2.12.3 *Response to CC-3*

**CC-3 Summary**

The commenter suggests that the proposed Project will result in a loss to property value.

**SMUD Response**

Please see SMUD’s response to comment CC-1 above.

2.2.12.4 *Response to CC-4*

**CC-4 Summary**

The commenter suggests that the proposed Project should be placed further south, away from current development.

**SMUD Response**

Please see SMUD’s response to comment NM-4.
2.2.12.5 Response to CC-5

CC-6 Summary

The commenter indicates that SMUD did not provide adequate time for the community to evaluate the proposed Project and voice their opinions.

SMUD Response

SMUD made a good faith effort to reach and engage potentially interested parties regarding the proposed Project. These efforts exceeded the requirements for noticing and review required by CEQA, as described below.

Noticing

The CEQA Guidelines (Section 15072) require noticing by at least one of the following procedures: publication of a notice in a newspaper of general circulation, posting notice on or off site in an area where the project is to be located, or direct mailing to the owners and occupants of the property contiguous to the project.

SMUD placed an advertisement in the *Sacramento Bee* on Sunday April 17, 2016 and provided direct mailing to the owners and occupants within 1,200 feet around the substation site in order to provide notice to the entire Rancho Verde neighborhood and within 500 feet of the proposed subtransmission line upgrades. This noticing far exceeded the CEQA requirement for noticing to property owners contiguous to the project parcel(s). SMUD also conducted a public meeting during the comment period, which is not required by CEQA guidelines for an MND or ND. Both the newspaper advertisement and direct mailing announced the meeting. In addition, per suggestion of Sacramento County Supervisor Don Nottoli, SMUD attempted additional outreach to members of the community via telephone, email, and personal visits to people who have a special interest in the Project or mobility constraints.

Comment Period

Per CEQA Guidelines (Section 15105), the public review period shall not be less than 30 days for a MND. The public review period for the Franklin Electric Transmission Project Draft IS/MND was 32 days.
6/15/2016

Marc Leonard, Executive Officer
MWL PROPERTIES
12523 LA VIDA LANE
WILTON CA. 95693

RE: PROPOSED FRANKLIN SUBSTATION WOULD SIGNIFICANTLY DEGRADE THE EXISTING HISTORICAL VISUAL CHARACTER AND QUALITY OF HISTORIC TOWN.

Sacramento Municipal Utilities District (SMUD) is helping destroy what “Franklin Community” members have worked our whole lives to restore and preserve. It also astounds me that one community (Franklin Township EST. 1856) could be expected to carry the negative impacts of growth and development but none of the positive good ones. The City of Elk Grove and County of Sacramento has already allowed the Franklin Cemetery double in size, it has shut down our Franklin Fire Station and moved it Elk Grove, and it’s going to close our Franklin Elementary School in 2019. Our community is systematically demolished not with bulldozers but with bad government employees, policy makers and crony capitalist. We are being exploited turned into an industrial wasteland as our basic community uses/resources are being stripped away one by one. Are they going to replace the Elementary School with a Sewer Treatment Plant? Now our rare Historic Rural American Community is being asked to carry an electrical substation on our shoulders too? SMUD wants to substantial damage the visual charter and quality of our community and its surroundings which we believe is wrong! Fortunately for the town of Franklin there are development standards set forth to prevent such measures. Your negative declaration report is incorrect in several areas and is very misleading. We believe that this project would cause a substantial adverse change in the significance of an historical resource. California Environment Quality Act (CEQA) Standards States in part:

§ 21064.1. HISTORICAL RESOURCE; SUBSTANTIAL ADVERSE CHANGE
A project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. For purposes of this section, an historical resource is a resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources. Historical resources included in a local register of historical resources, as defined in subdivision (b) of Section 5020.1, or deemed significant pursuant to criteria set forth in subdivision (g) of Section 5024.1, are presumed to be historically or culturally significant for purposes of this section, unless the preponderance of the evidence demonstrates that the resource is not historically or
cultural significance. The fact that a resource is not listed in, or determined to be eligible for listing in, the California Register of Historical Resources, not included in a local register of historical resources, or not deemed significant pursuant to criteria set forth in subdivision (g) of Section 5024.1 shall not preclude a lead agency from determining whether the resource may be an historical resource for purposes of this section.

We have three such historical buildings in Old Town Franklin: 1) Franklin House Est. 1860, 2) Franklin Hall EST. 1895, and 3) Foulks Mansion House EST. 1886 listed on Historical Building Registers. The impact of new transmission poles, electrical line corridors and Substation site would impact Historical value to these listed historic resources. We believe proposed project would substantially degrade the existing visual characters and quality of these historical structures and commercial aspects of the town.

SMUD needs to build your unsightly substation on the other side of tracks for the Elk Grove community it will serve and not ask “Historic Franklin” too many yet another negative impact of development. If it not possible or SMUD is unwilling to move location of this unsightly “Electrical Substation” we at a minimum want Fence and Natural Tree barriers. We have great people living and working in Old Town Franklin it astonishes me how far we have come to restore and preserve our historical rural American heritage we need help not more abuse. I believe SUMD is on the wrong side of this issue and is helping destroy what some of us have worked very hard to preserve. We (I) would happily discuss this in front of your board, county planning commissions, or newspapers and TV stations. We are willing to meet with you to discuss mitigation strategies anytime and anyplace. If you or your staff have specific question please contact directly at 916 769-8466. What kind of society do we live in with when we exploit rare historic resources and not value them? What kind of a company is SUMD???

Marc Leonard - Executive Officer
2.2.13 Response to Marc Leonard

The following section provides SMUD’s response to comments submitted on the Draft IS/MND by Marc Leonard on June 15, 2016.

2.2.13.1 Response to ML-1

ML-1 Summary

The commenter states that he believes SMUD is contributing to the negative impacts of growth and development affecting the Franklin community.

SMUD Response

SMUD strives to be a good neighbor while expanding our services and facilities in order to meet the projected energy demands of the community. The purpose of the proposed Project is to maintain SMUD’s electric system reliability and meet the expected energy load growth of planned development in the southwest area of Sacramento County, including the community of Franklin (Draft IS/MND, pg. i).

The proposed Project is consistent with land use development guidelines set forth in Sacramento County’s General Plan and the County’s Zoning Code (Draft IS/MND, pg. 135). Further, while development of the proposed substation will alter the existing visual setting of the Project area, it would not be inconsistent with nearby land uses, transportation corridors (roads and rail lines), and existing energy infrastructure in the area, such as overhead utility lines and the small distribution substation located on Bilby Road. Given the Project’s consistency with local land use development guidelines, the less-than-significant effect it will have on the existing visual character of the Project site (Draft IS/MND, pg. 25), and the fact that it would not displace existing housing (Draft IS/MND, pg. 146), SMUD has concluded that construction of the proposed substation will not have a substantial effect on the character or quality of the surrounding community.

2.2.13.2 Response to ML-2

ML-2 Summary

The commenter states that the Project would substantially damage the visual character of the community.

SMUD Response

Please see response to comment NM-1 for a complete discussion of our analysis of potential visual impacts associated with the proposed Project.
2.2.13.3 Response to ML-3

ML-3 Summary

The commenter states that the Project would substantially damage the historic value of three historical buildings located within the Franklin community.

SMUD Response

The Town of Franklin is a small community located north of the Hood-Franklin Road/Franklin Boulevard intersection. The town of Franklin was established in 1856 by General Andrew George. Originally called Georgetown, the post office was called Franklin since 1862 and the town assumed the name Franklin in 1887 after the Franklin House that was constructed by General George. The structures identified by the commenter are located at 10460 - 10466 Franklin Boulevard on assessor’s parcel number 132-0140-006, adjacent to the existing 69kV subtransmission line corridor. These buildings were described in the Cultural Resources Report for the SMUD Franklin Electric Transmission Project (Area West Environmental, Inc. 2015), which was used to support the Draft IS/MND. The proposed Project would not adversely affect buildings in Old Town Franklin.

Per CEQA Guidelines (Section 15064.5), a substantial adverse change in the significance of a historical resource means “physical demolition, destruction relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.” The significance of an historical resource is “materially impaired” when a project demolishes or materially alters in an adverse manner those physical characteristics of an historical characteristic that convey its historical significance and justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources or a local register of historical resources.

Replacement of the existing subtransmission line and poles along Franklin Boulevard in front of these buildings would neither change the existing character of the buildings nor materially impair the historic nature of the buildings or the Town of Franklin. The subtransmission line is an existing visual and structural element in the community. All work to replace the subtransmission line through the town of Franklin would occur within current right-of-way and would not require the acquisition of any land or alteration of structures not currently owned by SMUD. Work on the subtransmission line along Franklin Boulevard would not cause a substantial adverse change in the characteristics that would define these buildings as an historical resource under CEQA.

Construction of the new Franklin Bulk substation will occur approximately 800 feet south of the historic buildings referenced in the comment letter. As described in the Aesthetics section of the Draft IS/MND, portions of the proposed substation would be visible to residents and visitors to the Old Town of Franklin north of the Hood-Franklin/Franklin Boulevard intersection. Figure 7 in the Draft IS/MND provides a photo simulation of pre- and post-project views from the Hood-Franklin Road/Franklin Boulevard intersection. Views of the new substation from historic
buildings in the community of Franklin would be partially obscured by existing built structures, fences, and vegetation. Existing visual elements within the Town of Franklin include existing electrical infrastructure, such as overhead utility lines; commercial land uses bordered by fences; a cemetery; an elementary school; and residential uses. While the proposed project will introduce new visual elements (e.g., transformers, power circuit breakers, and other steel structures) into the viewshed south of Franklin Boulevard, these changes in views would not adversely affect the integrity of the historic buildings, degrade the historic nature of the buildings, or result in the introduction of an incompatible visual element that would materially alter the physical characteristics that convey the building’s historical significance. Therefore, the proposed Project would have a less-than-significant impact on historic structures in the Town of Franklin. Additional information has been added to the Draft IS/MND (see Chapter 3) regarding the historic nature of the Town of Franklin and the Project’s effects on those resources.

2.2.13.4 Response to ML-4

ML-4 Summary

The commenter requests that the proposed Project be constructed in another location.

SMUD Response

Please see response to comment NM-4.

2.2.13.5 Response to ML-5

ML-5 Summary

The commenter requests that if the Project cannot be moved, then SMUD should consider fencing or natural barriers.

SMUD Response

At the time of the Draft IS/MND release, SMUD proposed a minimum 9-foot chain link fence with barbed wire and razor ribbon around the substation site for site security and public safety, with the future option to allow for the installation of a perimeter block wall and landscaping in the event that future requirements for walls and landscaping are established by Sacramento County.

Since release of the Draft IS/MND, SMUD has been coordinating withSacramento County, Franklin community representatives and community stakeholders regarding the proposed Project and other potential landscaping and security options. SMUD is considering additional visual screening along Franklin Boulevard and along the eastern perimeter of the substation or within portions of the Rancho Verde neighborhood in order to address the community’s concerns. These potential site design changes would not constitute a substantial change to the project and would not require additional CEQA analysis. Any such design changes would be determined at the discretion of SMUD prior to project construction.
2.2.13.6 Response to ML-6

ML-6 Summary

The commenter indicated that they are willing to discuss mitigation strategies with SMUD or speak with SMUD’s board.

SMUD Response

SMUD values the input of its neighbors and seeks to provide every opportunity for their opinions to be heard. A copy of the cultural resources technical study for the proposed Project was sent to Mr. Leonard on July 27, 2016. Further, the commenter was invited to a community meeting and was informed of future meetings/hearings on the proposed Project by Kim Crawford of SMUD.
3.0 Additions and Errata to the Draft IS/MND

This chapter contains additions and errata to the Draft IS/MND that have been made in response to comments received during the public review period. New text is identified by **bold, underlined font**, while deletions are indicated by strikethrough font. Revisions and corrections provided in this Final IS/MND are intended to expand and clarify analyses previously provided in the draft document.

Additions to the analysis do not change the impact conclusions or proposed mitigation initially identified in the IS/MND. Edits to the original text of the IS/MND contained herein do not constitute a substantial revision, as defined by CEQA, and have been added to clarify and amplify the existing analysis. Therefore, the conclusions of the Draft IS/MND are not affected by these revisions.

3.1 Changes to the Project Background

*The following revision has been made to Section 2.5, Project Background, of the Draft IS/MND.*

In **2006 2008**, SMUD purchased approximately **49 15** acres for the proposed substations in response to the planned significant growth in the area.

3.2 Changes to the Hazards and Hazardous Materials Section

*The following changes were made to the Environmental Setting section for Electric and Magnetic Fields.*

**Electric and Magnetic Fields**

Homeowners in neighborhoods adjacent to overhead power lines frequently express concerns regarding the potential for health effects from exposure to electric and magnetic fields (EMFs). Available medical and scientific research has not demonstrated that EMFs create a health risk. However, research has not dismissed the possibility of such a risk.

Natural and human created EMFs occur everywhere. Electric fields are created between two objects that have a different voltage potential. Magnetic fields are created only when there is current flowing through a conductor or device. For example, when a lamp is plugged into a wall, an electric field is created around the cord to the lamp. A magnetic field is present when the lamp is turned on and current flows through the light bulb.

Typically, the main sources for EMFs associated with a substation are the power lines that enter and exit the substation. Power frequency (60 hertz (Hz) [cycles per second]) EMF are invisible fields of force created by electric voltage (electric fields) and by electric current (magnetic fields). These fields are associated with power lines, electric appliances, and the wiring in buildings of homes, schools, and work structures. Voltage on wire produces an electric field in...
the area surrounding the wire. Magnetic fields are produced from the flow of electricity (current) in a conductor (circuit) and can be calculated and measured.

Widespread misunderstanding exists regarding EMF levels from different types of facilities and the rate at which these levels decline with distance from the source. There are four basic factors that affect the strength of EMF: distance, conductor spacing, load, and phase configuration. An alternating current power line typically consists of three energized phase wires. The nature of three-phase alternating power systems results in a partial cancellation effect of the magnetic fields if the conductors are adjacent to each other.

Magnetic fields are very difficult to shield; placing the line underground does not shield the magnetic field. Overhead electric power lines also produce electric fields; however, a structure of a house will shield most of the electric field from outside sources. Other objects, such as trees, shrubs, walls, and fences, also provide electric field shielding.

Power frequency (60 hertz [Hz] cycles per second) electric and magnetic fields (EMF) are invisible fields of force created by electric voltage (electric fields) and by electric current (magnetic fields). These fields are associated with all powerlines, electric appliances, and with the wiring in buildings of homes, schools, and work structures. Voltage on any wire produces an electric field in the area surrounding the wire. Magnetic fields are produced from the flow of electricity (current) in a conductor (circuit) and can be calculated and measured.

SMUD’s Board of Director’s adopted Resolution No. 91-04-08 on April 8, 1991, approving an EMF policy statement and authorizing the implementation of an EMF program. Since 1991, SMUD has followed studies on EMF, adopted practices where practicable, minimized potential EMF exposure from new transmission and distribution facilities, and included a practice of prudent avoidance in designing and building future facilities. SMUD has also contributed funds to the National EMF Research program and the California Department of Health Services (CDHS) EMF Program (CDHS EMF Risk Assessment completed in October 2002). The results from many research studies have been reported by both national and California EMF programs that were initiated to determine if EMF poses any health risk.

The medical and scientific communities generally agree that the available research evidence has not demonstrated that EMF creates a health risk. However, they also agree that the evidence has not dismissed the possibility of such a risk. Finally, they agree that while this is an important issue that needs resolution, it is uncertain when such a resolution will occur. The present scientific uncertainty means that public health officials cannot establish any standard or level of exposure that is known to be either safe or harmful.

In written testimony presented to the California Public Utilities Commission (CPUC), Dr. Patricia Buffler, Professor of Epidemiology at the School of Public Health, University of California, Berkeley, and an EMF health effects expert, stated:
There is an emerging consensus among the medical and scientific communities that there is insufficient evidence to conclude that EMF causes adverse health effects. Hundreds of EMF studies have been conducted over the last 20 years in the areas of epidemiology, animal research, molecular biology, and exposure assessment. Neither the medical nor the scientific communities have been able to provide foundation upon which regulatory bodies could establish a standard or level of exposure that is known to be either safe or harmful.

A number of nationally and internationally recognized multi-disciplinary expert panels have performed comprehensive reviews of the body of scientific knowledge on EMF. None of these groups has concluded that EMF causes adverse health effects or that the development of standards was appropriate or would have a scientific basis.

Reports by the National Research Council/National Academy of Sciences, American Medical Association, American Cancer Society, National Institute of Environmental Health Sciences, World Health Organization – International Agency for Research on Cancer, and the California EMF Program conclude that insufficient scientific evidence exists to warrant the adoption of specific health-based EMF mitigation measures.3

As a result of this uncertainty, SMUD implements no-cost and low-cost steps to reduce EMF levels for new electric facilities. SMUD also encourages the public to use prudent avoidance when they are near EMF.

Description of Electric and Magnetic Fields

Generation of EMF and exposure to such fields is described separately. The electric fields from powerlines are relatively stable because line voltage has little significant variation, yet magnetic fields can fluctuate greatly with changing loads (changing current level). Magnetic fields in this report are described as averages (statistical means).

EMFs occur throughout nature. Electric fields are created between two objects that have a different voltage potential. Magnetic fields are created only when there is current flowing through a conductor or device. For example, when you plug a lamp into a wall socket, an electric field is created around the cord to the lamp. A magnetic field is only present when the lamp is turned on and current flows through the light bulb. The electric field is proportional to the difference in voltage between the two objects – the greater the difference in voltage, the greater the electric field. A magnetic field is proportional to the amount of current flowing through the device or conductor – the greater the current, the greater the magnetic field. All household appliances that use electricity produce EMF.

Although overhead electric powerlines produce electric fields, these electric fields are not a subject of concern. Electric fields can easily be diverted, or shielded, by almost any object such as trees, shrubs, walls, fences, the human body, and other conductors. A house will shield most of the electric field from outside sources before it reaches occupants. Underground power lines do not produce electric fields, because the earth shields the electric field. In fact, care has to be exercised when you are measuring electric fields so that your body does not distort the measurement.

Magnetic fields, on the other hand, are much more difficult to screen or divert. Some special metal alloys have been shown to block magnetic fields; however, they are very expensive. All magnetic fields attenuate or diminish at a rate that is inversely proportional to the distance from the source squared. In other words, if a magnetic field reading is taken at a certain distance away from the source (for example, initial measurement of 36 milligauss⁴ (mG) at 10 feet from the source), and then a measurement is taken twice as far away from the source, the field will be one-fourth as strong as the initial measurement (e.g., 36/4=9 mG at 20 feet). Likewise, if the field is measured three times the initial distance, the field will be one-ninth as strong (e.g., 36/9=4 mG at 30 feet).

Average Magnetic Field Exposures in the United States

In June 2002, the National Institute of Environmental Health Sciences (NIEHS) of the National Institutes of Health prepared a “Questions & Answers” booklet on EMF, Electric and Magnetic Fields Associated with the Use of Electric Power (the NIEHS report; NIEHS 2002). The estimated average magnetic field exposure of the United States population presented in the NIEHS report is presented as the percentage of the population that is exposed to an average 24-hour field (mG) that exceeds specified levels. For example, 76.3% of the population is exposed to an average 24-hour field that exceeds 0.5 mG, and 43.6% of the population is exposed to an average 24-hour field that exceeds 1 mG. The exposure to >2 mG average drops to 14.3% of the population, and only 0.17% of the population is exposed to >15 mG average. A study by Electric Power Research Institute (EPRI) found that a mean resultant alternating current (AC) magnetic field in residential United States homes was about 0.9 mG (at 1-meter aboveground level) (EPRI 2010).

Magnetic fields are associated with all powerlines, electric appliances, and with the wiring in buildings of homes, schools, and work structures. The following tables present magnetic fields at home and outside the home as adapted by Gauger 1985 and EPRI Appliance Measurement Study 2010.

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⁴ Gauss is the unit of measurement of magnetic flux density (or “magnetic induction”).
Table HAZ-1. Magnetic Fields at Home

<table>
<thead>
<tr>
<th></th>
<th>1.2” away</th>
<th>12” away</th>
<th>36” away</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microwave Oven</td>
<td>750 to 2,000</td>
<td>40 to 80</td>
<td>3 to 8</td>
</tr>
<tr>
<td>Clothes Washer</td>
<td>8 to 400</td>
<td>2 to 30</td>
<td>0.1 to 2</td>
</tr>
<tr>
<td>Electric Range</td>
<td>60 to 2,000</td>
<td>4 to 40</td>
<td>0.1 to 1</td>
</tr>
<tr>
<td>Compact Fluorescent Bulb</td>
<td>0 to 32.8</td>
<td>0 to 0.1</td>
<td>0</td>
</tr>
<tr>
<td>Hair Dryer</td>
<td>60 to 20,000</td>
<td>1 to 70</td>
<td>0.1 to 3</td>
</tr>
<tr>
<td>LCD/Plasma TV</td>
<td>1.1 to 73.6</td>
<td>0 to 2.5</td>
<td>0 to 2.2</td>
</tr>
</tbody>
</table>

Source: Adapted from Geiger 1985 & EPR Appliance Measurement Study 2010

Table HAZ-2. Magnetic Fields Outside

<table>
<thead>
<tr>
<th></th>
<th>Distribution Lines</th>
<th>Transmission Lines</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 to 80 milligauss under the line</td>
<td>1 to 300 milligauss edge of right-of-way</td>
</tr>
</tbody>
</table>

The following changes have made to the Hazards and Hazardous Materials section of the Draft IS/MND under question a, b.

a, b. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; or create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Electric and Magnetic Fields

The medical and scientific communities generally agree that the available research evidence has not demonstrated that EMF creates a health risk. However, they also agree that the evidence has not dismissed the possibility of such a risk. Finally, they agree that while this is an important issue that needs resolution, it is uncertain when such a resolution would occur. The present scientific uncertainty means that public health officials cannot establish any standard or level of exposure that is known to be either safe or harmful. No CEQA standards or health-based standards exist that indicate that EMF emissions are a potentially significant impact.
Therefore, potential impacts relating to EMFs are considered less than significant and no mitigation would be required.

There are four basic factors that affect the strength of EMF:

- **Distance**,  
- **Conductor spacing**,  
- **Load**, and  
- **Phase configuration**.

Typically, the main sources for EMF associated with a substation are the powerlines that enter and exit the substation. AC powerlines typically consist of three energized phase wires. The spacing between these phases (the three wires) is farther apart for overhead powerlines than similar lines that are installed in underground conduit (i.e., the phase conductors are usually placed in closer proximity to each other in an underground configuration). Therefore, magnetic field attenuation is spatially more persistent (i.e., the magnetic field level will decrease more slowly) for an overhead configuration than for an underground configuration. However, the distance from the energized conductors to a sensitive receptor (such as a person) is typically much less for an underground configuration than for an overhead configuration. Therefore, magnetic field levels would typically be higher directly above an underground conduit than underneath an overhead line; however, magnetic fields from an underground configuration would attenuate faster with distance. Usually magnetic fields from underground lines attenuate to background levels within approximately 30-40 feet away from the line (depending upon phase spacing, burial depth, phasing arrangement, loading conditions, and other parameters).

Overhead electric powerlines will also produce electric fields, although a house will shield most of the electric field from outside sources (other objects, such as trees, shrubs, walls, and fences, will also provide electric field shielding). Underground subtransmission lines do not produce electric fields, since the earth shields the electric field.

**Analysis Criteria for Impact Evaluation**

No CEQA standards or any health-based standards exist that indicate that EMF emissions should be considered a “significant” impact. The project meets applicable school siting guidelines established by the California Department of Education (CDE) (putting 69 kV facilities at least 100 feet from the nearest school and 230 kV facilities at least 150 feet from the nearest school).

The NIEHS report identifies that the United States has no federal standards limiting occupational or residential exposure to 60-Hz EMF; however six states (not including...
California) have set standards for powerline electric fields, and two of these have established standards for magnetic fields. In most cases, the maximum fields permitted by each state are the maximum fields that existing lines produce at maximum load-carrying conditions. Some states further limit electric field strength at road crossings to ensure that electric current induced into large metal objects such as trucks and buses does not represent an electric shock hazard. The lowest electric field exposure limit is established by Montana’s standard, which allows 7,000 volts/meter (7 kV/m) maximum for highway crossings and 1 kV/m at the edge of the right-of-way. New York and Florida have established a magnetic field threshold for 69-230 kV lines of 200 mG at maximum load at the edge of the right of way. (NIEHS 2002)

There are no magnetic field exposure standards for the State of California. The State of California has considered this subject but did not find a basis for setting numerical standards or guidelines. After a careful review of research on magnetic fields, the CPUC stated in its conclusion of law (CPUC Decision 93-11-013): “It is not appropriate to adopt any specific numerical standard in association with EMFs until we have a firm scientific basis for adopting any particular value.”

The CPUC Decision 93-11-013 created the California Electric and Magnetic Fields Program to research and provide education and technical assistance on the possible health effects of exposure to EMF from powerlines and other uses of electricity. The California Electric and Magnetic Fields Program concluded: “Nobody knows for sure whether exposure to 50 and 60 Hz fields is a health risk…. Studies do not show a clear pattern of health hazards…. California has no formal rules or guidelines but advocates ‘no and low cost’ EMF avoidance and measures in construction of new and upgraded utility projects…. Right now there is not enough evidence to justify making regulations governing EMF (CDHS 1999).”

In 2006, the CPUC updated its EMF Policy in Decision 06-01-042. The decision reaffirmed that health hazards from exposures to EMF have not been established and that state and federal public health regulatory agencies have determined that setting numeric exposure limits is not appropriate. The CPUC also reaffirmed that the existing no-cost and low-cost precautionary-based EMF policy should be continued. (CPUC 2006)

Although currently there are no national or California electric or magnetic field exposure guidelines, there have been guidelines established by several international organizations. The International Committee on Electromagnetic Safety (ICES) under the auspices of the Institute of Electrical and Electronics Engineers has established exposure guidelines for 60-Hz EMF (ICES 2002). The ICES recommended limits for occupational exposures are 20 kV/m for electric fields and 27,100 mG for magnetic fields. The recommended limits for the general public are lower: 5 kV/m for the general public, except on power line rights-of-way where the limit is 10 kV/m; and 9,040 mG for magnetic fields.
More recently the International Committee on Non-ionizing Radiation Protection (ICNIRP), working in cooperation with the World Health Organization (WHO) has developed guidelines for occupational and public exposures to EMF (ICNIRP, 2010). For occupational exposures at 60 Hz, the recommended limits to exposure are 8.3 kV/m for electric fields and 4.2 G (4,200 mG) for magnetic fields.

A summary of published guidelines for occupational and public exposures to EMF is provided in Table HAZ-3 below.

<table>
<thead>
<tr>
<th>Source</th>
<th>Electric Field Recommended Threshold (kV/m)</th>
<th>Magnetic Field Recommended Threshold (mG)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NIEHS: Montana</td>
<td>7 kV/m at highway crossings 1 kV/m at edge of ROW</td>
<td></td>
</tr>
<tr>
<td>NIEHS: New York/Florida</td>
<td>200 mG at edge of ROW</td>
<td></td>
</tr>
<tr>
<td>ICES: Occupational exposure</td>
<td>20 kV/m</td>
<td></td>
</tr>
<tr>
<td>ICES: Public exposure</td>
<td>5 kV/m 10 kV/m at power line ROW</td>
<td>9,040 mG</td>
</tr>
<tr>
<td>ICNIRP: Occupational exposure</td>
<td>8.3 kV/m</td>
<td>4,200 mG</td>
</tr>
</tbody>
</table>

Magnetic Field Calculations and Modeling

To address concerns regarding EMF exposure, SMUD conducted an analysis of magnetic field strengths using modeling and calculations of existing and post-project levels. Post-project magnetic field strengths were modeled using the overhead power line design software PLS-CADD (version 14.11), as calculated by the EPRI Transmission Line Reference Book (Second Edition, 1982). A description of existing conditions and modeling results follows.

Existing Conditions

In addition to the existing EMF that are present from the electrification of the houses and businesses in the area there is an existing double-circuit 230 kV transmission line located east of the proposed project and adjacent to the UPRR tracks. These lines will be used to connect the proposed substation to SMUD’s existing electrical grid.

The magnetic field present from the existing transmission lines varies with the electrical current passing through the overhead conductors. Modeling and calculations were done for the historical average current and maximum current over the past ten years. The maximum current is generally experienced for several hours during five to six days per year during the summer months. This time period is when SMUD’s electric system is experiencing the largest demand.
Below are the modeled historical magnetic field strengths for the average current and the maximum current for the past ten years measured in mG, a standard unit of measurement for EMF (Table HAZ-4). The modeled existing magnetic field strengths are under the transmission pole and at a distance of 30 feet, 50 feet and 70 feet from the pole. Existing residences are located approximately 130 feet from the existing poles. As the data shows, the magnetic field strength reduces significantly with the distance from the overhead conductor.

### Table HAZ-4
Existing Magnetic Field Strengths (mG)

<table>
<thead>
<tr>
<th>Distance From Pole (feet)</th>
<th>At Pole</th>
<th>30</th>
<th>50</th>
<th>70</th>
</tr>
</thead>
<tbody>
<tr>
<td>For Average Current</td>
<td>7.8</td>
<td>5.2</td>
<td>3.2</td>
<td>1.8</td>
</tr>
<tr>
<td>For Maximum Current</td>
<td>42</td>
<td>22</td>
<td>12</td>
<td>6.2</td>
</tr>
</tbody>
</table>

Note: Modeled by PLS-CADD version 14.11, as calculated by the EPRI red book methods (EPRI 1982).

**Post Franklin Substation Construction**

SMUD has also performed modeling and calculations forecasting what the magnetic field strengths that will be expected after the construction of Franklin Substation. Below are the forecasted future magnetic field strengths as determined by the model for the eastern side of the existing transmission line (Table HAZ-5). Figure HAZ-1 displays the post-project modeled EMF levels around the Franklin substation.

### Table HAZ-5
Forecasted Magnetic Field Strengths (mG)

<table>
<thead>
<tr>
<th>Distance From Pole (feet)</th>
<th>At Pole</th>
<th>30</th>
<th>50</th>
<th>70</th>
</tr>
</thead>
<tbody>
<tr>
<td>For Average Current</td>
<td>8.2</td>
<td>6.3</td>
<td>4.1</td>
<td>2.0</td>
</tr>
<tr>
<td>For Maximum Current</td>
<td>39</td>
<td>28</td>
<td>18</td>
<td>10</td>
</tr>
</tbody>
</table>

Note: Modeled by PLS-CADD version 14.11, as calculated by the EPRI red book methods (EPRI 1982).
Figure HAZ-1. Forecasted Magnetic Field Strengths
The magnetic field strength on the western side of the transmission line (Figure HAZ-1) will change due to the routing of the overhead conductor from the transmission line to the substation over the existing UPRR tracks. The magnetic field strength is expected to be approximately 7.9 mG on average and 34.5 mG during maximum load periods.

The proposed SMUD Franklin substation will also create magnetic fields because of the proposed interior electrical equipment, buss and conductor. The western property line will include the 69kV overhead lines that will be exiting the substation to provide power to the local distribution substation grid. The western boundary of the substation is expected to have magnetic field levels on average of 5.5 mG with a maximum field strength expected to be approximately 15.7 mG (Figure HAZ-1). The north and south property lines are expected to have magnetic field strength levels on average of 0.6 mG and 4.5 mG, respectively, to a maximum of 1.5 mG and 6.5 mG during maximum load periods (Figure HAZ-1).

The proposed Project would also replace approximately 5 miles of existing single-circuit 69kV line along Franklin Boulevard with double-circuit 69kV line. Adding the double circuit would result in a small increase in EMF compared to existing conditions. SMUD has in the past performed magnetic field calculations for double-circuit 69 kV overhead lines. Calculated field levels are higher at midspan than at the pole, because the energized conductors sag closer to the ground. Calculations were performed for two loading conditions (medium and heavy). Field levels were calculated at a location directly underneath of the proposed powerlines and proceeding away from the line out to 150-feet from either side of centerline. The calculated magnetic field at midspan ranges from a maximum of about 5.3 mG to 14.5 mG at midspan under the overhead conductor for heavy loading conditions to 2.9 mG to 8.0 mG for medium loading conditions) directly underneath the proposed subtransmission line down to about 0.5 mG to 0.1 mG at a distance of 150-feet away.

Exposure Reduction Considerations

The medical and scientific communities generally agree that evidence from available research has not demonstrated that EMF creates a health risk. However, they also agree that the evidence has not completely dismissed the possibility of such a risk, either. Given the uncertainty of the issue, the medical and scientific communities have been unable to determine that usual residential exposures to EMF cause health effects or to establish any standard or level of exposure that is known to be either safe or harmful.

Because of the uncertainty surrounding the health effects of EMF, SMUD routinely implements no-cost and low-cost steps to reduce EMF levels for new and upgraded electric facilities. SMUD reduces magnetic field strength by installing taller poles (55-feet or higher), and arranging the phases of the overhead conductors to best attenuate the magnetic field level. The proposed Project incorporates these standard low-cost design measures to reduce EMF levels.
Summary of Impacts

As described above, the proposed Project would not result in an appreciable increase in EMF exposure to nearby residents over existing conditions, and exposure levels would remain well below the ICES and ICNIRP EMF guidelines (Table HAZ-3). Given this and the design measures that are already incorporated into the project to reduce EMF levels, SMUD concludes that potential impacts associated with EMF are considered less than significant. Therefore, the proposed Project would not have a significant effect on public health related to EMF emissions. No mitigation is required.

The following has been added to the Hazards and Hazardous Materials section of the Draft IS/MND under question c.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school?

The substation site is located less than a quarter mile from Franklin Elementary School. However, with implementation of standard best management practices required by a SWPPP and Mitigation Measures HAZ-1 through HAZ-3, described under questions a and b above, potential impacts associated with hazardous emissions and with the handling of hazardous substances, materials, or waste near a school would be avoided.

With respect to siting power transmission lines near schools, the CDE has specific criteria used in the school site selection and acquisition process. One of the twelve site selection criteria is proximity to high-voltage power transmission lines. The criteria states:

In consultation with the State Department of Health Services (DHS) and electric power companies, the Department has established the following limits for locating any part of a school site property line near the edge of easements for high-voltage power transmission lines:

- 100 feet from the edge of an easement for a 50-133kV (kilo volts) line
- 150 feet from the edge of an easement for a 220-230kV line
- 350 feet from the edge of an easement for a 500-550kV line

The Franklin Elementary school is currently approximately 1,000 feet from a 230kV line and 400 feet from a 69kV line. The proposed Project would not change these distances.

In addition, SMUD reached out to the Planning Director at the Elk Grove Unified School District (EGUSD) in March 2016 regarding the proposed Project. A response to the proposed Project (Heinicke pers. comm.) stated:
The distance of the proposed facility from Franklin Elementary School exceeds any required setback from powerlines as established by the California Department of Education, the greatest of which would be 350 feet. The proposed subtransmission line along Franklin Blvd also exceeds the 100-foot setback for the proposed 69kV lines. Therefore, based on this information, EGUSD believes our facilities are adequately distant from this project.

Given the fact that the proposed substation and related transmission lines exceed DHS’ criteria and that EGUSD has confirmed that the proposed facility is adequately distant from the school, potential impacts to the elementary school from hazardous emissions associated with the proposed Project would be less than significant.

Therefore, impacts associated with hazardous emissions near a school are less than significant with incorporated mitigation.

3.3 Changes to the Cultural Resources Section

The following has been added to the Environmental Setting discussion under question a, b, and c of the Cultural Resources section of the Draft IS/MND.

a, b, c. Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5; cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5; or cause a substantial adverse change in the significance of a Tribal Cultural Resource as defined in §21074?

No historical or archaeological resources listed on or eligible for the California Register of Historical Resources, or that meet other criteria of significance under Section 15064.5, were identified within or adjacent to the Project work limits proposed substation site. Although the prehistoric isolate (a cobble mano) found in the transmission line access road area south of Bilby Road would not be eligible for listing as an archaeological resource, it may be an indication that the area supports cultural tribal resources. There remains the possibility that historical or archaeological resources may be found during ground disturbing activities associated with construction of the proposed Project. Given the ethnographic background of the Project Area and its surroundings, it is possible that previously undiscovered resources could be found during ground disturbing activities such as grading, trenching, or drilling of post holes, even though the entire Project Area has been previously disturbed. Potential significant impacts to previously undiscovered historic and/or archaeological resources would be avoided through implementation of Mitigation Measures CUL-1 through CUL-5, which require worker training, subsurface investigations at the substation site before project construction, construction monitoring at the transmission line and access road improvement area, and if a cultural resource is discovered during ground disturbance, halting of work until a qualified archaeologist can assess the significance of the cultural materials. Given the fact that the substation site has been previously disturbed (and no historic or archaeological resources were identified) and that the proposed Project would adhere to the mitigation measures described below, potential
impacts to historic or archaeological resources as a result of construction of the proposed Project would be considered **less than significant** with incorporated mitigation.

**Outside of the immediate substation site are two buildings within the Town of Franklin that are considered cultural resources; one of which (10460 Franklin Boulevard) may be eligible for listing in the California Register of Historic Places. These structures are currently located adjacent to SMUD’s existing 69kV subtransmission line corridor. These buildings were described in the Cultural Resources Report for the SMUD Franklin Electric Transmission Project (Area West Environmental, Inc. 2015), which was used to support the Draft IS/MND.**

Replacement of the existing subtransmission line and poles along Franklin Boulevard in front of these buildings would neither change their existing character, nor materially impair the historic nature of the buildings or the Town of Franklin. The subtransmission line is an existing visual and structural element in the community. All work to replace the subtransmission line through the town of Franklin would occur within current right-of-way and would not require the acquisition of any land or alteration of structures not currently owned by SMUD. Therefore, work on the subtransmission line along Franklin Boulevard would not cause a substantial adverse change in the characteristics that would define these buildings as an historical resource under CEQA.

Furthermore, construction of the new Franklin Bulk substation will occur approximately 800 feet south of these buildings. As described in the Aesthetic Resources section, portions of the proposed substation would be visible to residents and visitors to the Old Town of Franklin north of the Hood-Franklin/Franklin Boulevard intersection. Figure 7 provides a photo simulation of pre- and post-project views from the Hood-Franklin Road/Franklin Boulevard intersection. Views of the new substation from historic buildings in the community of Franklin would be partially obscured by existing built structures, fences, and vegetation. Existing visual elements within the Town of Franklin include existing electrical infrastructure, such as overhead utility lines; commercial land uses bordered by fences; a cemetery; an elementary school; and residential uses. While the proposed project will introduce new visual elements (e.g., transformers, power circuit breakers, and other steel structures) into the viewshed south of Franklin Boulevard, these changes in views would not adversely affect the integrity of the historic buildings, degrade the historic nature of the buildings, or result in the introduction of an incompatible visual element that would materially alter the physical characteristics that convey the building’s historical significance. Therefore, the proposed Project would have a **less-than-significant** impact on historic structures in the Town of Franklin.

### 3.4 Additions to the References

*The following additions to the References section of the IS/MND have been made to incorporate new references utilized in response to comments on the Draft IS/MND.*


CDHS see California Department of Health Services

CPUC see California Public Utilities Commission


EPRI see Electric Power Research Institute


Heinicke, Bill. Facilities Planning Director, Elk Grove Unified School District. Email dated March 4, 2016, to Kelvin Marshall and Robert Pierce at SMUD.

ICES see International Committee on Electromagnetic Safety

ICNIRP see International Commission on Non-ionizing Radiation Protection


NIEHS. See National Institute of Environmental Health Sciences
4.0 Mitigation Monitoring and Reporting Program

4.1 Introduction

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

4.1.1 Mitigation Implementation and Monitoring

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

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

SMUD and its appointed contractor will also be responsible for ensuring that its construction personnel understand their responsibilities for adhering to the performance requirements of the mitigation plan and other contractual requirements related to the implementation of mitigation as part of Project construction. In addition to the prescribed mitigation measures, Table 4-1 lists each identified environmental resource being affected, the corresponding monitoring and reporting requirement, and the party responsible for ensuring implementation of the mitigation measure and monitoring effort.

4.1.2 Mitigation Enforcement

SMUD will be responsible for enforcing mitigation measures. If alternative measures are identified that would be equally effective in mitigating the identified impacts, implementation of these alternative measures will not occur until agreed upon by SMUD.
### Table A-1 Mitigation Measures

<table>
<thead>
<tr>
<th>Environmental Criteria</th>
<th>Mitigation Measure</th>
<th>Implementation Duration</th>
<th>Monitoring Duration</th>
<th>Responsibility</th>
<th>Applicable Project Component</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Air Quality</strong></td>
<td>Would the project conflict with or obstruct implementation of the applicable air quality plan?</td>
<td><strong>Mitigation Measure AIR-1: Fugitive Dust Control Plan</strong> SMUD shall develop a Fugitive Dust Control Plan (FDCP) for the proposed Project. The FDCP shall be prepared by SMUD prior to the start of construction activities at the substation site and during the decommissioning of the Franklin-Bilby substation. Measures to be included in the plan include, but are not limited to, the following: Water all exposed surfaces at least two times daily when soil moisture conditions have the potential to result in dust generation. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads. Cover or maintain at least two feet of freeboard space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered. Use wet power vacuum street sweepers to remove any visible track out mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited. Limit vehicle speeds on unpaved roads to 15 miles per hour. Temporary construction entrances shall be stabilized to control fugitive dust emissions. The FDCP shall identify a designated person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures, as necessary, to minimize the transport of dust offsite and to ensure compliance with identified fugitive dust control measures. Their duty hours shall include holidays and weekend periods when work may not be in progress. The names and telephone numbers of such persons shall be provided to the Sacramento Metropolitan Air Quality Management District (SMAQMD) Compliance Division prior to the start of any grading, or earthwork. Signs shall be posted at the substation site entrance a minimum of 30 days prior to initiation of Project construction. The signs shall include the following information: (a) Project Name; (b) Anticipated construction schedule(s); and (c) Telephone number(s) for designated construction activity monitor(s) or, if established, a complaint hotline. The designated construction monitor shall document and immediately notify SMUD and SMAQMD of any air quality complaints received. If necessary, the contractor will coordinate with SMUD and SMAQMD to identify any additional feasible measures and/or strategies to be implemented to address public complaints.</td>
<td>Before and during construction</td>
<td>During grading and site preparation phase of construction</td>
<td>Contractor</td>
</tr>
<tr>
<td><strong>Air Quality</strong></td>
<td>Would the project conflict with or obstruct implementation of the applicable air quality plan?</td>
<td><strong>Mitigation Measure AIR-2: Nitrous Oxide (NOx) Reduction Measures</strong> The following SMAQMD-recommended “basic” and “enhanced” measures shall be implemented during substation construction and during the decommissioning of the Franklin-Bilby substation to</td>
<td>Before and during construction</td>
<td>During construction</td>
<td>Contractor</td>
</tr>
<tr>
<td>Checklist Section</td>
<td>Environmental Criteria</td>
<td>Mitigation Measure</td>
<td>Implementation Duration</td>
<td>Monitoring Duration</td>
<td>Responsibility</td>
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<tr>
<td></td>
<td></td>
<td>reduce mobile source emissions of NOx:</td>
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</tbody>
</table>
|                   |                        | **Basic Measures:** Minimize idling time of diesel-powered equipment either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [required by CCR, 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. The equipment must be checked by a certified mechanic and determine to be running in proper condition before initial use in the Project Area. Documentation verifying compliance with this measure shall be retained on site and provided to SMAQMD upon request. When leasing equipment, the contractor shall use alternatively fueled equipment (e.g., electric, propane, etc.), in lieu of diesel- or gasoline-fueled equipment, whenever possible and to the extent available. **Enhanced Measures:** A comprehensive inventory of all off-road construction equipment, equal to or greater than 50 horsepower, that would be used in aggregate of 40 or more hours during substation construction and during the decommissioning of the Franklin-Bilby substation shall be submitted to the SMAQMD. The inventory shall include the horsepower rating, engine model year, and projected hours of use for each piece of equipment. The contractor shall provide the anticipated construction timeline including start date, and name and phone number of the project manager and on-site foreman. This information shall be submitted at least four business days prior to the use of subject heavy-duty off-road equipment. The inventory shall be updated and submitted monthly throughout the duration of the Project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs. A plan shall be submitted to the SMAQMD demonstrating that combined emissions from heavy-duty off-road equipment (50 horsepower or more), construction vehicles, and haul truck to be used during substation construction and during the decommissioning of the Franklin-Bilby substation, including owned, leased, and subcontractor vehicles, will achieve NOx reductions sufficient to demonstrate compliance with the SMAQMD’s maximum allowable mass emissions threshold of 85 pounds per day (lbs/day) of NOx. The plan shall include an inventory of all off-road equipment and haul trucks to be used during construction. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, limitations on the use of off-road equipment and/or haul trucks, changes in
Table A-1 Mitigation Measures

<table>
<thead>
<tr>
<th>Checklist Section</th>
<th>Environmental Criteria</th>
<th>Mitigation Measure</th>
<th>Implementation Duration</th>
<th>Monitoring Duration</th>
<th>Responsibility</th>
<th>Applicable Project Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Schedules</td>
<td>Environmental Criteria</td>
<td>Construction schedules, the payment of mitigation fees to the SMAQMD, and/or other options as they become available. The SMAQMD’s Construction Mitigation Calculator can be used to identify an equipment fleet that achieves this reduction. SMUD shall ensure that emissions from all off-road diesel powered equipment used in the Project Area do not exceed 40% opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately. Non-compliant equipment shall be documented and a summary provided to SMAQMD monthly. A visual survey of all in-operation equipment shall be made at least weekly. A monthly summary of the visual survey results shall be submitted throughout the duration of the Project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed as well as the dates of each survey. In lieu of implementing all or a portion of the above “Enhanced Measures”, a refined emissions modeling analysis can be performed, once more detailed construction information becomes available. The refined analysis shall be conducted in accordance with applicable SMAQMD-recommended methodologies and guidance. Emissions-reduction measures shall be included sufficient to demonstrate compliance with SMAQMD’s maximum allowable mass emissions threshold of 85 lbs/day of NOₓ. The refined analysis shall be reviewed and endorsed by the SMAQMD prior to initiating construction. Based on a preliminary analysis of the proposed Project, the use of newer heavy-duty off-road equipment (i.e., Tier 3 or newer [Environmental Protection Agency 2015]) would be sufficient to reduce construction-generated emissions to below SMAQMD’s maximum allowable mass emissions threshold of 85 lbs/day of NOₓ.</td>
<td></td>
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</tr>
<tr>
<td>Biological Resources</td>
<td>a. Will the project 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</td>
<td>Mitigation Measure BIO-1: Worker Environmental Awareness Training Program</td>
<td>Before construction begins</td>
<td>Before and during construction until all workers are trained</td>
<td>Qualified biologist</td>
<td>SMUD</td>
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<td>Mitigation Measure BIO-2: General Construction Measures</td>
<td>During construction</td>
<td>Throughout construction activities</td>
<td>Contractor</td>
<td>SMUD</td>
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Table A-1 Mitigation Measures

<table>
<thead>
<tr>
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<th>Monitoring Duration</th>
<th>Responsibility</th>
<th>Applicable Project Component</th>
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<td>CDFW or USFWS?</td>
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<td>To the extent possible, construction personnel shall minimize the work area footprint and the duration at a work area site. Construction personnel shall use existing paved and unpaved roads to access the work area where present. Vehicles and equipment shall be parked on pavement, existing roads, and previously disturbed areas to the maximum extent feasible. Trash dumping, littering, open fires (such as barbecues), hunting, and pets shall be prohibited in work areas.</td>
<td>Before construction</td>
<td>Before construction</td>
<td>Qualified biologist</td>
<td>SMUD</td>
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<td></td>
<td></td>
<td><em>Mitigation Measure BIO-3: Pre-construction Special-status Plant Surveys</em></td>
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<td>The following measures shall be implemented in order to avoid impacts to special-status plants during construction of the proposed Project: Pre-construction surveys for special-status plants will be conducted within 250 feet of the Project Area, where access is possible, during the appropriate bloom period for identification. If surveys for special-status plants cannot be completed during the appropriate bloom period, topsoil (upper 2-4 inches) in the appropriate habitat for the unsurveyed specie(s) where ground disturbance will occur will be stockpiled prior to construction and respread after construction in suitable areas. If any special-status plant species are found in the Project Area, orange or yellow construction flagging or fencing will be erected to provide a 20-foot -buffer area around the population to prevent encroachment by construction activities, if possible given the location of the population. The fencing will be maintained until construction is complete. If any special-status plant species are found in the Project Area and avoidance is not possible due to the location of the population, SMUD will consult with the appropriate resource agencies (California Department of Fish and Wildlife [CDFW] and/or California Native Plant Society) to develop mitigation and/or compensation measures needed to reduce the impact to a less than significant level. Where it is not feasible to avoid special-status plant locations within construction areas, seed collection and transplanting shall be performed for annual plant species in suitable areas. If an affected special-status plant is a perennial species, native plant nursery propagation shall be performed as well as planting within suitable areas. All special-status plant restoration and planting areas shall be monitored for a minimum of one year.</td>
<td>Before construction</td>
<td>Before construction</td>
<td>Qualified biologist</td>
<td>SMUD</td>
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<td><em>Mitigation Measure BIO-4: Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp Avoidance and Minimization Measures</em></td>
<td>During construction</td>
<td>During all ground disturbing activities</td>
<td>Qualified biologist/Biological monitor</td>
<td>SMUD</td>
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<td>SMUD will implement the following measures for Project activities that have the potential to directly or indirectly affect Vernal Pool Fairy Shrimp (VPFS) and/or Vernal Pool Tadpole Shrimp (VPTS) and/or their habitat. These measures will be implemented during</td>
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<td>All work in the transmission line and access road work area and during replacement of all subtransmission poles within 250 feet of VPFS/VPTS habitat, which includes the</td>
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Table A-1 Mitigation Measures

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<th>Applicable Project Component</th>
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<td>construction within 250 feet of habitat for VPFS and/or VPTS, except where existing physical barriers, such as roads or railroad tracks, would limit species movement and hydrological connection. All work in or within 250 feet of VPFS and/or VPTS habitat, except where existing physical barriers would limit species movement and hydrological connection, will be performed in the dry season (approximately April 15 through October 15). Should soil moisture be encountered, rubber matting, or similar equivalent, will be used to minimize disturbance. For all work in or within 250 feet of VPFS and/or VPTS habitat, except where existing physical barriers would limit species movement and hydrological connection, a work zone will be identified on construction drawings and/or will be adequately flagged or fenced in the field to limit construction equipment and personnel to the minimum area necessary to perform the proposed work. In areas that have not been previously disturbed, heavy equipment use will be minimized. For pole installations in or within 250 feet of VPFS and/or VPTS habitat, except where existing physical barriers would limit species movement and hydrological connection, SMUD shall backfill the area between the pole and the pole hole with cement. SMUD shall backfill the upper portion with the original native soil excavated from the pole hole commensurate with the topography of the surrounding soil. For pole removal, in or within 250 feet of VPFS and/or VPTS habitat, except where existing physical barriers would limit species movement and hydrological connection, SMUD shall fill the pole hole with clay (native or bentonite) or cement. For pole installations in VPFS and/or VPTS habitat, SMUD shall stockpile the upper four inches of topsoil separately on visqueen or plastic sheets during excavations. When this topsoil is replaced, compaction shall be minimized to the extent consistent with utility standards. Any excess soil will be hauled offsite. A qualified biologist (biological monitor) will be present onsite during all work in or within 250 feet of VPFS and/or VPTS habitat, except where existing physical barriers would limit species movement and hydrological connection, and will inspect any construction-related activities to ensure that no unnecessary ground disturbance or take of species occurs. The biologist will have the authority to stop all activities that may result in such take or destruction until appropriate corrective measures have been completed. The biologist also will be required to report immediately any unauthorized take to the United States Fish and Wildlife Service (USFWS). For all work in or within 250 feet of VPFS and/or VPTS habitat, except where existing physical barriers would limit species movement and hydrological connection, areas of disturbed soil will be reseeded with a native seed mix.</td>
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<td>following poles: UD036566 UD036922 UD036558 UD036560 UD036561 UD036893 UD085203 UD036562 UD087792 UD099220 UD025015 UD170306 UD055201 UD025014 UD036897 UD170305 UD036868 UD036875 UD036749 UD038798 UD038797 UD038796 UD038794 UD038795 UD036748 UD083720 UD055225 UD036900 UD036916 UD036917 UD036920 UD036930 UD036894 UD036551 UD036864 UD036933</td>
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<td>SMUD will mitigate temporary direct impacts to potential VPFS and VPTS habitat by restoring all temporarily affected areas to pre-Project contours.</td>
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<td><strong>Mitigation Measure BIO-5: Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp Compensation Measures</strong></td>
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<td>To compensate for impacts to potential VPFS and VPTS habitat, SMUD will purchase mitigation credits at a 2:1 preservation ratio and 1:1 creation ratio for direct (permanent and temporary) impacts, as well as a 2:1 preservation ratio for indirect effects (in accordance with USFWS 1996) from the SMUD Nature Preserve Mitigation Bank or an alternative USFWS-approved mitigation bank. This mitigation requirement may be refined or superseded by the USFWS biological opinion terms.</td>
<td>Before construction</td>
<td>N/A</td>
<td>SMUD</td>
<td>USFWS</td>
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<td>Before and during pole replacements within 100 feet of an elderberry shrub</td>
<td>Until relevant pole replacement is complete</td>
<td>Contractor, Biological Monitor</td>
<td>SMUD</td>
<td>During replacement of all subtransmission poles within 100 feet of an elderberry shrub, which includes the following poles: UD038799 UD038798</td>
</tr>
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<td><strong>Mitigation Measure BIO-6: Valley Elderberry Longhorn Beetle (VELB) Avoidance and Minimization Measures</strong></td>
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<td>SMUD shall implement the following measures to avoid significant impacts to VELB habitat during construction. The following measures will be applied to all Project activities that fall within 100-feet of an elderberry shrub. These measures will be implemented during the replacement of subtransmission poles UD038799 and UD038798. A biological monitor will be required to supervise construction activities falling within 100-feet of elderberry shrubs and stop work should personnel be out of compliance with the beetle avoidance measures, or if there is a risk that incidental take may occur. The following measures will be applied to all Project activities that fall between 20-feet and 100 feet of an elderberry shrub. These measures will be implemented during the replacement of subtransmission poles UD038799 and UD038798. SMUD shall flag a 20-foot exclusion boundary around each elderberry shrub that is between 20-feet and 100-feet of Project activities related to the replacement of subtransmission poles UD038799 and UD038798. A sign will be posted with the following information: &quot;This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment.&quot; The signs shall be clearly readable and shall be maintained for the duration of construction in this portion of the Project Area. The following measures will be applied to all Project activities that are planned within 20-feet of an elderberry shrub. These measures apply to shrub E-1, which is located 13 feet (at the dripline) from Pole UD038798. SMUD shall flag an exclusion boundary around elderberry shrub E-1. The exclusion boundary will be as large as possible around the shrub while still allowing room for the equipment needed for removal of pole UD038798. A sign will be posted with the following information: &quot;This area is habitat of the valley elderberry longhorn beetle, a threatened species, and must not be disturbed. This species is protected by the Endangered Species Act of 1973, as amended. Violators are subject to prosecution, fines, and imprisonment.&quot; The signs shall be clearly readable and shall be maintained for the duration of construction in this portion of the Project Area.</td>
<td>Before and during pole replacements within 100 feet of an elderberry shrub</td>
<td>Until relevant pole replacement is complete</td>
<td>Contractor, Biological Monitor</td>
<td>SMUD</td>
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**SMUD**
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<td><strong>Mitigation Measure BIO-7: Giant Garter Snake and Western Pond Turtle Avoidance and Minimization Measures</strong></td>
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<td>SMUD will implement the following avoidance measures before and/or during replacement of subtransmission poles located within 200 feet of potential aquatic habitat for giant garter snake and during any Project activity within 560 feet of potential aquatic habitat for western pond turtle, except where existing physical barriers would limit species movement and hydrologic connection. Replacement of poles within 200 feet of giant garter snake aquatic habitat will occur between May 1 and October 1. This is the active period for giant garter snakes and direct mortality is not anticipated because snakes are expected to actively move and avoid danger. 24-hours prior to construction activities, the portion of the Project area within 200 feet of potential aquatic habitat for giant garter snake will be surveyed for giant garter snakes and the area within 560 feet of potential aquatic habitat for western pond turtle will be surveyed for western pond turtles by a qualified biologist. Surveys of these areas will be repeated if a lapse in construction activity of two weeks or greater has occurred. If a snake or turtle is encountered during construction, activities shall cease until incidental take authorization is received and appropriate corrective measures have been completed, or it has been determined that the snake or turtle will not be harmed. Sightings will be reported immediately to the appropriate agency (USFWS and/or CDFW). When possible, SMUD will avoid construction activities within 200 feet from the banks of giant garter snake aquatic habitat and within 560 feet from the banks of western pond turtle habitat.</td>
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<td>Before and during replacement of poles</td>
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<td>Until relevant pole replacement is complete</td>
<td>Contractor, Biological Monitor</td>
<td>Giant garter snake measures apply during replacement of the following subtransmission poles: UD025027 UD038066 UD038028 UD036921 UD036922 UD038800 UD159146 UD168593 Western pond turtle measures apply at southern portion of substation site (within 560 feet of irrigation basin south of the substation site) and during replacement of the following subtransmission poles: UD149856 UD159300 UD038799 UD025027 UD038066 UD038028 UD036920 UD036921 UD036922 UD036923 UD038800 UD159146 UD168593 UD038065 UD038686 UD038867 UD038868 UD025026</td>
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### Table A-1 Mitigation Measures

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<td><strong>UD036740</strong></td>
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<td><strong>UD036733</strong></td>
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<td><strong>UD036735</strong></td>
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<td><strong>UD036731</strong></td>
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**Mitigation Measure BIO-8: Avoid Disturbance or Harm to Wildlife Species**

Following preconstruction surveys and Project initiation, it is possible that wildlife species could subsequently enter or return to the Project Area. The following measures will be implemented to avoid disturbance or harm to these species:

- If any special-status species or other wildlife species are observed in the Project Area during construction, construction will cease until the species is allowed to move out of harm's way on their own accord. If they cannot be allowed to move out of harm's way on their own accord, SMUD field crews shall contact SMUD Environmental Management at (916) 732-5836, who will report the sighting to the appropriate agency (USFWS and/or CDFW). SMUD Environmental Management will have authority to stop activities until appropriate corrective measures have been completed or it is determined that the individual will not be harmed. Capture and relocation of trapped or injured species can only be attempted by agency-approved biologists.

**Mitigation Measure BIO-9: Tricolored Blackbird Protection**

The following measures shall be implemented in order to avoid impacts to nesting tricolored blackbird and other nesting species (e.g., yellow-headed blackbird) during construction of the proposed Project.

- To the extent feasible, SMUD will schedule Project activities that occur within 500 feet of potential nesting habitat to avoid the tricolored blackbird nesting season (generally between mid-March and early August).
- If Project activities within 500 feet of potential tricolored nesting habitat will occur during the tricolored blackbird breeding season (generally between mid-March and early August), a qualified biologist will conduct a preconstruction survey for tricolored blackbird colonies and other nesting birds (e.g., yellow-headed blackbird) no more than 15 days before the onset of activities. Surveys will be conducted within potential tricolored blackbird nesting habitat located within 500 feet of the Project Area, focusing on areas within seasonal stream, seasonal wetland, emergent marsh, riparian woodland, and bramble habitats that have the required characteristics for tricolored blackbird breeding sites (nesting substrate with dense and/or thorny vegetation, near open accessible water).
- If a tricolored blackbird colony or other special-status bird nest is located, activities shall cease until after the nesting season (generally between mid-March and early August). Activities shall stop at least 15 days before the onset of activities for tricolored blackbird nesting sites (nesting substrate with dense and/or thorny vegetation, near open accessible water).
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<td>detected in the Project vicinity, an agency-approved biologist shall establish a buffer around the colony or nest. The buffer location shall be based on the distance at which the approved biologist, in consultation with CDFW, determines tricolored blackbird would not be harassed by the proposed Project. No Project activities shall occur within this buffer until young have fledged or the colony is no longer using the nesting site.</td>
<td>Before construction</td>
<td>Before and during construction activities</td>
<td>Qualified biologist SMUD, CDFW</td>
<td>UD039923 UD035666 UD038799 UD156844 UD168936</td>
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<td>Mitigation Measure BIO-10: Burrowing Owl Protection</td>
<td>Before construction</td>
<td>Before and during construction activities</td>
<td>Qualified biologist SMUD, CDFW</td>
<td>UD039923 UD035666 UD038799 UD156844 UD168936</td>
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<td>The following measures shall be implemented in order to avoid impacts to burrowing owl during construction of the proposed Project. A biologist shall conduct a survey for burrowing owls within potential burrowing owl habitat in the Project Area and a 500-foot buffer, no more than 14 days prior to start of the Project following the methods described in Appendix D of the CDFW Staff Report on Burrowing Owl Mitigation (2012). If the biologist finds an active burrowing owl nest, the biologist shall establish a buffer around the site. The buffer location shall be based on the CDFW Staff Report on Burrowing Owl Mitigation (2012) or the distance at which the biologist, in consultation with CDFW, determines that burrowing owls would not be harassed by the proposed Project. If the survey finds an active burrowing owl nest in an area that cannot be avoided due to spatial restrictions, burrowing owls may be passively relocated in accordance with the CDFW Staff Report on Burrowing Owl Mitigation (2012). If passive relocation is necessary, artificial or natural burrows should be in close proximity (100 meters) from the eviction site. If owls reappear on site, SMUD field crews shall notify SMUD Environmental Management. If passive relocation is necessary, SMUD will mitigate for impacts to burrowing owl habitat in consultation with CDFW and such that the habitat acreage, number of burrows, and burrowing owls impacted are replaced based on the information provided in Appendix A of the CDFW Staff Report on Burrowing Owl Mitigation (2012).</td>
<td>Before construction</td>
<td>Before and during construction activities</td>
<td>Qualified biologist SMUD, CDFW</td>
<td>UD039923 UD035666 UD038799 UD156844 UD168936</td>
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<td>Mitigation Measure BIO-11: Swainson’s Hawk Compensation Measures</td>
<td>Before construction</td>
<td>N/A</td>
<td>SMUD Sacramento County</td>
<td>Substation construction</td>
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<td>The following measures shall be implemented to fully compensate for the permanent loss of foraging habitat for Swainson’s hawk expected to result from the proposed Project.</td>
<td>Before construction</td>
<td>N/A</td>
<td>SMUD Sacramento County</td>
<td>Substation construction</td>
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<td>SMUD shall participate in Sacramento County’s Swainson’s Hawk Mitigation Fee program to offset permanent loss of approximately 17 acres of Swainson’s hawk foraging habitat resulting from construction of the proposed substation in accordance with the provisions of Chapter 16.130 of the County Code.</td>
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<td><strong>Mitigation Measure BIO-12. Avian-safe Pole and Substation Configuration</strong></td>
<td>During final design</td>
<td>N/A</td>
<td>SMUD</td>
<td>SMUD</td>
<td>All subtransmission and transmission pole work</td>
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<td>The following measures shall be implemented to minimize the risk of collision or electrocution associated with operation of the proposed Project. Replacement and newly constructed poles will be designed using avian-safe configurations, as applicable, as described in SMUD’s existing Avian Protection Plan.</td>
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<td><strong>Mitigation Measure BIO-13. Clean Water Act Permitting</strong></td>
<td>Before construction</td>
<td>Before and during construction activities</td>
<td>SMUD</td>
<td>Corps, RWQCB</td>
<td>All Project components</td>
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<td>SMUD will obtain relevant CWA permits (Section 404 and 401). All proposed discharges of dredge or fill material into waters of the U.S. will first be authorized by the United States Army Corps of Engineers (Corps), pursuant to Section 404 of the CWA. All Corps permit conditions will be implemented. Pursuant to Section 401 of the CWA, SMUD will obtain Water Quality Certification from the RWQCB for the proposed Project. All conditions identified in this certification will be implemented.</td>
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<td><strong>Mitigation Measure BIO-14. Avoid Wetlands during Subtransmission Line Pole Replacement and Future Subtransmission Line Pole Installation</strong></td>
<td>Before Construction</td>
<td>Before and during construction activities</td>
<td>SMUD</td>
<td>Corps, USFWS</td>
<td>Subtransmission line work</td>
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<td>During final design for the 69kV subtransmission line pole replacements along Franklin Boulevard and future subtransmission line installation to serve the Kammerer Road Extension Project area, SMUD shall avoid and minimize impacts to wetlands to the extent practicable when siting new poles.</td>
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<td><strong>Mitigation Measure BIO-15. Compensate for Permanent Loss of Wetlands</strong></td>
<td>Before Construction</td>
<td>N/A</td>
<td>SMUD</td>
<td>Corps, USFWS</td>
<td>All Project components</td>
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<td>SMUD will compensate for the permanent loss of wetland habitat through the purchase of mitigation credits at a 1:1 creation ratio from the SMUD Nature Preserve Mitigation Bank or an alternative Corps-approved mitigation bank. This mitigation may be obtained through the VPFS and VPTS credits described in Mitigation Measure BIO-5. This mitigation requirement may be refined or superseded by the terms of the Corps Section 404 permit for the Project.</td>
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<td><strong>Mitigation Measure CUL-1: Worker Environmental Awareness Training for Cultural and Paleontological Resources</strong></td>
<td>Before and throughout construction</td>
<td>Train all employees</td>
<td>Contractor</td>
<td>SMUD</td>
<td>All Project components</td>
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<td>During any excavation or other substantial subsurface disturbance activities, individuals conducting the work will be advised to watch for cultural and paleontological resource materials. If workers observe any evidence of prehistoric cultural resources (freshwater shells, beads, bone tool remnants or an assortment of bones, soil changes</td>
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<p>| Cultural Resources | a, b, or c. Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5; | | | | | | |
|                   | <strong>Mitigation Measure CUL-1: Worker Environmental Awareness Training for Cultural and Paleontological Resources</strong> | | | | | | |
|                   | During any excavation or other substantial subsurface disturbance activities, individuals conducting the work will be advised to watch for cultural and paleontological resource materials. If workers observe any evidence of prehistoric cultural resources (freshwater shells, beads, bone tool remnants or an assortment of bones, soil changes | | | | | | |</p>
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<th>Responsibility Monitoring</th>
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<tr>
<td>cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5, or cause a substantial adverse change in the significance of a tribal cultural resource as defined in §21074?</td>
<td>including subsurface ash lens or soil darker in color than surrounding soil, lithic materials such as flakes, tools or grinding rocks, etc., historic cultural resources (adobe foundations or walls, structures and remains with square nails, refuse deposits or bottle dumps, often associated with wells or old privies), or paleontological resources (fossils), all work must immediately cease, and a qualified archaeologist or paleontologist, as appropriate, must be consulted to assess the significance of the cultural or paleontological materials.</td>
<td>Mitigation Measure CUL-2: Extended Phase I Subsurface Investigation Subsurface testing will be completed at the proposed Franklin Substation site prior to construction. During the cultural resources pedestrian survey, an isolate handstone was identified east of the substation site, and during initial tribal coordination, Native American parties expressed concern that additional resources might be present on the property. The subsurface testing is designed to identify any potentially obscured cultural resources prior to construction so that archaeological and Native American monitoring is not necessary during the construction phase at the substation site and late discoveries do not lead to costly delays once construction has begun. Subsurface testing will involve excavating backhoe trenches to identify any subsurface archaeological materials. Both a Native American monitor and a paleontological resources monitor will be present during this investigation. Results of the investigation will be documented in a Extended Phase I Subsurface Excavation Report and submitted to the Corps for use in review under Section 106 of the National Historic Preservation Act.</td>
<td>Before construction</td>
<td>N/A</td>
<td>SMUD</td>
<td>Corps, SHPO</td>
<td>Substation construction</td>
</tr>
<tr>
<td></td>
<td>Mitigation Measure CUL-3: Cultural Monitor at Transmission Line and Access Road Area Based on the results of the pedestrian survey, which identified an isolate handstone east of the railroad tracks just south of Bilby Road, a qualified archaeologist will monitor earth-moving activities (grubbing, vegetation clearance, excavating, trenching, etc.) in the access road and transmission line area east of the railroad tracks. If requested by the Wilton Rancheria, a Native American monitor also will be present during any ground disturbance in this area.</td>
<td>During construction of access road and transmission poles</td>
<td>Until all earth-moving activities are complete or reach maximum depth</td>
<td>Qualified archaeologist</td>
<td>SMUD</td>
<td>Access road improvements and transmission line pole placement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mitigation Measure CUL-4: Archaeological and Native American Monitor SMUD will retain on-call archaeological and Native American monitors to respond to potential finds during Project construction. If potential archaeological or tribal cultural resources are uncovered during any on-site construction activities, all work must stop immediately within 100 feet of the area and the on-call monitors shall evaluate the deposits. Work in the area may resume after authorization is granted by SMUD’s project manager in consultation with the professional archaeologist and Native American monitor.</td>
<td>During construction</td>
<td>Until all earth-moving activities are complete or reach maximum depth</td>
<td>Qualified archaeologist</td>
<td>SMUD</td>
<td>All Project components</td>
<td></td>
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### Table A-1 Mitigation Measures

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<tr>
<th>Checklist Section</th>
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<th>Mitigation Measure</th>
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<th>Responsibility</th>
<th>Applicable Project Component</th>
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<tr>
<td>Cultural Resources</td>
<td>c. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?</td>
<td>Mitigation Measure CUL-5: Geodetic Survey Marker Replacement</td>
<td>SMUD shall maintain the Geodetic Survey elevation marker to its current position adjacent to pole power pole UD038794.</td>
<td>After pole replacement</td>
<td>Contractor</td>
<td>SMUD</td>
</tr>
<tr>
<td>Cultural Resources</td>
<td>d. Would the project disturb any human remains, including those interred outside of formal cemeteries?</td>
<td>Mitigation Measure CUL-6: Paleontologic Monitor</td>
<td>SMUD will retain an on-call paleontologist to respond to potential finds during Project construction. If paleontological resources are uncovered during any on-site construction activities, all work must stop immediately within 100 feet of the area and a Professional Paleontologist shall be retained to evaluate the deposits. The Paleontologist will be responsible for assessing any evidence of paleontological resources encountered during construction. Work in the area may resume after authorization is granted by SMUD’s project manager in consultation with the Professional Paleontologist.</td>
<td>During construction</td>
<td>During earthmoving activities until maximum depth is reached</td>
<td>Qualified paleontologist</td>
</tr>
<tr>
<td>Cultural Resources</td>
<td>b. Would the project result in substantial soil erosion or the loss of topsoil?</td>
<td>Mitigation Measure GEO-1: Storm Water Pollution Protection Plan</td>
<td>Before any ground-disturbing activities, SMUD shall apply for and maintain coverage under the State of California General Construction Storm Water Permit. SMUD shall prepare and implement a SWPPP that includes erosion control measures and construction waste containment measures to ensure that waters of the U.S. and the State are protected during and after Project construction. The SWPPP shall include site design measures to minimize offsite storm water runoff that might otherwise affect surrounding habitats. The SWPPP would also include a Spill Prevention and Response Plan (SPRP) and a construction-specific Hazardous Substance Control and Emergency Response Plan</td>
<td>Before construction</td>
<td>Before and during construction activities</td>
<td>Contractor</td>
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</tbody>
</table>

## Cultural Resources

### c. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

**Mitigation Measure CUL-5: Geodetic Survey Marker Replacement**

SMUD shall maintain the Geodetic Survey elevation marker to its current position adjacent to pole power pole UD038794.

- **Implementation Duration**: After pole replacement
- **Monitoring Duration**: Until relevant pole replacement is complete
- **Responsibility**: Contractor
- **Applicable Project Component**: SMUD | Replacement of subtransmission pole UD038794

### d. Would the project disturb any human remains, including those interred outside of formal cemeteries?

**Mitigation Measure CUL-6: Paleontologic Monitor**

SMUD will retain an on-call paleontologist to respond to potential finds during Project construction. If paleontological resources are uncovered during any on-site construction activities, all work must stop immediately within 100 feet of the area and a Professional Paleontologist shall be retained to evaluate the deposits. The Paleontologist will be responsible for assessing any evidence of paleontological resources encountered during construction. Work in the area may resume after authorization is granted by SMUD’s project manager in consultation with the Professional Paleontologist.

- **Implementation Duration**: During construction
- **Monitoring Duration**: During earthmoving activities until maximum depth is reached
- **Responsibility**: Qualified paleontologist
- **Applicable Project Component**: SMUD | All Project components

## Geology and Soils

### b. Would the project result in substantial soil erosion or the loss of topsoil?

**Mitigation Measure GEO-1: Storm Water Pollution Protection Plan**

Before any ground-disturbing activities, SMUD shall apply for and maintain coverage under the State of California General Construction Storm Water Permit. SMUD shall prepare and implement a SWPPP that includes erosion control measures and construction waste containment measures to ensure that waters of the U.S. and the State are protected during and after Project construction. The SWPPP shall include site design measures to minimize offsite storm water runoff that might otherwise affect surrounding habitats. The SWPPP would also include a Spill Prevention and Response Plan (SPRP) and a construction-specific Hazardous Substance Control and Emergency Response Plan.

- **Implementation Duration**: Before construction
- **Monitoring Duration**: Before and during construction activities
- **Responsibility**: Contractor
- **Applicable Project Component**: RWQCB | Construction of substations, decommissioning of Franklin-Bilby Substation, and transmission pole work, including access road improvements
Table A-1 Mitigation Measures

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| (HSCERP) to minimize the potential for accidental releases of hazardous materials into the environment. The SWPPP shall be prepared with the following objectives: (a) to identify pollutant sources, including sources of sediment, that may affect the quality of storm water discharges from the construction of the Project; (b) to identify best management practices (BMPs) to reduce or eliminate pollutants in storm water discharges and authorized non-storm water discharges from the site during construction; (c) to outline and provide guidance for BMPs monitoring; (d) to identify Project discharge points and receiving waters; (e) to address post-construction BMPs implementation and monitoring; and (f) to address sedimentation, siltation, turbidity, and non- visually detectable pollutant monitoring, and outline a sampling and analysis strategy. The contractor shall implement the SWPPP including all BMPs and perform inspections of all BMPs. Potential SWPPP BMPs could include, but would not be limited to the following:

- Placing fiber rolls around onsite drain inlets to prevent sediment and construction-related debris from entering inlets.
- Placing fiber rolls along the perimeter of the site to reduce runoff flow velocities and prevent sediment from leaving the site.
- Placing silt fences down-gradient of disturbed areas to slow down runoff and retain sediment.
- Stabilizing construction entrance to reduce the tracking of mud and dirt onto public roads by construction vehicles.
- Staging and covering excavated and stored construction materials and soil stockpiles in stable areas to prevent erosion.
- The construction-specific SPRP and HSCERP shall include preparations for quick and safe cleanup of accidental spills. It shall prescribe hazardous-materials handling procedures for reducing the potential for a spill during construction, and shall include an emergency response program to ensure quick and safe cleanup of accidental spills. The plan shall identify areas where refueling and vehicle maintenance activities and storage of hazardous materials, if any, will be permitted, with secondary containment. Construction personnel shall not refuel or conduct equipment maintenance activities within 250 feet of any aquatic features. The SPRP and HSCERP shall identify BMPs in the event a spill occurs. BMPs may include, but are not limited to the following: use of oil-absorbent materials, tarp, and storage drums to contain and control any minor releases; and storage and use of emergency-spill supplies and equipment in locations adjacent to work and staging areas.

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<tr>
<th>Greenhouse Gas Emissions</th>
<th>a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a</th>
<th>Mitigation Measure GHG-1: Greenhouse Gas Reduction Measures</th>
<th>Before and during construction</th>
<th>Contractor</th>
<th>SMUD and SMAQMD</th>
<th>Construction of substations, decommissioning of Franklin-Bilby Substation, and transmission pole work, including access road</th>
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Greenhouse Gas Emissions a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a
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<td>significant effect on the environment?</td>
<td>used in the construction Project, including owned, leased, and subcontractor vehicles, will achieve GHG reductions sufficient to demonstrate compliance with the SMAQMD’s maximum allowable mass emissions threshold of 1,100 metric tons of CO2 equivalents per year (MTCO$_2$e/year). The plan shall include an inventory of all off-road equipment and haul trucks to be used during construction. Acceptable options for reducing emissions may include, but is not limited to, the use of alternative fuels, changes in construction schedules, the phasing of haul truck trips and/or other options as they become available. In lieu of implementing the above measure, a refined emissions modeling analysis can be performed, once more detailed construction information becomes available. The refined analysis shall be conducted in accordance with applicable SMAQMD-recommended methodologies and guidance. Emissions-reduction measures shall be included sufficient to demonstrate compliance with SMAQMD’s mass emissions threshold of 1,100 MTCO$_2$e/year. The refined analysis shall be reviewed and endorsed by the SMAQMD prior to initiating construction.</td>
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<td>a, b. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; or create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?</td>
<td>Mitigation Measure HAZ-1: Worker Training for Hazardous Materials</td>
<td>SMUD shall establish an environmental training program to communicate environmental concerns and appropriate work practices to all field personnel, including spill prevention, emergency response measures, and proper BMP implementation. All personnel will review all site-specific plans, including, but not limited to, the Project’s SWPPP, health and safety plan (as required by Office of Safety and Health Administration), and FDCP. The training program could coincide with WEAT, as described in Mitigation Measure BIO-1.</td>
<td>Before construction begins</td>
<td>Before and during construction until all workers are trained</td>
<td>Contractor</td>
<td>SMUD</td>
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<td></td>
<td>Mitigation Measure HAZ-2: Spill Prevention, Control, and Countermeasures Plan</td>
<td>SMUD shall prepare and maintain an operation-specific Spill Prevention, Control, and Countermeasures Plan (SPCC Plan) in accordance with state and federal requirements, including 40 CFR 112. The SPCC Plan shall identify engineering and containment measures for preventing oil releases into waterways. An SPCC Plan is required when there is over 1,320 gallons of petroleum products on site (excluding vehicles).</td>
<td>Before substation construction is complete</td>
<td>During substation operation</td>
<td>SMUD</td>
<td>SMUD</td>
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<td>Mitigation Measure HAZ-3: Hazardous Materials Business Plan</td>
<td>SMUD will evaluate applicability of the Hazardous Materials Business Plan (HMBP) requirements (the Project would use or store hazardous materials equal to or greater than 55 gallons of liquids, 500 pounds of solids and/or 200 cubic feet [at standard temperature and pressure] of compressed gases) and file operation-specific HMBP in accordance with local, state, and federal laws. The HMBP</td>
<td>Before substation construction is complete</td>
<td>During substation operation</td>
<td>SMUD</td>
<td>SMUD and Sacramento County EMD</td>
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Hazards and Hazardous Materials
Table A-1 Mitigation Measures

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<th>Responsibility Monitoring</th>
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<td>shall identify site activities, provide an inventory of hazardous materials used onsite, provide a facilities map, and identify an emergency response plan/contingency plan.</td>
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Appendix A. Draft Initial Study and Mitigated Negative Declaration for the Franklin Electric Transmission Project, April 2016

on enclosed CD or available at SMUD website for CEQA Reports: