
# Proponent's Environmental Assessment for LS Power Grid California, LLC's *Gates 500 kV Dynamic Reactive Support Project*

February 2021

The Proposed Project was approved by the California Independent System Operator Corporation (CAISO) to ensure the reliability of the CAISO controlled grid and includes a +/-848 million volt-amperes, reactive (MVAR) dynamic reactive device to be installed in a minimum of two equally sized Static Synchronous Compensator (STATCOM) units that would be independently connected to the existing Pacific Gas and Electric Company's (PG&E) Gates 500 kV Substation.

The Proposed Project site is approximately 20 acres located in Fresno County, California.

**Application A-__-__-__ to the California Public Utilities Commission**

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**Acronyms**

AADT – annual average daily traffic
AB – Assembly Bill
AC – Alternating Current
ACC – Advanced Clean Cars
ACOE – Army Corps of Engineers
AE – Exclusive Agricultural District
AERMOD – Air Quality Dispersion Modeling
AMP – Applicant Proposed Measures
AMSL – Above Mean Sea Level
APE – Area of Potential Effects
APLIC – Avian Power Line Interaction Committee
AQMDs – Air Quality Management Districts
AST – above-ground storage tank
ASTM – American Society for Testing Materials
BAAH – Breaker and a Half
BAT – best available technology
BAU – "Business-As-Usual"
BCC – Bird of Conservation Concern
BCE – Before the Common Era
BCT – best control technology
BGEPA – Bald and Golden Eagle Protection Act
BGS – Below Ground Surface
BLM – Bureau of Land Management
BMP – Best Management Practices
BPS – Best Performance Standards
CAA – Clean Air Act
CAAQS – California Ambient Air Quality Standards
CAFÉ – Corporate Average Fuel Economy Standards
CAISO – California Independent System Operator Corporation
CAL FIRE – California Department of Forestry and Fire Prevention
Cal/OSHA – California Division of Occupational Safety and Health Administration
CalEEMod – California Emissions Estimator Model
CalEPA – California Environmental Protection Agency
Caltrans – California Department of Transportation
CARB – California Air Resource Board
CBC – California Building Code
CCAP – Climate Change Action Plan
CCAs – community choice aggregators
CCR – California Code of Regulations
CDC – Center for Disease Control
CDPH – California Department of Public Health
CEQA – California Environmental Quality Act
CERCLA – Comprehensive Environmental Response, Compensation, Liability Act
CESA – California Endangered Species Act
CFGC – California Fish and Game Code Protected
CFP – California Fully Protected

CFR – Code of Federal Regulations
CGP – Construction General Permit
CGS – California Geological Survey
CHP – California Highway Patrol
CHRIS – California Historical Resources Information System
CIP – Critical Infrastructure Protection
CNBBD – California Natural Diversity Database
CNPS – California Native Plant Society
COG – Council of Governments
COPD – Chronic Obstructive Pulmonary Disease
CPCN – Certification of Public Necessity and Convenience
CPUC – California Public Utilities Commission
CNEL – Community Noise Equivalent Level
CRECs – controlled recognized environmental conditions
CRHR – California Register of Historic Resources
CSSC – California Species of Special Concern
CUPA – Certified Unified Program Agency
CVRWQCB – Central Valley Regional Water Quality Control Board
CWA – Clean Water Act
CWHR – California Wildlife Habitat Relations
CY – Cubic Yards
DOC – Department of Conservation
DOOR – Diesel Off-Road Online Reporting System
DOT – Department of Transportation
DPM – Diesel Particulate Matter
DTSC – Department of Toxic Substances Control
DWR – Department of Water Resources
EAP – Energy Action Plan
EFZ – Earthquake Fault Zones
EIR – Environmental Impact Report
EISA – Energy Independence and Security Act
EMS – Emergency Medical Services
EO – Executive Order
EPA – Environmental Protection Agency
EPCA – Energy Policy and Conservation Act
EPCRA – Emergency Planning Community Right-to-Know Act
ERO – Electric Reliability Organization
ESA – Endangered Species Act
ESPs – Electric Service Providers
ESRI – Environmental System Research Institute
ESRP – Endangered Species Recovery Program
FAA – Federal Aviation Administration
FCFPD – Fresno County Fire Protection District
FCHIP – Fresno County Health Improvement Partnership
FE – Federally Endangered
FEMA – Federal Emergency Management Agency
FERC – Federal Energy Regulatory Commission
FHSZ – Fire Hazard Severity Zone

FIRM – Flood Insurance Rate Map
FMMP – Farmland Mapping and Monitoring Program
FT – Federally Threatened
GHG – Greenhouse Gas
GIB – Gas Insulated Bus
GSA – Groundwater Sustainability Agency
GWP – Global Warming Potential
HAZCOM – Hazardous Materials Communication
HCP – Habitat Conservation Plan
HFCs – Hydrofluorocarbons
HMBP – Hazardous Material Business Plan
HMMP – Hazardous Materials Management Plan
HP – Horse Power
HRECs – Historical Recognized Environmental Conditions
HSAA – Hazardous Substance Account Act
HVAC – Heating, Ventilation And Air Conditioning
HWCL – Hazardous Waste Control Law
IGBT – Insulated Gas Bipolar Transistor
IOUs – investor-owned utilities
IPaC – Information for Planning and Consulting
IPCC – Intergovernmental Panel on Climate Change
ISR – Indirect Source Review
KOP – Key Observation Points
kV – Kilovolt
kW – Kilowatt
kWH – Kilowatt Hour
LAN – Local Area Network
LEV – Low-Emission Vehicle
LLC – Limited Liability Company
LOS – Level of Service
LRA – Local Responsibility Area
LSPGC – LS Power Grid California, LLC
LTE – Long Term Evolution
MBTA – Migratory Bird Treaty Act
MEI – Maximally Exposed Individual
MEIR – Master Environmental Impact Report
MMT – Million Metric Tons
MND – Mitigated Negative Declaration
MPH – Miles Per Hour
MPOs – Metropolitan Planning Organizations
MRZ – Mineral Resource Zone
MT - Metric Tons
MVAR – Million Volt-Amperes Reactive
MW – Megawatts
NAAQS – National Ambient Air Quality Standards
NCCP – Natural Community Conservation Plan
NCP – National Contingency Plan
NEC – National Electrical Code

NEMA – National Electrical Manufacturers Association
NEPA – National Environmental Policy Act
NERC – North American Electric Reliability Corporation
NESC – National Electric Safety Code
NFIP – National Flood Insurance Program
NFPA – National Fire Protection Association
NHPA – National Historic Preservation Act
NOI – Notice of Intent
NOP – Notice of Preparation
NPDES – National Pollutant Discharge Elimination System
NPPA – Native Plant Protection Act
NRCS – Natural Resources Conservation Service
NRHP – National Register of Historic Places
NWI – National Wetlands Inventory
O&M – Operation and Maintenance
OEHHA – Office of Environmental Health Hazard Assessment
OES – Office of Emergency Services
OHB – Occupational Health Branch
OHP – Office of Historic Preservation
OHWM – Ordinary High Water Mark
PEA – Proponent's Environmental Assessment
PFCs – Perfluorocarbons
PG&E – Pacific Gas and Electric
PLSS – Public Land Survey System
POCO – Point of Change Ownership
POUs – Public Owned Utilities
PPB – Parts Per Billion
PPE – Personal Protective Equipment
PPM – Parts Per Million
PPV – Peak Particle Velocity
PRC – Public Resources Code
PTC – Permit to Construct
PU – Public Utilities
PVC – polyvinyl chloride
QSP – qualified stormwater pollution prevention plan practitioner
RCRA – Resource Conservation and Recovery Act
RECs – Recognized Environmental Conditions
REL – Reference Exposure Levels
ROG – Reactive Organic Gases
ROW – Rights-of-Way
RPS – Renewable Portfolio Standard
RPS – Renewable Power Sources
RTP – Regional Transportation Plan
RV – recreational vehicle
RWQCBs – Regional Water Quality Control Boards
SB – Senate Bill
SCADA – Supervisory Control and Data Acquisition
SCAQMD – South Coast Air Quality Management District

SCS – Sustainable Communities Strategy
SDNHM – San Diego Natural History Museum
SDS – Safety Data Sheets
SE – State Threatened
SEMS – Standardized Emergency Management System
SIP – State Implementation Plan
SJVAB – San Joaquin Valley Air Basin
SJVAPCD – San Joaquin Valley Air Quality Management District
SJVR – San Joaquin Valley Railroad
SLF – Sacred Lands File
SMARA – Surface Mining and Reclamation Act of 1975
SMARTS – Stormwater Multiple Application and Report Tracking System
SMCRA – Surface Mining Control and Reclamation Act
SMJUs – Small and Multi-Jurisdictional Utilities
SPCCP – Spill Prevention, Control, and Countermeasure Plan
SPRR – Southern Pacific Railroad
SR – State Route
SRA – State Responsibility Area
SSJVIC – Southern San Joaquin Valley Information Center
ST – State Endangered
STATCOM – Static Synchronous Compensator
SVP – Society of Vertebrate Paleontology
SWHA – Swainsons's Hawk
SWPPP – Storm Water Pollution Prevention Plan
SWRCB – State Water Resources Control Board
TACs – Toxic Air Contaminants
TCR – Tribal Cultural Resources
TMDL – Total Maximum Daily Loads
TMP – Traffic Management Plan
TOC – Table of Contents
TPP – Transmission Planning Process
TSPs – Tubular Steel Poles
UCMP – University of California Museum of Paleontology
USA – Underground Service Alert
USACE – United States Army Corps of Engineers
USDA – United States Department of Agriculture
USDOI – United Sates Department of the Interior
USEPA – U.S. Environmental Protection Agency
USFWS – United State Fish and Wildlife Service
USGS – United States Geological Survey
VHFHSZ – Very High Fire Hazard Severity Zone
VDE – Visible Dust Emission
VMT – vehicle miles traveled
WAN – Wide Area Network
WBWG – Western Bat Working Group
WEAP – Workers Environmental Awareness Program
ZEV – Zero Emission Vehicl

# 1.0 EXECUTIVE SUMMARY

## 1.1 PROPOSED PROJECT SUMMARY

LS Power Grid California, LLC (LSPGC), an indirect subsidiary of LS Power, established to own and operate transmission projects in California, is proposing the Gates 500 kilovolt (kV) Dynamic Reactive Support Project (Proposed Project). The Proposed Project is located within an existing regional transmission system that provides electricity to the greater Fresno area. The Proposed Project site is approximately 20 acres of land, located directly north, and adjacent to, the existing Pacific Gas and Electric (PG&E) Gates Substation in Fresno County, California.

The Proposed Project was identified by the California Independent System Operator Corporation (CAISO) in its 2018-2019 Transmission Plan as a "reliability-driven" project that would address and mitigate voltage support issues by providing system stability and reliability. Studies prepared by the CAISO identified high voltages on the 500 kV Diablo, Gates, and Midway buses starting when Diablo Canyon Nuclear Generation Station (Diablo Canyon) retires, currently scheduled for 2024 for Unit 1 and 2025 for Unit 2. Due to transmission overloading, support is needed at the PG&E Gates Substation to mitigate both high voltages after the Diablo Canyon nuclear generating units retire and high voltages under off-peak conditions prior to its retirement.

The Proposed Project would facilitate system stability and reliability through the construction of a dynamic reactive power support substation providing approximately +/-848 million volt-amperes, reactive (MVAR) dynamic reactive capability to be installed in a minimum of two, equally sized Static Synchronous Compensator (STATCOM) units. Each STATCOM unit would be independently connected to the existing PG&E Gates Substation 500 kV bus by new interconnection facilities to be built by PG&E.

The Proposed Project's purpose is to provide dynamic reactive power support at the PG&E Gates Substation in Fresno County, California. The Proposed Project would:

- Ensure the reliability of a major portion of the CAISO controlled grid;
- Provide cost-effective voltage control and other electric transmission grid benefits;
- Support the provision of safe, reliable, and adequate electricity service to the PG&E service territory; and
- Ensure reliable operation of the grid by facilitating the importation and use of renewable electricity to fulfill California's energy polices and goals.

The Proposed Project was selected because it best meets all the project objectives and minimizes environmental impacts. Major Proposed Project objectives include:

- Meet the CAISO's reliability-driven need for dynamic reactive power support at the PG&E Gates Substation's 500 kV bus identified in the CAISO's powerflow and stability studies and deliverability goals;
- Meet the technical specifications set forth by the CAISO for a 500 kV dynamic reactive power support system located near or adjacent to the existing PG&E Gates Substation;

- Achieve commercial operation by June 2024 in order to support PG&E's decommissioning of the Diablo Canyon nuclear generating units (scheduled to begin in 2024);

- Improve and maintain the reliability of the transmission grid by providing dynamic reactive power support, and increase deliverability of renewable power, by building and operating a facility that would help keep transmission voltages within specified parameters, reduce transmission losses, increase reactive margin for the system bus, increase transmission capacity, provide a higher transient stability limit, increase damping of minor disturbances, and provide greater voltage control and stability; and

- Facilitate deliverability of load from existing and proposed renewable generation projects in the Central Valley area and corresponding progress toward achieving California's Renewables Portfolio Standard (RPS) goals in a timely and cost-effective manner by California utilities.

## 1.2 LAND OWNERSHIP AND RIGHT-OF-WAY REQUIREMENTS

The Proposed Project site is located directly north, and adjacent to, the existing PG&E Gates Substation in Fresno County, California. The parcel where the STATCOM Substation facility would be constructed (APN 075-060-067S) is under private ownership. LSPGC holds an exclusive option to purchase up to 20 acres of an approximately 230-acre parcel of land. The approximately 210 acres of remaining land within this larger parcel would retain its agricultural use and public access rights and would not be physically constrained as a result of the land transaction.

The Proposed Project would require a new easement from PG&E for the access road along the eastern border of the PG&E Gates Substation property boundary. LSPGC would grant PG&E an easement for the minor section of the 500 kV interconnection lines that would extend beyond the property line into the Proposed Project site. There are no existing easements associated with the Proposed Project, and no temporary easements would be required for construction activities associated with the Proposed Project.

## 1.3 AREAS OF CONTROVERSY

LSPGC met with several regulatory agencies to solicit input on project design and potential resource and land use issues in the vicinity of the Proposed Project. Agencies consulted with include the CAISO, PG&E, California Department of Fish and Wildlife (CDFW), Fresno County, and the Native American Heritage Commission (NAHC). Based on the conducted outreach and consultation with agencies, no areas of controversy and/or public concern were identified.

## 1.4 SUMMARY OF IMPACTS

There are no potentially significant or significant and unavoidable impacts expected as a result of the Proposed Project.

LSPGC would be responsible for overseeing the assembly of construction and environmental teams that would implement and evaluate the Applicant Proposed Measures (APMs) for the Proposed Project. LSPGC maintains an environmental compliance management program to

allow for implementation of the APMs to be monitored, documented, and enforced during each Proposed Project phase. The Proposed Project would include APMs to ensure that project-level impacts would be less than significant for the following resource areas:

- Aesthetics
- Agriculture and Forest Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology, Soils, and Paleontological Resources
- Greenhouse Gas Emissions
- Hazards, Hazardous Materials, and Public Safety
- Hydrology and Water Quality
- Public Services
- Transportation
- Utilities and Service Systems

The APMs are described in **Table 3-10***, Applicant Proposed Measures* and are described in detail in **Section 4.0,** *Environmental Analysis* which includes an analysis of why the APM was selected and how it would reduce and/or minimize potential impacts. In addition, all applicable California Public Utilities Commission (CPUC) Draft Environmental Measures were included to further reduce potential impacts.

## 1.5 PRE-FILING CONSULTATION AND PUBLIC OUTREACH SUMMARY

LSPGC met with several regulatory agencies to solicit input on project design and potential resource and land use issues in the vicinity of the Proposed Project. Agencies consulted with include the CAISO, PG&E, CDFW, Fresno County, and the NAHC. Coordination with these agencies would continue through the Proposed Project's planning process. **Table 3-8,** *Anticipated Permits and Approvals* lists the permits, approvals, and licenses that LSPGC anticipates obtaining from jurisdictional agencies. No local discretionary (e.g., land use) permits would be required because the CPUC has preemptive jurisdiction over the siting, construction, and operation and maintenance (O&M) of LSPGC facilities in California.

Given the rural nature of the Proposed Project area and lack of residences, businesses, or other stakeholders in the immediate vicinity, no formal public outreach was conducted. However, throughout the approval process, LSPGC would keep area residents and property owners, government officials, Native American tribes, and interested parties informed about the scope of the Proposed Project through printed materials, one-on-one meetings, and presentations to local organizations.

LSPGC and the CPUC held a Pre-filing Consultation meeting to discuss the anticipated level of California Environmental Quality Act (CEQA) documentation that would be required for the Proposed Project. Given the adjacency of the Proposed Project site to the PG&E Gates Substation, the disturbed nature of the Proposed Project site, and the perceived lack of potential environmental impacts, the CPUC determined that the Proponent's Environmental Assessment (PEA) would not need to include project alternatives and analysis to the CAISO selection. The CPUC and LSPGC conducted a tour of the Proposed Project site. Given the rural nature of the

Proposed Project site and the lack of sensitive receptors, aesthetics and noise were discussed. It was determined that a STATCOM Substation facility rendering would be produced (in-lieu of a photo simulation) and that the CPUC would provide Key Observation Points to be included in the PEA. It was also determined that existing ambient noise readings would not be required given the closest sensitive receptor is located approximately two miles from the Proposed Project site.

## 1.6 CONCLUSIONS

The PEA analyzes the potential environmental impacts associated with the construction, operation, and maintenance of the Proposed Project. Through preparation of the PEA, it was determined that each of the following 20 resource areas do not have the potential to be significantly impacted by the Proposed Project. The Proposed Project would result in no impacts or negligible impacts on five resource areas: land use and planning, mineral resources, population and housing, recreation, and wildfire. Any impacts that would occur have been determined to be less than significant for the remaining 15 resource areas; the section below summarizes conclusions and APMs for the following resource areas:

- Aesthetics
- Agriculture and Forest Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology, Soils and Paleontological Resources
- Greenhouse Gas Emissions
- Hazards, Hazardous Materials, and Public Safety
- Hydrology and Water Quality
- Noise
- Public Services
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems

Implementation of APMs (**Table 3-10***, Applicant Proposed Measures*) would ensure that impacts remain less than significant. These impacts are discussed below by resource area.

### 1.6.1 AESTHETICS

The cumulative aesthetics impact analysis area generally encompasses the visual landscape within an approximately five-mile radius, primarily including motorists' views from West Jayne Avenue and other roadways. The existing PG&E Gates Substation and an existing solar field, along with numerous extra-high voltage transmission lines, are prominent visual features adjacent to and south of the Proposed Project area. As discussed in **Section 4.1.4,** *Impact Analysis*, structures associated with the Proposed Project would be relatively low profile compared to the existing PG&E Gates Substation and would consist of little to no visual change from the existing landscape. There were determined to be no impacts related to scenic vistas and scenic resources. Light and glare impacts associated with the Proposed Project would be minimal. **APM AES-1** and

**AES-2** would be implemented to further ensure that project-level impacts would be less than significant.

### 1.6.2 AGRICULTURE AND FORESTRY RESOURCES

The Proposed Project site is located on agricultural land subject to an active Williamson Act contract, and all adjacent lands (within one mile) are also under active Williamson Act contracts, excluding the two PG&E-owned parcels located to the south. Permanent conversion of less than 10 acres of Prime Farmland to non-agricultural use would be required to accommodate the Proposed Project. Per California Government Code Section 51222, the amount of Prime Farmland that would be converted to non-agricultural land is less than the minimum size (10 acres) needed for a parcel to sustain agricultural use in the case of prime agricultural land. The conversion of Prime Farmland to non-agricultural use for the Proposed Project would not preclude the surrounding area from future agricultural use. Additionally, this conversion would not be considerable relative to land conversion plans of other projects in the vicinity, at least one of which would require the conversion of 1,600 acres of Prime Farmland to non-agricultural use in conflict with Williamson Act contracts. **APM AGR-1** would be implemented to ensure that the Proposed Project would not conflict with the Williamson Act and that project-level impacts would be less than significant.

### 1.6.3 AIR QUALITY

The Proposed Project site is surrounded by agricultural operations and the PG&E Gates Substation in an area where soil disturbance or dust would not be expected to impact any vulnerable populations. The nearest sensitive receptors are located approximately 1.8 miles from the Proposed Project site, too far for the Proposed Project to affect. The Proposed Project was analyzed for construction, decommissioning, and operational air quality emissions. As discussed in **Section 4.3.4,** *Impact Analysis*, under this analysis, the Proposed Project would generate less than significant direct impacts to the air quality. **APM AQ-1** through **AQ-3** would be implemented to further ensure that project-level impacts would be less than significant.

### 1.6.4 BIOLOGICAL RESOURCES

There were determined to be no impacts related to riparian habitat, wetlands, or local policies, ordinances, and plans as a result of the Proposed Project. As discussed in **Section 4.4,** *Biological Resources*, due to the low quantity of observations of special-status animals at the Proposed Project during surveys, the limited number of special-status species, habitat, or other sensitive natural communities that could occur, the small footprint of the Proposed Project in relation to local and global ranges and populations of these species, the highly disturbed agricultural and industrial landscape, and the high level of human activity and disturbance already occurring in region, project-level impacts were found to be less than significant. **APMs BIO-1** through **APM BIO-8** would be implemented to further ensure that project-level impacts would be less than significant.

### 1.6.5 CULTURAL RESOURCES

The Proposed Project was designed to avoid known cultural resources. As shown in **Section 4.5,** *Cultural Resources*, there are no known historical or archaeological resources or graves within the Proposed Project area. While the possibility exists that subsurface resources or remains could be unearthed during construction, the current regulations and plans, as well as standard mitigation measures, would ensure impacts to any cultural resources within the Proposed Project area would be less than significant. **APM CUL-1** through **APM CUL-5** would be implemented to further ensure that project-level impacts would be less than significant.

### 1.6.6 ENERGY

The Proposed Project would not conflict with state or local plans for renewable energy and it would not add capacity for the purpose of serving a non-renewable energy source. As discussed in **Section 4.6**, *Energy*, construction and operation of the Proposed Project would utilize a relatively small amount of energy and fossil fuels, while increasing the electrical system efficiency for future uses of renewable energy within the region. Therefore, with respect to adverse environmental impacts resulting from wasteful, inefficient, or unnecessary consumption of energy resources, the Proposed Project was found to have a less-than-significant impact.

### 1.6.7 GEOLOGY, SOILS, AND PALEONTOLOGICAL RESOURCES

There were determined to be no impacts related to liquefaction, landslides, expansive soil, and soils incapable of supporting septic tanks as a result of the Proposed Project. As shown in **Section 4.7,** *Geology, Soils, and Paleontological Resources*, the Proposed Project is located within a seismically active area, though no known active faults are located on or near the site. While encountering paleontological resources would be unlikely, the existing regulations and plans, as well as standard mitigation measures, would ensure impacts to any paleontological resources within the Proposed Project area would be less than significant. The Proposed Project's impact to geology, soils, and paleontological resources would be less than significant. **APM GEO-1** and **APM GEO-2**, in addition to **APM PALEO-1 and APM PALEO-2**, would be implemented to further ensure that project-level impacts would be less than significant.

### 1.6.8 GREENHOUSE GAS EMISSIONS

Greenhouse Gas (GHG) emissions generated during construction, operation, and decommissioning would result in a less-than-significant, short-term impact to climate change. As shown in **Section 4.8**, *Greenhouse Gases*, the Proposed Project would have less-than-significant impacts from GHGs based on a reduction of emissions when compared to business as usual (BAU). Additionally, the Proposed Project would ultimately increase the efficiency of integrating existing and future renewable energy projects. The Proposed Project's impacts from GHG emissions would be less than significant. **APM GHG-1** would be implemented to further ensure that project-level impacts would be less than significant.

### 1.6.9 HAZARDS, HAZARDOUS MATERIALS, AND PUBLIC SAFETY

There were determined to be no impacts related to noise, wildland fires, and air traffic and transportation as a result of the Proposed Project. As discussed in **Section 4.9,** *Hazards, Hazardous Materials, and Public Safety*, the Proposed Project would not result in any significant impacts to this resource area. The Proposed Project would include design specifications and O&M procedures in order to minimize potential impacts to hazards, hazardous materials, and public

safety. **APM HAZ-1** through **HAZ-4** would be implemented to further ensure that project-level impacts would be less than significant.

### 1.6.10 HYDROLOGY AND WATER QUALITY

There were determined to be no impacts related to floods or conflicts with applicable plans as a result of the Proposed Project. As shown in **Section 4.10,** *Hydrology and Water Quality*, the Proposed Project would not violate any water quality standards or waste discharge requirements. It is not anticipated that recycled or reclaimed water or groundwater would be used by the Proposed Project; and no substantial changes to the existing drainage pattern would occur. Compliance with existing laws, ordinances, regulations, and standards would ensure any impacts to hydrology and water quality within the Proposed Project area would be less than significant. **APM WQ-1** and **WQ-2** would be implemented to further ensure that project-level impacts would be less than significant.

### 1.6.11 NOISE

Construction of the Proposed Project would temporarily increase noise levels; however, there are no sensitive receptors near the Proposed Project area. The Proposed Project was found to not exceed the noise levels limit at any property boundary during O&M activities. Construction and operations-related vibrations were determined to not be noticeable at the nearest sensitive receptor. There were determined to be no impacts related to private air strips as a result of the Proposed Project. The Fresno County Noise Control Ordinance (Section 40.80.060) exempts construction noise, provided that construction activities occur within the allowable days and times. Therefore, with respect generation of excessive ground-borne vibration or noise levels and ambient noise levels in excess of established standards, the Proposed Project was found to have a less-than-significant impact.

### 1.6.12 PUBLIC SERVICES

There were determined to be no impacts related to schools, parks, and other facilities as a result of the Proposed Project. As discussed in **Section 4.15,** *Public Services*, the Proposed Project would not permanently affect service ratios, response times, or other objectives for fire and police protection services in the area. During operation, the Proposed Project would not require regular oversight, service, or management; the facility would operate in an unmanned nature, minimizing the amount of public services that would be required during operation. The Proposed Project's public services impacts would be less than significant. Emergency service providers would be notified of the timing, location, and duration of construction activities in the event that temporary lane closures are required during construction. **APM PS-1** would be implemented to further ensure that project-level impacts would be less than significant.

### 1.6.13 TRANSPORTATION

There were determined to be no impacts related to operational transportation as a result of the Proposed Project. Any project in Fresno County that adds access or includes construction zones is required to provide access for emergency vehicles (including adequate turning radius) at all times. Thus, there would be no adverse effects on emergency access at the Proposed Project site. As shown in **Section 4.17,** *Transportation,* construction traffic associated with the Proposed Project would represent less than two percent of the estimated roadway capacity of West Jayne

Avenue and would have a less-than-significant impact on regional vehicle miles traveled (VMT). **APM TRA-1** would be implemented to further ensure that project-level impacts would be less than significant.

### 1.6.14 TRIBAL CULTURAL RESOURCES

As discussed in **Section 4.18,** *Tribal Cultural Resources*, there are no recorded Tribal Cultural Resources (TCRs) within the geographic scope; however, confidential tribal knowledge indicates that there is a high likelihood of unrecorded subsurface TCRs. All projects are required to comply with state regulations that protect TCRs. The Proposed Project includes APMs to ensure impacts to any tribal cultural resources within the Proposed Project area would be less than significant. Therefore, **APM CUL-1** through **APM CUL-5** would be implemented to ensure that project-level impacts would be less than significant.

### 1.6.15 UTILITIES AND SERVICE SYSTEMS

There were determined to be no impacts related to water supplies, wastewater treatment, or solid waste as a result of the Proposed Project. As discussed in **Section 4.19,** *Utilities and Service Systems*, the Proposed Project would require the temporary use of utilities such as water, wastewater facilities, and electric power during construction, and runoff would be managed by a stormwater detention basin. Construction would generate solid waste that would be disposed of in a local landfill or another approved facility in accordance with applicable federal, state, and local laws. Based on the anticipated landfill capacity, enough capacity would be available to handle disposal of waste generated by the Proposed Project during construction. Since the Proposed Project would be unmanned for O&M, it would not require wastewater treatment facilities and would not generate solid waste in excess of state or local standards. Therefore, the impact of activities associated with O&M for the Proposed Project would be less than significant. **APM UTIL-1** would be implemented to further ensure that project-level impacts would be less than significant.

## 1.7 REMAINING ISSUES

As discussed in the sections above, there are no areas of controversy and public concern, no significant impacts are expected as a result of the Proposed Project, and there are no major issues that must still be resolved.

# 2.0 INTRODUCTION

LS Power Grid California, LLC (LSPGC), a wholly-owned subsidiary of LS Power, established to own and operate transmission projects in California, is proposing the Gates 500 kilovolt (kV) Dynamic Reactive Support Project (Proposed Project). As required by the California Public Utilities Commission's (CPUC) *Guidelines for Energy Project Applications Requiring CEQA Compliance Pre-Filing and Proponent's Environmental Assessments* (PEAs) and the California Environmental Quality Act (CEQA) Guidelines (14 Cal. Code of Regs. Section 15000 et seq), this section defines the objectives, purpose, and need for the Proposed Project. Additional information regarding LSPGC's Proposed Project's purpose and need is provided in LSPGC's Permit to Construct (PTC) application to the CPUC in accordance with CPUC General Order 131-D (GO 131-D).

## 2.1 PROJECT BACKGROUND

### 2.1.1 PURPOSE AND NEED

The Proposed Project's purpose is to provide dynamic reactive power support at the Pacific Gas and Electric (PG&E) Gates Substation, a 500 kV and 230 kV level regional substation, in Fresno County, California. The Proposed Project would:

- Ensure the reliability of a major portion of the California Independent System Operator Corporation (CAISO) controlled grid;
- Provide cost-effective voltage control and other electric transmission grid benefits;
- Support the provision of safe, reliable, and adequate electricity service to the PG&E service territory;
- Facilitate the importation and use of renewable electricity to fulfill California's energy polices and goals by ensuring reliable operation of the grid.

These would be accomplished through the construction of a dynamic reactive power support substation providing approximately +/-848[1] million volt-amperes, reactive (MVAR) dynamic reactive capability to be installed in a minimum of two, equally sized Static Synchronous Compensator (STATCOM) units. Each STATCOM unit will be independently connected to the existing PG&E Gates Substation 500 kV bus by new interconnection facilities to be built by PG&E including two, new single circuit 500 kV interconnection transmission lines, each approximately 300 feet in length.

The Proposed Project was identified by CAISO in its 2018-2019 Transmission Plan as a "reliability-driven" project that would address and mitigate voltage support issues by providing system stability and reliability. Each year, CAISO provides a comprehensive evaluation of its transmission grid to identify upgrades needed to successfully meet California's policy goals, in addition to examining conventional grid reliability requirements and projects that can bring economic benefits to consumers. This plan is updated annually and is prepared in the larger

[1] The designation "±" indicates both leading (capacitive) and lagging (inductive) reactive power.

context of supporting importation of energy and environmental policies, while maintaining reliability through a resilient electric system (CAISO, 2019).

In its 2018-2019 planning cycle, CAISO evaluated upgrades needed to successfully meet California's policy goals, in addition to examining conventional grid reliability requirements and projects that can bring economic benefits to consumers. CAISO's analysis, conducted through an open and stakeholder-inclusive planning process, led to the identification of the need for the Proposed Project as part of a comprehensive solution (relying in part on other upgrades already identified to meet reliability needs notwithstanding state policy objectives) to mitigate post-contingency voltage control issues in the Fresno area (CAISO, 2019).

CAISO is responsible for planning and managing the high-voltage transmission network (transmission grid) for approximately 80% of California, including the service territory of PG&E, where the Proposed Project is located. CAISO undertakes an annual Transmission Planning Process (TPP) to identify potential transmission system problems, such as thermal overloading and voltage and frequency variations outside acceptable limits, over a 10-year planning horizon. CAISO considers additional transmission facilities and/or changes in operation that would solve the problems, allowing the transmission grid to meet reliability objectives and criteria. In addition, CAISO evaluates the transmission grid's ability to help meet certain state of California government policy objectives including the Renewables Portfolio Standard (RPS). Finally, the CAISO transmission planners and economists also examine whether transmission upgrades could save ratepayers money by reducing electric grid transmission congestion and allowing the use of lower-cost generation (CAISO, 2019).

As an outcome of the 2018-2019 TPP, the CAISO determined that, due to transmission overloading and voltage support issues, cost-effective dynamic reactive power support is needed at the PG&E Gates Substation to mitigate both high voltages after the Diablo Canyon nuclear generating units retire and high voltages under off-peak conditions prior to its retirement. Dynamic reactive power support would also mitigate dynamic stability issues with three-phase faults and induction motor stalling and tripping.

Following approval of the Transmission Plan, in accordance with the Federal Energy Regulatory Commission's Order No. 1000 and the CAISO open access transmission tariff, the CAISO opened a competitive bid solicitation window in April 2019, which provided project sponsors the opportunity to submit proposals to finance, construct, own, operate, and maintain the Gates 500 kV Dynamic Reactive Support Project. The CAISO specified an in-service date for the Proposed Project of June 2024.

LSPGC carefully considered several commercially available transmission technologies that would meet the CAISO's description and functional specification for the Proposed Project. Based on the review of the acceptable technologies, LSPGC proposed a STATCOM facility which meets the CAISO's functional specifications for the Proposed Project.

In January 2020, LSPGC was selected by the CAISO as the approved project sponsor to finance, construct, own, operate and maintain the Proposed Project. The CAISO selected LSPGC's proposal from a total of 10 validated proposals, all of which contained some form of cost containment to protect consumers from cost overruns. The CAISO selection report stated that LSPGCs proposal "would provide lower cost, greater rate certainty, and less cost risk than the proposals of the other project sponsors" (CAISO Project Sponsor Selection Report, 2020).

This is LS Power's second competitive transmission selection by the CAISO. The first was the 2016 selection of LS Power affiliate DesertLink, LLC for the Harry Allen to Eldorado 500 kV Transmission Project, a 60-mile transmission line that was placed in service in August 2020. In February 2020, the CAISO once again selected LSPGC in a separate competitive solicitation for the Round Mountain 500 kV Area Dynamic Reactive Support Project to be constructed in Shasta County by June 2024, and which will be the subject of a separate CEQA review and application to the CPUC.

### 2.1.2 PROJECT OBJECTIVES

The Proposed Project was selected because it best meets all of the project objectives and minimizes environmental impacts. The Proposed Project objectives are as follows:

- Meet the CAISO's reliability-driven need for dynamic reactive power support at the PG&E Gates Substation's 500 kV bus identified in the CAISO's powerflow and stability studies and deliverability goals.

- Meet the technical specifications set forth by the CAISO for a 500 kV dynamic reactive power support system located near or adjacent to the existing PG&E Gates Substation. Adjacency to the PG&E Gates Substation would reduce the length of the 500 kV transmission interconnection lines, thereby reducing right-of-way requirements and the potential for significant environmental impacts.

- Achieve commercial operation by June 2024 in order to support PG&E's decommissioning of the Diablo Canyon nuclear generating units (scheduled to begin in 2024). Commercial operation of the Proposed Project prior to the decommissioning would minimize impacts associated with the reduction of electrical power that would no longer be supplied by Diablo Canyon and allow for additional renewable sources to supplement that power loss.

- Improve and maintain the reliability of the transmission grid by providing dynamic reactive power support and increase deliverability of renewable power, by building and operating a facility that would help keep transmission voltages within specified parameters, reduce transmission losses, increase reactive margin for the system bus, increase transmission capacity, provide a higher transient stability limit, increase damping of minor disturbances, and provide greater voltage control and stability.

- Facilitate deliverability of load from existing and proposed renewable generation projects in the Central Valley area and corresponding progress toward achieving California's RPS goals in a timely and cost-effective manner by California utilities.

- To the extent practicable, locate the dynamic reactive support equipment on land that is, or has previously been, disturbed or in an existing right-of-way or adjacent to existing utility uses, or which would otherwise minimize environmental impacts in a manner consistent with prudent transmission planning.

- Construct and operate the facility with safety as a top priority.

- Meet the Proposed Project need in a safe, cost-effective manner and consistent with LSPGC's cost containment agreement in the Approved Project Sponsor Agreement (APSP).

- Comply with and assist the CAISO in meeting applicable Reliability Standards and Criteria developed by North American Electric Reliability Corporation, Western Electricity Coordinating Council, and the CAISO.

- Design and construct the Proposed Project in conformance with LSPGC's standards, the National Electric Safety Code, and other applicable national and state codes and regulations.

### 2.1.3 PROJECT APPLICANT

The Proposed Project is proposed by LSPGC, a Delaware limited liability company established to own transmission projects in California. LSPGC is an indirect subsidiary of LS Power Associates, L.P. which, together with its subsidiaries and affiliates, is generally known as LS Power. Since it was founded in 1990, LS Power has developed, constructed, managed, and acquired more than 42,000 Megawatts (MW) of competitive power generation and 660 miles of transmission infrastructure.

The Proposed Project would be unmanned during normal operations. The Proposed Project would be operated by LS Power's control center, which is staffed 24 hours per day, seven days per week, in Austin, Texas. Primary maintenance activities will be provided by LSPGC's local maintenance/technical staff and the STATCOM supplier, and as necessary, other existing LSPGC staff and outside resources for maintenance and emergency response. The Proposed Project would be incorporated into LSPGC's existing operations and maintenance and compliance programs using experienced staff and trusted contractors to provide operational and cost efficiencies with reduced risks. The Proposed Project would also be monitored by the CAISO's control center in Folsom, California, and the CAISO would have operational control of the STATCOM Substation facility with authority to direct LS Power's control center.

LSPGC would be responsible for overseeing the assembly of construction and environmental teams that would implement and evaluate the Proposed Project's Applicant Proposed Measures (APMs). LSPGC maintains an environmental compliance management program to allow for implementation of the APMs to be monitored, documented, and enforced during each Proposed Project phase, as appropriate. All those contracted by LSPGC to perform this work would be contractually bound to properly implement the APMs to ensure their effectiveness in reducing potential environmental effects.

## 2.2 PRE-FILING CONSULTATION AND PUBLIC OUTREACH

### 2.2.1 PRE-FILING CONSULTATION AND PUBLIC OUTREACH

LSPCG met with several regulatory agencies in the early planning stages of the Proposed Project to solicit input on project design and potential resource and land use issues in the vicinity of the Proposed Project. **Table 2-1**, *Agency Meetings and Correspondence* summarizes the agency meetings and correspondence that took place in development of this PEA and the PTC

application. Coordination with these agencies would continue through the Proposed Project's planning process, and ministerial and discretionary permits would be applied for where necessary.

**Table 2-1: Agency Meetings and Correspondence**

| Agency | Meeting Dates | Attendees | Summary of Discussions |
|---|---|---|---|
| CAISO | Project kickoff meeting in February 2020, APSA Negotiations February thru May 2020, Quarterly Construction Status Reports in May 2020, August 2020 and November 2020. | Various CAISO staff, LSPGC staff | Kickoff meeting to discuss project implementation and APSA negotiations. Quarterly Status Reports as required by the APSA. |
| PG&E | Ongoing bi-weekly meetings starting in February 2020. | Various PG&E staff (Substation and Transmission Engineering, Land and Environmental, etc.) LSPGC staff | Bi-weekly meetings to discuss PG&E Gates facility updates, GO 131-D compliance and interconnection coordination related to the two facilities. |
| California Department of Fish and Wildlife (CDFW) | March 19, 2020 | CPUC staff, CDFW staff and LSPGC Team. | Meeting to review the Propose Project, potential permit requirements and the need for biological surveys. Based on the disturbed nature of the Proposed Project Site, it was recommended that LSPGC focus on avian issues. CDFW advised that a Swainson's hawk survey would be their main recommendation. Based on this information, the LSPGC Team conducted the surveys in the Spring of 2020, the results of which are included in the **Section 4.4**, *Biological Resources*. |
| Fresno County | June 26, 2019; August 19, 2020 | LSPGC staff and counsel, Fresno County staff and counsel | Project summary and preliminary mapping, Williamson Act and Subdivision Map Act coordination. |
| Native American Heritage Commission (NAHC) | A Sacred Lands File (SLF) search request was submitted on June 30, 2020. | No meeting was held as the coordination with SLF was an email search request. | The NAHC provided a list of Native American contacts who may be able to supply information pertinent to the Proposed Project area. Each of the 13 individuals listed were contacted by mail or email sent on July 2, 2020. To date, three contacts have responded to outreach efforts and their requests were taken in and included in the development of **Section 4.19**, *Tribal Cultural Resources*. |

No local discretionary (e.g., land use) permits are required because the CPUC has preemptive jurisdiction over the siting, construction, and O&M of LSPGC facilities in California. The CPUC's authority does not preempt special districts, such as Air Quality Management Districts (AQMDs), other state agencies, or the federal government. LSPCG would have to obtain all ministerial building and encroachment permits from local jurisdictions, and the CPUC's General Order 131-D requires LSPGC to comply with local building, design, and safety standards to the greatest degree feasible to minimize Proposed Project conflicts with local conditions. LSPGC would obtain permits, approvals, and licenses and would participate in reviews and consultations as needed with federal, state, and local agencies. No developments that could coincide or conflict with project activities have been identified.

### 2.2.2 RECORDS OF CONSULTATION AND PUBLIC OUTREACH

Given the rural nature of the Proposed Project area and lack of residences, businesses, or other stakeholders in the immediate vicinity, no formal public outreach was conducted. However, throughout the approval process, LSPGC would keep area residents and property owners, government officials, Native American tribes, and interested parties informed about the scope of the Proposed Project through printed materials, one-on-one meetings, and presentations to local organizations.

During construction, LSPGC would work to minimize disruptions from construction traffic and limit dust and noise. LSPGC would continually communicate with government agencies, including the CPUC, Fresno County, local Native American tribes, and any other applicable government officials, regarding construction plans.

## 2.3 ENVIRONMENTAL REVIEW PROCESS

### 2.3.1 ENVIRONMENTAL REVIEW PROCESS

Investor-owned utilities are required to obtain a permit from the CPUC for construction of certain specified infrastructure listed under Public Utilities Code sections 1001. The CPUC reviews permit applications under two concurrent processes: (1) an environmental review pursuant to the CEQA, and (2) the review of project need and costs pursuant to Public Utilities (PU) Code sections 1001 et seq. and GO 131-D (Certification of Public Necessity and Convenience [CPCN] or PTC). For timing of the review process of all applicable permits, see **Table 3-7**, *Anticipated Permits and Approvals*, located in the **Section 3.10.1,** *Anticipated Permits and Approvals.*

LSPGC held discussions with the county of Fresno to determine the permitting process for subdividing the Proposed Project site (i.e., Subdivision Map Act compliance) and the cancellation of the existing Williamson Act contract. It was decided that LSPGC would submit a parcel map waiver application that would allow for the subdivision of the Proposed Project site. In regard to the Williamson Act contract cancellation, the county of Fresno provided four options that would successfully cancel the existing contract.

### 2.3.2 CEQA REVIEW

The CPUC conducts its environmental evaluation in accordance with both CEQA and with its own environmental rules. CEQA provides guidelines to ensure a thorough environmental evaluation. Specifically, it requires the examination of particular environmental issues such as water and air

quality, greenhouse gases, noise, land uses, agricultural, biological, cultural and tribal resources, mineral resources, public services, recreation, population, housing, transportation, and aesthetics.

CEQA and the CEQA Guidelines – Title 14 of the California Code of Regulations, Section 15000, et seq. – require that an environmental impact report describe a reasonable range of alternatives to a project or the location of the project that would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project. CEQA Guidelines Section 15126.6(d) requires that sufficient information about each alternative be included to allow meaningful evaluation and analysis. However, based on consultation with the CPUC, the selection of a specific project site by the CAISO Project Sponsor Selection Report, and the lack of apparent environmental impacts associated with development of the site, it was determined that this PEA would not need to include an Assessment of Project Alternatives.

According to Section 15002(g) of the CEQA guidelines, "a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." The CEQA guidelines further define three types of environmental effects (or impacts): direct or primary effects that are caused by a project and occur at the same time and place, indirect or secondary effects that are reasonably foreseeable and caused by a project but occur at a different time or place, and cumulative effects. If it is determined that a project would cause a significant direct, indirect, or cumulative impact (or contribute considerably to an existing cumulative impact), CEQA requires that the analysis disclose such impacts and identify feasible mitigation measures for each significant environmental effect identified. This PEA analyzes the potential environmental impacts associated with the construction and the operation and maintenance (O&M) of the Proposed Project.

### 2.3.4 PRE-FILING CEQA COORDINATION

LSPGC and the CPUC held a Pre-filing Consultation meeting on February 25, 2020 to discuss the Proposed Project. The agenda for the meeting included: introductions, project background/description, CPUC CEQA process, project schedule, and submitting an PTC application and PEA. During the meeting, LSPGC shared a summary of the Proposed Project and a preliminary map of the Proposed Project area. Also discussed was the Proposed Project's need to be in-service by June 2024 in order to be available prior to the retirement of the Diablo Canyon nuclear generating units. A proposed high-level PTC schedule was developed, and the CPUC requested a preliminary draft of the PEA Table of Contents (TOC) and Anticipated Permits and Approvals. LSPGC provided the TOC and a table of the Anticipated Permits and Approvals to the CPUC on March 30, 2020.

During the Pre-filing Consultation meeting, CPUC staff discussed the anticipated level of CEQA documentation that would be required for the Proposed Project and the need for LSPGC to provide project alternatives that would be different than the CAISO selection. Given the adjacency of the Proposed Project site to the PG&E Gates Substation, the disturbed nature of the Proposed Project site, and the perceived lack of potential environmental impacts, it was decided that the PEA would not need to include an alternatives analysis.

In addition, on June 10th, 2020, the CPUC and LSPGC conducted a tour of the Proposed Project site. At the meeting, LSPGC provided an overview of the CAISO approved Proposed Project and its anticipated interconnection with the adjacent PG&E Gates Substation. During the meeting,

aesthetics and noise impacts were discussed given the rural nature of the Proposed Project site and the lack of sensitive receptors. It was determined that a STATCOM Substation facility rendering would be produced (in-lieu of a photo simulation) and that the CPUC would provide Key Observation Points that would be included in the PEA. It was also determined that existing ambient noise readings would not be required given the closest sensitive receptor is located approximately two miles from the Proposed Project site.

## 2.4 DOCUMENT ORGANIZATION

### 2.4.1 PEA ORGANIZATION

In accordance with the PEA Checklist, *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-Filing Proponent's Environmental Assessments*, updated November 2019, the Proposed Project PEA is divided into six sections as follows:

**Section 1.0, Executive Summary.** This section provides a Proposed Project summary, land ownership and rights-of-way requirements, areas of controversy, summary of impacts, summary of alternatives, and a pre-filling consultation, and public outreach summary.

**Section 2.0, Introduction.** This section provides a detailed description of the Proposed Project's background, pre-filling consultation and public outreach, environmental review process, and document organization. All figures in the PEA are included in **Appendix 1-A**.

**Section 3.0, Proposed Project Description**. This section provides a detailed description of the Proposed Project overview and components, existing and proposed system, land ownership, rights-of-way and easements, construction, construction workforce, equipment, traffic and schedule, post-construction, operation and maintenance, decommissioning, anticipated permits and approvals, applicant proposed measures (APMs), and project description graphics, mapbook, and GIS requirements.

**Section 4.0, Environmental Analysis.** This section includes a description of the environmental setting, regulatory setting, and impact analysis for each resource area. The following resource areas are discussed in Section 4.0:

- 4.1 Aesthetics
- 4.2 Agriculture and Forest Resources
- 4.3 Air Quality
- 4.4 Biological Resources
- 4.5 Cultural Resources
- 4.6 Energy
- 4.7 Geology, Soils and Paleontological Resources
- 4.8 Greenhouse Gas Emissions
- 4.9 Hazards, Hazardous Materials, and Public Safety
- 4.10 Hydrology and Water Quality
- 4.11 Land Use and Planning
- 4.12 Mineral Resources
- 4.13 Noise
- 4.14 Population and Housing

- 4.15 Public Services
- 4.16 Recreation
- 4.17 Transportation
- 4.18 Tribal Cultural Resources
- 4.19 Utilities and Service Systems
- 4.20 Wildfire
- 4.21 Mandatory Findings of Significance

**Section 5.0, Cumulative and Other CEQA Considerations.** This section discusses the cumulative and growth-inducing impacts from the Proposed Project.

**Section 6.0, List of Preparers.** This section provides a list of persons, their organization, and their qualifications for all authors and reviewers of each section of the PEA.

**Section 7.0, References.** This section provides a reference list.

In compliance with the CPUC PEA Checklist, the Proposed Project PEA has been compiled into **Table 2-2**: *PEA Checklist*, which identifies the appropriate section of the PEA where each item in the CPUC Checklist has been addressed. **Table 2-2** used the CPUC checklist and was modified if a section was not applicable for the Proposed Project.

**Table 2-2: PEA Checklist**

| CPUC Checklist | PEA Section, Table or Figure Number |
|---|---|
| **1.0 Executive Summary** | 1.0 |
| **1.1: Proposed Project Summary**. Provide a summary of the proposed project and its underlying purpose and basic objectives. | 1.1 |
| **1.2: Land Ownership and Right-of-Way Requirements**. Provide a summary of the existing and proposed land ownership and rights-of- way for the proposed project. | 1.2 |
| **1.3: Areas of Controversy.** Identify areas of anticipated controversy and public concern regarding the project. | 1.3 |
| **1.4: Summary of Impacts**<br>a) Identify all impacts expected by the Applicant to be potentially significant. Identify and discuss Applicant Proposed Measures here and provide a reference to the full listing of Applicant Proposed Measures provided in the table described in Section 3.11 of this PEA Checklist.<br>b) Identify any significant and unavoidable impacts that may occur. | 1.4<br>Section 4.0<br>Table 3-10 |
| **1.5: Pre-filing Consultation and Public Outreach Summary.** Briefly summarize Pre-filing consultation and public outreach efforts that occurred and identify any significant outcomes that were incorporated into the proposed project. | 1.5 |
| **1.6: Conclusions.** Provide a summary of the major PEA conclusions. | 1.6<br>Table 3-10 |
| **1.7: Remaining Issues**. Describe any major issues that must still be resolved. | 1.7 |
| **2.0 Introduction** | 2.0 |
| **2.1 Project Background** | 2.1 |

| Table 2-2: PEA Checklist | |
|---|---|
| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| **2.1.1: Purpose and Need**<br>a) Explain why the proposed project is needed.<br>b) b) Describe localities the proposed project would serve and how the project would fit into the local and regional utility system.<br>c) If the proposed project was identified by the California Independent System Operator (CAISO), thoroughly describe the CAISO's consideration of the proposed project and provide the following information:<br>I. Include references to all CAISO Transmission Planning Processes that considered the proposed project.<br>II. Explain if the proposed project is considered an economic, reliability, or policy-driven project or a combination thereof.<br>III. Identify whether and how the Participating Transmission Owner recommended the project in response to a CAISO identified need, if applicable.<br>IV. Identify if the CAISO approved the original scope of the project or an alternative and the rationale for their approval either for the original scope or an alternative.<br>V. Identify how and whether the proposed project would exceed, combine, or modify in any way the CAISO identified project need.<br>VI. If the Applicant was selected as part of a competitive bid process, identify the factors that contributed to the selection and CAISO's requirements for in-service date.<br>d) If the project was not considered by the CAISO, explain why. | 2.1.1 |
| **2.1.2: Project Objectives**<br>a) Identify and describe the basic project objectives. The objectives will include reasons for constructing the project based on its purpose and need (i.e., address a specific reliability issue). The description of the project objectives will be sufficiently detailed to permit CPUC to independently evaluate the project need and benefits to accurately consider them in light of the potential environmental impacts. The basic project objectives will be used to guide the alternatives screening process, when applicable.<br>b) Explain how implementing the project will achieve the basic project objectives and underlying purpose and need.<br>c) Discuss the reasons why attainment of each basic objective is necessary or desirable. | 2.1.2 |
| **2.1.3: Project Applicant(s):** Identify the project Applicant(s) and ownership of each component of the proposed project. Describe each Applicant's utility services and their local and regional service territories. | 2.1.3 |
| **2.2 Pre-filing Consultation and Public Outreach** | 2.2 |
| **2.2.1 Pre-filing Consultation and Public Outreach**<br>a) Describe all Pre-filing consultation and public outreach that occurred, such as, but not limited to:<br>I. CAISO<br>II. Public agencies with jurisdiction over project areas or resources that may occur in the project area<br>III. Native American tribes affiliated with the project area<br>IV. Private landowners and homeowner associations | 2.2.1<br>Table 2-1 |

| Table 2-2: PEA Checklist | |
|---|---|
| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| V. Developers for large housing or commercial projects near the project area<br>VI. Other utility owners and operators<br>VII. Federal, state, and local fire management agencies<br>b) Provide meeting dates, attendees, and discussion summaries, including any preliminary concerns and how they were addressed and any project alternatives that were suggested.<br>c) Clearly identify any significant outcomes of consultation that were incorporated into the proposed project.<br>d) Clearly identify any developments that could coincide or conflict with project activities (i.e., developments within or adjacent to a proposed ROW). | |
| **2.2.2: Records of Consultation and Public Outreach.** Provide contact information, notification materials, meeting dates and materials, meeting notes, and records of communication organized by entity as an Appendix to the PEA (Appendix G). | 2.2.2 |
| **2.3 Environmental Review Process** | 2.3 |
| **2.3.1: Environmental Review Process.** Provide a summary of the anticipated environmental review process and schedule. | 2.3.1<br>Table 3-7<br>Also refer to Section 3.10.1 |
| **2.3.2: CEQA Review**<br>a) Explain why CPUC is the appropriate CEQA Lead agency.<br>b) Identify other state agencies and any federal agencies that may have discretionary permitting authority over any aspect of the proposed project.<br>c) Identify all potential involvement by federal, state, and local agencies not expected to have discretionary permitting authority (i.e., ministerial actions).<br>d) Summarize the results of any preliminary outreach with these agencies as well as future plans for outreach. | 2.3.2 |
| **2.3.4: Pre-filing CEQA Coordination.** Describe the results of Pre-filing coordination with CEQA agency (refer to CPUC's Pre-Filing Consultation Guidelines). Identify major outcomes of the Pre-filing coordination process and how the information was incorporated into the PEA, including suggestions on the type of environmental documents and joint or separate processes based on discussions with agency staff. | 2.3.4 |
| **2.4 Document Organization** | 2.4 |
| **2.4.1: PEA Organization.** Summarize the contents of the PEA and provide an annotated list of its sections. | 2.4.1 |
| **3.0 Project Description** | 3.0 |
| **3.1: Project Overview**<br>a) Provide a concise summary of the proposed project and components in a few paragraphs.<br>b) Described the geographical location of the proposed project (i.e., county, city, etc.).<br>c) Provide an overview map of the proposed project location. | 3.1<br>Figure 3-1<br>Figure 3-2<br>Figures in Appendix 1-A. Available GIS data layers will be submitted digitally under a separate cover. |
| **3.2 Existing and Proposed System** | 3.2 |

| Table 2-2: PEA Checklist | |
|---|---|
| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| **3.2.1: Existing System**<br>a) Identify and describe the existing utility system that would be modified by the proposed project, including connected facilities to provide context. Include detailed information about substations, transmission lines, distribution lines, compressor stations, metering stations, valve stations, nearby renewable generation and energy storage facilities, telecommunications facilities, control systems, SCADA systems, etc.<br>b) Provide information on users and the area served by the existing system features.<br>c) Explain how the proposed project would fit into the existing local and regional systems.<br>d) Provide a schematic diagram of the existing system features.<br>e) Provide detailed maps and associated GIS data for existing facilities that would be modified by the proposed project. | 3.2.1 |
| **3.2.2: Proposed Project System**<br>a) Describe the whole of the proposed project by component, including all new facilities and any modifications, upgrades, or expansions to existing facilities and any interrelated activities that are part of the whole of the action.<br>b) Clearly identify system features that would be added, modified, removed, disconnected and left in place, etc.<br>c) Identify the expected capacities of the proposed facilities, highlighting any changes from the existing system. If the project would not change existing capacities, make this statement. For electrical projects, provide the anticipated capacity increase in amps or megawatts or in the typical units for the types of facilities proposed. For gas projects, provide the total volume of gas to be delivered by the proposed facilities, anticipated system capacity increase (typically in million cubic feet per day), expected customers, delivery points and corresponding volumes, and the anticipated maximum allowable operating pressure(s).<br>d) Describe the initial buildout and eventual full buildout of the proposed project facilities. For example, if an electrical substation or gas compressor station would be installed to accommodate additional demand in the future, then include the designs for both the initial construction based on current demand and the design for all infrastructure that could ultimately be installed within the planned footprint of an electric substation or compressor station.<br>e) Explain whether the electric line or gas pipeline will create a second system tie or loop for reliability.<br>f) Provide information on users and the area served by the proposed system features, highlighting any differences from the existing system.<br>g) Provide a schematic diagram of the proposed system features.<br>h) Provide detailed maps and associated GIS data for proposed facilities that would be installed, modified, or relocated by the proposed project. | 3.2.2<br>Figure 3-3<br>Also refer to Sections 3.2.3 and 3.3<br>Figures in Appendix 1-A.<br>Available GIS data layers will be submitted digitally under a separate cover. |
| **3.2.3: System Reliability.** Explain whether the electric line or gas pipeline will create a second system tie or loop for reliability. Clearly explain and | 3.2.3 |

| Table 2-2: PEA Checklist | |
|---|---|
| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| show how the proposed project relates to and supports the existing utility systems. | |
| **3.2.4: Planning Area.** Describe the system planning area served or to be served by the project. Clearly define the Applicant's term for the planning area (e.g., Electrical Needs Area or Distribution Planning Area). | 3.2.4 |
| **3.3 Project Components** | 3.3 |
| **3.3.1: Preliminary Design and Engineering**<br>a) Provide preliminary design and engineering information for all above-ground and below-ground facilities for the proposed project. The approximately locations, maximum dimensions of facilities, and limits of areas that would be needed to construction and operate the facilities should be clearly defined.<br>b) Provide preliminary design drawings for project features and explain the level of completeness (i.e., percentage).<br>c) Provide detailed project maps (approximately 1:3,000 scale) and associated GIS data of all facility locations and boundaries with attributes and spatial geometry that corresponds to information in the Project Description. | 3.3.1<br>Figure 3-4<br>Also refer to Section 3.3.4<br>Figures in Appendix 1-A. Available GIS data layers will be submitted digitally under a separate cover. |
| **3.3.2: Segments, Components, and Phases**<br>a) Define all project segments, components, and phases for the proposed project.<br>b) Provide the length/area of each segment or component, and the timing of each development phase.<br>c) Provide an overview map showing each segment and provide associated GIS data (may be combined with other mapping efforts). | 3.3.2<br>Table 3-7<br>Also refer to Section 3.6.4 |
| **3.3.3: Existing Facilities**<br>a) Identify the types of existing facilities that would be removed or modified by the proposed project (i.e., conductor/cable, poles/towers, substations, switching stations, gas storage facilities, gas pipelines, service buildings, communication systems, etc.).<br>b) Describe the existing facilities by project segment and/or component, and provide information regarding existing dimensions, areas/footprints, quantities, locations, spans, etc.<br>c) Distinguish between above-ground and below-ground facilities and provide both depth and height ranges for each type of facility. For poles/towers, provide the installation method (i.e., foundation type or direct bury), and maximum above-ground heights and below-ground depths.<br>d) Explain what would happen to the existing facilities. Would they be replaced, completely removed, modified, or abandoned? Explain why.<br>e) Identify the names, types, materials, and capacity/volumes ranges (i.e., minimum and maximum) of existing facilities that would be installed or modified by the proposed project.<br>f) Provide diagrams with dimensions representing existing facilities to provide context on how the proposed facilities would be different.<br>g) Briefly describe the surface colors, textures, light reflectivity, and any lighting of existing facilities. | 3.3.3<br>Also refer to Section 3.2.1 |
| **3.3.4: Proposed Facilities**<br>a) Identify the types of proposed facilities to be installed or modified by the proposed project (e.g., conductor/cable, poles/towers, | 3.3.4<br>Section 3.5 |

| Table 2-2: PEA Checklist | |
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| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| substations, switching stations, gas storage facilities, gas pipelines, service buildings, communication systems).<br>b) Describe the proposed facilities by project segment and/or component, and provide information regarding maximum dimensions, areas/footprints, quantities, locations, spans, etc.<br>c) Distinguish between above-ground and below-ground facilities and provide both depth and height ranges for each type of facility. For poles/towers, provide the installation method (i.e., foundation type or direct bury), and maximum above-ground heights and below-ground depths.<br>d) Identify where facilities would be different (e.g., where unique or larger poles would be located, large guy supports or snub poles).<br>e) Provide details about civil engineering requirements (i.e., permanent roads, foundations, pads, drainage systems, detention basins, spill containment, etc.).<br>f) Distinguish between permanent facilities and any temporary facilities (i.e., poles, shoo-fly lines, mobile substations, mobile compressors, transformers, capacitors, switch racks, compressors, valves, driveways, and lighting).<br>g) Identify the names, types, materials, and capacity/volumes ranges (i.e., minimum and maximum) of proposed facilities that would be installed or modified by the proposed project.<br>h) Provide diagrams with dimensions representing existing facilities.<br>i) Briefly describe the surface colors, textures, light reflectivity, and any lighting of proposed facilities. | 3.3.4.1 STATCOM Substation<br>Figure 3-5<br>Figure 3-6<br><br>3.3.4.2 Access Roads<br>Figure 3-4<br>Figures in Appendix 1-A. Available GIS data layers will be submitted digitally under a separate cover. |
| **3.3.5: Other Potentially Required Facilities**<br>a) Identify and describe in detail any other actions or facilities that may be required to complete the project. For example, consider the following questions:<br>I. Could the project require the relocation (temporary or permanent), modification, or replacement of unconnected utilities or other types of infrastructure by the Applicant or any other entity?<br>II. Could the project require aviation lighting and/or marking?<br>III. Could the project require additional civil engineering requirements to address site conditions or slope stabilization issues, such as pads and retaining walls, etc.?<br>b) Provide the location of each facility and a description of the facility. | 3.3.5 |
| **3.3.6: Future Expansions and Equipment Lifespans**<br>a) Provide detailed information about the current and reasonably foreseeable plans for expansion and future phases of development.<br>b) Provide the expected usable life of all facilities.<br>c) Describe all reasonably foreseeable consequences of the proposed project (e.g., future ability to upgrade gas compressor station to match added pipeline capacity). | 3.3.6 |
| **Required for Certain Project Types** | |
| **3.3.7: Below-ground Conductor/Cable Installations (as Applicable)**<br>a) Describe the type of line to be installed (e.g., single circuit crosslinked polyethylene-insulated solid-dielectric, copper-conductor cables). | 3.3.7 |

| Table 2-2: PEA Checklist | |
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| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| b) Describe the type of casing the cable would be installed in (e.g., concrete-encased duct bank system) and provide the dimensions of the casing.<br>c) Describe the types of infrastructure would likely be installed within the duct bank (e.g., transmission, fiber optics, etc.). | |
| **3.3.14: Telecommunication Lines (as Applicable)**<br>a) Identify the type of cable that is proposed and length in linear miles by segment.<br>b) Identify any antenna and node facilities that are part of the project.<br>c) For below-ground telecommunication lines, provide the depth of cable and type of conduit.<br>d) For above-ground telecommunication lines, provide:<br>I. Types of poles that will be installed (if new poles are required)<br>II. Where existing poles will be used<br>III. Any additional infrastructure (e.g., guy wires) or pole changes required to support the additional cable on existing poles | 3.3.8<br>Figure 3-4<br>Figures in Appendix 1-A.<br>Available GIS data layers will be submitted digitally under a separate cover. |
| **3.4 Land Ownership, Rights-of-Way, and Easements** | 3.4 |
| **3.4.1: Land Ownership.** Describe existing land ownership where each project component would be located. State whether the proposed project would be located on property(ies) owned by the Applicant or if additional property would be required. | 3.4.1<br>Also refer to Section 3.4.3 |
| **3.4.2: Existing Rights-of-Way or Easements**<br>a) Identify and describe existing rights-of-way (ROWs) or easements where project components would be located. Provide the approximately lengths and widths in each project area.<br>b) Clearly state if project facilities would be replaced, modified, or relocated within existing ROWs or easements. | 3.4.2 |
| **3.4.3: New or Modified Rights-of-Way or Easements**<br>a) Describe new permanent or modified ROWs or easements that would be required. Provide the approximately lengths and widths in each project area.<br>b) Describe how any new permanent or modified ROWs or easements would be acquired.<br>c) Provide site plans identifying all properties/parcels and partial properties/parcels that may require acquisition and the anticipated ROWs or easements. Provide associated GIS data.<br>d) Describe any development restrictions within new ROWs or easements, e.g., building clearances and height restrictions, etc.<br>e) Describe any relocation or demolition of commercial or residential property/structures that may be necessary. | 3.4.3<br>Available GIS data layers will be submitted digitally under a separate cover. |
| **3.4.4: Temporary Rights-of-Ways or Easements**<br>a) Describe temporary ROWs or easements that would be required to access project areas, including ROWs or easements for temporary construction areas (i.e., staging areas or landing zones).<br>b) Explain where temporary construction areas would be located with existing ROWs or easements for the project or otherwise available to the Applicant without a temporary ROW or easement.<br>c) Describe how any temporary ROWs or easements would be acquired. | 3.4.4 |

| Table 2-2: PEA Checklist | |
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| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| **3.5 Construction** | 3.5 |
| **3.5.1 Construction Access (All Projects)** | 3.5.1 |
| **3.5.1.1: Existing Access Roads**<br>a) Provide the lengths, widths, ownership details (both public and private roads), and surface characteristics (i.e., paved, graveled, bare soil) of existing access roads that would be used during construction. Provide the area of existing roads that would be used (see example in Table 3 below).<br>b) Describe any road modifications or stabilization that would be required prior to construction, including on the adjacent road shoulders or slopes. Identify any roads that would be expanded and provide the proposed width increases.<br>c) Describe any procedures to address incidental road damage cause by project activities following construction.<br>d) Provide detailed maps and associated GIS data for all existing access roads. | 3.5.1.1<br>Figure 3-4<br>Table 3-1<br>Figures in Appendix 1-A.<br>Available GIS data layers will be submitted digitally under a separate cover. |
| **3.5.1.2: New Access Roads**<br>a) Identify any new access roads that would be developed for project construction purposes, such as where any blading, grading, or gravel placement could occur to provide equipment access outside of a designated workspace.14<br>b) Provide lengths, widths, and development methods for new access roads.<br>c) Identify any temporary or permanent gates that would be installed.<br>d) Clearly identify any roads that would be temporary and fully restored following construction. Otherwise, it will be assumed the new access road is a permanent feature.<br>e) Provide detailed maps and associated GIS data for all new access roads. | 3.5.1.2<br>Figure 3-5<br>Figures in Appendix 1-A.<br>Available GIS data layers will be submitted digitally under a separate cover. |
| **3.5.1.3: Overland Access Routes**<br>a) Identify any overland access routes that would be used during construction, such as where vehicles and equipment would travel over existing vegetation and where blading, grading, or gravel placement would occur.<br>b) Provide lengths and widths for new access roads.<br>c) Provide detailed maps and associated GIS data for all overland access routes. | 3.5.1.3<br>Available GIS data layers will be submitted digitally under a separate cover. |
| **3.5.1.4: Watercourse Crossings**<br>a) Identify all temporary watercourse crossings that would be required during construction. Provide specific methods and procedures for temporary watercourse crossings.<br>b) Describe any bridges or culverts that replacement or installation of would be required for construction access.<br>c) Provide details about the location, design and construction methods. | 3.5.1.4 |
| **3.5.1.5: Helicopter Access.** If helicopters would be used during construction:<br>a) Describe the types and quantities of helicopters that would be used during construction (e.g., light, medium, heavy, or sky crane), and a description of the activities that each helicopter would be used for.<br>b) Identify areas for helicopter takeoff and landing. | 3.5.1.5 |

| Table 2-2: PEA Checklist | |
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| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| c) Describe helicopter refueling procedures and locations.<br>d) Describe flight paths, payloads, and expected hours and durations of helicopter operation.<br>e) Describe any safety procedures or requirements unique to helicopter operations, such as but not limited to obtaining a Congested Area Plan from the Federal Aviation Administration (FAA). | |
| **3.5.2 Staging Areas (All Projects)** | 3.5.2 |
| **3.5.2.1: Staging Area Locations**<br>a) Identify the locations of all staging area(s). Provide a map and GIS data for each.<br>b) Provide the size (in acres) for each staging area and the total staging area requirements for the project. | 3.5.2.1<br>Figure 3-7<br>Also refer to Section 3.5.3<br>Figures in Appendix 1-A. Available GIS data layers will be submitted digitally under a separate cover. |
| **3.5.2.2: Staging Area Preparation**<br>a) Describe any site preparation required, if known, or generally describe what might be required (i.e., vegetation removal, new access road, installation of rock base, etc.).<br>b) Describe what the staging area would be used for (i.e., material and equipment storage, field office, reporting location for workers, parking area for vehicles and equipment, etc.).<br>c) Describe how the staging area would be secured. Would a fence be installed? If so, describe the type and extent of the fencing.<br>d) Describe how power to the site would be provided if required (i.e., tap into existing distribution, use of diesel generators, etc.).<br>e) Describe any temporary lightning facilities for the site.<br>f) Describe any grading activities and/or slope stabilization issues. | 3.5.2.2 |
| **3.5.3 Construction Work Areas (All Projects)** | 3.5.3 |
| **3.5.3.1: Construction Work Areas**<br>a) Describe known work areas that may be required for specific construction activities (e.g., pole assembly, hillside construction)<br>b) Describe the types of activities that would be performed at each work area. Work areas may include but are not necessarily limited to:<br>I. Helicopter landing zones and touchdown areas<br>II. Vehicle and equipment parking, passing, or turnaround areas<br>III. Railroad, bridge, or watercourse crossings<br>IV. Temporary work pads for facility installation, modification, or removal<br>V. Excavations and associated equipment work areas<br>VI. Temporary guard structures<br>VII. Pull-and-tension/stringing sites<br>VIII. Jack and bore pits, drilling areas and pull-back areas for horizontal directional drills<br>IX. Retaining walls | 3.5.3.1<br>Figure 3-7<br>Also refer to Section 3.5.2<br>Figures in Appendix 1-A. Available GIS data layers will be submitted digitally under a separate cover. |
| **3.5.3.2 Work Area Disturbance** | 3.5.3.2<br>Table 3-2 |

| Table 2-2: PEA Checklist | |
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| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| a) Provide the dimensions of each work area including the maximum area that would be disturbed during construction (e.g., 100 feet by 200 feet) (see example in Table 4 below).<br>b) Provide a table with temporary and permanent disturbance at each work area (in square feet or acres), and the total area of temporary and permanent disturbance for the entire project (in acres). | Figure 3-8 |
| **3.5.3.3: Temporary Power.** Identify how power would be provided at work area (i.e., tap into existing distribution, use of diesel generators, etc.). Provide the disturbance area for any temporary power lines. | 3.5.3.3 |
| **3.5.4 Site Preparation (All Projects)** | 3.5.4 |
| **3.5.4.1: Surveying and Staking.** Describe initial surveying and staking procedures for site preparation and access. | 3.5.4.1 |
| **3.5.4.2: Utilities**<br>a) Describe the process for identifying any underground utilities prior to construction (i.e., underground service alerts, etc.).<br>b) Describe the process for relocating any existing overhead or underground utilities that aren't directly connected to the project system.<br>c) Describe the process for installing any temporary power or other utility lines for construction. | 3.5.4.2 |
| **3.5.4.3: Vegetation Clearing**<br>a) Describe what types of vegetation clearing may be required (e.g., tree removal, brush removal, flammable fuels removal) and why (e.g., to provide access, etc.).<br>b) Provide calculations of temporary and permanent disturbance of each vegetation community and include all areas of vegetation removal in the GIS database. Distinguish between disturbance that would occur in previously developed areas (i.e., paved, graveled, or otherwise urbanized), and naturally vegetated areas.<br>c) Describe how each type of vegetation removal would be accomplished.<br>d) Describe the types of equipment that would be used for vegetation removal. | 3.5.4.3<br>Available GIS data layers will be submitted digitally under a separate cover. |
| **3.5.4.4: Tree Trimming Removal**<br>a) For electrical projects, distinguish between tree trimming as required under CPUC General Order 95-D and tree removal.<br>b) Identify the types, locations, approximate numbers, and sizes of trees that may need to be removed or trimmed substantially.<br>c) Identify potentially protected trees that may be removed or substantially trimmed, such as but not limited to riparian trees, oaks trees, Joshua trees, or palm trees.<br>d) Describe the types of equipment that would typically be used for tree removal. | 3.5.4.4 |
| **3.5.4.5: Work Area Stabilization.** Describe the processes to stabilize temporary work areas and access roads including the materials that would be used (e.g., gravel). | 3.5.4.5<br>Also refer to Section 4.10 |
| **3.5.4.6: Grading**<br>a) Describe any earth moving or substantial grading activities (i.e., grading below a 6-inch depth) that would be required and identify locations where it would occur. | 3.5.4.6<br>Table 3-3 |

| Table 2-2: PEA Checklist | |
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| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| b) Provide estimated volumes of grading (in cubic yards) including total cut, total fill, cut that would be reused, cut that would be hauled away, and clean fill that would be hauled to the site. | |
| **3.5.5 Transmission Line Construction (Above Ground)** | 3.5.5 |
| **3.5.5.1: Poles/Towers**<br>a) Describe the process and equipment for removing poles, towers, and associated foundations for the proposed project (where applicable). Describe how they would be disconnected, demolished, and removed from the site. Describe backfilling procedures and where the material would be obtained.<br>b) Describe the process and equipment for installing or otherwise modifying poles and towers for the proposed project. Describe how they would be put into place and connected to the system. Identify any special construction methods (e.g., helicopter installation) at specific locations or specific types of poles/towers.<br>c) Describe how foundations, if any, would be installed. Provide a description of the construction method(s), approximate average depth and diameter of excavation, approximate volume of soil to be excavated, approximate volume of concrete or other backfill required, etc. for foundations. Describe what would be done with soil removed from a hole/foundation site.<br>d) Describe how the poles/towers and associated hardware would be delivered to the site and assembled.<br>e) Describe any pole topping procedures that would occur, identify specific locations and reasons, and describe how each facility would be modified. Describe any special methods that would be required to top poles that may be difficult to access. | 3.5.5.1 Take-Off Towers |
| **3.5.5.3: Telecommunications.** Identify the procedures for installation of proposed telecommunication cables and associated infrastructure. | 3.5.5.2 |
| **3.5.5.4: Guard Structures.** Identify the types of guard structures that would be used at crossings of utility lines, roads, railroads, highways, etc. Describe the different types of guard structures or methods that may be used (i.e., buried poles and netting, poles secured to a weighted object, bucket trucks, etc.). Describe any pole installation and removal procedures associated with guard structures. Describe guard structure installation and removal process and duration that guard structures would remain in place. | 3.5.5.3 |
| **3.5.7 Substation, Switching Stations, Gas Compressor Stations** | 3.5.6 STATCOM Substation |
| **3.5.7.1: Installation or Facility Modification.** Describe the process and equipment for removing, installing, or modifying any substations, switching stations, or compressor stations including:<br>a) Transformers/ electric components<br>b) Gas components<br>c) Control and operation buildings<br>d) Driveways<br>e) Fences<br>f) Gates<br>g) Communication systems (SCADA)<br>h) Grounding systems | 3.5.6.1 Facility Installation |

| Table 2-2: PEA Checklist | |
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| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| **3.5.7.2: Civil Works.** Describe the process and equipment required to construct any slope stabilization, drainage, retention basins, and spill containment required for the facility. | 3.5.6.2<br>Also refer to Section 3.3.4.1 |
| **3.5.10 Public Safety and Traffic Control (All Projects)** | 3.5.7 |
| **3.5.10.1: Public Safety**<br>a) Describe specific public safety considerations during construction and best management practices to appropriately manage public safety. Clearly state when and where they each safety measure would be applied.<br>b) Identify procedures for managing work sites in urban areas, covering open excavations securely, installing barriers, installing guard structures, etc.<br>c) Identify specific project areas where public access may be restricted for safety purposes and provide the approximate durations and timing of restricted access at each location. | 3.5.7.1 |
| **3.5.10.2: Traffic Control**<br>a) Describe traffic control procedures that would be implemented during construction.<br>b) Identify the locations, process, and timing for closing any sidewalks, lanes, roads, trails, paths, or driveways to manage public access.<br>c) Identify temporary detour routes and locations.<br>d) Provide a preliminary Traffic Control Plan(s) for the project. | 3.5.7.2 |
| **3.5.10.3: Security.** Describe any security measures, such as fencing, lighting, alarms, etc. that may be required. State if security personnel will be stationed at project areas and anticipated duration of security. | 3.5.7.3 |
| **3.5.11 Dust, Erosion, and Runoff Controls (All Projects)** | 3.5.8 |
| **3.5.11.1: Dust.** Describe specific best management practices that would be implemented to manage fugitive dust. | 3.5.8.1<br>Also refer to Section 4.3 |
| **3.5.11.2: Erosion**. Describe specific best management practices that would be implemented to manage erosion. | 3.5.8.2 |
| **3.5.11.3: Runoff.** Describe specific best management practices that would be implemented to manage stormwater runoff and sediment. | 3.5.8.3 |
| **3.5.12 Water Use and Dewatering (All Projects)** | 3.5.9 |
| **3.5.12.1: Water Use.** Describe the estimated volumes of water that would be used by construction activity (e.g., dust control, compaction, etc.). State if recycled or reclaimed water would be used and provide estimated volumes. Identify the anticipated sources where the water would be acquired or purchased. Identify if the source of water is groundwater and the quantity of groundwater that could be used. | 3.5.9.1 |
| **3.5.12.2: Dewatering**<br>a) Describe dewatering procedures during construction, including pumping, storing, testing, permitted discharging, and disposal requirements that would be followed.<br>b) Describe the types of equipment and workspace considerations to be used to dewater, store, transport, or discharge extracted water. | 3.5.9.2 |
| **3.5.13 Hazardous Materials and Management (All Projects)** | 3.5.10 |
| **3.5.13.1: Hazardous Materials**<br>a) Describe the types, uses, and volumes of all hazardous materials that would be used during construction. | 3.5.10.1<br>Also refer to Section 4.9 |

| Table 2-2: PEA Checklist | |
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| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| b) State if herbicides or pesticides may be used during construction.<br>c) If a pre-existing hazardous waste were encountered, describe the process of removal and disposal. | |
| **3.5.13.2: Hazardous Materials Management**<br>a) Identify specific best management practices that would be followed for transporting, storing, and handling hazardous materials.<br>b) Identify specific best management practices that would be followed in the event of an incidental leak or spill of hazardous materials.<br>c) Provide a Hazardous Substance Control and Emergency Response Plan / Hazardous Waste and Spill Prevention Plan as an Appendix to the PEA, if appropriate | 3.5.10.2<br>Also refer to Section 4.9 |
| **3.5.14 Waster Generation and Management (All Projects)** | 3.5.11 |
| **3.5.14.1: Solid Waste**<br>a) Describe solid waste streams from existing and proposed facilities during construction.<br>b) Identify procedures to be implemented to manage solid waste, including collection, containment, storage, treatment, and disposal.<br>c) Provide estimated total volumes of solid waste by construction activity or project component.<br>d) Describe the recycling potential of solid waste materials and provide estimated volumes of recyclable materials by construction activity or project component.<br>e) Identify the locations of appropriate disposal and recycling facilities where solid wastes would be transported. | 3.5.11.1 |
| **3.5.14.2: Liquid Waste**<br>a) Describe liquid waste streams during construction (i.e., sanitary waste, drilling fluids, contaminated water, etc.)<br>b) Describe procedures to be implemented to manage liquid waste, including collection, containment, storage, treatment, and disposal.<br>c) Provide estimated volumes of liquid waste generated by construction activity or project component.<br>d) Identify the locations of appropriate disposal facilities where liquid wastes would be transported. | 3.5.11.2 |
| **3.5.14.3: Hazardous Waste**<br>a) Describe potentially hazardous waste streams during construction and procedures to be implemented to manage hazardous wastes, including collection, containment, storage, treatment, and disposal.<br>b) If large volumes of hazardous waste are anticipated, such as from a pre-existing contaminant in the soil that must be collected and disposed of, provide estimated volumes of hazardous waste that would be generated by construction activity or project component.<br>c) Identify the locations of appropriate disposal facilities where hazardous wastes would be transported. | 3.5.11.3<br>Also refer to Section 3.5.10 |
| **3.5.15 Fire Prevention and Response (All Projects)** | 3.5.12 |
| **3.5.15.1: Fire Prevention and Response Procedures.** Describe fire prevention and response procedures that would be implemented during construction. Provide a Construction Fire Prevention Plan or specific procedures as an Appendix to the PEA. | 3.5.12.1<br>Also refer to Section 4.9 |
| **3.5.15.2: Fire Breaks.** Identify any fire breaks (i.e., vegetation clearance) requirements around specific project activities (i.e., hot work). Ensure that such clearance buffers are included in the limits of the defined work areas, | 3.5.12.2 |

| Table 2-2: PEA Checklist | |
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| and the vegetation removal in that area is attributed to Fire Prevention and Response (refer to 3.5.4.3: Vegetation Clearing). | |
| **3.6 Construction Workforce, Equipment, Traffic, and Schedule** | 3.6 |
| **3.6.1: Construction Workforce**<br>a) Provide the estimated number of construction crew members. In the absence of project-specific data, provide estimates based on past projects of a similar size and type.<br>b) Describe the crew deployment. Would crews work concurrently (i.e., multiple crews at different sites); would they be phased? How many crews could be working at the same time and where?<br>c) Describe the different types of activities to be undertaken during construction, the number of crew members for each activity (i.e. trenching, grading, etc.), and number and types of equipment expected to be used for the activity. Include a written description of the activity. See example in Table 5. | 3.6.1<br>Table 3-4 |
| **3.6.2: Construction Equipment.** Provide a tabular list of the types of equipment expected to be used during construction of the proposed project including the horsepower. Define the equipment that would be used by each phase as shown in the example (Table 5). | 3.6.2<br>Table 3-4<br>Table 3-5 |
| **3.6.3: Construction Traffic**<br>a) Describe how the construction crews and their equipment would be transported to and from the proposed project site.<br>b) Provide vehicle type, number of vehicles, and estimated hours of operation per day, week, and month for each construction activity and phase.<br>c) Provide estimated vehicle trips and vehicles miles traveled (VMT) for each construction activity and phase. Provide separate values for construction crews commuting, haul trips, and other types of construction traffic. | 3.6.3<br>Table 3-6 |
| **3.6.4: Construction Schedule**<br>a) Provide the proposed construction schedule (e.g., month and year) for each segment or project component, and for each construction activity and phase.<br>b) Provide and explain the sequencing of construction activities, and if they would or would not occur concurrently.<br>c) Provide the total duration of each construction activity and phase in days or weeks.<br>d) Identify seasonal considerations that may affect the construction schedule, such as weather or anticipated wildlife restrictions, etc. The proposed construction should account for such factors. | 3.6.4<br>Table 3-7 |
| **3.6.5: Work Schedule**<br>a) Describe the anticipated work schedule, including the days of the week and hours of the day when work would occur. Clearly state if work would occur at night or on weekends and identify when and where this could occur.<br>b) Provide the estimated number of days or weeks that construction activities would occur at each type of work area. For example, construction at a stationary facility or staging area may occur for the entire duration of construction, but construction at individual work areas along a linear project would be limited to a few hours, days or weeks, and only a fraction of the total construction period. | 3.6.5 |

| Table 2-2: PEA Checklist | |
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| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| **3.7 Post-Construction** | 3.7 |
| **3.7.1: Configuring and Testing.** Describe the process and duration for post-construction configuring and testing of facilities. Describe the number of personnel and types of equipment that would be involved. | 3.7.1 Commissioning and Testing |
| **3.7.2: Landscaping.** Describe any landscaping that would be installed. Provide a conceptual landscape plan that identifies the locations and types of plantings that will be used. Identify whether plantings will include container plants or seeds. Include any water required for landscaping in the description of water use above. | 3.7.2 |
| **3.7.3 Demobilization and Site Restoration** | 3.7.3 |
| **3.7.3.1: Demobilization.** Describe the process for demobilization after construction activities, but prior to leaving the work site. For example, describe final processes for removing stationary equipment and materials, etc. | 3.7.3.1 |
| **3.7.3.2: Site Restoration.** Describe how cleanup and post-construction restoration would be performed (i.e., personnel, equipment, and methods) on all project ROWs, sites, and extra work areas. Things to consider include, but are not limited to, restoration of the following:<br>a) Restoring natural drainage patterns<br>b) Recontouring disturbed soil<br>c) Removing construction debris<br>d) Vegetation<br>e) Permanent and semi-permanent erosion control measures<br>f) Restoration of all disturbed areas and access roads, including restoration of any public trails that are used as access, as well as any damaged sidewalks, agricultural infrastructure, or landscaping, etc.<br>g) Road repaving and striping, including proposed timing of road restoration for underground construction within public roadways | 3.7.3.2 |
| **3.8 Operation and Maintenance** | 3.8 |
| **3.8.1: Regulations and Standards**<br>a) Identify and describe all regulations and standards applicable to operation and maintenance of project facilities.<br>b) Provide a copy of any applicable Wildfire Management Plan and describe any special procedures for wildfire management. | 3.8.1 |
| **3.8.2: System Controls and Operation Staff**<br>a) Describe the systems and methods that the Applicant would use for monitoring and control of project facilities (e.g., on-site control rooms, remote facilities, standard monitoring and protection equipment, pressure sensors, automatic shut-off valves, and site and equipment specific for monitoring and control such as at natural gas well pads).<br>b) If new full-time staff would be required for operation and/or maintenance, provide the number of positions and purpose. | 3.8.2 |
| **3.8.3: Inspection Programs**<br>a) Describe the existing and proposed inspection programs for each project component, including the type, frequency, and timing of scheduled inspections (i.e., aerial inspection, ground inspection, pipeline inline inspections). | 3.8.3 |

| Table 2-2: PEA Checklist | |
|---|---|
| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| b) Describe any enhanced inspections, such as within any High Fire Threat Districts consistent with applicable Wildfire Management Plan requirements.<br>c) Describe the inspection processes, such as the methods, number of crew members, and how access would occur (i.e., walk, vehicle, all-terrain vehicle, helicopter, drone, etc.). If new access would be required, describe any restoration that would be provided for the access roads. | |
| **3.8.4: Maintenance Programs**<br>a) Describe the existing and proposed maintenance programs for each project component.<br>b) Describe scheduled maintenance or facility replacement after the designated lifespan of the equipment.<br>c) Identify typical parts and materials that require regular maintenance and describe the repair procedures.<br>d) Describe any access road maintenance that would occur.<br>e) Describe maintenance for surface or color treatment.<br>f) Describe cathodic protection maintenance that would occur.<br>g) Describe ongoing landscaping maintenance that would occur. | 3.8.4 |
| **3.8.5: Vegetation Management Programs**<br>a) Describe vegetation management programs within and surrounding project facilities. Distinguish between any different types of vegetation management.<br>b) Describe any enhanced vegetation management, such as within any High Fire Threat Districts consistent with any applicable Wildfire Management Plan requirements. Identify the areas where enhanced vegetation management would be conducted. | 3.8.5 |
| **3.9 Decommissioning** | 3.9 |
| **3.9.1: Decommissioning.** Provide detailed information about the current and reasonably foreseeable plans for the disposal, recycling, or future abandonment of all project facilities. | 3.9.1 |
| **3.10 Anticipated Permits and Approvals** | 3.10 |
| 3.10.1: Anticipated Permits and Approvals. Identify all necessary federal, state, regional, and local permits that may be required for the project. For each permit, list the responsible agency and district/office representative with contact information, type of permit or approval, and status of each permit with date filed or planned to file. For example:<br>a) Federal Permits and Approvals<br>I. U.S. Fish and Wildlife Service<br>II. U.S. Army Corps of Engineers<br>III. Federal Aviation Administration<br>IV. U.S. Forest Service<br>V. U.S. Department of Transportation – Office of Pipeline Safety<br>VI. U.S. Environmental Protection Agency (Resource Conservation and Recovery Act; Comprehensive Environmental Response, Compensation, and Liability Act)<br>b) State and Regional Permits<br>I. California Department of Fish and Wildlife<br>II. California Department of Transportation<br>III. California State Lands Commission | 3.10.1<br>Table 3-8 |

| Table 2-2: PEA Checklist | |
|---|---|
| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| IV. California Coastal Commission<br>V. State Historic Preservation Office, Native American Heritage Commission<br>VI. State Water Resources Control Board<br>VII. California Division of Oil, Gas and Geothermal Resources<br>VIII. Regional Air Quality Management District<br>IX. Regional Water Quality Control Board (National Pollutant Discharge Elimination System General Industrial Storm Water Discharge Permit)<br>X. Habitat Conservation Plan Authority (if applicable)<br>See also Table 6 of example permitting requirements and processes. | |
| **3.10.2: Rights-of-Way or Easement Applications**. Demonstrate that applications for ROWs or other proposed land use have been or soon will be filed with federal, state, or other land-managing agencies that have jurisdiction over land that would be affected by the project (if any). Discuss permitting plans and timeframes and provide the contact information at the federal agency(ies) approached. | 3.10.2<br>Table 3-9 |
| **3.11 Applicant Proposed Measures**<br>a) Provide a table with the full text of any Applicant Proposed Measure. Where applicable, provide a copy of Applicant procedures, plans, and standards referenced in the Applicant Proposed Measures.<br>b) Within Chapter 5, describe the basis for selecting a particular Applicant Proposed Measure and how the Applicant Proposed Measure would reduce the impacts of the project.<br>c) Carefully consider each CPUC Draft Environmental Measure identified in Chapter 5 of this PEA Checklist. The CPUC Draft Environmental Measures will be applied to the proposed project where applicable. | 3.11<br>3.11.1<br>Table 3-10<br>Also refer to Section 4.0 |
| **4.0 Environmental Analysis** | 4.0 |
| **4.1 Aesthetics** | 4.1 |
| **4.1.1 Environmental Setting** | 4.1.1 |
| **4.1.1.1: Landscape Setting.** Briefly described the regional and local landscape setting. | 4.1.1.1 |
| **4.1.1.2: Scenic Resources**. Identify and describe any vistas, scenic highways, national scenic areas, or other scenic resources within and surrounding the project area (approximately 5-mile buffer but may be greater if necessary). Scenic resources may also include but are not limited to historic structures, trees, or other resources that contribute to the scenic values where the project would be located. | 4.1.1.2<br>Figure 4.1-1<br>Figures in Appendix 1-A.<br>Available GIS data layers will be submitted digitally under a separate cover. |
| **4.1.1.3: Viewshed Analysis**<br>a) Conduct a viewshed analysis for the project area (approximately 5-mile buffer but may be greater if necessary).<br>b) Describe the project viewshed, including important visibility characteristics for the project site, such as viewing distance, viewing angle, and intervening topography, vegetation, or structures.<br>c) Provide a supporting map (or maps) showing project area, landscape units, topography (i.e., hillshade), and the results of the viewshed analysis. Provide associated GIS data. | 4.1.1.3<br>Figure 4.1-1<br>Figures in Appendix 1-A.<br>Available GIS data layers will be submitted digitally under a separate cover. |

| Table 2-2: PEA Checklist | |
|---|---|
| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| **4.1.1.4: Landscape Units.** Identify and describe landscape units (geographic zones) within and surrounding the project area (approximately 5-mile buffer but may be greater if necessary) that categorizes different landscape types and visual characteristics, with consideration to topography, vegetation, and existing land uses. Landscape units should be developed based on the existing landscape characteristics rather than the project's features or segments. | 4.1.1.4<br>Figure 4.11-1<br>Figure 4.1-2 |
| **4.1.1.5: Viewers and Viewer Sensitivity.** Identify and described the types of viewers expected within the viewshed and landscape units. Describe visual sensitivity to general visual change based on viewing conditions, use of the area, feedback from the public about the project, and landscape characteristics. | 4.1.1.5 |
| **4.1.1.6: Representative Viewpoints**<br>a) Identify representative viewpoints from publicly accessible locations (up to approximately 5-mile buffer but may be greater if appropriate). The number and location of the viewpoints must represent a range of views of the project site from major roads, highways, trails, parks, vistas, landmarks, and other scenic resources near the project site. Multiple viewpoints should be included where the project site would be visible from sensitive scenic resources to provide context on different viewing distances, perspectives, and directions.<br>b) Provide the following information for each viewpoint:<br>I. Number, title, and brief description of the location<br>II. Types of viewers<br>III. Viewing direction(s) and distance(s) to the nearest proposed project features<br>IV. Description of the existing visual conditions and visibility of the project site as seen from the viewpoint and shown in the representative photographs<br>c) Provide a supporting map (or maps) showing project features and representative viewpoints with arrows indicating the viewing direction(s). Provide associated GIS data (may be combined with GIS data request below for representative photographs). | 4.1.1.6<br>Figure 4.1-2<br>Figure 4.1-3 thru 4.1-8<br>Table 4.1-1<br>Figure 4.1-9<br>Figures in Appendix 1-A.<br>Available GIS data layers will be submitted digitally under a separate cover. |
| **4.1.1.7: Representative Photographs**<br>a) Provide high resolution photographs taken from the representative viewpoints in the directions of all proposed project features. Multiple photographs should be provided where project features may be visible in different viewing directions from the same location.<br>b) Provide the following information for each photograph:<br>I. Capture time and date<br>II. Camera body and lens model<br>III. Lens focal length and camera height when taken<br>c) Provide GIS data associated with each photograph location that includes coordinates (<1 meter resolution), elevations, and viewing directions, as well as the associated viewpoint. | 4.1.1.7<br>Table 4.1-1<br>Available GIS data layers will be submitted digitally under a separate cover. |

| Table 2-2: PEA Checklist | |
|---|---|
| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| **4.1.1.8: Visual Resource Management Areas**<br>a) Identify any visual resource management areas within and surrounding the project area (approximately 5-mile buffer).<br>b) Describe any project areas within visual resource management areas.<br>c) Provide a supporting map (or maps) showing project features and visual resource management areas. Provide associated GIS data. | 4.1.1.8<br>Available GIS data layers will be submitted digitally under a separate cover. |
| **4.1.2 Regulatory Setting** | 4.1.2 |
| **4.1.2.1: Regulatory Setting.** Identify applicable federal, state, and local laws, policies, and standards regarding aesthetics and visual resource management. | 4.1.2.1 |
| **4.1.3 Impact Questions** | 4.3 |
| **4.1.3.1: CEQA Impact Questions.** The impact questions include all aesthetic impact questions in the current version of CEQA Guidelines, Appendix G.<br>**4.1.3.2:** Additional CEQA Impact Questions: None. | 4.1.3.1<br>4.1.3.2 |
| **4.1.4 Impact Analysis** | 4.1.4 |
| **4.1.4.1: Visual Impact Analysis.** Provide an impact analysis for each checklist item identified in CEQA Guidelines Appendix G for this resource area and any additional impact questions listed above. | 4.1.4.1<br>4.1.1.2<br>4.15<br>4.1.6<br>Figure 4.1-3 thru 4.1-9<br>Table 4.1-1 |
| **4.1.5 CPUC Draft Environmental Measures** | 4.1.5 |
| **4.1.6 Applicant Proposed Measures** | 4.1.6 |
| **4.2 Agriculture and Forestry Resources** | 4.2 |
| **4.2.1 Environmental Setting** | 4.2.1 |
| **4.2.1.1: Agricultural Resources and GIS**<br>a) Identify all agricultural resources that occur within the project area including:<br>I. Areas designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance<br>II. Areas under Williamson Act contracts and provide information on the status of the Williamson Act contract<br>III. Any areas zoned for agricultural use in local plans<br>IV. Areas subject to active agricultural use<br>b) Provide GIS data for agricultural resources within the proposed project area. | 4.2.1.1<br>Table 4.2-1<br>Figure 4.2-1<br>Also refer to Section 4.2.2<br>Figures in Appendix 1-A.<br>Available GIS data layers will be submitted digitally under a separate cover. |
| **4.2.1.2: Forestry Resources and GIS**<br>a) Identify all forestry resources within the project area including:<br>I. Forest land as defined in Public Resources Code 12220(g)25<br>II. Timberland as defined in Public Resource Code section 4526<br>III. Timberland zoned Timberland Production as defined in Government Code section 51104(g)<br>b) Provide GIS data for all forestry resources within the proposed project area. | 4.2.1.2<br>Available GIS data layers will be submitted digitally under a separate cover. |
| **4.2.2 Regulatory Setting** | 4.2.2 |

| Table 2-2: PEA Checklist | |
|---|---|
| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| **4.2.2: Regulatory Setting.** Identify all federal, state, and local policies for protection of agricultural and forestry resources that apply to the proposed project. | 4.2.2.1 |
| **4.2.3 Impact Questions** | 4.2.3 |
| **4.2.3.1: CEQA Impact Questions.** The impact questions include all agriculture and forestry impact questions in the current version of CEQA Guidelines, Appendix G.<br>**4.2.3.2: Additional CEQA Impact Questions: None.** | 4.2.3.1<br>4.2.3.2 |
| **4.2.4 Impact Analyses** | 4.2.4 |
| **4.2.4.1: Impact Analysis.** Provide an impact analysis for each checklist item identified in CEQA Guidelines Appendix G for this resource area and any additional impact questions listed above. | 4.2.4.1<br>Figure 4.11-1<br>Also refer to Section 4.11 |
| **4.2.5 CPUC Draft Environmental Measures** | 4.2.5 |
| **4.2.6 Applicant Proposed Measures** | 4.2.6 |
| **4.3 Air Quality** | 4.3 |
| **4.3.1 Environmental Setting** | 4.3.1 |
| **4.3.1.1: Air Quality Plans.** Identify and describe all applicable air quality plans and attainment areas. Identify the air basin(s) for the project area. If the project is located in more than one attainment area and/or air basin, provide the extent in each attainment area and air basin. | 4.3.1.1<br>Table 4.3-1 |
| **4.3.1.2: Air Quality.** Describe existing air quality in the project area.<br>a) Identify existing air quality exceedance of National Ambient Air Quality Standards and California Ambient Air Quality Standards in the air basin.<br>b) Provide the number of days that air quality in the area exceeds state and federal air standards for each criteria pollutant that where air quality standards are exceeded.<br>c) Provide air quality data from the nearest representative air monitoring station(s). | 4.3.1.2<br>Table 4.3-2 |
| **4.3.1.3: Sensitive Receptor Locations.** Identify the location and types of each sensitive receptor locations within 1,000 feet of the project area. Provide GIS data for sensitive receptor locations. | 4.3.1.3<br>Figure 4.3-1<br>Figures in Appendix 1-A.<br>Available GIS data layers will be submitted digitally under a separate cover. |
| **4.3.2 Regulatory Setting** | 4.3.2 |
| **4.3.2.1: Regulatory Setting.** Identify applicable federal, state, and local laws, policies, and standards regarding aesthetics and visual resource management. | 4.3.2.1<br>Table 4.3-3<br>Table 4.3-4 |
| **4.3.2.2: Air Permits.** Identify and list all necessary air permits. | 4.3.2.2 |
| **4.3.3 Impact Questions** | 4.3.3 |
| **4.3.3.1: CEQA Impact Questions.** The impact questions include all air quality impact questions in the current version of CEQA Guidelines, Appendix G.<br>**4.3.3.2:** Additional CEQA Impact Questions: None. | 4.3.3.1<br>4.3.3.2 |
| **4.3.4 Impact Analysis** | 4.3.4 |

| Table 2-2: PEA Checklist | |
|---|---|
| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| **4.3.4.1: Impact Analysis.** Provide an impact analysis for each checklist item identified in CEQA Guidelines Appendix G for this resource area and any additional impact questions listed above. | 4.3.4.1<br>Appendix 4.3-A<br>Table 4.3-5<br>Table 4.3-6<br>Table 4.3-7<br>Figure 4.3-1<br>Also refer to Section 5.0 Figures in Appendix 1-A. Available GIS data layers will be submitted digitally under a separate cover. |
| **4.3.5 CPUC Draft Environmental Measures** | 4.3.5 |
| **4.3.6 Applicant Proposed Measures** | 4.3.6 |
| **4.4 Biological Resources** | 4.4 |
| **4.4.1 Environmental Setting** | 4.4.1 |
| **4.4.1.1: Biological Resources Technical Report.** Provide a Biological Resources Technical Report as an Appendix to the PEA that includes all information specified in Attachment 2. | 4.4.1.1<br>Appendix 4.4-A |
| The following biological resources information will be presented in the PEA: | |
| **4.4.1.2: Survey Area (Local Setting).** Identify and describe the biological resources survey area as documented in the Biological Resources Technical Report. All temporary and permanent project areas must be within the survey area. | 4.4.1.2<br>Figure 4.4-1<br>Figures in Appendix 1-A. Available GIS data layers will be submitted digitally under a separate cover. |
| **4.4.1.3: Vegetation Communities and Land Cover**<br>a) Identify, describe, and quantify vegetation communities and land cover types within the biological resources survey area.<br>b) Clearly identify any sensitive natural vegetation communities that meet the definition of a biological resource under CEQA (i.e., rare, designated, or otherwise protected), such as, but not limited to, riparian habitat.<br>c) Provide a supporting map (or maps) showing project features and vegetation communities and land cover type. | 4.4.1.3<br>Table 4.4-1<br>Figure 4.4-2<br>Figures in Appendix 1-A. Available GIS data layers will be submitted digitally under a separate cover. |
| **4.4.1.4: Aquatic Features**<br>a) Identify, describe, and quantify aquatic features within the biological resources survey area that may provide potentially suitable aquatic habitat for rare and special-status species.<br>b) Identify and quantify potentially jurisdictional aquatic features and delineated wetlands, according to the Wetland Delineation Report and Biological Resources Technical Report.<br>c) Provide a supporting map (or maps) showing project features and aquatic resources. | 4.4.1.4<br>Figure 4.4-2<br>Figure 4.4-3<br>Figures in Appendix 1-A. Available GIS data layers will be submitted digitally under a separate cover. |
| **4.4.1.5: Habitat Assessment.** Identify rare and special-status species with potential to occur in the project region (approximately a 5-mile buffer but may be larger if necessary). For each species, provide the following information:<br>a) Common and scientific name<br>b) Status and/or rank | 4.4.1.5<br>Table 4.4-2<br>Appendix 4.4-A<br>Figure 4.4-4<br>Figure 4.4-5<br>Figure 4.4-6 |

| Table 2-2: PEA Checklist | |
|---|---|
| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| c) Habitat characteristics (i.e., vegetation communities, elevations, seasonal changes, etc.)<br>d) Blooming characteristics for plants<br>e) Breeding and other dispersal (range) behavior for wildlife<br>f) Potential to occur within the survey area (i.e., Present, High Potential, Moderate Potential, Low Potential, or Not Expected), with justification based on the results of the records search, survey findings, and presence of potentially suitable habitat<br>g) Specific types and locations of potentially suitable habitat that correspond to the vegetation communities and land cover and aquatic features | Figures in Appendix 1-A. Available GIS data layers will be submitted digitally under a separate cover. |
| **4.4.1.6: Critical Habitat**<br>a) Identify and describe any critical habitat for rare or special status species within and surrounding the project area (approximately a 5-mile buffer).<br>b) Provide a supporting map (or maps) showing project features and critical habitat. | 4.4.1.6 |
| **4.4.1.7: Native Wildlife Corridors and Nursery Sites**<br>a) Identify and describe regional and local wildlife corridors within and surrounding the project area (approximately a 5-mile buffer), including but not limited to, landscape and aquatic features that connect suitable habitat in regions otherwise fragmented by terrain, changes in vegetation, or human development.<br>b) Identify and describe regional and local native wildlife nursery sites within and surrounding the project area (approximately a 5-mile buffer), as identified through the records search, surveys, and habitat assessment.<br>c) Provide a supporting map (or maps) showing project features, native wildlife corridors, and native nursery sites. | 4.4.1.7 |
| **4.4.1.8: Biological Resource Management Areas**<br>a) Identify any biological resource management areas (i.e., conservation or mitigation areas, HCP or NCCP boundaries, etc.) within and surrounding the project area (approximately 5-mile buffer).<br>b) Identify and quantify any project areas within biological resource management areas.<br>c) Provide a supporting map (or maps) showing project features and biological resource management areas. | 4.4.1.8 |
| **4.4.2 Regulatory Setting** | 4.4.2 |
| **4.4.2.1: Regulatory Setting.** Identify applicable federal, state, and local laws, policies, and standards regarding biological resources. | 4.4.2.1 |
| **4.4.2.2: Habitat Conservation Plan.** Provide a copy of any relevant Habitat Conservation Plan. | 4.4.2.2 |
| **4.4.3 Impact Questions** | 4.4.3 |
| **4.4.3.1: CEQA Impact Questions.** The impact questions include all biological resource impact questions in the current version of CEQA Guidelines, Appendix G.<br>**4.4.3.2:** Additional CEQA Impact Question:<br>a) Would the project create a substantial collision or electrocution risk for birds or bats? | 4.4.3.1<br><br>4.4.3.2 |

| Table 2-2: PEA Checklist | |
|---|---|
| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| **4.4.4 Impact Analysis** | 4.4.4 |
| **4.4.4.1: Impact Analysis** Provide an impact analysis for each checklist item identified in CEQA Guidelines, Appendix G for Biological Resources and any additional impact questions listed above. | 4.4.4.1 |
| **4.4.5 CPUC Draft Environmental Measures** | 4.4.5 |
| **4.4.6 Applicant Proposed Measures** | 4.4.6 |
| **4.5 Cultural Resources** | 4.5 |
| **4.5.1 Environmental Setting** | 4.5.1 |
| **4.5.1.1: Cultural Resource Reports.** Provide a cultural resource inventory and evaluation report that addresses the technical requirement provided in Attachment 3. | 4.5.1.1<br>Appendix 4.5-A |
| **4.5.1.2: Cultural Resources Summary.** Summarize cultural resource survey and inventory results and survey methods. Do not provide any confidential cultural resource information within the PEA chapter. | 4.5.1.2<br>4.18<br>Appendix 4.18-B<br>Appendix 4.18-C<br>Appendix 4.5-A |
| **4.5.1.3: Cultural Resource Survey Boundaries.** Provide a map with mileposts showing the boundaries of all survey areas in the report. Provide the GIS data for the survey area. Provide confidential GIS data for the resource locations and boundaries separately under confidential cover. | 4.5.1.3<br>Figure 4.5-1<br>Figures in Appendix 1-A.<br>Available GIS data layers will be submitted digitally under a separate cover. |
| **4.5.2 Regulatory Setting** | 4.5.2 |
| **4.5.2.1: Regulatory Setting.** Identify applicable federal and state regulations for protection of cultural resources. | 4.5.2.1 |
| **4.5.3 Impact Questions** | 4.5.3 |
| **4.5.3.1: CEQA Impact Questions.** The impact questions include all cultural resource impact questions in the current version of CEQA Guidelines, Appendix G.<br>**4.5.3.2: Additional CEQA Impact Questions: None.** | 4.5.3.1<br>4.5.3.2 |
| **4.5.4 Impact Analysis** | 4.5.4 |
| **4.5.4.1: Impact Analysis.** Provide an impact analysis for each checklist item identified in CEQA Guidelines, Appendix G for this resource area and any additional impact questions listed above. | 4.5.4.1 |
| **4.5.5 CPUC Draft Environmental Measures** | 4.5.5 |
| **4.5.6 Applicant Proposed Measures** | 4.5.6 |
| **4.6 Energy** | 4.6 |
| **4.6.1 Environmental Setting** | 4.6.1 |
| **4.6.1.1: Existing Energy Use**. Identify energy use of existing infrastructure if the proposed project would replace or upgrade an existing facility. | 4.6.1.1<br>4.6.1.2 |
| **4.6.2 Regulatory Setting** | 4.6.2 |
| **4.6.2.1: Regulatory Setting.** Identify applicable federal, state, or local regulations or policies applicable to energy use for the proposed project. | 4.6.2.1 |
| **4.6.3 Impact Questions** | 4.6.3 |
| **4.6.3.1: CEQA Impact Questions:** The impact questions include all energy impact questions in the current version of CEQA Guidelines, Appendix G.<br>**4.6.3.2: Additional CEQA Impact Question:** | 4.6.3.1<br>4.6.3.2 |

| Table 2-2: PEA Checklist | |
|---|---|
| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| a) Would the project add capacity for the purpose of serving a nonrenewable energy resource? | |
| **4.6.4 Impact Analysis** | 4.6.4 |
| **4.6.4.1: Impact Analysis.** Provide an impact analysis for each checklist item identified in CEQA Guidelines Appendix G for this resource area and any additional impact questions listed above. | 4.6.4.1<br>Appendix 4.6-A<br>Appendix 4.8-A<br>Also refer to Section 4.8 and Section 5.0 |
| **4.6.5 CPUC Draft Environmental Measures** | 4.6.5 |
| **4.6.6 Applicant Proposed Measures** | 4.6.6 |
| **4.7 Geology, Soils, and Paleontological Resources** | 4.7 |
| **4.7.1 Environmental Setting** | 4.7.1 |
| **4.7.1.1: Regional and Local Geologic Setting.** Briefly describe the regional and local physiography, topography, and geologic setting in the project area. | 4.7.1.1 |
| **4.7.1.2: Seismic Hazards**<br>a) Provide the following information on potential seismic hazards in the project area:<br>I. Identify and describe regional and local seismic risk including any active faults within and surrounding the project area (will be a 10-mile buffer unless otherwise instructed in writing by CEQA Unit Staff during Pre-filing)<br>II. Identify any areas that are prone to seismic-induced landslides<br>III. Provide the liquefaction potential for the project area<br>b) Provide a supporting map (or maps) showing project features and major faults, areas of landslide risk, and areas at high risk of liquefaction. Provide GIS data for all faults, landslides, and areas of high liquefaction potential. | 4.7.1.2<br>Figure 4.7-1<br>Figures in Appendix 1-A.<br>Available GIS data layers will be submitted digitally under a separate cover. |
| **4.7.1.3: Geologic Units**. Identify and describe the types of geologic units in the project area. Include the following information for each geologic unit:<br>a) Summarize the geologic units within the project area.<br>b) Identify any previous landslides in the area and any areas that are at risk of landslide.<br>c) Identify any unstable geologic units.<br>d) Provide a supporting map (or maps) showing project features and geologic units. Clearly identify any areas with potentially hazardous geologic conditions. Provide associated GIS data. | 4.7.1.3<br>Figure 4.7-2<br>Figures in Appendix 1-A.<br>Available GIS data layers will be submitted digitally under a separate cover. |
| **4.7.1.4: Soils**. Identify and describe the types of soils in the project area.<br>a) Summarize the soils within the project area.<br>b) Clearly identify any soils types that could be unstable (e.g., at risk of lateral spreading, subsidence, liquefaction, or collapse).<br>c) Provide information on erosion susceptibility for each soil type that occurs in the project area.<br>d) Provide a supporting map (or maps) showing project features and soils. Provide associated GIS data. | 4.7.1.4<br>Figure 4.7-3<br>Appendix 4.7-A<br>Figures in Appendix 1-A.<br>Available GIS data layers will be submitted digitally under a separate cover. |
| **4.7.1.5: Paleontological Report.** Provide a paleontological report that includes the following:<br>a) Information on any documented fossil collection localities within the project area and a 500-foot buffer. | 4.7.1.5<br>Appendix 4.7-B<br>Available GIS data layers will be submitted |

| Table 2-2: PEA Checklist | |
|---|---|
| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| b) A paleontological resource sensitivity analysis based on published geological mapping and the resource sensitivity of each rock type.<br>c) Supporting maps and GIS data. | digitally under a separate cover. |
| **4.7.2 Regulatory Setting** | 4.7.2 |
| **4.7.2.1: Regulatory Setting**. Identify applicable federal, state, and local laws, policies, and standards regarding geology, soils, and paleontological resources. | 4.7.2.1 |
| **4.7.3 Impact Questions** | 4.7.3 |
| **4.7.3.1: CEQA Impact Questions.** The impact questions include all geology, soils, and paleontological resource impact questions in the current version of CEQA Guidelines, Appendix G.<br>**4.7.3.2:** Additional CEQA Impact Questions: None. | 4.7.3.1<br>4.7.3.2 |
| **4.7.4 Impact Analysis** | 4.7.4 |
| **4.7.4.1: Impact Analysis.** Provide an impact analysis for each checklist item identified in CEQA Guidelines, Appendix G for this resource area and any additional impact questions listed above. | 4.7.4.1<br>Also refer to Section 4.10<br>Appendix 4.7-A |
| **4.7.5 CPUC Draft Environmental Measures** | 4.7.5 |
| **4.7.6 Applicant Proposed Measures** | 4.7.6 |
| **4.8 Greenhouse Gas Emissions** | 4.8 |
| **4.8.1 Environmental Setting** | 4.8.1 |
| **4.8.1.1: GHG Setting.** Provide a description of the setting for greenhouse gases (GHGs). The setting should consider any GHG emissions from existing infrastructure that would be upgraded or replaced by the proposed project. | 4.8.1.1 |
| **4.8.2 Regulatory Setting** | 4.8.2 |
| **4.8.2.1: Regulatory Setting**. Identify applicable federal, state, and local laws, policies, and standards for greenhouse gases. | 4.8.2.1 |
| **4.8.3 Impact Questions** | 4.8.3 |
| **4.8.3.1: CEQA Impact Questions.** The impact questions include all greenhouse gas impact questions in the current version of CEQA Guidelines, Appendix G.<br>**4.8.3.2: Additional CEQA Impact Questions: None.** | 4.8.3.1<br>4.8.3.2 |
| **4.8.4 Impact Analysis** | 4.8.4 |
| **4.8.4.1: Impact Analysis.** Provide an impact analysis for each checklist item identified in CEQA Guidelines, Appendix G for this resource area and any additional impact questions listed above. | 4.8.4.1<br>3.0<br>Appendix 4.8-A<br>Table 4.8-1<br>Table 4.8-2<br>Table 4.8-3<br>Table 4.8-4<br>Table 4.8-5 |
| **Natural Gas Storage** | |
| **4.8.4.4: Monitoring and Contingency Plan.** Provide a comprehensive monitoring plan that would be implemented during project operation to monitor for gas leaks. The plan should identify a monitoring schedule, description of monitoring activities, and actions to be implemented if gas leaks are observed. | 4.8.4.3 |
| **4.8.5 CPUC Draft Environmental Measures** | 4.8.5 |
| **4.8.6 Applicant Proposed Measures** | 4.8.6 |

| Table 2-2: PEA Checklist | |
|---|---|
| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| | 3.0 |
| **4.9 Hazards, Hazardous Materials, and Public Safety** | 4.9 |
| **4.9.1 Environmental Setting** | 4.9.1<br>Also refer to Sections 4.7 and 4.10 |
| **4.9.1.1: Hazardous Materials Report.** Provide a Phase I Environmental Site Assessment or similar hazards report for the proposed project area. Describe any known hazardous materials locations within the project area and the status of the site. | 4.9.1.1<br>Appendix 4.9-A |
| **4.9.1.2: Airport Land Use Plan.** Identify any airport land use plan(s) within the project area. | 4.9.1.2 |
| **4.9.1.3: Fire Hazard.** Identify if the project occurs within federal, state, or local fire responsibility areas and identify the fire hazard severity rating for all project areas, including temporary work areas and access roads. | 4.9.1.3 |
| **4.9.1.4: Metallic Objects.** For electrical projects, identify any metallic pipelines or cables within 25 feet of the project. | 4.9.1.4 |
| **4.9.2 Regulatory Setting** | 4.9.2 |
| **4.9.2.1: Regulatory Setting.** Identify applicable federal, state, and local laws, policies, and standards for hazards, hazardous materials, and public safety. | 4.9.2.1 |
| **4.9.2.2: Touch Thresholds**. Identify applicable standards for protection of workers and the public from shock hazards. | 4.9.2.2 |
| **4.9.3 Impact Questions** | 4.9.3 |
| **4.9.3.1: CEQA Impact Questions.** The impact questions include all hazards and hazardous materials impact questions in the current version of CEQA Guidelines, Appendix G.<br>**4.9.3.2: Additional CEQA Impact Questions:**<br>a) Would the project create a significant hazard to air traffic from the installation of new power lines and structures?<br>b) Would the project create a significant hazard to the public or environment through the transport of heavy materials using helicopters?<br>c) Would the project expose people to a significant risk of injury or death involving unexploded ordnance?<br>d) Would the project expose workers or the public to excessive shock hazards? | 4.9.3.1<br><br>4.9.3.2 |
| **4.9.4 Impact Analysis** | 4.9.4 |
| **4.9.4.1: Impact Analysis.** Provide an impact analysis for each checklist item identified in CEQA Guidelines Appendix G for this resource area and any additional impact questions listed above. | 4.9.4.1<br>4.10<br>4.17<br>4.15 |
| **4.9.5 CPUC Draft Environmental Measures** | 4.9.5 |
| **4.9.6 Applicant Proposed Measures** | 4.9.6 |
| **4.10 Hydrology and Water Quality** | 4.10 |
| **4.10.1 Environmental Setting** | 4.10.1 |
| **4.10.1.1: Waterbodies.** Identify by milepost all ephemeral, intermittent, and perennial surface waterbodies crossed by the project.<br>For each, list its water quality classification, if applicable. | 4.10.1.1 |
| **4.10.1.2: Water Quality.** Identify any downstream waters that are on the state 303(d) list and identify whether a total maximum daily load (TMDL) | 4.10.1.2 |

| Table 2-2: PEA Checklist | |
|---|---|
| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| has been adopted or the date for adoption of a TMDL. Identify existing sources of impairment for downstream waters. Describe any management plans that are in place for downstream waters. | |
| **4.10.1.3: Groundwater Basin.** Identify all known EPA and state groundwater basins and aquifers crossed by the project. | 4.10.1.3 |
| **4.10.1.4: Groundwater Wells and Springs.** Identify the locations of all known public and private groundwater supply wells and springs within 150 feet of the project area. | 4.10.1.4 |
| **4.10.1.5: Groundwater Management.** Identify the groundwater management status of any groundwater resources in the project area and any groundwater resources that may be used by the project. Describe if groundwater resources in the basin have been adjudicated. Identify any sustainable groundwater management plan that has been adopted for groundwater resources in the project area or describe the status of groundwater management planning in the area. | 4.10.1.5 |
| **4.10.2 Regulatory Setting** | 4.10.2 |
| **4.10.2.1: Regulatory Setting.** Identify applicable federal, state, and local laws, policies, and standards regarding hydrologic and water quality. | 4.10.2.1 |
| **4.10.3 Impact Questions** | 4.10.3 |
| **4.10.3.1: CEQA Impact Questions.** The impact questions include all hydrology and water quality impact questions in the current version of CEQA Guidelines, Appendix G.<br>**4.10.3.2: Additional CEQA Impact Questions: None.** | 4.10.3.1<br><br>4.10.3.2 |
| **4.10.4 Impact Analysis** | 4.10.4 |
| **4.10.4.1: Impact Analysis.** Provide an impact analysis for each checklist item identified in the current version of CEQA Guidelines, Appendix G for this resource area and any additional impact questions listed above. | 4.10.4.1<br>3.5.10.2<br>3.5.11.2 |
| **4.10.5 CPUC Draft Environmental Measures** | 4.10.5 |
| **4.10.6 Applicant Proposed Measures** | 4.10.6 |
| **4.11 Land Use and Planning** | 4.11 |
| **4.11.1 Environmental Setting** | 4.11.1 |
| **4.11.1.1: Land Use.** Provide a description of land uses within the area traversed by the project route as designated in the local General Plan (e.g., residential, commercial, agricultural, open space, etc.). | 4.11.1.1<br>Figure 4.11-1<br>Figures in Appendix 1-A.<br>Available GIS data layers will be submitted digitally under a separate cover. |
| **4.11.1.2: Special Land Uses.** Identify by milepost and segment all special land uses within the project area including:<br>a) All land administered by federal, state, or local agencies, or private conservation organizations<br>b) Any designated coastal zone management areas<br>c) Any designated or proposed candidate National or State Wild and Scenic Rivers crossed by the project<br>d) Any national landmarks | 4.11.1.2<br>Also refer to Section 4.2 |
| **4.11.1.3: Habitat Conservation Plan.** Provide a copy of any Habitat Conservation Plan applicable to the project area or proposed project. Also required for Section 5.4, Biological Resources. | 4.11.1.3<br>Also refer to Section 4.4 |
| **4.11.2 Regulatory Setting** | 4.11.2 |

| Table 2-2: PEA Checklist | |
|---|---|
| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| **4.11.2.1: Regulatory Setting.** Identify applicable federal, state, and local laws, policies, and standards for land use and planning. | 4.11.2.1 |
| **4.11.3 Impact Questions** | 4.11.3 |
| **4.11.3.1: CEQA Impact Questions.** The impact questions include all land use questions in the current version of CEQA Guidelines, Appendix G.<br>**4.11.3.2: Additional CEQA Impact Questions: None.** | 4.11.3.1<br>4.11.3.2 |
| **4.11.4 Impact Analysis** | 4.11.4 |
| **4.11.4.1: Impact Analysis.** Provide an impact analysis for each checklist item identified in CEQA Guidelines, Appendix G for this resource area and any additional impact questions listed above. | 4.11.4.1 |
| **4.11.5 CPUC Draft Environmental Measures** | 4.11.5 |
| **4.11.6 Applicant Proposed Measures** | 4.11.6 |
| **4.12 Mineral Resources** | 4.12 |
| **4.12.1 Environmental Setting** | 4.12.1 |
| **4.12.2 Regulatory Setting** | 4.12.2 |
| **4.12.2.1: Regulatory Setting.** Identify applicable federal, state, and local laws, policies, and standards for minerals. | 4.12.2.1<br>Table 4.12-1 |
| **4.12.3 Impact Questions** | 4.12.3 |
| **4.12.3.1: CEQA Impact Questions.** The impact questions include all mineral resource impact questions in the current version of CEQA Guidelines, Appendix G.<br>**4.12.3.2: Additional CEQA Impact Questions: None.** | 4.12.3.1<br>4.12.3.2 |
| **4.12.4 Impact Analysis** | 4.12.4 |
| **4.12.4.1: Impact Analysis.** Provide an impact analysis for each checklist item identified in CEQA Guidelines, Appendix G for this resource area and any additional impact questions listed above. | 4.12.4.1 |
| **4.12.5 CPUC Draft Environmental Measures** | 4.12.5 |
| **4.12.6 Applicant Proposed Measures** | 4.12.6 |
| **4.13 Noise** | 4.13 |
| **4.13.1 Environmental Setting** | 4.13.1 |
| **4.13.1.1: Noise Sensitive Land Uses.** Identify all noise sensitive land uses within 1,000 feet of the proposed project. Provide GIS data for sensitive receptors within 1,000 feet of the project. | 4.13.1.1<br>Figure 4.3-1<br>Also refer to Section 4.3 Figures in Appendix 1-A.<br>Available GIS data layers will be submitted digitally under a separate cover. |
| **4.13.1.2: Noise Setting.** Provide the existing noise levels (Lmax, Lmin, Leq, and Ldn sound level and other applicable noise parameters) at noise sensitive areas near the proposed project. All noise measurement data and the methodology for collecting the data will be provided in a noise study as an Appendix to the PEA. | 4.13.1.2 |
| **4.13.2 Regulatory Setting** | 4.13.2 |
| **4.13.2.1: Regulatory Setting.** Identify applicable state, and local laws, policies, and standards for noise. | 4.13.2.1<br>Table 4.13-1 |
| **4.13.3 Impact Questions** | 4.13.3 |
| **4.13.3.1: CEQA Impact Questions.** The impact questions include all noise questions in the current version of CEQA Guidelines, Appendix G.<br>**4.13.3.2: Additional CEQA Impact Questions: None.** | 4.13.3.1<br>4.13.3.2 |

| Table 2-2: PEA Checklist | |
|---|---|
| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| **4.13.4 Impact Analysis** | 4.13.4 |
| **4.13.4.1: Impact Analysis.** Provide an impact analysis for each checklist item identified in CEQA Guidelines, Appendix G for this resource area and any additional impact questions listed above. | 4.13.4.1<br>Figure 4.13-1<br>Figure 4.13-2<br>Table 4.3-5<br>Table 4.13-2<br>Table 4.13-3<br>Table 4.13-4<br>Table 4.13-5<br>Table 4.13-6<br>Also refer to Section 4.3 |
| **4.13.5 CPUC Draft Environmental Measures** | 4.13.5 |
| **4.13.6 Applicant Proposed Measures** | 4.13.6 |
| **4.14 Population and Housing** | 4.14 |
| **4.14.1 Environmental Setting** | 4.14.1 |
| **4.14.1.1: Population Estimates**. Identify population trends for the areas (county, city, town, census designated place) where the project would take place. | 4.14.1.1<br>Table 4.14-1 |
| **4.14.1.2: Housing Estimates.** Identify housing estimates and projections in areas where the project would take place. | 4.14.1.2<br>Table 4.14-1 |
| **4.14.1.3: Approved Housing Developments**<br>a) Provide the following information for all housing development projects within 1 mile of the proposed project that have been recently approved or may be approved around the PEA and application filing date:<br>I. Project name<br>II. Location<br>III. Number of units and estimated population increase<br>IV. Approval date and construction status<br>V. Contact information for developer (provided in the public outreach Appendix)<br>b) Ensure that the project information provided above is consistent with the PEA analysis of cumulative project impacts. | 4.14.1.3 |
| **4.14.2 Regulatory Setting** | 4.14.2 |
| **4.14.2.1: Regulatory Setting.** Identify any applicable federal, state or local laws or regulations that apply to the project. | 4.14.2.1 |
| **4.14.3 Impact Questions** | 4.14.3 |
| **4.14.3.1: CEQA Impact Questions.** The impact questions include all population and housing impact questions in the current version of CEQA Guidelines, Appendix G.<br>**4.14.3.2: Additional CEQA Impact Questions: None.** | 4.14.3.1<br>4.14.3.2 |
| **4.14.4 Impact Analysis** | 4.14.4 |
| **4.14.4.1: Impact Analysis.** Provide an impact analysis for each checklist item identified in CEQA Guidelines, Appendix G for this resource area and any additional impact questions listed above. | 4.14.4.1<br>3.2.3 |
| **4.14.5 CPUC Draft Environmental Measures** | 4.14.5 |
| **4.14.6 Applicant Proposed Measures** | 4.14.6 |
| **4.15 Public Services** | 4.15 |
| **4.15.1 Environmental Setting** | 4.15.1 |
| **4.15.1.1 Service Providers** | 4.15.1.1 |

| Table 2-2: PEA Checklist | |
|---|---|
| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| a) Identify the following service providers that serve the project area and provide a map showing the service facilities that could serve the project:<br>I. Police<br>II. Fire (identify service providers within local and state responsibility areas)<br>III. Schools<br>IV. Parks<br>V. Hospitals<br>b) Provide the documented performance objectives and data on existing emergency response times for service providers in the area (e.g., police or fire department response times). | Figure 4.15-1<br>Also refer to Section 4.16<br>Figures in Appendix 1-A.<br>Available GIS data layers will be submitted digitally under a separate cover. |
| **4.15.2 Regulatory Setting** | 4.15.2 |
| **4.15.2.1 Regulatory Setting.** Identify any applicable federal, state or local laws or regulations for public services that apply to the project. | 4.15.2.1 |
| **4.15.3 Impact Questions** | 4.15.3 |
| **4.15.3.1: CEQA Impact Questions.** The impact questions include all public services impact questions in the current version of CEQA Guidelines, Appendix G.<br>**4.15.3.2: Additional CEQA Impact Questions: None.** | 4.15.3.1<br><br>4.15.3.2 |
| **4.15.4 Impact Analysis** | 4.15.4 |
| **4.15.4.1 Impact Analysis.** Provide an impact analysis for each checklist item identified in CEQA Guidelines, Appendix G for this resource area and any additional impact questions listed above. | 4.15.4.1<br>Also refer to Section 4.14 and 4.17 |
| **4.15.5 CPUC Draft Environmental Measures** | 4.15.5 |
| **4.15.6 Applicant Proposed Measures** | 4.15.6 |
| **4.16 Recreation** | 4.16 |
| **4.16.1 Environmental Setting** | 4.16.1 |
| **4.16.2 Regulatory Setting** | 4.16.2 |
| **4.16.2.1: Regulatory Setting.** Identify applicable federal, state, and local laws, policies, and standards regarding recreation | 4.16.2.1 |
| **4.16.3 Impact Questions** | 4.16.3 |
| **4.16.3.1: CEQA Impact Questions.** The impact questions include all recreation impact questions in the current version of CEQA Guidelines, Appendix G.<br>**4.16.3.2:** Additional CEQA Impact Questions:<br>a) Would the project reduce or prevent access to a designated recreation facility or area?<br>b) Would the project substantially change the character of a recreational area by reducing the scenic, biological, cultural, geologic, or other important characteristics that contribute to the value of recreational facilities or areas?<br>c) Would the project damage recreational trails or facilities? | 4.16.3.1<br><br>4.16.3.2 |
| **4.16.4 Impact Analysis** | 4.16.4 |
| **4.16.4.1: Impact Analysis:** Provide an impact analysis for each checklist item identified in CEQA Guidelines, Appendix G for this resource area and any additional impact questions listed above. | 4.16.4.1<br>4.14 |
| **4.16.5 CPUC Draft Environmental Measures** | 4.16.5 |
| **4.16.6 Applicant Proposed Measures** | 4.16.6 |
| **4.17 Transportation** | 4.17 |

| Table 2-2: PEA Checklist | |
|---|---|
| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| **4.17.1 Environmental Setting** | 4.17.1 |
| **4.17.1.1: Circulation System.** Briefly describe the regional and local circulation system in the project area, including modes of transportation, types of roadways, and other facilities that contribute to the circulation system. | 4.17.1.1<br>Figure 4.17-1<br>Figure 4.17-2<br>Figures in Appendix 1-A.<br>Available GIS data layers will be submitted digitally under a separate cover. |
| **4.17.1.2: Existing Roadways and Circulation**<br>a) Identify and describe existing roadways that may be used to access the project site and transport materials during construction or are otherwise adjacent to or crossed by linear project features. Provide the following information for each road:<br>I. Name of the road<br>II. Jurisdiction or ownership (i.e., State, County, City, private, etc.)<br>III. Number of lanes in both directions of travel iv. Existing traffic volume (if publicly available data is unavailable or significantly outdated, then it may be necessary to collect existing traffic counts for road segments where large volumes of construction traffic would be routed or where lane or road closures would occur)<br>IV. Closest project feature name and distance<br>b) Provide a supporting map (or maps) showing project features and the existing roadway network identifying each road described above. Provide associated GIS data. The GIS data should include all connected road segments within at least 5 miles of the project. | 4.17.1.2<br>Figure 4.17-2<br>Figures in Appendix 1-A.<br>Available GIS data layers will be submitted digitally under a separate cover. |
| **4.17.1.3: Transit and Rail Services**<br>a) Identify and describe transit and rail service providers in the region.<br>b) Identify any rail or transit lines within 1,000 feet of the project area.<br>c) Identify specific transit stops, and stations within 0.5 mile of the project. Provide the frequency of transit service.<br>d) Provide a supporting map (or maps) showing project features and transit and rail services within 0.5 mile of the project area.<br>e) Provide associated GIS data. | 4.17.1.3<br>Available GIS data layers will be submitted digitally under a separate cover.. |
| **4.17.1.4: Bicycle Facilities**<br>a) Identify and describe any bicycle plans for the region.<br>b) Identify specific bicycle facilities within 1,000 feet of the project area.<br>c) Provide a supporting map (or maps) showing project features and bicycle facilities. Provide associated GIS data. | 4.17.1.4<br>Available GIS data layers will be submitted digitally under a separate cover. |
| **4.17.1.5: Pedestrian Facilities**<br>a) Identify and describe important pedestrian facilities near the project area that contribute to the circulation system, such as important walkways.<br>b) Identify specific pedestrian facilities that would be near the project, including on the road segments identified per 5.17.1.2.<br>c) Provide a supporting map (or maps) showing project features and important pedestrian facilities. Provide associated GIS data. | 4.17.1.5<br>Available GIS data layers will be submitted digitally under a separate cover. |

| Table 2-2: PEA Checklist | |
|---|---|
| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| **4.17.1.6: Vehicle Miles Traveled (VMT).** Provide the average VMT for the county(s) where the project is located. | 4.17.1.6 |
| **4.17.2 Regulatory Setting** | 4.17.2 |
| **4.17.2.1: Regulatory Setting.** Identify applicable federal, state, and local laws, policies, and standards regarding transportation. | 4.17.2.1 |
| **4.17.3 Impact Questions** | 4.17.3 |
| **4.17.3.1: CEQA Impact Questions.** All impact questions for this resource area in the current version of CEQA Guidelines, Appendix G.<br>**4.17.3.2: Additional CEQA Impact Questions:**<br>a) Would the project create potentially hazardous conditions for people walking, bicycling, or driving or for public transit operations?<br>b) Would the project interfere with walking or bicycling accessibility?<br>c) Would the project substantially delay public transit? | 4.17.3.1<br><br>4.17.3.2 |
| **4.17.4 Impact Analysis** | 4.17.4 |
| **4.17.4.1: Impact Analysis.** Provide an impact analysis for each significance criteria identified in Appendix G of the CEQA Guidelines for transportation and any additional impact questions listed above. | 4.17.4.1<br>3.6.3<br>4.17.1.3<br>3.6<br>Table 3-6 |
| **4.17.5 CPUC Draft Environmental Measures** | 4.17.5 |
| **4.17.6 Applicant Proposed Measures** | 4.17.6 |
| **4.18 Tribal Cultural Resources** | 4.18 |
| **4.18.1 Environmental Setting** | 4.18.1 |
| **4.18.1.1: Outreach to Tribes.** Provide a list of all tribes that are on the Native American Heritage Commission (NAHC) list of tribes that are affiliated with the project area. Provide a discussion of outreach to Native American tribes, including tribes notified, responses received from tribes, and information of potential tribal cultural resources provided by tribes. Any information of potential locations of tribal cultural resources should be submitted in an Appendix under clearly marked confidential cover. Provide copies of all correspondence with tribes in an Appendix. | 4.18.1.1<br>Appendix 4.18-A<br>Appendix 4.18-B<br>Appendix 4.18-C<br>Table 4.18-1<br>Also refer to Section 4.18.1.2 |
| **4.18.1.2: Tribal Cultural Resources.** Describe tribal cultural resources (TCRs) that are within the project area.<br>a) Summarize the results of attempts to identify possible TCRs using publicly available documentary resources. The identification of TCRs using documentary sources should include review of archaeological site records and should begin during the preparation of the records search report (see Attachment 3). During the inventory phase, a formal site record would be prepared for any resource identified unless tribe's object.<br>b) Summarize attempts to identify TCRs by speaking directly with tribal representatives. | 4.18.1.2<br>Also refer to Section 4.18.1.1 |
| **4.18.1.3: Ethnographic Study.** The ethnographic study should document the history of Native American use of the area and oral history of the area. | 4.8.1.3 |
| **4.18.2 Regulatory Setting** | 4.18.2 |
| **4.18.2.1: Regulatory Setting.** Identify any applicable federal, state or local laws or regulations for tribal cultural resources that apply to the project. | 4.18.2.1 |
| **4.18.3 Impact Questions** | 4.18.3 |

| Table 2-2: PEA Checklist | |
|---|---|
| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| **4.18.3.1: CEQA Impact Questions.** The impact questions include all tribal cultural resources impact questions in the current version of CEQA Guidelines, Appendix G.<br>**4.18.3.2: Additional CEQA Impact Questions: None.** | 4.18.3.1<br><br>4.18.3.2 |
| **4.18.4 Impact Analysis** | 4.18.4 |
| **4.18.4.1: Impact Analysis.** Provide an impact analysis for each checklist item identified in CEQA Guidelines, Appendix G for this resource area and any additional impact questions listed above. | 4.18.4.1 |
| Include the following information in the impact analysis: | |
| **4.18.4.2: Information Provided by Tribes.** Include an analysis of any impacts that were identified by the tribes during the Applicant's outreach. | 4.18.4.2 |
| **4.18.5 CPUC Draft Environmental Measures** | 4.18.5 |
| **4.18.6 Applicant Proposed Measures** | 4.18.6<br>Also refer to Section 4.5 |
| **4.19 Utilities and Service Systems** | 4.19 |
| **4.19.1 Environmental Setting** | 4.19.1 |
| **4.19.1.1: Utility Providers.** Identify existing utility providers and the associated infrastructure that serves the project area. | 4.19.1.1 |
| **4.19.1.2: Utility Lines.** Describe existing utility infrastructure (e.g., water, gas, sewer, electrical, stormwater, telecommunications, etc.) that occurs in the project ROW. Provide GIS data and/or as-built engineering drawings to support the description of existing utilities and their locations. | 4.19.1.2<br>Available GIS data layers will be submitted digitally under a separate cover. |
| **4.19.1.3: Approved Utility Projects.** Identify utility projects that have been approved for construction within the project ROW but that have not yet been constructed. | 4.19.1.3 |
| **4.19.1.4: Water Supplies.** Identify water suppliers and the water source (e.g., aqueduct, well, recycled water, etc.). For each potential water supplier, provide data on the existing water capacity, supply, and demand. | 4.19.1.4<br>Also refer to Section 3.5.9 |
| **4.19.1.5: Landfills and Recycling.** Identify local landfills that can accept construction waste and may service the project. Provide documentation of landfill capacity and estimated closure date. Identify any recycling centers in the area and opportunities for construction and demolition waste recycling. | 4.19.1.5 |
| **4.19.2 Regulatory Setting** | 4.19.2 |
| **4.19.2.1: Regulatory Setting.** Identify any applicable federal, state or local laws or regulations for utilities that apply to the project. | 4.19.2.1 |
| **4.19.3 Impact Questions** | 4.19.3 |
| **4.19.3.1: CEQA Impact Questions.** All impact questions for this resource area in the current version of CEQA Guidelines, Appendix G.<br>**4.19.3.2: Additional CEQA Impact Questions:**<br>Would the project increase the rate of corrosion of adjacent utility lines as a result of alternating current impacts? | 4.19.3.1<br><br>4.19.3.2 |
| **4.19.4 Impact Analysis** | 4.19.4 |
| **4.19.4.1: Impact Analysis.** Provide an impact analysis for each checklist item identified in CEQA Guidelines, Appendix G for this resource area and any additional impact questions listed above. | 4.19.4.1<br>Also refer to Sections 3.5.9.1 and 3.9.1 |
| **4.19.5 CPUC Draft Environmental Measures** | 4.19.5 |
| **4.19.6 Applicant Proposed Measures** | 4.19.6 |
| **4.20 Wildfire** | 4.20 |

| Table 2-2: PEA Checklist | |
|---|---|
| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| **4.20.1 Environmental Setting** | 4.20.1 |
| **4.20.1.1: High Fire Risk Areas and State Responsibility Areas**<br>a) Identify areas of high fire risk or State Responsibility Areas (SRAs) within the project area. Provide GIS data for the Wildland Urban Interface (WUI) and Fire Hazard Severity Zones (FHSZ) mapping along the project alignment. Include areas mapped by CPUC as moderate and high fire threat districts as well as areas mapped by CalFire.<br>b) Identify any areas the utility has independently identified as High FHSZ known to occur within the proposed project vicinity. | 4.20.1.1<br>Figure 4.20-1<br>Figure 4.20-2<br>Figures in Appendix 1-A.<br>Available GIS data layers will be submitted digitally under a separate cover. |
| **4.20.1.2: Fire Occurrence.** Identify all recent (within the last 10 years) large fires that have occurred within the project vicinity. For each fire, identify the following:<br>a) Name of the fire<br>b) Location of fire<br>c) Ignition source and location of ignition<br>d) Amount of land burned<br>e) Boundary of fire area in GIS | 4.20.1.2 |
| **4.20.1.3: Fire Risk.** Provide the following information for assessment of baseline fire risk in the area:<br>a) Provide fuel modeling using Scott Burgan fuel models, or other model of similar quality.<br>b) Provide values of wind direction and speed, relative humidity, and temperature for representative weather stations along the alignment for the previous 10 years, gathered hourly.<br>c) Digital elevation models for the topography in the project region showing the relationship between terrain and wind patterns, as well as localized topography to show the effects of terrain on wind flow, and on a more local area to show effect of slope on fire spread.<br>d) Describe vegetation fuels within the project vicinity and provide data in map format for the project vicinity. USDA Fire Effects Information System or similar data source should be consulted to determine high-risk vegetation types. Provide the mapped vegetation fuels data in GIS format. | 4.20.1.3<br>Available GIS data layers will be submitted digitally under a separate cover. |
| **4.20.1.4: Values at Risk.** Identify values at risk along the proposed alignment. Values at risk may include: Structures, improvements, rare habitat, other values at risk, (including utility-owned infrastructure) within 1000 feet of the project. Provide some indication as to its vulnerability (wood structures vs. all steel features). Communities and/or populations near the project should be identified with their proximity to the project defined. | 4.20.1.4<br>Also refer to Section 4.4 |
| **4.20.1.5: Evacuation Routes.** Identify all evacuation routes that are adjacent to or within the project area. Identify any roads that lack a secondary point of access or exit (e.g., cul-de-sacs). | 4.20.1.5 |
| **4.20.2 Regulatory Setting** | 4.20.2 |
| **4.20.2.1: Regulatory Setting.** Identify applicable federal, state, and local laws, policies, and standards for wildfire. | 4.20.2.1 |
| **4.20.3 Impact Questions** | 4.20.3 |
| **4.20.3.1: CEQA Impact Questions.** All impact questions for this resource area in the current version of CEQA Guidelines, Appendix G. | 4.20.3.1 |
| **4.20.3.2: Additional CEQA Impact Questions: None.** | 4.20.3.2 |

| Table 2-2: PEA Checklist | |
|---|---|
| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| **4.20.4 Impact Analysis** | 4.20.4 |
| **4.20.4.1: Impact Analysis.** Provide an impact analysis for each checklist item identified in CEQA Guidelines, Appendix G for this resource area and any additional impact questions listed above. | 4.20.4.1<br>Also refer to Section<br>3.5.2<br>4.7<br>4.10 |
| **4.20.5 CPUC Draft Environmental Measures** | 4.20.5 |
| **4.20.6 Applicant Proposed Measures** | 4.20.6 |
| **4.21 Mandatory Findings of Significance** | 4.21 |
| **4.21.1: Impact Questions.** Provide an impact analysis for each of the mandatory findings of significance provided in Appendix G of the CEQA Guidelines. The impact analysis can reference relevant information and conclusion from the biological resources, cultural resources, air quality, hazards, and cumulative sections of the PEA, where applicable. | 4.21.1 |
| **4.21.1.1: CEQA Impact Questions.** All impact questions for this resource area in the current version of CEQA Guidelines, Appendix G. | 4.21.1.1 |
| **4.21.2: Impact Analysis.** | 4.21.2 |
| **4.21.2.1: Impact Analysis.** Provide an impact analysis for each checklist item identified in CEQA Guidelines, Appendix G for this resource area and any additional impact questions listed above. | 4.21.2.1<br>Also refer to Sections<br>4.3, 4.4, 4.5, 4.9, 4.18, and 5.0 |
| **5.0 Cumulative and Other CEQA Considerations** | 5.0 |
| **5.1 Cumulative Impacts** | 5.1 |
| **5.1.1: List of Cumulative Projects**<br>a) Provide a detailed table listing past, present, and reasonably foreseeable future projects within and surrounding the project area (approximately 2-mile buffer). The following information should be provided for each project in the table:<br>I. Project name and type<br>II. Brief description of the project location(s) and associated actions<br>III. Distance to and name of the nearest project component<br>IV. Project status and anticipated construction schedule<br>V. Source of the project information and date last checked (for each individual project), including links to any public websites where the information was obtained so it can be reviewed and updated (the project information should be current when the PEA is filed)<br>b) Provide a supporting map (or maps) showing project features and cumulative project locations and/or linear features. Provide associated GIS data. | 5.1.1<br>Table 5-1<br>Figure 5-1<br>Figures in Appendix 1-A.<br>Available GIS data layers will be submitted digitally under a separate cover. |
| **5.1.2: Geographic Scope.** Define the geographic scope of analysis for each resource topic. The geographic scope of analysis for each resource topic should consider the extent to which impacts can be cumulative. For example, the geographic scope for cumulative noise impacts would be more limited in scale than the geographic scope for biological resource impacts because noise attenuates rapidly with distance. Explain why the geographic scope is appropriate for each resource. | 5.1.2<br>4.0-4.10<br>4.13<br>4.15<br>4.17-19<br>4.16.2<br>4.1.4<br>5.1.3<br>Table 4.8-5 |

| Table 2-2: PEA Checklist | |
|---|---|
| **CPUC Checklist** | **PEA Section, Table or Figure Number** |
| | Table 5-1 |
| **5.1.3: Cumulative Impact Analysis.** Provide an analysis of cumulative impacts for each resource topic included in Chapter 5. Evaluate whether the proposed project impacts are cumulatively considerable for any significant cumulative impacts. | 5.1.3 |
| **5.2 Growth-Inducing Impacts** | 5.2 |
| **5.2.1: Growth-Inducing Impacts.** Provide an evaluation of the following potential growth-inducing impacts:<br>a) Would the proposed project foster any economic or population growth, either directly or indirectly, in the surrounding environment?<br>b) Would the proposed project cause any increase in population that could further tax existing community service facilities (i.e., schools, hospitals, fire, police, etc.)?<br>c) Would the proposed project remove any obstacles to population growth?<br>d) Would the proposed project encourage and facilitate other activities that would cause population growth that could significantly affect the environment, either individually or cumulatively? | 5.2.1 |
| **6.0 List of Preparers** | 6.0 |
| **6.1: List of Preparers.** Provide a list of persons, their organizations, and their qualifications for all authors and reviewers of each section of the PEA. | 6.1 |
| **7.0 References** | 7.0 |
| **7.1: Reference List**<br>a) Organize all references cited in the PEA by section within a single chapter called “References.”<br>b) Within the References chapter, organize all of the Chapter 5 references under subheadings for each resource area section. | 7.1 |
| **7.2: Electronic References**<br>a) Provide complete electronic copies of all references cited in the PEA that cannot be readily obtained for free on the Internet. This includes any company-specific documentation (e.g., standards, policies, and other documents).<br>b) If the reference can be obtained on the Internet, the Internet address will be provided. | 7.2 |

# 3.0 PROJECT DESCRIPTION

This chapter defines the Proposed Project's location, objectives, and components; describes the existing electric system; and explains how the Proposed Project would be implemented and its place within California's electrical transmission system. This chapter also identifies any permits or other approvals that may be needed to implement the Proposed Project. Finally, this chapter identifies any measures proposed by LS Power Grid California, LLC (LSPGC) to avoid or minimize potential environmental impacts.

## 3.1 PROJECT OVERVIEW

The Gates 500 kilovolt (kV) Dynamic Reactive Support Project (Proposed Project) was approved by the California Independent System Operator Corporation (CAISO) to ensure the reliability of the CAISO controlled grid. This would be accomplished through the construction of a dynamic reactive device between two equally sized blocks. The Proposed Project is being proposed by LSPGC, a Delaware limited liability company established to own transmission projects in California.

The Proposed Project includes a +/-848 million volt-amperes, reactive (MVAR) dynamic reactive device to be installed in a minimum of two, equally sized Static Synchronous Compensator (STATCOM) units that would be independently connected to the existing Pacific Gas and Electric Company's (PG&E) Gates 500 kV Substation via two new single-circuit 500 kV interconnection transmission lines.

The Proposed Project site is approximately 20 acres in size, located directly north and adjacent to the PG&E Gates Substation in Fresno County, California as shown on **Figure 3-1,** *General Vicinity* and **Figure 3-2,** *Project Location*. The Proposed Project site is located approximately one mile northwest of the intersection of South Lassen Avenue (State Route [SR] 269) and West Jayne Avenue, which is approximately 3.3 miles southwest of the city of Huron and approximately 2.2 miles east of Interstate 5 (I-5) in southwest Fresno County. The Proposed Project site is located within the northeast quarter of Public Land Survey System (PLSS) Section 33 of Township 20 South and 17 East. The Proposed Project site is zoned, actively used, and surrounded by active agriculture.

## 3.2 EXISTING AND PROPOSED SYSTEM

### 3.2.1 EXISTING SYSTEM

The Proposed Project is located within an existing regional transmission system that provides electricity to the greater Fresno area. Electric supply to the greater Fresno area is provided primarily by hydroelectric generation, several market facilities, and a few qualifying generation facilities. Electric supply is supplemented by transmission imports from the North Valley and the 500 kV lines along the west and south parts of the Central Valley (CAISO, 2018). The greater Fresno area interconnects to the bulk PG&E transmission system by 13 transmission circuits. These consist of six 500 kV lines; six 230 kV lines; and one 70 kV line, which are served from the PG&E Gates Substation in the south, Moss Landing in the west, Los Banos in the northwest, Bellota in the northeast, and Templeton in the southwest (CAISO, 2018). The major 500/230 kV transmission lines that currently serve the PG&E Gates Substation include:

- Gates – Los Banos #3 500 kV;

- Gates – Los Banos #1 500 kV;
- Gates – Midway #2 500 kV;
- Diablo Canyon – Gates #1 500 kV;
- Gates – Midway #1 500 kV;
- Los Banos – Midway #2 500 kV;
- Gates – Panoche #1 & #2 230 kV;
- Gates – Midway 230 kV;
- Gates – Arco 230 kV; and
- Gates – Mustang #1 & #2 230 kV.

The existing system in the greater Fresno area also includes numerous existing PG&E overhead electric distribution line circuits that serve the immediate area, as well as several solar generation facilities that feed into the PG&E Gates Substation (including one owned and operated by PG&E).

### 3.2.2 PROPOSED PROJECT SYSTEM

The two main components of the Proposed Project system consist of two, new STATCOM units and two, new single circuit 500 kV transmission lines that would be radially connected to the existing, adjacent PG&E Gates Substation (not considered a looped system). The STATCOM Substation facility would have a rated real power output of zero mega-watts (MW) and a nominal terminal voltage of 500 kV and, therefore, would not increase existing capacity. The STATCOM Substation facility would support the regional transmission system by providing voltage support and grid stability at the PG&E Gates Substation 500 kV buses. This would facilitate the reliable operation of the extra high voltage transmission system in the electrical proximity of the PG&E Gates Substation after the retirement of the Diablo Canyon nuclear generating units, as discussed further in **Section 3.2.3**, *System Reliability*.

The STATCOM units would be interconnected with the PG&E Gates Substation via two approximately 300 feet long 500 kV transmission lines that would connect to future PG&E owned tubular steel poles or lattice steel dead-end structures. From that point, PG&E would extend the conductor for each interconnection line to the new Gates 500 kV bus positions. PG&E would take ownership of these spans because they cross PG&E assets within the P&GE Gates Substation. The point of ownership demarcation for the conductor would be the connection to LSPGC's take-off towers on LSPGC property. All facilities would be installed during the initial buildout; therefore, there is no anticipated ultimate buildout scenario beyond the Proposed Project. Based on PG&E's Draft Facility Study Report (PG&E, 2020), LSPGC does not anticipate that PG&E would require any additional transmission upgrades at the PG&E Gates Substation (beyond what was previously described), subject to further studies to be performed by PG&E.

All new facilities and interrelated activities associated with the Proposed Project are described in **Section 3.3**, *Project Components*, and a schematic diagram of the STATCOM Substation facility is provided in **Figure 3-3**, *STATCOM Substation Diagram*.

### 3.2.3 SYSTEM RELIABILITY

Studies prepared by the CAISO identified high voltages on the 500 kV Diablo, Gates, and Midway buses starting when Diablo Canyon Nuclear Generation Station (Diablo Canyon) retires, currently scheduled for 2024 for Unit 1 and 2025 for Unit 2. Voltage on the Diablo 500 kV bus may become as high as 550 kV under normal system conditions after Diablo Canyon is retired, which is above the required limit (CAISO, 2018). The most critical system issues appear to be 2028 spring off-

peak or 2028 winter off-peak, even when all transmission facilities are in service. If voltage fluctuations are not addressed, PG&E customers could experience potential blackouts or scheduled outages once Diablo Canyon is retired.

Adding voltage support in the area would alleviate both high voltages after Diablo Canyon is retired, as well as high voltages under off-peak conditions prior to its retirement. It would also reduce dynamic stability issues with three-phase faults and induction motor stalling and tripping, which could also lead to outages within the electrical grid. As such, the CAISO identified the need for additional dynamic reactive support to both absorb reactive power under normal system conditions and supply reactive power with contingencies as needed. The Proposed Project was developed in response to the CAISO identified reliability issues and would alleviate voltage support issues by providing system stability and reliability for the greater Central Valley. The Proposed Project is specified to include two independent blocks of dynamic reactive support to further enhance system reliability.

### 3.2.4 PLANNING AREA

The Proposed Project, in conjunction with the existing PG&E Gates Substation, would support the existing regional transmission system that provides electricity to the greater Fresno area. Therefore, the system planning area served by the Proposed Project is identified as the "Greater Fresno area." The term "regional transmission system" is used to describe the network that provides electricity to this planning area. The larger, regional system that provides electricity to all of PG&E's customers is identified as the "bulk PG&E transmission system."

## 3.3 PROJECT COMPONENTS

### 3.3.1 PRELIMINARY DESIGN AND ENGINEERING

The main Proposed Project component is the development of a new STATCOM Substation that would ultimately be interconnected to the existing PG&E Gates Substation. A detailed Proposed Project map that identifies the location of the major Proposed Project components, as well as the access roads, is included in **Figure 3-4**, *Project Overview*. As shown on **Figure 3-4**, the east-west access road would be located on LSPGC-owned property, and the north-south access road would be located on the adjacent, PG&E-owned property to the south. The individual components of the Proposed Project are discussed in greater detail in **Section 3.3.4**, *Proposed Facilities.*

LSPGC has completed approximately 30% engineering design for the Proposed Project. As such, the information in this document is based on preliminary engineering design and is subject to change based on additional and/or final engineering design, further studies to be performed by PG&E, and ongoing coordination discussions among LSPGC, PG&E and CAISO.

### 3.3.2 SEGMENTS, COMPONENTS AND PHASES

All components of the Proposed Project would be installed during a single phase of construction. A preliminary construction schedule is provided in **Table 3-7***, Proposed Construction Schedule* in **Section 3.6.4,** *Construction Schedule*. The Proposed Project's components are described in the sections below.

### 3.3.3 EXISTING FACILITIES

The Proposed Project site is currently an active agricultural field, and there are no existing facilities present. The Proposed Project would include all new facilities, with no existing facilities being removed, modified, or abandoned. **Section 3.2.1**, *Existing System* provides additional details regarding the PG&E Gates Substation.

Two existing dirt access roads would also be improved as part of the Proposed Project. One private dirt road is located along the southern property line, and the other private unpaved farm road parallels the eastern PG&E Gates Substation property line. These dirt access roads are currently approximately 15 feet wide.

### 3.3.4 PROPOSED FACILITIES

#### 3.3.4.1 STATCOM Substation

The proposed STATCOM Substation that includes two STATCOM units would be constructed immediately north of the existing PG&E Gates Substation within the LSPGC-owned 20-acre portion of APN 075-060-067S. Construction of the STATCOM Substation facility would permanently disturb a total area of approximately 6.5 acres, and would be contained within the STATCOM Substation facility's fenced area. Below are the main ancillary STATCOM components that are intended to provide voltage support to the regional transmission system.

- Lightning Shielding Masts;
- Two 500 kV Circuit Breakers;
- 500 kV Bussing;
- 500 kV Group Operated Disconnect Switches;
- 500 kV Surge Arresters;
- 500 kV Potential Transformers;
- Two 500 kV Take-Off Towers;
- Three Three-Phase 500 kV Main Power Transformers (includes one installed spare that would likely be rotated into service within the first 10 years of operation);
- Outdoor Heating Ventilation and Air Conditioning (HVAC) Equipment and insulated gas bipolar transistor (IGBT)/Convertor Cooling Equipment;
- Outdoor Air Core Reactors;
- Outdoor Medium Voltage Bussing;
- Outdoor Medium Voltage Instrument/Auxiliary Transformers;
- Outdoor Medium Voltage Surge Arresters; and
- Outdoor Medium Voltage Group Operated Disconnect Switches.

In addition, the two approximately 4,000 square-foot STATCOM IGBT Valve/Control Enclosures (painted ANSI 70 light grey) would contain the following equipment:

- IGBT Converters;
- Protective Relaying and Control Equipment;
- Supervisory Control and Data Acquisition (SCADA) Equipment;

- Cooling Equipment;
- AC/DC Auxiliary Power Equipment; and
- Spare Parts and Maintenance Tool Storage.

All major equipment (e.g., power transformers, power circuit breakers, reactors, IGBT value/Control Enclosures, cooling equipment) would be installed on concrete foundations. The maximum amount of oil required for the transformers at the STATCOM Substation facilities would be approximately 18,500 gallons for each of the three transformers. Each transformer would have an oil containment system consisting of an impervious, lined, open or stone-filled sump area around the transformer. The tallest structures within the STATCOM Substation would be the approximately 135 to 199-foot-high take-off towers or lightning shielding masts. The take-off towers would be set approximately 20 to 25 feet below ground level. The general layout and arrangement of the outdoor equipment is shown in **Figure 3-5***, STATCOM Substation General Arrangement*. **Figure 3-6**, *STATCOM Substation Profile* provides a vertical depiction of the substation and also includes the approximate height of various equipment.

In addition to the electrical equipment, the STATCOM Substation would include the following facilities or components:

- Signage and lighting;
- Access road improvements and new access road construction;
- A stormwater detention basin and conveyance system;
- Chain link and barb wire security fencing approximately nine feet in height with secure gates accessible only by LSPGC staff and emergency services personnel;
- Transformer oil containment basins designed to contain the oil volume of the transformers plus the 25-year 24-hour storm; and
- Electric distribution power connection.

Lighting would be installed at the STATCOM Substation and would conform to National Electric Safety Code (NESC) requirements and other applicable outdoor lighting codes. NESC recommends, as good practice, illuminating the substation facilities to a minimum of 22 lux or two-foot candles. The facility would not require 24-hour illumination. Photocell controlled lighting (motion detection) would be provided at a level sufficient to provide safe entry and exit to the STATCOM Substation and Control Building. Additional manually controlled lighting would be provided to create safe working conditions at the STATCOM Substation facility when required. All lighting provided would be shielded and pointed down to minimize glare onto surrounding properties and habitats.

The STATCOM Substation would be primarily powered by station service transformers located within the facility that would step-down the energy from the PG&E 500 kV interconnection transmission lines to distribution power level. An electric overhead distribution line would be installed to provide backup power for the STATCOM Substation facility from an existing PG&E distribution line located along the eastern boundary of the Proposed Project site. The distribution line would be installed on approximately 20 new wood poles that would be placed on the northern side of the Proposed Project's east-west access road and into the STATCOM Substation facility. The distribution poles would be set approximately eight to ten feet below ground level and would be approximately 30 to 40 feet tall.

The STATCOM Substation facility would also include a stormwater management system consisting of a stormwater drainage and conveyance system and an approximately 1,250-cubic-yard stormwater detention basin. The STATCOM Substation pad would be graded to drain directly toward the stormwater detention basin. This would drain via a lined ditch to the basin. The earthen stormwater detention basin would not be lined, allowing for infiltration and groundwater recharge.

The stormwater detention basin is designed to capture the runoff from the 100-year storm, 24-hour rainfall event and then release the captured water over 48 hours. Overflow from the detention basin would be returned to sheet flow via a level spreader that would provide for sheet flow of the stormwater to the adjacent land surface during storms that exceed the basin's design capacity. The level spreading approach would control erosion and prevent scouring at discharge locations.

Disturbance area characteristics for the Proposed Project are discussed in **Section 3.5,** *Construction*. All facilities at the STATCOM Substation, including the associated access roads and stormwater drainage and conveyance system, would occur within the property line of the approximately 20-acre parcel to be owned by LSPGC.

#### 3.3.4.2 Access Roads

The Proposed Project would require the improvement of two existing dirt access roads that would connect the site to West Jayne Avenue. One private dirt road is located along the southern property line, and the other private unpaved farm road parallels the eastern PG&E Gates Substation property line. Both access roads would be widened to 20 feet and graded to accommodate construction, as well as operation and maintenance (O&M) vehicles. The access roads would be improved with dust resistant base rock or gravel to maintain an all-weather roadway and the driveway approach at the intersection with West Jayne Avenue would be paved for approximately 100 feet to avoid track out.

The Proposed Project would also require the development of one new access road, which would provide internal access within the STATCOM Substation facility during construction and O&M. The internal access road would be located completely within the fenced STATCOM Substation, constructed with gravel or rock, and would loop around the STATCOM Substation. This new road would be approximately 20 feet wide and approximately 3,200 feet long and would include a gate at both end points. Construction of this internal access road would include grading and rocking per the final Proposed Project design. Permanent gates would be installed at both STATCOM Substation facility driveways. Access roads are depicted in **Figure 3-4**, *Project Overview* and **Figure 3-5,** *STATCOM Substation General Arrangement*.

### 3.3.5 OTHER POTENTIALLY REQUIRED FACILITIES

#### PG&E Interconnection Upgrades

The expansion and upgrading of the PG&E Gates Substation would be required for the interconnection of the STATCOM Substation facility and is not part of LSPGC's Proposed Project, but it is considered a connected project for purposes of California Environmental Quality Act (CEQA) compliance. Per PG&E's current plans, PG&E would own all new structures located on PG&E property and would have permitting responsibility for two new circuits of gas insulated bus (GIB) that would be installed between each of Bay #2 and Bay #6 of the PG&E Gates Substation 500 kV yard and the future dead-end structures on PG&E property (total of approximately 5,300 feet of GIB). Both circuits would cross below several existing PG&E overhead transmission lines.

PG&E would also be responsible for modification of the PG&E Gates Substation to provide a new bus position at Bay #2 and Bay #6, one for each STATCOM unit. This would require the addition of two to four new 500 kV breakers, 500 kV disconnect switches, protection and control devices and associated equipment.

In addition, PG&E would also install the two approximately 300-foot-long 500 kV single-circuit overhead interconnection transmission lines. These would connect each of the proposed STATCOM units to the existing PG&E Gates Substation. The interconnection transmission lines would extend north from the PG&E-owned tubular steel poles or lattice steel dead-end towers to the Proposed Project's take-off towers. The LSPGC-owned take-off towers would serve as the Point of Change of Ownership (POCO). PG&E would be responsible for the stringing of the 500 kV conductors to the take-off towers.

Two fiber optic communication lines (one for each 500 kV circuit) would be installed between the STATCOM Substation facility and the PG&E Gates Substation. The communication lines would be routed underground or overhead across the PG&E property to the POCO position on the Proposed Project site. PG&E would be responsible for the continuation of the communication lines into their terminal locations within the PG&E Gates Substation.

Based on the preliminary scope of the PG&E Gates Substation improvements, PG&E plans to process their General Order No. 131-D (GO 131-D) compliance separately and would likely utilize the Substation Modification Exemption, as defined under GO 131-D §B or C for the proposed substation improvements.

### 3.3.6 FUTURE EXPANSIONS AND EQUIPMENT LIFESPANS

Other than the initial construction of the Proposed Project, there is no reasonably foreseeable plan for any future upgrades or expansion at the Proposed Project site. Additionally, there are no foreseeable consequences of the Proposed Project, as this Proposed Project would provide voltage support to the existing PG&E transmission system and would ensure additional voltage support upgrades would not be needed elsewhere. The expected usable life of all Proposed Project facilities is 40 years.

### 3.3.7 BELOW-GROUND CONDUCTOR/CABLE INSTALLATIONS

Below-grade work would include the construction of equipment foundations, oil containment for transformers, the grounding grid, low voltage cable needed for the STATCOM equipment, telecommunication lines, conduit, and erection of the control enclosures. No other below-grade work or cable installations are proposed.

### 3.3.8 TELECOMMUNICATION LINES

The Proposed Project would include a SCADA system that would consist of fully redundant servers, power supplies, and Ethernet Local Area Network (LAN) and Wide Area Network (WAN) connections, routers, firewalls, and switches. It is anticipated that two telecommunication lines would be brought into the STATCOM Substation facility. The primary telecommunication connection would be provided by AT&T and would be routed undergrounded approximately 7,700 feet from east along the northern road shoulder of West Jayne Avenue (e.g., public rights-of-way [ROW]) and then north along the Proposed Project's access roads, and finally into the STATCOM Substation facility. The secondary telecommunication would parallel the first telecommunication

line through the east-west and north-access road for approximately 2,500 feet and would connect to a telecommunication line that runs diagonally through the north-south access road and into eventually into the PG&E Gates Substation. The secondary telecommunication line would be connected within the boundary of the north-south access road. Refer to **Figure 3-4**, *Project Overview* for the location of each telecommunication line.

Additionally, LSPGC is evaluating a second medium that would provide telecommunication diversity back to its off-site control center. This communication medium would likely be a Long-Term Evolution (LTE) cellular connection from the control enclosures located within the STATCOM Substation. An LTE antenna (approximately 10 inches tall) would be mounted to one of the control enclosures to boost the LTE cellular connection at the Proposed Project site.

## 3.4 LAND OWNERSHIP, RIGHTS-OF-WAY, AND EASEMENTS

### 3.4.1 LAND OWNERSHIP

The parcel where the STATCOM Substation facility would be constructed (APN 075-060-067S) is under private ownership. LSPGC holds an exclusive option to purchase up to 20 acres of an approximately 230-acre parcel of land. Prior to construction, LSPGC would exercise the option and secure fee title to those 20 acres. This area is adequate to accommodate the STATCOM Substation facility including all considerations for site grading, fencing, staging areas, equipment, internal circulation, spill and stormwater management, and other operational considerations. As described below, the Proposed Project would require an easement from PG&E for the north-south access road and telecommunication line (see **Section 3.4.3** *New or Modified Rights-of-Way Easements*, below).

### 3.4.2 EXISTING RIGHTS-OF-WAY OR EASEMENTS

There are no existing easements associated with the Proposed Project, and therefore, the Proposed Project would not require the replacement, modification or relocation of existing ROW or easements.

### 3.4.3 NEW OR MODIFIED RIGHTS-OF-WAY OR EASEMENTS

The Proposed Project would be sited on land owned by LSPGC. The interconnection transmission lines to be constructed and owned by PG&E would require an easement granted by LSPGC to PG&E as the change of ownership would occur on LSPGC property. PG&E would grant an easement for the north-south access road (and telecommunication line) that would connect the Proposed Project site to West Jayne Avenue. The easement would be approximately 20 feet wide and 2,900 feet long (1.35 acres). The granting of the access road easement would not require the relocation or demolition of commercial or residential property or structures and would restrict use of the easement area to access rights only.

### 3.4.4 TEMPORARY RIGHTS-OF-WAYS OR EASEMENTS

No temporary easements would be required for construction activities associated with the Proposed Project. All temporary construction areas would be located on the approximately 20-acre parcel that LSPGC would acquire or within a newly acquired permanent easement area.

## 3.5 CONSTRUCTION

This section includes an overview of the typical methods that would be used for construction of the Proposed Project. Specifically, this section describes typical construction methods for the STATCOM Substation, overhead facilities, construction equipment, and temporary work areas.

### 3.5.1 CONSTRUCTION ACCESS

#### 3.5.1.1 Existing Access Roads

The existing and primary access to the Proposed Project for both construction and O&M would be from West Jayne Avenue. West Jayne Avenue is an existing, approximately 30-foot wide, public paved road providing access to the existing PG&E Gates Substation and the Proposed Project from I-5 to the west and from SR 269 to the east. No improvements are expected to be required along West Jayne Avenue.

The Proposed Project site would be accessed from West Jayne Avenue via an upgraded north-south and an upgraded east-west access road. The north-south access road is located off West Jayne Avenue at the southeast corner of the existing PG&E Gates Substation and is the Proposed Project's primary connection to the public ROW. The east-west private unnamed dirt road would intersect the north-south access road near the southeast corner of the Proposed Project site and would lead directly to the STATCOM Substation driveways. Both, approximately 15-foot wide, private dirt roads would be widened to approximately 20 feet, graded and rocked for a total of approximately 4,400 feet to accommodate deliveries and worker access. The access roads would be monitored for damage and would be repaired as needed. The access roads are depicted in **Figure 3-4,** *Project Overview*. **Table 3-1**, *Access Road Improvements,* provides additional access road details.

**Table 3-1: Access Road Improvements**

| Name of Road | Type of Road/Improvement | Dimensions | Disturbance Area |
|---|---|---|---|
| North-South Access Road | Existing, private dirt road would be widened to 20 feet and graded flat. Gravel or base rock would be used for all-weather, dust resistant surfacing. In addition, 100 feet of the road's approach to West Jayne Avenue would be paved. | 20 feet wide/2,900 feet long | 1.35 acres |
| East-West Access Road | Existing, private dirt road would be widened to 20 feet and graded flat. Gravel or base rock would be used for all-weather, dust resistant surfacing. | 20 feet wide/1,320 feet long | 0.61 acre |

#### 3.5.1.2 New Access Roads

The Proposed Project includes one new permanent access road, which would provide internal access within the STATCOM Substation facility. The internal road would be graveled or rocked and would loop around the STATCOM Substation. This new road would be approximately 20 feet wide and approximately 3,200 feet long and would include a gate at both the entrance and exit. Construction of this internal access road would include grading and rocking per the final Proposed Project design. Permanent gates would be installed at both STATCOM Substation driveways. Access roads are depicted in **Figure 3-5,** *STATCOM Substation General Arrangement*.

#### 3.5.1.3 Overland Access Routes

No overland access routes would be used during construction or O&M of the Proposed Project.

#### 3.5.1.4 Watercourse Crossings

The Proposed Project would be located on existing agricultural and vacant land, and no watercourses have been identified. As such, watercourse crossings are not anticipated.

#### 3.5.1.5 Helicopter Access

Helicopters would not be used for construction or O&M of the Proposed Project.

### 3.5.2 STAGING AREAS

#### 3.5.2.1 Staging Area Locations

The Proposed Project includes a temporary construction staging area resulting in a total area of approximately one acre located within the footprint of the Proposed Project site, directly east of the STATCOM Substation. The staging would be temporarily fenced and gated and would be connected to the access road via a temporary driveway (see **Section 3.5.3**, *Construction Work Areas*). The staging area is depicted in **Figure 3-7,** *Construction Staging Area*.

#### 3.5.2.2 Staging Area Preparation

Preparation of the staging area would involve clearing, grubbing, and limited grading. The staging area may be used as a refueling area for vehicles and construction equipment; as an equipment wash station; for assemblage; for storage of material and equipment, storage containers, construction trailers, and portable restrooms; and for parking and lighting. Some STATCOM equipment, such as disconnect switches, instrument transformers, take-off towers, insulators, conductors, bus, connectors, conduit, cable trench, rebar, etc. would be received and temporarily stored at the staging area prior to installation.

Construction workers would typically meet at the staging area each morning and park their vehicles. All construction equipment and vehicles associated with the STATCOM Substation construction would be parked within the staging area while inactive and at the completion of each workday, where practical.

In-ground fencing would be installed at the staging area. Gravel may be used to line the ground at the staging area to avoid the creation of unsafe surface conditions and unnecessary sediment

transport off site. Perimeter security fencing would be installed around the outer limits of the work area. Lighting would also be installed for security purposes. Temporary construction power would be provided via existing distribution near the Proposed Project site. Temporary generators would be a contingency if distribution power is unavailable.

### 3.5.3 CONSTRUCTION WORK AREAS

#### 3.5.3.1 Construction Work Areas

**STATCOM Substation**

As discussed in **Section 3.5.2**, *Staging Areas*, the Proposed Project would utilize an approximately one acre staging area located immediately east of the proposed STATCOM Substation units on APN 075-060-067S. The construction of the STATCOM Substation would require grading, fill and the installation of silt fencing that would extend beyond the proposed permanent impact area. In addition, work areas would be needed around the perimeter of the STATCOM Substation facility, borrow area, and stormwater detention basin to facilitate construction and access.

It is anticipated that all major electrical and STATCOM Substation equipment such as power transformers, power circuit breakers, control enclosures, capacitors, and reactors would be delivered to the STATCOM site and placed directly on previously constructed foundations. Other STATCOM Substation equipment, such as disconnect switches, instrument transformers, transmission structures, insulators, conductors, bus, connectors, conduit, cable trench, rebar, etc. would be received and temporarily stored at the staging area prior to installation. All construction equipment and vehicles associated with STATCOM Substation construction would be parked within the staging area while inactive and at the completion of each workday, where practical.

**Other Work Areas**

A work area would be required for the stormwater detention basin, and a temporary driveway would be developed to allow for access to the staging area from the access road. In addition, the Proposed Project would utilize an on-site borrow dirt area that would be approximately 1.10 acres in size. The borrow area would be excavated to a depth of approximately 20 feet with an average slope of 3:1. The borrow area would be used to build up the STATCOM Substation pad and would be filled in back to original grade with the topsoil that would be removed from the STATCOM Substation pad and stormwater detention basin. The location of the borrow area is identified in **Figure 3-7,** *Construction Staging Area.*

#### 3.5.3.2 Work Area Disturbance

Implementation of the Proposed Project would result in both temporary and permanent impacts. **Table 3-2**, *Work Area Disturbance,* provides work area dimensions (including both temporary and permanent footprints) for each Proposed Project component.

| Table 3-2: Work Area Disturbance | | |
|---|---|---|
| **Work Area** | **Temporary or Permanent Disturbance** | **Disturbance Area (approximate metrics)** |
| STATCOM Substation and Ancillary Project Components (includes access roads, grading, staging area, distribution power line, telecommunication lines, and dirt borrow area) | Permanent | Total of 8.75 acres (STATCOM Substation = 450 feet x 630 feet; 6.5 acres) |
| | Temporary | Total of 12.19 acres |
| Stormwater Detention Basin (and conveyance system) | Permanent | Total of 1.05 acres (Detention Basin = 0.31 acre; Conveyance System = 0.74 acre) |
| Primary Telecommunication Line (on West Jayne Avenue) | Temporary | 3,250 feet by 20 feet; 1.5 acres |

In addition, **Figure 3-8,** *Project Disturbance Areas,* identifies the temporary and permanent disturbance areas associated with the Proposed Project. In total, the Proposed Project would result in approximately 9.8 acres of permanent disturbance and approximately 13.69 acres of temporary disturbance to mainly agricultural and previously disturbed lands.

#### 3.5.3.3 Temporary Power

LSPGC plans to tap into an existing overhead distribution line near the Proposed Project site for construction power. A distribution line would be installed on wood poles to provide power to the staging area and the STATCOM Substation during construction. The use of temporary generators for construction would be a contingency if distribution power was not available in a timely manner prior to construction. The same distribution line would also serve the STATCOM Substation facility during O&M. Total permanent disturbance area for the new distribution power line (and pad mounted service transformer) would be located within the east-west permanent access road disturbance area.

### 3.5.4 SITE PREPARATION

#### 3.5.4.1 Surveying and Staking

LSPGC would survey and mark the centerline at line-of-sight intervals, at points of intersection (including offset stakes marking the edges of the access road ROW), and at all known underground facilities. LSPGC would also clearly mark any sensitive biological, cultural, paleontological, or hydrological resources, where appropriate, to restrict construction activities and equipment from entering these areas.

#### 3.5.4.2 Utilities

Prior to initiating construction, LSPGC would contact Underground Service Alert (USA), also known as USA North 811, to identify underground utilities in the immediate area. There are no existing overhead utilities that would need to be relocated to accommodate the Proposed Project, and it is not anticipated that any underground utilities would be identified along any of the Proposed Project components. In the event underground utilities are identified, LSPGC would work with the owner of those utilities to determine if design changes can be made or if relocation procedures and locations are necessary.

A distribution line would be installed to provide power for construction from the existing PG&E distribution line located along the eastern boundary of the Proposed Project. The distribution line would be installed on approximately 20 wood poles that would be placed on the northern side of the Proposed Project's east-west access road and into the STATCOM Substation. The distribution poles would be approximately 30 to 40 feet in height and would be direct imbedded into the ground (approximately eight to 10 feet) with use of a truck-mounted auger and boom truck. A pad mounted service transformer would also be installed. The distribution line would also serve the STATCOM Substation facility during O&M.

#### 3.5.4.3 Vegetation Clearing

Construction of the STATCOM Substation Facility and stormwater detention basin would require clearing of approximately eight acres of cultivated cropland. Additionally, construction of the new access road and the transmission line poles/towers would require clearing of approximately one acre of cultivated cropland. Vegetation removal would be completed utilizing mechanized removal equipment or by hand using chain saws. Vegetation removal would not occur outside of approved work areas. Following initial clearing, topsoil would be salvaged to a depth of 12 inches, or to actual depth if shallower, for on-site storage and use in site restoration, as appropriate. Salvaged topsoil material would be kept on-site in the immediate vicinity of temporary disturbance areas or at a nearby approved work area to be used in restoration of temporary disturbed areas (including the borrow area), as appropriate.

#### 3.5.4.4 Tree Trimming and Removal

The site would be cleared of the vegetation as discussed in the above section. There are no trees on-site or along the transmission line ROW that would require removal or trimming.

#### 3.5.4.5 Work Area Stabilization

Permanent cut-and-fill slopes for the Proposed Project and access road would be stabilized during construction with best management practices (BMPs) that are outlined in the Proposed Project's Storm Water Pollution Prevention Plan (SWPPP), the BMP Manual, and as discussed in more detail in **Section 4.10**, *Hydrology and Water Quality*. The SWPPP BMPs would remain in place and would be maintained until new vegetation is established.

#### 3.5.4.6 Grading

Construction of the Proposed Project and associated improvements would require earth-moving activities. Grading, excavation, and material removal quantities anticipated for the Proposed Project based on current information are summarized in **Table 3-3**, *Proposed Project Grading Summary*. In addition to general earth-moving quantities, approximately four to eight inches of surface gravel would be required to be imported and installed within the Proposed Project footprint for grounding purposes. This material would be imported from a suitable, nearby aggregate source.

| Table 3-3: Proposed Project Grading Summary | | |
|---|---|---|
| **Grading Description** | **Quantity (Cubic Yards)** | **Activity Description** |
| Total Cut | 36,000 CY | Excavated earthwork material (Topsoil included) |
| Total Fill | 33,600 CY | Placed and compacted material (Surfacing included) |
| Excess Material | 2,000 CY | Material to be removed from site |
| Substation Surfacing and Flexible Base | 12,000 CY | Gravel to be imported (included in total fill four to eight inches) |
| Staging Area Surfacing and Flex Base | 2,000 CY | Gravel to be imported (included in total fill four to eight inches) |
| Access Roads | 3,000 CY | Gravel to be imported (included in total fill four to eight inches) |
| Maximum Cut-Slope Depth | 20 feet | Maximum depth of excavation from ground surface |
| Maximum Fill-Slope | 2 feet | Maximum height of filling from ground surface |

Generally, grading and excavation would be accomplished in a phased approach. Earthwork activities (e.g., grading, excavation) would be completed such that the site meets the Proposed Project's design specifications and matches proposed grades. During earthwork, soils and other surficial deposits that do not possess sufficient strength and stability to support structures would be removed from the work area. Removal would typically extend to competent materials with high mechanical strength, resistant to erosion and deformation. Material that requires processing would be mechanically processed on-site to achieve a maximum particle size and distribution suitable for conventional placement in engineered fills.

As a result of the grading, approximately 2,000 cubic yards of fill would be hauled off site. In addition to general earthmoving quantities, approximately four to eight inches of surface gravel would be required to be imported and installed within the STATCOM Substation footprint for grounding purposes. This material would be imported from a suitable, nearby aggregate source. All clean spoils excavated by the Proposed Project would be used on-site to balance cut and fill calculations, as feasible. All spoils that are not useable and/or contaminated would be sent to a properly licensed landfill facility. All recyclables would be taken to a licensed recycle facility, and all refuse would be taken to Avenal Landfill or another suitable landfill facility.

### 3.5.5 TAKE-OFF TOWER CONSTRUCTION

#### 3.5.5.1 Take-Off Towers

As previously described, the STATCOM Substation facility would connect to the PG&E Gates Substation via two approximately 300-foot transmission interconnection lines, constructed and supplied by PG&E, from the future PG&E dead-end structures to the Proposed Project's take-off towers.

The Proposed Project's 500 kV take-off towers would be installed on concrete pier foundations. Large augers and drill rigs would complete the required excavations and, if necessary, a reinforcing steel rebar cage would then be lowered into the excavation. An approximately 30-

foot-tall form would be constructed, and concrete would then be poured to fill the excavation. Each completed foundation would be left to cure for approximately 28 days.

Typical equipment used for power pole installation includes truck-mounted augers and drills to excavate the holes. When foundations are needed, concrete trucks supply and pour concrete into installed holes. Cranes are used to lift and place new poles/towers into the newly installed holes or foundations. Cranes and/or bucket trucks lift workers into elevated positions to work on newly installed poles or towers. Crew cab and pickup trucks are used to transport workers and tools to each installation site. Water trucks and portable water tanks are used to minimize fugitive dust during excavation and restoration activities.

#### 3.5.5.2 Telecommunications

The telecommunication lines would be installed using open-cut trenching techniques. Prior to trenching, other utility companies would be notified to locate and mark existing underground utilities along the proposed underground alignment. Exploratory excavations (i.e., potholing) would also be conducted to verify the locations of existing facilities in the ROW. Coordination with the county of Fresno would also occur in order to secure encroachment permits for trenching in the county ROW, as required. It is anticipated that between one lane of West Jayne Avenue would occasionally be closed during trenching activities. During lane closures, traffic controls would be implemented, as required by the encroachment permit.

Trenching operations would be staged in intervals so that only a maximum of 500 feet of trench (or as allowed by permit requirements) would be left open at any one time. The fill generated by excavation activities would be transported to an approved disposal site. At any one-time, open trench lengths would not exceed those required to facilitate the installation of the telecommunication lines. Steel plating, tack welded and secured to the road, would be placed over the trenches to maintain vehicular traffic across areas that are not under active construction.

The typical trench dimensions for installation of the telecommunication lines would be two to three feet deep and approximately one to two feet wide. Depths may vary depending on soil stability and the presence of existing substructures. The trench would be widened and shored, where necessary, to meet California Occupational Safety and Health Administration (Cal/OSHA) requirements. If trench water is encountered, trenches would be dewatered using a portable pump, and the water would be disposed of in accordance with acquired permits.

The telecommunication lines would typically be housed in one five-inch diameter Polyvinyl chloride (PVC) conduit, which would be directly buried in the trench. Once PVC conduit is installed the trench would be backfilled and compacted as required. Where the cable trench crosses other substructures that operate at normal soil temperature (e.g., gas lines, telephone lines, water mains, storm drains, and sewer lines), a minimal radial clearance of 12 inches would be required. In instances where the cable trench would be installed parallel to other substructures, a minimum radial clearance of 24 inches would be required.

#### 3.5.5.3 Guard Structures

The use of guard structures is not anticipated for the construction of the STATCOM Substation facility, take-off towers, or any other ancillary component.

### 3.5.6 STATCOM SUBSTATION

#### 3.5.6.1 Facility Installation

Construction of the STATCOM Substation units would occur in a phased approach beginning with site preparation and grading of the site, then installation of foundations and underground equipment, and lastly installation and testing of electrical equipment. Prior to clearing and grubbing, all necessary surveys, marking, and installation of stormwater management features (e.g., silt fence, fiber rolls, etc.) would be completed. In addition, fencing driveways and gates would be installed (some on a temporary basis) to provide site security during construction activities. Following construction, temporary disturbance areas would typically be re-contoured to match pre-construction grades.

Following site preparation and grading, all necessary below-grade construction including structure and equipment foundations, underground ducts, ground grid, and construction of the control enclosure would begin. Once all earthwork and below-grade work is completed, major equipment and structures would be installed and anchored on their respective foundations. It is anticipated that all major electrical and STATCOM Substation equipment such as power transformers, reactors, power circuit breakers, control enclosure and reactors would be delivered to the STATCOM Substation footprint and placed directly on the previously constructed foundations. Other STATCOM Substation equipment such as air disconnect switches, instrument transformers, transmission structures, insulators, conductors, rigid bus, connectors, conduit, cable trench, rebar, etc., would be received and temporarily stored at the staging area prior to installation. Transmission interconnection line terminations and distribution connections would be completed inside the STATCOM Substation facility following final installation of the substation structures and equipment.

#### 3.5.6.2 Civil Works

The Proposed Project's civil works efforts include construction of the stormwater detention basin and conveyance system. As discussed in **Section 3.3.4.1**, *STATCOM Substation*, the substation pad would be graded to drain directly toward the approximately 1,250-cubic-yard stormwater detention basin. Construction of the stormwater detention basin would involve excavating the area with a bulldozer or excavator. Water trucks would be used to control dust, if necessary. The excess soil would be placed within the borrow area.

The earthen stormwater detention basin would not be lined, allowing for infiltration and groundwater recharge. The conveyance system directing runoff from the substation pad to the stormwater detention basin would be lined.

### 3.5.7 PUBLIC SAFETY AND TRAFFIC CONTROL

#### 3.5.7.1 Public Safety

The Proposed Project site is located within a rural, agricultural area with the closest resident located approximately 1.8 miles away. The active construction and staging area would be fenced at all times and would restrict public access to the site. In addition, all open holes or trenches would be covered at the end of the day to protect construction workers as they leave and enter the Proposed Project site. Public safety, with regards to traffic controls on West Jayne Avenue, are discussed below.

#### 3.5.7.2 Traffic Control

No sidewalks, trails, paths or driveways would be impacted by the Proposed Project. Traffic control procedures may be implemented intermittently along West Jayne Avenue during construction and times of deliveries. Potentially, one lane may need to be closed along West Jayne Avenue when the telecommunication line is installed and when equipment is being delivered to the Proposed Project site. These restrictions would be temporary, and detours are not anticipated to be necessary. Flaggers or other traffic control measures would be utilized to guide traffic around active work areas in a safe manner. All traffic-control plans and encroachment permits would be reviewed and approved by the county of Fresno and would be provided to the CPUC prior to implementation.

#### 3.5.7.3 Security

The STATCOM Substation physical security would be designed in accordance with North American Electric Reliability Corporation (NERC) Critical Infrastructure Protection (CIP) requirements with 24/7 monitoring, response, and control through the LSPGC control center and staff. The Proposed Project would include a perimeter physical security system consisting of an eight-foot chain link security fence with an additional one-foot barbed wire extension at the top. The perimeter security fence would have two gates integrated with electronic access card readers. Each gate would be 24 feet wide. Access to the STATCOM Substation facility would be restricted through the use of electronic access cards. Access to the control enclosure would be further restricted with monitored entry, an automatic electronic locking mechanism, and a two-factor authentication consisting of an electronic access card and a personal code entered on a keypad. The STATCOM Substation design would include indoor and outdoor physical security cameras placed throughout the site with at least two of the cameras placed around the exterior of the control house. The security cameras would be routed through a network video recorder located in the WAN control panel and communicated to the LSPGC control center for monitoring.

STATCOM Substation lighting would be photocell controlled and provide illumination for security. Light fixtures would be located near major outdoor equipment, general substation areas and building exteriors. Seventy-two-watt LED lights would be mounted on A-frames, H-frames and Shield wire poles, structures, poles, and supplementary buildings as required. The general illumination level in the substation would be two-foot candles. The illumination level for equipment such as disconnect switches, operating mechanisms and transformer control cabinets shall be no less than two-foot candles.

### 3.5.8 DUST, EROSION, AND RUNOFF CONTROLS

#### 3.5.8.1 Dust

During construction, migration of dust from the construction sites would be limited by control measures set forth by the Applicant Proposed Measures (APM) outlined in **Section 4.3**, *Air Quality*. These measures may include the use of water trucks and other dust control measures, including the application of non-toxic soil binders. In addition, LSPGC would prepare a Dust Control Plan (Rule 8120) that would be reviewed and approved by the San Joaquin Valley Air Pollution Control District. Rule 8120 applies to any construction, demolition, excavation, extraction, and other earthmoving activities, including, but not limited to, land clearing, grubbing, scraping, travel on site, and travel on access roads to and from the site.

#### 3.5.8.2 Erosion

The Proposed Project would result in more than one acre of soil disturbance. As a result, the Proposed Project would be required to prepare, file, and implement a SWPPP in accordance with the State's General Permit for Stormwater Discharges Associated with Construction Activities (2009-009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ). The SWPPP would include measures to limit erosion and off-site transport of pollutants from construction activities. The plan would designate BMPs that would be followed during construction to help stabilize disturbed areas and reduce erosion, sedimentation, and pollutant transport.

#### 3.5.8.3 Runoff

The Proposed Project would also include a stormwater management system consisting of a stormwater drainage and conveyance system and a stormwater detention basin located on the eastern portion of the site. The STATCOM Substation pad would be graded in order to drain stormwater directly into the perimeter drainage ditch that would ultimately convey water to the detention basin. The earthen detention basin would not be lined, allowing for infiltration and groundwater recharge. The approximately 1,250-cubic-yard basin is designed to capture the runoff from the 100-year storm, 24-hour rainfall event and then release the captured water over 48 hours. Overflow from the detention basin would be returned to sheet flow via a level spreader that would provide for sheet flow of the stormwater to the adjacent land surface during storms that exceed the basin's design capacity. The level spreading approach would control erosion and prevent scouring at discharge locations.

### 3.5.9 WATER USE AND DEWATERING

#### 3.5.9.1 Water Use

Water used for construction activities, such as for dust suppression and compaction requirements, would be trucked in from an off-site location in the city of Huron or city of Coalinga. It is estimated that a total of up to approximately 740,000 gallons of water would be used for construction purposes during the approximately 22-month construction process, the majority of which would be used during the site development and below-grade construction phases. Water used during construction activities would be temporary and minimal and originate from a local source that has the existing capacity to service the Proposed Project's needs. The Proposed Project would truck in water needed for construction from local sources within the city of Huron or the city of Coalinga, which are both provided water via the Westlands Water District. It is not anticipated that recycled, reclaimed water or groundwater would be used to meet the Proposed Project's construction needs. Construction crews would be responsible for providing their own drinking water during construction.

The Proposed Project would not require water sources for O&M activities as the STATCOM Substation facility would be unmanned. LSPGC personnel would be responsible for providing their own drinking water during O&M activities.

#### 3.5.9.2 Dewatering

Groundwater was not encountered during soil borings that were conducted as part of the Proposed Project's Geotechnical Engineering Report (Terracon, 2019), and therefore, dewatering

during construction activities is not anticipated. However, if dewatering is needed, LSPGC would follow all applicable state and federal regulations.

### 3.5.10 HAZARDOUS MATERIALS AND MANAGEMENT

#### 3.5.10.1 Hazardous Materials

Hazards and hazardous materials are discussed in greater detail in **Section 4.9**, *Hazards, Hazardous Materials and Public Safety*. Construction of the Proposed Project would require the limited use of hazardous materials, such as fuels, lubricants, cleaning solvents, and chemicals. All hazardous materials would be stored, handled, and used in accordance with applicable regulations. Safety Data Sheets (SDS) would be made available at the construction site for all crew workers. Based on the anticipated volume of hazardous liquid materials, such as fuel, that would be stored and dispensed at a staging area, a Spill Prevention, Control, and Countermeasure (SPCC) Plan would be required (in accordance with applicable provisions of 40 C.F.R. Parts 112.1-112.7). Although not expected, if pre-existing hazardous waste is encountered on the Proposed Project site, it would be removed of and disposed in a manner consistent with all state and federal regulations. It is not anticipated that herbicides or pesticides would be used during construction.

#### 3.5.10.2 Hazardous Materials Management

Hazards and hazardous materials are discussed in greater detail in **Section 4.9**, *Hazards, Hazardous Materials and Public Safety* section. Prior to construction, a SPCC Plan and Hazardous Materials Management Plan (HMMP) would be prepared describing hazardous materials use, transport, storage, management, and disposal protocols. Construction would not begin until this plan is complete. The plans would be prepared in accordance with relevant state and federal guidelines and regulations (e.g., Cal/OSHA). The HMMP would include the following information related to hazardous materials and waste as applicable:

- A list of hazardous materials present on-site during construction and O&M to be updated as needed along with product SDS and other information regarding storage, application, transportation, and disposal requirements;
- A Hazardous Materials Communication (i.e., HAZCOM) Plan;
- Assignments and responsibilities of Proposed Project Health and Safety roles;
- Standards for any secondary containment and countermeasures that would be required for hazardous materials;
- Spill response procedures based on product and quantity. The procedures would include materials to be used, location of such materials within the Proposed Project area, and disposal protocols; and
- Protocols for the management, testing, reporting, and disposal of potentially contaminated soils or groundwater observed or discovered during construction. This would include termination of work within the area of suspected contamination sampling by an OSHA trained individual and testing at a certified laboratory.

### 3.5.11 WASTE GENERATION AND MANAGEMENT

#### 3.5.11.1 Solid Waste

Solid wastes generated during construction would primarily be non-hazardous wastes including wood, metal, paper, and plastic packaging. Construction debris volumes are estimated at total of approximately 300 cubic yards. Earthwork associated with the Proposed Project would require cut and fill, and excess fill material after completion of grading would be minimal (approximately 2,000 cubic yards) During trenching excavations, the excavated material would be used to backfill when possible and, therefore, there would likely not be excess material. If possible, recyclable construction material would be transported to an approved recycling facility.

Construction waste that cannot be recycled would ultimately be disposed of at the Avenal Regional Landfill or another approved facility. Construction waste would be disposed of properly and in accordance with all applicable federal, state, and local laws regarding solid and hazardous waste including, but not limited to, the California Integrated Waste Management Act of 1989 which has set reduction rates for the amount of solid waste sent to landfills.

#### 3.5.11.2 Liquid Waste

Liquid waste streams anticipated for the Proposed Project primarily include sanitary waste and stormwater runoff. Sanitary waste from self-contained portable toilets would be routinely pumped as needed and would be taken by the vendor to a proper sanitary waste facility for disposal. Stormwater runoff would be managed according to a stormwater management plan and associated SWPPP to comply with any general construction permits and approved by the local regional water quality control board. While groundwater is not anticipated to be encountered, excavation dewatering effluent may be produced. This effluent would be filtered and managed according to the dewatering plan developed as part of the SWPPP. Sanitary waste would be generated at the rate of 50-100 gallons per week per ten workers on-site. Sanitary wastes would be transported by the licensed sanitary waste services for off-site disposal at their contracted treat, store, and dispose facility.

#### 3.5.11.3 Hazardous Waste

As discussed in **Section 3.5.10**, *Hazardous Materials and Management*, construction of the Proposed Project would require the limited use of hazardous materials, such as fuels, lubricants, cleaning solvents and chemicals. Additionally, the Proposed Project would include transformers containing mineral oil, which is considered a hazardous material in the state of California. Additional potentially hazardous waste sources during construction include contaminated soils, incidental spill waste, and concrete washout.

Wastes generated or encountered would be handled, contained, and disposed of according to local, state, and federal regulations. In addition, prior to construction, a HMMP would be prepared describing hazardous materials use, transport, storage, management, and disposal protocols. This could include containerization in Department of Transportation approved vessels, review of relevant SDSs, use of secondary containment, and training of material handlers to ensure worker safety and the reduction of cross contamination.

### 3.5.12 FIRE PREVENTION AND RESPONSE

#### 3.5.12.1 Fire Prevention and Response Procedures

**Section 4.9**, *Hazards, Hazardous Materials, and Public Safety* outlines the Proposed Project's fire risk. As described in that section, the Proposed Project is not located within a high fire threat area, as identified by CAL FIRE or the CPUC. However, in order to fully mitigate any potential fire hazards during construction, a project-specific Construction Fire Prevention Plan would be prepared. The Proposed Project includes an APM that identifies the need for a project-specific Construction Fire Prevention Plan that would address construction fire risks and minimization measures.

#### 3.5.12.2 Fire Breaks

During construction activities that are considered "hot work" (e.g., welding, grinding, or any other activity that creates hot sparks), LSPGC would implement a ten-foot buffer around that activity, and vegetation would be cleared to ensure sparks do not create a fire hazard. For activities that do not produce sparks but still have potential to produce a fire hazard such as ground rod or ground wire installation, LSPGC would implement a five-foot buffer to be cleared of vegetation, and additional details (i.e., handling sparks) will be provided in the Construction Fire Prevention Plan.

Under Section 35 of General Order 95, the CPUC regulates all aspects of design, construction, and O&M of electrical power lines and fire safety hazards for utilities subject to their jurisdiction (CPUC, 2020). In addition, Fire Prevention Standards for Electric Utilities (California Code of Regulations [CCR] Title 14, sections 1250-1258) provide definitions, maps, specifications, and clearance standards for projects under the jurisdiction of California Public Resources Code (PRC) sections 4292 and 4293 in State Responsibility Zones. LSPGC would create a fire break around the STATCOM Substation in accordance with all applicable state and federal regulations.

## 3.6 CONSTRUCTION WORKFORCE, EQUIPMENT, TRAFFIC, AND SCHEDULE

### 3.6.1 CONSTRUCTION WORKFORCE

Construction of the STATCOM Substation facility and interconnection transmission lines is expected to occur simultaneously. The construction workforce and equipment deployed for the Proposed Project would be typical for similar transmission line and substation construction projects of this size. The peak employment is anticipated to be 20 workers, but on average, the workforce on site would be less. The workers would likely commute from the greater Fresno area.

**Table 3-4,** *Construction Equipment and Workforce* lists the expected equipment and personnel by construction activity as well as a brief construction work plan summary for each activity. It also lists the uses of the equipment for each construction phase. This information is preliminary and not all equipment and personnel listed may be used during all portions of each specified activity. Additional personnel or other equipment may be identified during final project design or implemented during construction as needed, based on site conditions.

### 3.6.2 CONSTRUCTION EQUIPMENT

The equipment that would be used to construct each Proposed Project component, along with its approximate duration of use, is provided in **Table 3-4,** *Construction Equipment and Workforce.* In addition, a full list of equipment that would be used during construction is outlined and is provided in **Table 3-5,** *Anticipated Construction Equipment*. As shown in **Table 3-4,** *Construction Equipment and Workforce*, it is anticipated that a maximum of up to approximately 20 workers would be employed for the site development phase of the Proposed Project. Between 15 and 20 workers are expected during the foundation and below-grade work, as well as the construction of the Proposed Project. Final testing and checkout would require five to ten electricians and/or engineers.

**Table 3-4: Construction Equipment and Workforce**

| Work Activity | | | | Activity Production | | | |
|---|---|---|---|---|---|---|---|
| **Equipment Description** | **Estimated Horsepower** | **Probable Fuel Type** | **Equipment Quantity** | **Estimated Workforce** | **Estimated Start Date** | **Estimated End Date** | **Duration of Use, Hrs./Day** |
| **Survey** | | | | | | | |
| Pickup - 1/2 Ton | 395 | Diesel | 1 | 2-3 | March 2022 | August 2022 | 2 |
| **Road Work** | | | | | | | |
| Truck - Water 4K | 300 | Diesel | 4 | 5-10 | March 2022 | April 2022 | 10 |
| Loader - 4-5Yd | 275 | Diesel | 1 | | | | 10 |
| Truck - Dump 10-12 Yd | 415 | Diesel | 4 | | | | 5 |
| Motor Grader | 250 | Diesel | 1 | | | | 10 |
| Roller | 405 | Diesel | 1 | | | | 10 |
| Pickup - 1/2 Ton | 395 | Diesel | 1 | | | | 2 |
| **Site and Staging Preparation** | | | | | | | |
| Truck - Water 4K | 300 | Diesel | 4 | 10 | March 2022 | May 2022 | 10 |
| Loader - 4-5Yd | 275 | Diesel | 1 | | | | 10 |
| Truck - Dump 10-12 Yd | 415 | Diesel | 4 | | | | 5 |
| Motor Grader | 250 | Diesel | 1 | | | | 10 |
| Roller | 405 | Diesel | 1 | | | | 10 |
| Pickup - 1/2 Ton | 395 | Diesel | 1 | | | | 2 |
| Pickup - 1 Ton | 410 | Diesel | 1 | | | | 2 |
| **Below-Grade Construction** | | | | | | | |
| Truck - Water 4K | 300 | Diesel | 4 | 20 | June 2022 | August 2022 | 10 |

| Table 3-4: Construction Equipment and Workforce | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Work Activity** | | | | **Activity Production** | | | |
| **Equipment Description** | **Estimated Horsepower** | **Probable Fuel Type** | **Equipment Quantity** | **Estimated Workforce** | **Estimated Start Date** | **Estimated End Date** | **Duration of Use, Hrs./Day** |
| Excavator | 108 | Diesel | 1 | | | | 10 |
| Forklift - 8-9K Reach | 100 | Diesel | 1 | | | | 4 |
| Backhoe - 2X4 | 68 | Diesel | 1 | | | | 5 |
| Pickup - 1/2 Ton | 395 | Diesel | 3 | | | | 2 |
| Pickup - 1 Ton | 410 | Diesel | 2 | | | | 2 |
| Excavator – Mini | 70 | Diesel | 1 | | | | 5 |
| Loader - 4-5Yd | 275 | Diesel | 1 | | | | 10 |
| Pressure Digger - Lo-Drill (Tracked) | 125 | Diesel | 1 | | | | 10 |
| Truck - Dump 10-12 Yd | 415 | Diesel | 1 | | | | 8 |
| Trencher | 75 | Diesel | 1 | | | | 5 |
| Skid steer loader | 74 | Diesel | 1 | | | | 10 |
| **Above-Grade Construction and Equipment Installation** | | | | | | | |
| Pickup - 1/2 Ton | 395 | Diesel | 3 | 20 | September 2022 | August 2023 | 2 |
| Pickup - 1 Ton | 410 | Diesel | 2 | | | | 2 |
| Welding Truck | 395 | Diesel | 1 | | | | 2 |
| 17 Ton Crane | 250 | Diesel | 1 | | | | 10 |
| 30 Ton Crane | 130 | Diesel | 1 | | | | 5 |
| 10K Reach Forklift | 130 | Diesel | 1 | | | | 5 |
| 15,000LB Forklift | 130 | Diesel | 1 | | | | 4 |
| 40' Manlift | 49 | Diesel | 1 | | | | 4 |
| 120' Manlift | 74 | Diesel | 1 | | | | 4 |
| **Commissioning and Testing** | | | | | | | |
| Pickup - 1/2 Ton | 395 | Diesel | 3 | 5 to 10 | June 2023 | December 2023 | 2 |
| Pickup - One Ton | 410 | Diesel | 2 | | | | 2 |
| 10K Reach Forklift | 130 | Diesel | 1 | | | | 5 |

| Table 3-4: Construction Equipment and Workforce | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Work Activity** | | | | **Activity Production** | | | |
| **Equipment Description** | **Estimated Horsepower** | **Probable Fuel Type** | **Equipment Quantity** | **Estimated Workforce** | **Estimated Start Date** | **Estimated End Date** | **Duration of Use, Hrs./Day** |
| 15,000LB Forklift | 130 | Diesel | 1 | | | | 4 |
| 40' Manlift | 49 | Diesel | 1 | | | | 4 |

| Table 3-5: Anticipated Construction Equipment | |
|---|---|
| **Equipment Type** | **Equipment Use** |
| Air compressors | Operate air tools |
| Asphalt grinder | Grind asphalt |
| Backhoe | Excavate trenches |
| Bobcat | Excavate trenches |
| Boom truck | Access poles and other height-restricted items<br>Lift/set steel |
| Boom truck with trailer | Deliver steel, disc, panels and insulators |
| Bucket truck/manlift | Set steel<br>Install equipment<br>Use as guard structure |
| Bulldozer | Grade pads and access road<br>Demolition<br>Excavate and backfill walls |
| Bull wheel tensioner | Control conductor at pulling tension during pulling operation |
| Cable dolly | Pull cable |
| Cable dolly (trailer) | Transport reels of conductor (no engine; can be pulled by assist truck) |
| Compactor | Compact soil<br>Clear/grub/finish |
| Concrete truck | Transport and process concrete |
| Crane | Lift, position structures |
| Drilling rig/ Truck-mounted augur | Excavate for direct-bury and micropile poles<br>Excavate trenches |
| Dump truck | Haul excavated materials/import backfill, as needed |
| Excavator | Excavate soils/materials (trenching) |
| Forklift | Transport materials at structure sites and staging area |
| Grader | Road construction and maintenance |
| Jackhammer | Break concrete and asphalt |
| Line truck | Install clearance structures<br>Pull cables/connections |
| Loader | Demolition<br>Load dump trucks |
| Pickup trucks | Transport construction personnel |
| Portable generators | Operate power tools |

| Table 3-5: Anticipated Construction Equipment | |
|---|---|
| **Equipment Type** | **Equipment Use** |
| Pulling rig | Pull conductor into position or duct and secure it at the correct tension |
| Reel trailer | Feed new conductor to the pulling and tensioner<br>Collect old conductor |
| Relay/Telecommunication van | Transport and support construction personnel |
| Roller | Repair streets |
| Scraper | Grade pads and access roads |
| Splice trailer | Store splicing supplies |
| Tool van | Tool storage |
| Tractor/Trailer Unit | Transport materials at structure sites and staging area |
| Trencher | Trenching for underground telecommunication line |
| Wire truck | Hold spools of wire |
| Water truck | Provides water for dust suppression and other construction needs. |

In addition to use of the equipment identified above, pick-up trucks and construction worker vehicles are anticipated to travel daily to and from the work areas for each component of the Proposed Project. It is anticipated that additional maintenance and/or delivery trucks would travel to and from the staging areas between two and three times per week, or up to four times per week during peak activities.

### 3.6.3 CONSTRUCTION TRAFFIC

All construction vehicles and equipment would enter the Proposed Project area on West Jayne Avenue. Vehicles would turn onto the north-south access road from West Jayne Avenue. Although some disruption to traffic flow may occur when trucks ingress or egress from the north-south access road, such events would be periodic and temporary. Signage and/or flagmen would be used to reduce potential disruptions to traffic flow and to maintain public safety during construction. Parking of worker vehicles would occur within the staging area adjacent to the STATCOM Substation facility. As truck traffic would occur on a county-maintained roadway, a county of Fresno Traffic Control Permit and traffic control plan may be required. Implementation of a traffic control plan (**APM TRA-1**) required would further reduce impacts to traffic congestion.

The peak vehicle trips would be from approximately March 2022 through August 2022 during the earthwork and grading of the Proposed Project (e.g., site development and below-grade construction activities) due to the hauling away or importation of fill. Total maximum daily vehicle trips (i.e., roundtrips) during this time period would be approximately 45 per day, consisting of approximately 25 truck trips and 20 worker trips. Maximum daily truck trips include approximately 18 dump trucks (14 rock deliveries and 4 excess material haul off), four water trucks, and three equipment delivery trucks. Other periods of the Proposed Project duration would have lower average worker vehicle trips and would, therefore, have correspondingly lower impacts. **Table 3-6**, *Estimated Average Daily Construction Traffic,* outlines the average daily truck and worker-related vehicle trips, as well as the vehicles miles traveled per construction phase.

| Table 3-6: Estimated Average Daily Construction Traffic | | | | | |
|---|---|---|---|---|---|
| **Construction Phase** | **Average Daily Truck Trips** | **Average Daily Worker Trips** | **Average Daily Truck VMT[1]** | **Average Daily Worker VMT[2]** | **Total Daily Average VMT** |
| Site Development (includes survey, road work, site and staging yard preparation) | 15 | 8 | 600 miles | 800 miles | 1,400 miles |
| Below-Grade Construction | 10 | 15 | 400 miles | 1,500 miles | 1,900 miles |
| Above-Grade Construction and Equipment Installation | 5 | 15 | 200 miles | 1,500 miles | 1,700 miles |
| Commissioning and Testing | 5 | 5 | 200 miles | 500 miles | 700 miles |
| [1] VMT based on a 20 mile radius for all truck trips. | | | | | |
| [2] VMT based on a 50 mile radius for all worker trips. | | | | | |

Vehicle trips generated by construction personnel would generally occur with workers arriving at the site in the morning and leaving the site at the end of the day, with limited worker-related trips to or from the worksite during the course of the day. Construction activities would occur Monday through Saturday during daylight hours. To reduce the potential number of daily worker-related vehicle trips to and from the site, LSPGC would encourage carpooling from their respective places of employment or meet at a Park and Ride parking lot to the greatest extent possible.

### 3.6.4 CONSTRUCTION SCHEDULE

LSPGC estimates that construction of the Proposed Project would take a total of approximately 22 months to complete, depending upon unforeseen/unpredictable factors such as weather. Construction is scheduled to begin in March 2022 and run through December 2023. The complete construction schedule, outlined by task, is summarized in **Table 3-7,** *Proposed Construction Schedule*.

| Table 3-7: Proposed Construction Schedule | | | |
|---|---|---|---|
| **STATCOM Substation** | **Start Date** | **End Date** | **Number of Workdays** |
| Site Development (includes survey, road work, site and staging yard preparation) | 03/2022 | 05/2022 | 90 |
| Below-Grade Construction | 06/2022 | 08/2022 | 90 |
| Above-Grade Construction and Equipment Installation | 09/2022 | 08/2023 | 360 |
| Commissioning and Testing | 06/2023 | 12/2023 | 210 |

### 3.6.5 WORK SCHEDULE

Construction activities on the Proposed Project would generally be scheduled to occur during daylight hours six days per week (Monday through Saturday). Night work is not anticipated to be necessary, but in case it is required, Fresno County and CPUC approval would be obtained. Construction activities could infrequently be scheduled outside of these hours to avoid or reduce

schedule delays, complete construction activities, such as continuous concrete pours, to accommodate the schedule for system outages, or to address emergencies.

## 3.7 POST-CONSTRUCTION

### 3.7.1 COMMISSIONING AND TESTING

Commissioning and testing would begin with pre-commissioning activities that include equipment fit-up inspections and simple electrical tests to ensure the equipment is connected properly. After pre-commissioning, the first commissioning activities would include transformer energization followed by auxiliary electrical tests. After confirmation that the transformer and medium voltage electrical system are working properly, functional tests would begin on the STATCOM to ensure the power electronic devices operate as designed. This includes various performance tests to ensure the STATCOM is able to meet all necessary electrical output. While running these tests, the STATCOM cooling system would be tested to confirm adequate cooling of the power electronic devices. Lastly, the power electronic devices and protection/control system would be tested and programed per the project requirements. After this, the Proposed Project would be ready for energization.

Commissioning and testing would require the use of pick-up trucks, forklifts, and manlifts and would utilize approximately five to 10 construction personnel to be on-site. Commissioning and testing of the Proposed Project would take approximately seven months between June 2023 and December 2023, for a total duration of 210 days, at which point the Proposed Project would be fully functional and ready for commercial operation.

### 3.7.2 LANDSCAPING

The Proposed Project is located within an active agricultural area adjacent to an existing substation facility with no nearby residences. Therefore, LSPGC is not proposing any landscaping at the entrance or around the STATCOM Substation facility.

### 3.7.3 DEMOBILIZATION AND SITE RESTORATION

#### 3.7.3.1 Demobilization

Following completion of construction, the process of demobilization would begin. First, all equipment not needed for the remaining testing and revegetation would be removed. Next, all temporarily disturbed work areas would be restored to their pre-construction conditions. See below for site restoration details.

#### 3.7.3.2 Site Restoration

LSPGC would restore all areas (including the borrow area) that are temporarily disturbed by the Proposed Project activities to approximate pre-construction conditions. All areas would be carefully assessed to be sure all residual construction debris and waste is removed and transported off-site to an approved disposal facility. Any types of Proposed Project waste materials that are routinely recycled would be recycled in an appropriate fashion at an approved disposal facility. LSPGC would conduct a final inspection to ensure that cleanup activities are successfully completed as required. Areas that are disturbed by grading, augering, or equipment movement would be restored to their original contours and drainage patterns. Work areas would

be decompacted, and salvaged topsoil materials would be re-spread following recontouring to aid in restoration of temporary disturbed areas. Revegetation activities would be conducted in accordance with the Proposed Project SWPPP and APMs recommended herein. Restoration could include recontouring, reseeding and planting replacement vegetation, as appropriate. Additional restoration opportunities could include preparing the site for future utility uses. Erosion control measures may be required and would also be implemented in accordance with the Proposed Project SWPPP and APMs recommended herein.

## 3.8 OPERATION AND MAINTENANCE

### 3.8.1 REGULATIONS AND STANDARDS

O&M of the Proposed Project would be conducted in accordance with all applicable Federal Energy Regulatory Commission (FERC), NERC, California Public Utilities Commission (CPUC), or CAISO requirements. Any O&M work (e.g., high voltage capital repair or replacement) would also be conducted in accordance with NESC, National Electrical Code (NEC), OSHA and other applicable regulations and standards. Furthermore, since the Proposed Project is not located within a high fire threat area, as identified by California Department of Forestry and Fire Protection (CAL FIRE) or the CPUC, a Wildfire Management Plan is not required for O&M activities.

### 3.8.2 SYSTEM CONTROLS AND OPERATION STAFF

Because the Proposed Project would be unstaffed, the STATCOM Substation facility would be remotely monitored by LSPGC's control center, which is staffed 24 hours a day, seven days a week. If equipment malfunctions, O&M personnel would be dispatched to the site to investigate the problem and take appropriate corrective action. The Proposed Project would be operated by LSPGC's control center in Austin, Texas and LSPGC's local maintenance/technical staff, utilizing other existing LSPGC staff and outside resources for maintenance and emergency response. The Proposed Project would be incorporated into LSPGC's existing programs with existing equipment, experienced staff, and trusted contractors to provide operational and cost efficiencies with reduced risks. The STATCOM Substation would be unmanned during O&M. The Proposed Project would also be monitored by CAISO's control center in Folsom, California, and CAISO would have operational control of the STATCOM Substation facility with authority to direct LSPGC's control center.

LSPGC currently has five staff in its transmission maintenance group with an average experience of over 15 years. One additional local, California-based field personnel would also be added in 2023 to support maintenance of the facilities. LSPGC would also have a local, California-based electrical engineer available to support any technical aspects of the Proposed Project. Day-to-day management of the Proposed Project would be by LSPGC's asset management teams based in Texas and Missouri.

### 3.8.3 INSPECTION PROGRAMS

In general, monthly inspections would be performed on the STATCOM Substation to inspect each required piece of equipment and check that no obvious abnormalities exist. This would be performed at the highest extent possible without taking the STATCOM Substation out of service. It is anticipated that the STATCOM Substation facility would be taken out of service to perform more extensive checks and maintenance on the main components of the facility on an annual basis. Due to the diversity of equipment and the individual system components, a small,

specialized team would execute the varying degrees of monthly and annual maintenance requirements. Inspection and maintenance would be performed by a small crew of one to two high voltage technicians and one to two personnel provided by the equipment vendor with support provided by LSPGC staff.

### 3.8.4 MAINTENANCE AND OPERATIONS PROGRAMS

Once construction is complete, the Proposed Project would be unattended on a typical daily basis. The STATCOM Substation facility would be monitored and controlled by LSPGC's Remote Control Centers, so no new full-time staff would be required for O&M of the facilities. A perimeter fence would enclose the Proposed Project, and all access gates would be locked to prevent the entry of unauthorized individuals. Access would be restricted further by posting signage on the exterior and at the entryway to the STATCOM Substation facility.

LSPGC would regularly inspect, maintain, and repair the Proposed Project and access roads following completion of Proposed Project construction. Typical O&M would involve routine inspections and preventive maintenance to ensure service reliability, as well as emergency work to maintain or restore service. LSPGC would perform aerial and ground inspections of the Proposed Project facilities and patrol above-ground components annually.

Routine maintenance is expected to require approximately six trips per year by crews composed of two to four people. Routine operations would require one or two workers in a light utility truck to visit the Proposed Project on a monthly basis. It is anticipated that one annual major maintenance inspection would occur, requiring an estimated crew of two to four personnel. This inspection would take approximately one week to complete. Nighttime maintenance activities are not expected to occur more than once per year.

### 3.8.5 VEGETATION MANAGEMENT PROGRAMS

In accordance with fire break clearance requirements in PRC 4292 and Title 14, Section 1254 of the CCR, LSPGC would trim or remove flammable vegetation in the area surrounding the Proposed Project site, interconnection transmission line, and distribution poles to reduce potential fire and other safety hazards. One-person crews typically conduct this work using mechanical equipment consisting of weed trimmers, rakes, shovels, and leaf blowers. LSPGC would typically inspect the STATCOM Substation facility on an annual basis to determine if brush clearing is required.

The PG&E Gates Substation that is located to the south of the Proposed Project would also be subject to the regulations described above. PG&E actively removes all vegetation from their property, within and outside the established fence-line. The combination of LSPGC and PG&E's vegetation management activities would ensure a continuous defensible area around both facilities.

## 3.9 DECOMMISSIONING

### 3.9.1 DECOMMISSIONING

Prior to removal or abandonment of the facilities, LSPGC would prepare a removal and restoration plan. The removal and restoration plan would address removal of the STATCOM Substation facility from the permitted area, any requirements for restoration and revegetation, and the

potential preparation of the property for future utility uses. The removal and restoration plan would then be approved by the CPUC before implementation.

## 3.10 ANTICIPATED PERMITS AND APPROVALS

### 3.10.1 ANTICIPATED PERMITS AND APPROVALS

The CPUC is the lead California agency for this Proposed Project. LSPGC must comply with CPUC's GO 131-D Section III-B, which contains the permitting requirements for construction of the Proposed Project (CPUC, 1995). This Proponent's Environmental Assessments (PEA) was prepared as part of an application to obtain a Permit to Construct (PTC) for the Proposed Project. In addition to the PTC, LSPGC may be required to obtain several other permits from federal, state, and local agencies. **Table 3-8,** *Anticipated Permits and Approvals* lists the permits, approvals, and licenses that LSPGC anticipates obtaining from jurisdictional agencies.

| Table 3-8: Anticipated Permits and Approvals | | | | |
|---|---|---|---|---|
| **Agency** | **Permit/ Approvals**[1] | **Permit Trigger** | **Application Process** | **Timing** |
| Fresno County | Encroachment and Traffic Control Permit | Construction within the public right-of-way, specifically within West Jayne Avenue. | Submit encroachment permit application to County of Fresno for review and approval. | Prior to the start of construction within the Public ROW |
| Fresno County | Building and Grading Permits (non-discretionary) | Construction of the control enclosure (building permit) and grading/fill for STATCOM Substation pad (grading permit) | Submit grading and/or permit application to County of Fresno for review and approval. | Prior to the start of construction of the STATCOM Substation. |
| Fresno County | Subdivision Map Act | Authorization to subdivide private property. | Submit parcel map waiver application to County of Fresno for review and approval. | Prior to the issuance of the Project's Notice to Proceed. |
| Fresno County | Williamson Act Review | Construction of project on land subject to a Williamson Act contract. | One of four options, to be determined by Fresno County and applicant.<br><br>a. Compatibility determination from County staff.<br><br>b. Board of Supervisors cancellation of contract as applied to project site by approval of petition for cancellation.<br><br>c. Eminent domain: after CPUC approval of Proposed Project, LSPGC must make resolution of necessity and commence eminent domain process pursuant to California law.<br><br>d. Eminent domain in lieu: after CPUC approval of the Proposed Project, landowner sells property to LSPGC in lieu of condemnation. | Prior to start of construction. |

[1] *Permits/approvals listed below are potentially required and do not necessarily represent a comprehensive list of all possible permits/approvals required for the proposed project.*

| Table 3-8: Anticipated Permits and Approvals | | | | |
|---|---|---|---|---|
| **Agency** | **Permit/ Approvals**[1] | **Permit Trigger** | **Application Process** | **Timing** |
| San Joaquin Valley Air Pollution Control District (SJVAPD) | Rule 9510, Indirect Source Review | Rule 9510 requires development projects exceeding listed square footage thresholds to submit air impact assessment applications when applying for a final discretionary approval from a public agency. Projects that have a mitigated baseline at or above two tons per year of NOx and two tons per year of PM10 must satisfy additional mitigation requirements. These include mitigating exhaust emissions from construction equipment greater than 50 horsepower (hp) to 20% below statewide average NOx emissions and 45% below statewide average PM10 exhaust emissions. Such projects must also reduce baseline emissions of NOx and PM10 emissions associated with operations by 33.3% and 50%, respectively, over a period of 10 years (Lowe-Leseth and Hafer, 2005). | Application forms need to be prepared and submitted to the SJVAPD. | Prior to applying for a final discretionary approval. |
| San Joaquin Valley Air Pollution Control District | Rule 8021 - Dust Control Plan | Rule applies to any construction, demolition, excavation, extraction, and other earthmoving activities, including, but not limited to, land clearing, grubbing, scraping, travel on site, and travel on access roads to and from the site. | Dust Control Plan needs to be prepared and submitted to the SJVAPD. | Prior to the start of construction. |

| Table 3-8: Anticipated Permits and Approvals | | | | |
|---|---|---|---|---|
| **Agency** | **Permit/ Approvals**[1] | **Permit Trigger** | **Application Process** | **Timing** |
| State Water Resources Control Board (SWRCB) | Section 401 of the Federal Clean Water Act, National Pollutant Discharge Elimination System General Permit for Discharge of Construction Related Storm Water | As directed by the State Water Resources Control Board, monitor development and implementation of SWPPPs and other aspects of the National Pollutant Discharge Elimination System permit and 401 certification program. SWPPPs are required for storm water discharges associated with construction activities that disturb more than one acre of land. | Prepare SWPPP and submit Notice of Intent with the SWRCB. | Prior to the start of construction. |
| California Public Utilities Commission (CPUC) | California Public Utilities Code Section 1001 et seq. and CPUC General Order No. 131-D Permit to Construct (PTC) | Compliance with General Order 131-D for substation and transmission line facilities and CEQA review and overall approval of the proposed project, including approval of a Permit to Construct. | Submit PTC Application and Proponents Environmental Assessment to CPUC. The CPUC would initiate the CEQA process and make a proposed and final PTC ruling. | Prior to the start of issuance of the Project's PTC. |

### 3.10.2 RIGHTS-OF-WAY OR EASEMENT APPLICATIONS

LSPGC would acquire approximately 20 acres of land through the purchase of a portion of a single, privately-owned parcel, which is approximately 230 acres, for construction and O&M of the Proposed Project. The approximately 210 acres that remain within this larger parcel would retain its agricultural use and public access rights and would not be physically constrained as a result of the land transaction. LSPGC would obtain the entirety of the 20-acre parcel despite the fact that only a portion of it is required for O&M of the Proposed Project.

In addition to the land purchase transaction, the following discussion describes the land and ROW or easement requirements for each Proposed Project component. These requirements are also summarized in **Table 3-9,** *Permanent Land and ROW Requirements*.

| Table 3-9: Permanent Land and ROW Requirements | | |
|---|---|---|
| **Proposed Project Component** | **Approximate Length (feet)** | **Approximate Area (acres)** |
| North-South Access Road (including the telecommunication line) | 2,900 | 1.35 |
| Source: LSPGC<br>Table contents based upon preliminary engineering and are subject to change. | | |

As identified above, the Proposed Project would require a new easement from PG&E for the access road along the eastern border of the PG&E Gates Substation property boundary, and LSPGC would grant PG&E an easement for the minor section of the 500 kV interconnection lines that would extend beyond the property line into the Proposed Project site. The easement for the Proposed Project's access road would include rights for the underground telecommunication line. Because PG&E is subject to the jurisdiction of the CPUC, it must also comply with Public Utilities Code Section 851. Among other things, this code provision requires PG&E to obtain CPUC approval of leases and licenses to use PG&E property, including ROW granted to third parties. Obtaining CPUC approval for a Section 851 application requires compliance with CEQA. LSPGC, in conjunction with PG&E, would file a Section 851 application concurrently with the Proposed Project's PTC application.

## 3.11 APPLICANT PROPOSED MEASURES

### 3.11.1 APPLICANT PROPOSED MEASURES

LSPGC would be responsible for overseeing the assembly of construction and environmental teams that would implement and evaluate the Proposed Project APMs. LSPGC maintains an environmental compliance management program to allow for implementation of the APMs to be monitored, documented, and enforced during each Proposed Project phase, as appropriate. All those contracted by LSPGC to perform this work would be contractually bound to properly implement the APMs to ensure their effectiveness in reducing potential environmental effects.

Implementation of the proposed APMs would be the responsibility of the environmental compliance team. The team would include an environmental project manager, resource specialists, and environmental monitors. All APMs would be implemented consistent with applicable federal, state, and local regulations. The environmental compliance team would be responsible for the inspection, documentation, and reporting of LSPGC compliance with all APMs as proposed. As needed, environmental specialists would be retained to verify that all APMs are properly implemented during the construction phase.

The APMs are described in **Table 3-10***, Applicant Proposed Measures* and are described in detail in **Section 4.0,** *Environmental Analysis* which includes an analysis of why the APM was selected and how it would reduce and/or minimize potential impacts. In addition, all applicable CPUC Draft Environmental Measures were included as need to further reduce potential impacts.

If conditions occur where construction may potentially adversely affect a known or previously unknown environmentally sensitive resource, or if construction activities significantly deviate from Proposed Project requirements, LSPGC monitors and/or contract administrators would have the authority to halt construction activities, if needed, until an alternative method or approach can be identified. Any concerns that arise during implementation of the APMs would be communicated to the appropriate authority to determine if corrective action is required, or the concerns would be addressed on site, as applicable. As the proposed APMs are implemented, environmental monitors from LSPGC would be responsible for the review and documentation of such activities. Field notes and digital photographs would be used to document and describe the status of APMs as necessary.

| Table 3-10: Applicant Proposed Measures | |
|---|---|
| **APM Number** | **Description** |
| ***Aesthetics*** | |
| APM AES-1 | All Proposed Project sites would be maintained in a clean and orderly state. Construction staging areas would be sited away from public view where possible. Nighttime lighting would be directed away from residential areas and have shields to prevent light spillover effects. Upon completion of project construction, project staging and temporary work areas would be returned to pre-project conditions, including re-grading of the site and re-vegetation or re-paving of disturbed areas to match pre-existing contours and conditions. |
| APM AES-2 | Structures and equipment at the proposed STATECOM Substation facility would be a non-reflective finish and neutral gray color. |
| ***Agriculture and Forestry Resources*** | |
| APM AGR-1 | Prior to commencing construction of the Proposed Project, LSPGC must ensure that the Williamson Act contract for the 20-acre portion of the Proposed Project site impacted by the Proposed Project is:<br>• Cancelled pursuant to Title 5, Division 1, Part 1, Chapter 7, Article 5 of the California Government Code;<br>• Determined by Fresno County to be consistent with the Proposed Project; or<br>• Nullified via eminent domain or eminent domain in lieu pursuant Title 5, Division 1, Part 1, Chapter 7, Article 6 of the California Government Code |
| ***Air Quality*** | |
| APM AQ-1 | The Proposed Project would ensure that at least 32 percent of all diesel-powered equipment use (tracked as horse-power hours) during construction year 2022 is from equipment that meet USEPA-certified Tier 4 standards, the highest USEPA-certified tiered emission standards.<br><br>Prior to the commencement of construction, LSPGC shall develop a diesel-powered equipment use hours tracking tool and procedure. The tracking tool shall be utilized by the Project to keep track of the certified engine tier and daily equipment use hours of all off-road diesel-powered equipment. If all diesel-powered equipment is certified Tier 4, the tracking tool would not be required; however, the Project would be required to verify, record, and track the engine tier of all equipment. The tracking tool shall be maintained by the Project and tracking updates shall be submitted to the CPUC on a monthly basis to track the Project's compliance. Records of the engine tier of all equipment shall be kept onsite and made available to the CPUC upon request. |
| APM AQ-2 | The Proposed Project would comply with SJVAPCD Rule 8021 and would prepare and implement a Dust Control Plan for approval by the SJVAPCD Air Pollution Control Officer (APCO). The Dust Control Plan would include specific dust control measures as prescribed within Rule 8021, or as otherwise requested by the APCO. This plan would be submitted and approved prior to construction. |
| APM AQ-3 | The Proposed Project would comply with AB 203 and provide Valley Fever Awareness training to all construction workers, inspectors, monitors, and any other project personnel that are required to perform work in or near disturbed soils or dust emissions at the Proposed Project site. The Valley |

| Table 3-10: Applicant Proposed Measures | |
|---|---|
| **APM Number** | **Description** |
| | Fever Awareness training materials would be prepared by a qualified professional, adapted from agency published trainings (CDPH, CDC, etc.), or otherwise produced by a qualified source. The Valley Fever Awareness training would be incorporated into the Proposed Project's overall Worker Environmental Awareness Program (WEAP) training. |
| ***Biological Resources*** | |
| APM BIO-1 | Speed of vehicles driving along proposed access roads and on the Proposed Project site during construction and O&M would be limited to 15 mph. In addition, construction and maintenance employees would be advised that care should be exercised when commuting to and from the Proposed Project area to reduce accidents and animal road mortality. |
| APM BIO-2 | Conductors and ground wires would be spaced sufficiently apart so that raptors cannot contact two conductors or one conductor and a ground wire causing electrocution (APLIC, 2006), or raptor protection would be installed subject to PG&E consent for application of such measures to its components of the Proposed Project, such as distribution lines. |
| APM BIO-3 | Appropriate methods to reduce the risks of avian collisions would be incorporated into the Proposed Project's design (APLIC, 2012), subject to PG&E consent for application of such measures to its components of the Proposed Project, such as distribution lines. |
| APM BIO-4 | If feasible, the Applicant would avoid construction during the migratory bird nesting or breeding season. When it is not feasible to avoid construction during the nesting or breeding season, the Applicant would perform a survey in the area where the work is to occur. This survey would be performed to determine the presence or absence of nesting birds. If an active nest (i.e., containing eggs or young) is identified, a suitable construction buffer would be implemented to ensure that the nesting or breeding activities are not substantially adversely affected. If the nesting or breeding activities are being conducted by a federal- or state-listed species, the Applicant would consult with the USFWS and CDFW as necessary. Monitoring of the nest would continue until the birds have fledged or construction is no longer occurring on the site. If an inactive nest is identified, careful nest removal under the supervision and direction of qualified biologists would occur wherever feasible. |
| APM BIO-5 | If a raptor nest is observed during pre-construction surveys, a qualified biologist would determine if it is active. If the nest is determined to be active, the biological monitor would monitor the nest to ensure that nesting or breeding activities are not substantially adversely affected. If the biological monitor determines that activities associated with the Proposed Project are disturbing or disrupting nesting or breeding activities, the monitor would make recommendations to reduce noise or disturbance in the vicinity of the nest. |
| APM BIO-6 | All excavated holes or trenches that are not be filled at the end of a workday would be covered, or a wildlife escape ramp would be installed to prevent the inadvertent entrapment of wildlife species. |

| Table 3-10: Applicant Proposed Measures | |
|---|---|
| **APM Number** | **Description** |
| APM BIO-7 | The use of outdoor lighting during construction and O&M would be minimized whenever practicable. |
| APM BIO-8 | A WEAP would be implemented to educate all construction and O&M workers on site-specific biological and non-biological resources and proper work practices to avoid harming wildlife during construction or O&M activities. |
| ***Cultural Resources*** | |
| APM CUL-1 | LSPGC would design and implement a Worker Environmental Awareness Program (WEAP) that would be provided to all Proposed Project personnel who may encounter and/or alter historical resources or unique archaeological properties, including construction supervisors and field personnel. The WEAP would be submitted and approved by the CPUC prior to construction. No construction worker would be involved in ground disturbing activities without having participated in the WEAP. The WEAP would include, at a minimum:<br>• Training on how to identify potential cultural resources and human remains during the construction process;<br>• A review of applicable local, state and federal ordinances, laws and regulations pertaining to historic preservation;<br>• A discussion of procedures to be followed in the event that unanticipated cultural resources are discovered during implementation of the Proposed Project;<br>• A discussion of disciplinary and other actions that could be taken against persons violating historic preservation laws and LSPGC policies; and<br>• A statement by the construction company or applicable employer agreeing to abide by the WEAP, LSPGC policies and other applicable laws and regulations.<br><br>The WEAP may be conducted in concert with other environmental or safety awareness and education programs for the Proposed Project, provided that the program elements pertaining to cultural resources are provided by a qualified archaeologist. |
| APM CUL-2 | If proposed facilities and ground-disturbing activities move outside the previously surveyed footprint, those areas would be subjected to a cultural resources inventory to ensure that any newly identified cultural resources are avoided by ground disturbing activities. |
| APM CUL-3 | If subsurface prehistoric or ethnohistoric resources are encountered during construction, archaeological and Native American monitoring is recommended during all excavation associated with the Proposed Project. A qualified archaeologist and a member of the Dumna Wo-Wah Tribal Government shall be retained by LSPGC to monitor excavation associated with the Proposed Project to ensure that there is no impact to any significant unanticipated cultural resource. Prior to construction, LSPGC would consult with a designated representative of the Dumna Wo-Wah Tribal Government on the appropriate course of action to be taken should unanticipated cultural materials, and specifically human remains, be discovered during construction. |

| Table 3-10: Applicant Proposed Measures | |
|---|---|
| **APM Number** | **Description** |
| | |
| APM CUL-4 | In the event that previously unidentified cultural resources are uncovered during implementation of the Proposed Project, all work within 100 feet (30 meters) of the discovery would be halted and redirected to another location. LSPGC's qualified archaeologist would inspect the discovery and determine whether further investigation is required. If the discovery can be avoided and no further impacts would occur, the resource would be documented on State of California Department of Parks and Recreation cultural resource records and no further effort would be required. If the resource cannot be avoided and may be subject to further impact, LSPGC would evaluate the significance and CRHR eligibility of the resources and, in consultation with the CPUC, determine appropriate treatment measures. Preservation in place shall be the preferred means to avoid impacts to significant historical resources. Consistent with CEQA Section 15126.4(b)(3), if it is demonstrated that resources cannot feasibly be avoided, LSPGC's qualified archaeologist, in consultation with the CPUC and, if the unearthed resource is prehistoric or Native American in nature, the Native American monitor, shall develop additional treatment measures, such as data recovery consistent with CEQA Guidelines 15126.4(b)(3)(C)-(D). Archaeological materials recovered during any investigation shall be curated at an accredited curation facility. |
| APM CUL-5 | Avoidance and protection of inadvertent discoveries that contain human remains shall be the preferred protection strategy where feasible and otherwise managed pursuant to the standards of CEQA Guidelines 15064.5(d) and (e). If human remains are discovered during construction or O&M activities, all work shall be diverted from the area of the discovery, and the CPUC shall be informed immediately. The Applicant shall contact the County Coroner to determine whether or not the remains are Native American. If the remains are determined to be Native American, the Coroner would contact the NAHC. The NAHC would then identify the person or persons it believes to be the most likely descendant of the deceased Native American, who in turn would make recommendations for the appropriate means of treating the human remains and any associated funerary objects. No part of the Proposed Project is located on federal land. |
| ***Geology, Soils, and Paleontological Resources*** | |
| APM GEO-1 | The following measures would be implemented during construction to minimize impacts from geological hazards and disturbance to soils:<br>• Keep vehicle and construction equipment within the limits of the Proposed Project and in approved construction work areas to reduce disturbance to topsoil;<br>• Prior to grading, salvage topsoil to a depth of six inches or to actual depth if shallower (as identified in site-specific geotechnical investigation report) to avoid mixing of soil horizons;<br>• Avoid construction in areas with saturated soils, whenever practical, to reduce impacts to soil structure and allow safe access. Similarly, avoid topsoil salvage in saturated soils to maintain soil structure; |

| Table 3-10: Applicant Proposed Measures | |
|---|---|
| **APM Number** | **Description** |
| | • Keep topsoil material on-site in the immediate vicinity of the temporary disturbance or at a nearby approved work area to be used in restoration of temporary disturbed areas. Temporary disturbance areas would be re-contoured following construction to match pre-construction grades. Areas would be allowed to re-vegetate naturally or would be reseeded with a native seed mix from a local source if necessary. On-site material storage would be sited and managed in accordance with all required permits and approvals; and<br>• Keep vegetation removal and soil disturbance to a minimum and limited to only the areas needed for construction. Removed vegetation would be disposed of off-site to an appropriate licensed facility or can be chipped on-site to be used as mulch during restoration. |
| APM GEO-2 | The structural requirements of the CBC are applicable to certain structural components of the Proposed Project, including the control enclosures. LSPGC and/or its contractors would design such structures to comply with such CBC standards and shall adhere to and implement all design recommendations and parameters established in the Proposed Project's Supplemental Geotechnical Engineering Report to be prepared and submitted to the CPUC upon completion. |
| APM PALEO-1 | In the unlikely event that fossils are unearthed during earthwork activities (i.e., an inadvertent discovery), earthwork within the vicinity of the discovery shall immediately halt, and a qualified paleontologist should evaluate the discovery. Earthwork shall be diverted until the significance of the fossil discovery can be assessed by the qualified paleontologist. If the fossil discovery is deemed significant, the fossil shall be recovered using appropriate recovery techniques based on the type, size, and mode of preservation of the unearthed fossil. Earthwork may resume in the area of the fossil discovery once the fossil has been recovered and the qualified paleontologist deems the site has been mitigated to the extent necessary. Additional earthwork following the fossil discovery may be monitored for paleontological resources on an as-needed basis, at the discretion of the qualified paleontologist. |
| APM PALEO-2 | Recovered fossils shall be prepared, identified, catalogued, and stored in a recognized professional repository (e.g., the SDNHM, the University of California Museum of Paleontology) along with associated field notes, photographs, and compiled fossil locality data. Donation of the fossils should be accompanied by financial support for initial specimen curation and storage. A final summary report should be completed that outlines the results of the mitigation program. This report should include discussions of the methods used, stratigraphic section(s) exposed, fossils collected, and significance of recovered fossils. This report shall be submitted to appropriate agencies, as well as to the designated repository. |
| ***Greenhouse Gas Emissions*** | |
| APM GHG-1 | The following measures shall be implemented to minimize greenhouse gas emissions from all construction sites: |

| Table 3-10: Applicant Proposed Measures | |
|---|---|
| **APM Number** | **Description** |
| | • If suitable park-and-ride facilities are available in the Proposed Project vicinity, construction workers shall be encouraged to carpool to the job site.<br>• Demolition debris shall be recycled for reuse to the extent feasible.<br>• The contractor shall use line power instead of diesel generators at all construction sites where line power is available.<br>• The contractor shall maintain construction equipment per manufacturing specifications. |
| ***Hazards, Hazardous Materials, and Public Safety*** | |
| APM HAZ-1 | A site-specific SPCCP would be prepared prior to the initiation of construction. In the event of an accidental spill, the Proposed Project would be equipped with secondary containment that meets SPCCP Guidelines. The secondary containment would be sufficiently sized to accommodate accidental spills. |
| APM HAZ-2 | A HMMP would be prepared and implemented for the Proposed Project. The plan would be prepared in accordance with relevant state and federal guidelines and regulations (e.g., Cal/OSHA). The plan would include the following information related to hazardous materials and waste, as applicable:<br><br>• A list of hazardous materials present on-site during construction and O&M to be updated as needed along with product Safety Data Sheets and other information regarding storage, application, transportation, and disposal requirements;<br>• A Hazardous Materials Communication (i.e., HAZCOM) Plan;<br>• Assignments and responsibilities of Proposed Project health and safety roles;<br>• Standards for any secondary containment and countermeasures required for hazardous materials;<br>• Spill response procedures based on product and quantity. The procedures would include materials to be used, location of such materials within the Proposed Project area, and disposal protocols; and<br>• Protocols for the management, testing, reporting, and disposal of potentially contaminated soils or groundwater observed or discovered during construction. This would include termination of work within the area of suspected contamination sampling by an OSHA trained individual and testing at a certified laboratory.<br><br>The Proposed Project would also be equipped with lead-acid batteries to provide backup power for monitoring, alarm, protective relaying, instrumentation and control, and emergency lighting during power outages. Secondary containment would be constructed around and under the battery racks, and the HMMP would address containment from a battery leak.<br><br>The plan would be provided to the CPUC prior to construction for recordkeeping. Plan updates would be made and submitted as needed if |

| Table 3-10: Applicant Proposed Measures | |
|---|---|
| **APM Number** | **Description** |
| | construction activities change whereas the existing plan does not adequately address the Proposed Project. |
| APM HAZ-3 | In the event that soils suspected of being contaminated (on the basis of visual, olfactory, or other evidence) are removed during site grading activities or excavation activities, the excavated soil shall be tested, and if contaminated above hazardous waste levels, shall be contained and disposed of at a licensed waste facility. The presence of known or suspected contaminated soil shall require testing and investigation procedures to be supervised by a qualified person, as appropriate, to meet state and federal regulations. |
| APM HAZ-4 | LSPGC shall implement ongoing fire patrols during the fire season as defined each year by local, state, and federal fire agencies. These dates vary from year to year, generally occurring from late spring through dry winter periods. During Red Flag Warning events, as issued daily by the National Weather Service, all construction/maintenance activities shall cease, with an exception for transmission line testing, repairs, unfinished work, or other specific activities which may be allowed if the facility/equipment poses a greater fire risk if left in its current state. Although the Proposed Project area is not located within an area designated as a Very High or High Fire Hazard Severity Zone, LSPGC will prepare a Construction Fire Prevention Plan prior to construction.<br><br>All construction/maintenance crews and inspectors shall be provided with radio and cellular telephone access that is operational in all work areas and access routes to allow for immediate reporting of fires. Communication pathways and equipment shall be tested and confirmed operational each day prior to initiating construction/maintenance activities at each work site. All fires shall be reported to the fire agencies with jurisdiction in the area immediately upon discovery of the ignition. All construction/maintenance personnel shall be trained in fire-safe actions, initial attack firefighting, and fire reporting. All construction/maintenance personnel shall be trained and equipped to extinguish small fires in order to prevent them from growing into more serious threats. All construction/maintenance personnel shall carry at all times a laminated card and be provided a hard hat sticker that list pertinent telephone numbers for reporting fires and defining immediate steps to take if a fire starts. Information on laminated contact cards and hard hat stickers shall be updated and redistributed to all construction/maintenance personnel and outdated cards and hard hat stickers shall be destroyed prior to the initiation of construction/maintenance activities on the day the information change goes into effect.<br><br>Construction/maintenance personnel shall have fire suppression equipment on all construction vehicles. Construction/maintenance personnel shall be required to park vehicles away from dry vegetation. Water tanks, fire extinguishers, and/or water trucks shall be sited or available at active project sites for fire protection during construction. The Applicant shall coordinate with applicable local fire departments prior to construction/maintenance activities to determine the appropriate amounts of fire equipment to be carried on vehicles and, should a fire occur, to coordinate fire suppression activities. |

| Table 3-10: Applicant Proposed Measures | |
|---|---|
| **APM Number** | **Description** |
| | |
| ***Hydrology and Water Quality*** | |
| APM WQ-1 | Because the Proposed Project involves more than an acre of soil disturbance, a SWPPP would be prepared as required by the state NPDES General Permit for Discharges of Stormwater Associated with Construction Activity. This plan would be prepared in accordance with the Water Board guidelines and other applicable erosion and sediment control BMPs. Implementation of the plan would help stabilize disturbed areas and would reduce erosion and sedimentation. The SWPPP would designate BMPs that would be followed during and after construction of the Proposed Project, examples of which may include the following erosion-minimizing measures:<br><br>• Using drainage control structures (e.g., straw wattles or silt fencing) to direct surface runoff away from disturbed areas;<br>• Strictly controlling vehicular traffic;<br>• Implementing a dust-control program during construction;<br>• Restricting access to sensitive areas;<br>• Using vehicle mats in wet areas; or<br>• Revegetating disturbed areas, where applicable, following construction.<br><br>In areas where soils are to be temporarily stockpiled, soils would be placed in a controlled area and would be managed with similar erosion control techniques. Where construction activities occur near a surface waterbody or drainage channel and drainage from these areas flows towards a waterbody or wetland, stockpiles would be placed at least 100 feet from the waterbody or would be properly contained (such as beaming or covering to minimize risk of sediment transport to the drainage). Mulching or other suitable stabilization measures would be used to protect exposed areas during and after construction activities. Erosion-control measures would be installed, as necessary, before any clearing during the wet season and before the onset of winter rains. Temporary measures, such as silt fences or wattles intended to minimize erosion from temporarily disturbed areas, would remain in place until disturbed areas have stabilized. |
| APM WQ-2 | Groundwater encountered during construction would be handled and discharged in accordance with all state and federal regulations including the following:<br><br>• Recovered groundwater would be contained on site and tested prior to discharge;<br>• If testing determines water is suitable for land application, discharge may be applied to flat, vegetated, upland areas, used for dust control, or used in other suitable construction operations (e.g., concrete mixing);<br>• Land application would be made in a manner that discharge does |

| Table 3-10: Applicant Proposed Measures | |
|---|---|
| **APM Number** | **Description** |
| | not result in substantial erosion and would not be made directly to receiving waters or storm drains;<br>• Water unsuitable for land application would be disposed of at an appropriately permitted facility; and<br>• Discharge to surface waters or storm drains may occur only if permitted by the agency(ies) with jurisdiction over the resource (e.g., USACE, RWQCB, and/or CDFW, as applicable). |
| ***Public Services*** | |
| APM PS-1 | LSPGC would coordinate construction activities with local law enforcement and fire protection agencies. Emergency service providers would be notified of the timing, location, and duration of construction activities. |
| ***Transportation*** | |
| APM TRA-1 | LSPGC would prepare a Traffic Control Plan to describe measures to be taken to guide traffic (such as signs and workers directing traffic), safeguard construction workers, provide safe passage, and minimize traffic impacts. LSPGC would follow its standard safety practices as needed, including installing appropriate barriers between work zones and transportation facilities, posting adequate signs, and using proper construction techniques. LSPGC would follow the recommendations in this manual regarding basic standards for the safe movement of traffic on highways and streets in accordance with Section 21400 of the California Vehicle Code. If required for obtaining a local encroachment permit, LSPGC would establish a Traffic Management Plan (TMP) to address haul routes, timing of heavy equipment and building material deliveries, potential street and/or lane closures, signing, lighting, and traffic control device placement. Construction activities would be coordinated with local law enforcement and fire protection agencies. Emergency service providers would be notified as required by the local permit of the timing, location, and duration of construction activities. |
| ***Utilities and Service Systems*** | |
| APM UTIL-1 | The Applicant shall notify all utility companies with utilities located within or crossing the Proposed Project Rights-of-Way (ROW) to locate and mark existing underground utilities along the entire length of the Proposed Project at least 14 days prior to construction. No subsurface work shall be conducted that would conflict with (i.e., directly impact or compromise the integrity of) a buried utility. In the event of a conflict, areas of subsurface excavation or pole installation shall be realigned vertically and/or horizontally, as appropriate, to avoid other utilities and provide adequate operational and safety buffering. In instances where separation between third-party utilities and underground excavations is less than 5 feet, the Applicant shall submit the intended construction methodology to the owner of the third-party utility for review and approval at least 30 days prior to construction. Construction methods shall be adjusted as necessary to assure that the integrity of existing utility lines is not compromised. |

# 4.0 ENVIRONMENTAL ANALYSIS

## 4.1 AESTHETICS

| Except as provided in Public Resources Code Section 21099, would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Have a substantial adverse effect on a scenic vista? | | | | X |
| b. | Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | | | | X |
| c. | In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? | | | X | |
| d. | Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | | | X | |

This section describes the Aesthetics within the vicinity of the Proposed Project as well as potential impacts that could result from construction and operation and maintenance (O&M) of the Proposed Project.

### 4.1.1 ENVIRONMENTAL SETTING

The Proposed Project is located within an unincorporated area of Fresno County directly north of, and adjacent to, the Pacific Gas and Electric (PG&E) owned Gates Substation. The Proposed Project is located approximately 3.3 miles southwest of the city of Huron. The land to the north, east, and west of the Proposed Project is primarily used for agricultural purposes with no development, and the existing PG&E Gates Substation is located to the south.

#### 4.1.1.1 Landscape Setting

The Proposed Project lies within an unincorporated portion of southern Fresno County within California's Central Valley. The Coastal Range rises above the valley floor approximately ten miles to the west of the Proposed Project site consisting of a gently sloping alluvial plain, ranging in elevation from approximately 370 feet in Sanger to 325 feet in Fresno. The Sierra Nevada mountain range can be seen on clear days approximately 65 miles to the east and consists of a gently sloping alluvial plain. On clear days, when distant landscape elements are discernible, a

number of the higher peaks and mountains of the Sierra Nevada range, several reaching over 10,000 feet above sea level, are visible from some places in the general area.
Commercial agriculture has long been the dominant land use in the Proposed Project area, served by a well-developed network of roadways, railroads, and waterways. Interstate 5 (I-5), a major north-south freeway connecting population centers within the Central Valley and beyond, is located approximately two miles west of the Proposed Project site, while approximately one mile to the east is State Route (SR) 269/Lassen Avenue, connecting rural communities within the agricultural dominated landscape. Agricultural fields and facilities, such as vineyards, are characteristic features in the Proposed Project vicinity, while numerous canals and waterways traverse the landscape including the Blakeley Canal, which runs from north to south within four miles to the east of the Proposed Project site.

The comparatively flat terrain surrounding the Proposed Project site is dominated by vineyards, orchards, and row crops organized into rectangular parcels that are bisected by a grid of paved or unpaved roadways. West Jayne Avenue, which passes adjacent to the Proposed Project area on the south is a relatively heavily-travelled, two-lane roadway that serves as the main thoroughfare for motorists traveling between the community of Coalinga, I-5, Pleasant Valley State Prison, and State Highway 41 at its eastern terminus. South Trinity Avenue, adjacent to the Proposed Project's eastern perimeter, is an unimproved, two-lane private road that provides access to numerous agricultural fields.

With the exception of two gas stations, a recreational vehicle (RV) park, and a cold storage facility at the intersection of I-5 and West Jayne Avenue, the immediate area of the Proposed Project site is sparsely inhabited. Electric utility structures are established landscape features in the Proposed Project area. The PG&E Gates Substation is the nexus for several high voltage power lines that converge on the Proposed Project area from the southeast, northeast, and west, in addition to local wood-pole supported power and distribution lines that run along both sides of South Trinity Avenue and West Jayne Avenue.

#### 4.1.1.2 Scenic Resources

As illustrated on **Figure 4.1-1**, *Scenic Resources*, there are no scenic vistas, highways, national scenic areas, or other scenic resources within and surrounding the Proposed Project area. The nearest scenic resource to the Proposed Project site is an eligible state scenic highway which includes a portion of SR-198 located north of the city of Coalinga, approximately 13 miles to the east. No other identifiable scenic resources are located within the Proposed Project area.

#### 4.1.1.3 Viewshed Analysis

For purposes of describing a Proposed Project's visual setting and assessing potential visual impacts, the viewshed has been broken down into foreground, middle ground, and background distance zones. Background views extend to the visual horizon, which is approximately five miles from the site, and therefore, an analysis of the visual impact using a five-mile buffer was created. The foreground is defined as the zone within 0.25 to 0.5 mile from the viewer. Landscape details are most noticeable, and objects generally appear most prominent when seen in the foreground. The middle ground can be defined as a zone that extends from the foreground up to three to five miles from the viewer, and the background extends from about three to five miles to beyond (Smardon et al., 1986).

The Proposed Project's viewshed is defined as the general area from which a proposed project is visible. Viewing distance is a key factor that affects the potential degree of a proposed project's visibility. Visual details generally become apparent to the viewer when they are observed in the foreground, at a distance of 0.25 to 0.5 mile or less. However, there are no sensitive receptors or viewsheds from this foreground viewpoint. This analysis primarily considers visual effects from one to five miles away (e.g., middle ground and background), where the Proposed Project is potentially visible and change could be noticeable because the Proposed Project involves construction of new take-off structures that would be approximately 135 to 199 feet in height located in a flat agricultural landscape that affords open views toward the Proposed Project site.

**Figure 4.1-1**, *Scenic Resources* illustrates the flat, agricultural nature that is present in the immediate north, west, and east foreground and middle ground zones within a five-mile buffer of the Proposed Project site. The background zones consist of Kettleman Hills North Dome (southwest of the Proposed Project site) and Guljarral Hills (west of the Proposed Project site). The view to the south in the immediate foreground consists of the existing PG&E Gates Substation, as well as a solar power generating facility. From all viewsheds, high voltage transmission lines traveling in all directions are visible.

#### 4.1.1.4 Landscape Units

The Proposed Project is located within the Central Valley geographic zone, also referred to as the Great Valley (California Water Science Center, 2020). More refined within the Central Valley, the Proposed Project site is located within San Joaquin Valley, which has an approximate elevation of zero to 500 feet above sea level (California Water Science Center, 2020). The vegetation in San Joaquin Valley includes crops such as grapes, tomatoes, cotton, and a magnitude of other fruits and vegetables (Water Education Foundation, 2020). The land uses in the San Joaquin Valley mainly consist of agriculture, industrial, and transportation as depicted in **Figure 4.11-1,** *Land Use and Zoning*. The landscape within and surrounding the Proposed Project area (approximately five-mile buffer) consists mainly of active agriculture with the closest residence approximately 1.8 miles from the Proposed Project site. There are a few scattered developments in the immediate area of the Proposed Project site, consisting of two gas stations, an RV park, and a cold storage facility at the intersection of I-5 and West Jayne Avenue.

In addition, the surrounding visual characteristics within a five-mile buffer of the Proposed Project site include multiple existing 500 kilovolt (kV), 230 kV, and <100 kV transmission lines, traveling in all directions. I-5, on which motorists travel northwest or southeast, is located within two miles southwest of the Proposed Project site. Directly south of the Proposed Project site is the existing PG&E Gates Substation, as depicted on **Figure 4.1-2**, *Representative Viewpoints.*

Located directly west of the Proposed Project site on the five-mile buffer line are the Guljarral Hills, positioned between West Jayne Avenue and South El Dorado Ave. The Guljarral Hills are a range of low hills with an elevation of 630 feet. Directly east of Guljarral Hills, approximately 4.3 miles from the Proposed Project site, is Paramount Farms. Located southwest of the Proposed Project site on the five-mile buffer line is Kettleman Hills (North Dome). Kettleman Hills is a low mountain range that is about 30 miles long and 1,362 feet high which runs parallel with the San Andreas Fault to the west.

#### 4.1.1.5 Viewers and Viewer Sensitivity

Motorists represent the largest affected viewer group, consisting primarily of those traveling along West Jayne Avenue. The closest residence is approximately 1.8 miles from the Proposed Project site. Less numerous are users of single-lane, rural roadways bisecting the area that primarily serve as access routes to agricultural operations and scattered rural residences. Motorists include a variety of roadway travelers, both local and regional travelers who are familiar with the visual setting, and travelers using the roadway on a less regular basis such as those seeking alternate routes to recreation destinations in the Coastal Range (e.g., Pinnacles National Park), west of the Proposed Project site. I-5 has a speed limit of 70 mph; therefore, affected views are generally brief, typically lasting less than a few minutes depending on traffic volume. In addition, the speed limit on SR 269/South Lassen Avenue and West Jayne Avenue is 55 mph, with slightly longer yet similar viewing times as I-5. Viewer sensitivity is considered low to moderate.

While there are no designated bike lanes on any road near the Proposed Project site, commuter and recreational cyclists could be present. Both of the previous viewing groups currently observe the existing PG&E Gates Substation; therefore, the addition of the Proposed Project site would only slightly change the viewer sensitivity.

#### 4.1.1.6 Representative Viewpoints

In consultation with the California Public Utilities Commission (CPUC), six Key Observation Points (KOP) were identified in the Proposed Project area. **Figure 4.1-2**, *Representative Viewpoints* identifies the KOP locations (KOP A-F). **Figures 4.1-3** through **4.1-8** present a set of photographs taken from KOP locations within the Proposed Project viewshed and convey a general sense of the visual landscape character found in the vicinity. KOP locations and view directions are noted in captions below each photograph. **Table 4.1-1**, *Summary of Representative Viewpoints* includes the viewpoint and location, the figure number, potentially affected viewer type, viewing direction and distance, capture time and date, camera body and lens, and lens focal length and camera height. The photographs depict views from locations along public view corridors within the Proposed Project area. These viewpoints include I-5 looking southeast (KOP A), I-5 and West Jayne Avenue intersection looking east (KOP B), Lassen Avenue and West Jayne Avenue intersection looking northwest (KOP C), Lassen Avenue looking northwest (KOP D), Interstate 5 rest area looking north (KOP E), and West Jayne Avenue west of Interstate 5 looking northeast (KOP F). For purpose of analysis, visual effects of middle ground views (extends from the foreground up to three miles from the viewer) are compared to more distant views (up to five miles) in the following discussion. There are no sensitive receptors of viewsheds identified through consultation with the CPUC in foreground views (within approximately 0.5 mile of the Proposed Project site). However, a rendering looking northeast of the Proposed Project site is included in **Figure 4.1-9**, *Representative Rendering* to show the Proposed Project facilities.

| Table 4.1-1: Summary of Representative Viewpoints | | | | | | |
|---|---|---|---|---|---|---|
| **Viewpoint and Location** | **Figure** | **Potentially Affected Viewer Type** | **Viewing Direction & Distance** | **Capture Time & Date** | **Camera Body & Lens** | **Lens Focal Length & Camera Height** |
| KOP A – I-5 Looking Southeast | Figure 4.1-3 | Motorists on major highway | Southeast - approximately 3 miles northwest of intersection with West Jayne Avenue | 12:23pm<br>08-03-20 | Canon EOS – 10 x Mark II | 50 millimeter (mm)<br>5 feet |
| KOP B – I-5 / West Jayne Avenue Intersection Looking East | Figure 4.1-4 | Motorists on primary roadway | East - near West Jayne Avenue / I-5 intersection – approximately 2 miles away | 12:41pm<br>08-03-20 | Canon EOS – 10 x Mark II | 50mm<br>5 feet |
| KOP C –Lassen Avenue and West Jayne Avenue Intersection Looking Northwest | Figure 4.1-5 | Motorists on primary roadways | Northwest – approximately 1 mile away from Proposed Project site | 12:50pm<br>08-03-20 | Canon EOS – 10 x Mark II | 50mm<br>5 feet |
| KOP D – Lassen Avenue Looking Northwest | Figure 4.1-6 | Motorists on primary roadway | Northwest – approximately 2 miles away from Proposed Project site | 1:21pm<br>08-03-20 | Canon EOS – 10 x Mark II | 50mm<br>5 feet |
| KOP E – I-5 Rest Area Looking North | Figure 4.1-7 | Motorists on major highway | North - approximately 4 miles south of Proposed Project site | 1:05pm<br>08-03-20 | Canon EOS – 10 x Mark II | 50mm<br>5 feet |
| KOP F –West Jayne Avenue West of I-5 Intersection Looking Northeast | Figure 4.1-8 | Travelers / visitors to area | Northeast – approximately 2.5 miles away from Proposed Project site | 1:23pm<br>08-03-20 | Canon EOS – 10 x Mark II | 50mm<br>5 feet |

As indicated by these photographs, views toward the Proposed Project site include varied levels of screening depending on the combination of vineyard, orchard, row crop, or amount of fallow cropland cover.

**Figure 4.1-3**, *KOP A I-5 Looking Southeast* shows a mid-range view from I-5 looking southeast to the Proposed Project site (approximately three miles away) from a motorist's perspective. The foreground of the photo shows travel lanes. The middle ground of the photo shows the existing PG&E Gates Substation, with high voltage transmission lines present.

**Figure 4.1-4**, *KOP B I-5 and West Jayne Avenue Intersection Looking East* shows a mid-range view from I-5 and West Jayne Ave intersection looking east toward the Proposed Project site (approximately two miles away) from a motorist’s perspective. In the foreground of the photo, there is a field located on the corner of I-5 and West Jayne Avenue, as well as roadside vegetation and agriculture. The middle ground of the photo shows the existing PG&E Gates Substation, as well as high voltage transmission lines.

**Figure 4.1-5**, *KOP C Lassen Avenue and West Jayne Avenue Intersection Looking Northwest* shows a mid-range view from the intersection of Lassen Avenue and West Jayne Avenue looking northwest toward the Proposed Project site (approximately 1.1 mile away) from a motorist's perspective. In the immediate foreground of the photo, there are two wood utility poles, as well as existing vineyards. In the middle ground of the photo, the existing PG&E Gates Substation is visible, consisting of high voltage transmission lines. In the background of the photo, Guljarral Hills is visible.

**Figure 4.1-6**, *KOP D Lassen Avenue Looking Northwest* shows a mid-range view from Lassen Avenue looking northwest toward the Proposed Project site (approximately 1.8 miles away) from a motorist's perspective. The entire mid-ground view from the photograph location consists of trees in an agricultural field. The background of the photo is not visible.

**Figure 4.1-7**, *KOP E I-5 Rest Area Looking North* shows a far-range view from I-5 rest area looking north toward the Proposed Project site (approximately 3.7 miles away) from a motorist's perspective. In the foreground of the picture, construction debris is visible surrounded by a chain link fence. In the middle ground viewshed, there is active vegetation and agriculture. In the distant background, the existing PG&E Gates Substation and high voltage transmission lines are slightly visible.

**Figure 4.1-8**, *KOP F West Jayne Avenue West of I-5 intersection Looking Northeast* shows a mid-range view from West Jayne Avenue (west of I-5) looking northeast toward the Proposed Project site (approximately 2.1 miles away) from a motorist's perspective. In the direct foreground, there is undeveloped land. In the middle ground of the photograph, I-5 shows visible with agricultural fields. In the background, the existing PG&E Gates Substation is visible, as well as existing high voltage transmission lines.

#### 4.1.1.7 Representative Photographs

Viewpoint locations and view directions are noted in captions below each photograph. As summarized in **Table 4.1-1**, *Summary of Representative Viewpoints*, the photographs depict views from locations along public viewshed within the Proposed Project area.

#### 4.1.1.8 Visual Resource Management Areas

There are no classified Visual Resource Management Areas located within the Proposed Project area because it is not located on federal public lands (U.S. Department of the Interior Bureau of Land Management, 2020) (U.S. Department of Transportation: Federal Highway Administration, 2015).

### 4.1.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

#### 4.1.2.1 Regulatory Setting

**Federal**

There are no applicable regulations for Aesthetics that apply to the Proposed Project given the Proposed Project's location on private lands and distance from federally managed lands.

**State**

***California Scenic Highway Program***

California's Scenic Highway Program, a provision of the Streets and Highways Code, was established by the Legislature in 1963 to preserve and enhance the natural beauty of California. The State Scenic Highway Program includes highways that are either eligible for designation as scenic highways or have been designated as such. The status of a state scenic highway changes from eligible to officially designated when the local jurisdiction adopts a scenic corridor protection program, applies to the California Department of Transportation (Caltrans) for scenic highway approval, and receives the designation from Caltrans. A city or county may propose to add routes with outstanding scenic elements to the list of eligible highways; however, state legislation is required for a highway to be officially designated.

There are no designated state scenic highways in the Proposed Project area. A review of California Scenic Highway Program indicates that the nearest eligible state scenic highway is a portion of SR-198, north of Coalinga near oilfields, approximately 11.5 miles west of the Proposed Project site. The Proposed Project site would not be visible from this distance.

**Local**

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order 131-D (GO 131-D), Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters" (CPUC, 1995). Consequently, public utilities are directed to consider local regulations and consult with local agencies, but county regulations are not applicable as Fresno County does not have jurisdiction over the Proposed Project. This section includes a summary of local related policies, plans or programs for informational purposes.

***Fresno County General Plan***

Encompassing a variety of agricultural and urban settings along with valley grassland and high mountainous terrain, Fresno County's diverse landscape scenery is recognized in the General Plan for its value both to the general quality of life in the county and the region's economic vitality, including an expanding tourism industry. The Fresno County 2000 General Plan's Agriculture and Land Use Element and Open Space and Conservation Element, adopted in October 2000 and amended through 2013 (Fresno County, 2013), contains a number of goals and policies designed to protect the scenic resources of the county.

**Goal LU-D** To promote continued agricultural uses along Interstate 5, protect scenic views along the freeway, promote the safe and efficient use of the freeway as a traffic carrier, discourage the establishment of incompatible and hazardous uses along the freeway, and provide for attractive, coordinated development of commercial and service uses that cater specifically to

highway travelers, and of agriculturerelated uses at key interchanges along Interstate 5.

**Goal OS-K** To conserve, protect and maintain the scenic quality of Fresno County and discourage development that degrades areas of scenic quality.

**Policy OS-K.1** The County shall encourage the preservation of outstanding scenic views, panoramas, and vistas wherever possible.

In addition, the following provisions pertaining to aesthetic resources along the county's roadways, including language addressing placement of electrical utilities is contained in this General Plan Element.

**Goal OS-L.1** To conserve, protect and maintain the scenic quality of land and landscape adjacent to scenic roads in Fresno County.

**Policy OS-L.1** Scenic Roadway System: The County designates a system of scenic roadways that includes landscaped drives, scenic drives, and scenic highways.

**Policy OS-L.3** Scenic Roadway Management: The County shall manage the use of land adjacent to scenic drives and scenic highways based on a number of principles, including the following:

Proposed high voltage overhead transmission lines, transmission line towers, and cell towers shall be routed and placed to minimize detrimental effects on scenic amenities visible from the right-of-way.

### 4.1.3 IMPACT QUESTIONS

#### 4.1.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to Aesthetics come from the California Environmental Quality Act (CEQA), Appendix G (as amended in December 2019), Environmental Checklist. According to the CEQA Checklist, a project may cause a potentially significant impact if it would:

- Have a substantial adverse effect on a scenic vista; or
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway; or
- In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality; or
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

#### 4.1.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-Filing Proponent's Environmental Assessments* (CPUC, 2019), there are no additional CEQA Impact Questions required for Aesthetics.

### 4.1.4 IMPACT ANALYSIS

The visual impact analysis evaluates the visual changes that would occur from implementing the Proposed Project using the standards of quality, consistency, and symmetry typically used for a visual assessment. This assessment is based on a review of maps, site photographs, aerial photographs, Proposed Project-specific technical drawings, and the rendering of the Proposed Project. This analysis also focuses on those KOPs discussed above in **Section 4.1.1**, *Environmental Setting*. Analysis of the impacts on existing visual resources from implementing the Proposed Project is based on evaluation of the extent and implications of the visual changes, considering the following factors:

- Specific changes in the visual character, and specifically valued qualities of the affected environment ;
- Visual context of the affected environment; and
- Number of viewers, their activities, and the extent to which these activities are related to the aesthetic qualities affected by actions that would be taken under the Proposed Project.

The impact analysis below primarily focuses on above-ground Proposed Project components having the largest potential to change the existing visual resources, including construction of the Proposed Project and permanent above-ground Proposed Project components. An assessment of visual quality is subjective, and reasonable disagreement can occur as to whether alterations in the visual character of the potentially affected area would be adverse or beneficial.

#### 4.1.4.1 Visual Impact Analysis

**Would the project have a substantial adverse effect on a scenic vista?**

**No Impact.** CEQA requires the Proposed Project site be evaluated as to whether its implementation has a substantial, adverse effect on a scenic vista. For purposes of this evaluation, a scenic vista is defined as a distant public view along or through an opening or corridor that is recognized and valued for its scenic quality. There are no designated scenic vistas within the Proposed Project viewshed; therefore, no impacts would occur under this criterion.

**Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?**

**No Impact.** As documented in **Section 4.1.1.2**, *Scenic Resources*, there are no designated scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings with state scenic highways within view of the Proposed Project; therefore, no impacts would occur under this criterion.

**Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings?**

**Less-Than-Significant Impact.**

***Temporary Construction Impacts***

Construction-related visual impacts of the Proposed Project would not substantially degrade the existing visual character or quality of the site and its surroundings. During construction, visual impacts would include the presence of workers, portable buildings, construction equipment, and vehicles associated with the installation of the substation components and new electric line structures. Construction is anticipated to last approximately 22 months. To varying degrees, construction activity could be noticeable to motorists travelling near the West Jayne Avenue/South Trinity Avenue intersection. Most of this activity would be limited to locations set back from roadways. In addition, the Proposed Project is located within a general area where mechanized agricultural production activities occur that typically employ the use of trucks and other equipment that is not unlike Proposed Project-related construction equipment. Due to the above factors, as well as their limited duration, construction-related visual effects would be less than significant. Implementation of **Applicant Proposed Measure (APM) AES-1** would further minimize these less-than-significant impacts.

***Permanent Visual Impacts***

The Proposed Project entails removing an approximately 20-acre portion of an existing vineyard for the Proposed Project site adjacent to, and generally north of, the existing PG&E Gates Substation. The Proposed Project facilities would resemble similar physical characteristics to the existing PG&E Gates Substation, as they are similar types of structures and facilities. KOP photos included in **Figure 4.1-3** through **4.1-8** show the existing PG&E Gates Substation facilities, and existing high voltage transmission lines are noticeable in the middle ground from transportation corridors. The new facilities would add similar type features, including high voltage transmission lines and structures, but not change the viewshed for motorists. Although permanent removal of agricultural crops would be required adjacent to the already cleared PG&E Gates Substation and to enable construction of the new facilities, this would take place in an area where vegetation clearing routinely occurs as a result of agricultural operations, and therefore, the visual change would be minor and not particularly noticeable to the public.

The six KOP locations were chosen due to their proximity to the Proposed Project site and are locations where viewers may be sensitive to visual change. The KOPs that were provided in **Table 4.1-1**, *Summary of Representative Views* illustrate that visual simulations are not needed for the existing conditions because the visual change would be minimal, and the closest sensitive viewers are over one mile away in transportation corridors.

**Figure 4.1-9**, *Representative Rendering*, depicts a 3D photorealistic model (referred to as a rendering) of the Proposed Project site. The rendering shows the facilities that would be constructed on site and proposed site conditions following construction. This figure, looking northwest on the Proposed Project site, shows that it is consistent from a land use and visual perspective with the existing PG&E Gates Substation, including similar facility types and existing high voltage transmission lines.

The previous section includes a discussion of the potential visual change, in regard to the Proposed Project. Each KOP shows the current views toward the Proposed Project site with the existing PG&E Gates Substation and high voltage transmission lines from six prominent locations within the immediate area. The view from **Figure 4.1-3**, *KOP A, I-5 Looking Southeast* would consist of little to no visual change with the implementation of the Proposed Project. The existing PG&E Gates Substation is visible in the middle ground of the photo; therefore, the Proposed Project would resemble the existing view, with the addition of more transmission lines. Similarly, the view from **Figure 4.1-4**, *KOP B, I-5/West Jayne Avenue Intersection Looking East* would also experience little to no visual change. The existing PG&E Gates Substation is visible in the middle ground of the photo, and the addition of the Proposed Project site would not significantly change the viewshed.

In addition, the view from **Figure 4.1-5**, *KOP C, Lassen Avenue and West Jayne Avenue Intersection Looking Northwest* would also experience little to no visual change. This view is the closest of the KOP locations to the Proposed Project site; however, with the existing PG&E Gates Substation present, the addition of the Proposed Project would not change the visual character or quality at the site. The view from **Figure 4.1-6**, *KOP D, Lassen Avenue Looking Northwest* would experience no visual change from the Proposed Project site. The entire view from KOP D consists of trees that are tall enough to block the existing PG&E Gates Substation and, therefore, block the Proposed Project site. The view from **Figure 4.1-7,** *KOP E I-5 Rest Area Looking North* is the furthest KOP location, so the existing PG&E Gates Substation is faintly present in the far background of the photo. Therefore, the implementation of the Proposed Project would not significantly change the viewshed. The view from **Figure 4.1-8**, *KOP F, West Jayne Avenue West of I-5 Intersection Looking Northeast* would experience little to no visual change. The existing PG&E Gates Substation is visible in the background; however, from this view location, the Proposed Project site would be located directly behind the existing facilities. Therefore, there would be no significant visual change for motorists.

As described above, the changes brought about by implementing the Proposed Project would not substantially degrade the existing visual character or quality of the site and its surroundings. While the Proposed Project site would be noticeable to some viewers, the changes are generally incremental, particularly when viewed in the context of the surrounding development and landscape. Therefore, the visual impact would be less than significant. Implementation of **APM AES-2** would further minimize these less-than-significant impacts.

**Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?**

**Less-Than-Significant Impact.**

Lighting would be installed at the STATCOM Substation and would conform to National Electric Safety Code (NESC) requirements and other applicable outdoor lighting codes. NESC recommends, as good practice, illuminating the substation facilities to a minimum of 22 lux or two-foot candles. Photocell controlled lighting would be provided at a level sufficient to provide safe entry and exit to the STATCOM Substation and Control Building. Additional manually controlled lighting would be provided to create safe working conditions at the STATCOM Substation when required. All lighting provided would be shielded and pointed down to minimize glare onto surrounding properties and habitats. Light fixtures would be located near major outdoor

equipment, general substation areas, and building exteriors. Lights would be mounted on A-frames, H-frames and Shield wire poles, structures, poles, and supplementary buildings as required.

It is anticipated no aeronautical obstruction lighting would be implemented at the Proposed Project site. No structures would exceed 199 feet; therefore, FAA notification is not required. Nighttime lighting would only be used for security purposes and would be down shielded to prevent glare. No structures would require lighting based on FAA standards. As noted in **Section 4.15**, *Public Services*, the Proposed Project site is not located within a flight pathway. Therefore, the FAA flight tool would not be required.

### *Glare*

Glare exists when a high degree of contrast occurs between bright and dark areas in a field of view making it difficult for the human eye to adjust to differences in brightness. **APM AES-2**, which calls for the use of a dull earthtones in a non-reflective finish on new chain-link fencing, new substation equipment and equipment enclosures, would minimize the potential effect of glare. With the implementation of this APM, the impacts would be less than significant.

### *Nighttime Lighting*

No nighttime construction is planned as part of the Proposed Project. However, in the case of an emergency or to support continuous operations such as concrete foundation pours, if work must be accomplished at night, portable temporary lighting would be directed exclusively to on-site locations and used to illuminate the immediate work area. Current project plans call for construction activities to take place during daylight hours and for nighttime construction activities to be avoided, whenever possible. Nighttime maintenance activities are not expected to occur more than once per year.

If nighttime lighting were to occur, **APM AES-1** would be implemented to ensure new sources of substantial light or glare would be avoided and security lighting at the substation would be directed on-site and hooded to reduce potential visibility from off-site locations. With the implementation of this APM, the impacts would be less than significant.

## 4.1.5 CPUC DRAFT ENVIRONMENTAL MEASURES

The CPUC recommended a Draft Environmental Measure for Aesthetics. The recommended APM has been included in **Section 4.1.6** as **APM AES-1**.

## 4.1.6 APPLICANT PROPOSED MEASURES

The following Aesthetics specific APM would be implemented on the Proposed Project:

### APM AES-1

All project sites would be maintained in a clean and orderly state. Construction staging areas would be sited away from public view where possible. Nighttime lighting would be directed away from residential areas and have shields to prevent light spillover effects. Upon completion of project construction, project staging and temporary work areas would be returned to pre-project

conditions, including re-grading of the site and re-vegetation or re-paving of disturbed areas to match pre-existing contours and conditions.

**APM AES-2**

Structures and equipment at the proposed STATCOM Substation facility would be a non-reflective finish and neutral earth-tone colors.

## 4.2 AGRICULTURAL AND FORESTRY RESOURCES

| | **In determining whether impacts to agricultural resources are significant environmental effect, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provide in Forest Protocols adopted by the California Air Resources Board. Would the project:** | **Potentially Significant Impact** | **Less Than Significant with Mitigation Incorporated** | **Less Than Significant Impact** | **No Impact** |
|---|---|---|---|---|---|
| a. | Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | | | X | |
| b. | Conflict with existing zoning for agricultural use, or a Williamson Act contract? | | | X | |
| c. | Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | | | | X |
| d. | Result in the loss of forest land or conversion of forest land to non-forest use? | | | | X |
| e. | Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? | | | X | |

This section describes the Agricultural and Forest Resources within the vicinity of the Proposed Project, as well as potential impacts resulting from construction and operation and maintenance (O&M) of the Proposed Project.

## 4.2.1 ENVIRONMENTAL SETTING

### 4.2.1.1 Agricultural Resources

The Proposed Project is located within an unincorporated area of Fresno County directly north of, and adjacent to, the Pacific Gas and Electric (PG&E) owned Gates Substation. The Proposed Project is located approximately 3.3 miles southwest of the city of Huron. The land to the north, east, and west of the Proposed Project is primarily used for agricultural purposes with no development, and the existing PG&E Gates Substation is located to the south.

Fresno County leads California in agricultural production. Almonds, livestock, and grapes are the county's top commodities (California Department of Food and Agriculture, 2019). Agriculture is the primary land use in Fresno County in terms of acreage, as shown in **Table 4.2-1**, *Inventory of Fresno County Land Use Categories (2016)*. Prime Farmland alone accounts for 27.7 percent of the Fresno County's lands.

**Table 4.2-1: Inventory of Fresno County Land Use Categories (2016)**

| Category | Acres | Percentages |
|---|---|---|
| Prime Farmland | 675,722 | 27.7 |
| Farmland of Statewide Importance | 397,134 | 16.3 |
| Unique Farmland | 94,902 | 3.9 |
| Farmland of Local Importance | 191,782 | 7.9 |
| *Important Farmland Subtotal* | *1,359,540* | *55.8* |
| Grazing Land | 822,697 | 33.8 |
| *Agricultural Land Subtotal* | *2,182,237* | *89.5* |
| Urban and Built-up Land | 128,910 | 5.3 |
| Other Land | 121,445 | 5.0 |
| Water Area | 4,908 | 0.2 |
| Source: California Department of Conservation, 2020a | | |

Agriculture is the dominant land use within two miles of the Proposed Project site, excluding the adjacent existing PG&E Gates Substation and the adjacent existing solar development. The Proposed Project site is currently planted with grapevines and is actively farmed using irrigation. Additional grapevines are located adjacent to the Proposed Project site on the west and north and across the existing dirt access road to the east.

#### Prime Farmland, Unique Farmland, or Farmland of Statewide Importance

The Proposed Project site is designated as Prime Farmland and all adjacent areas located to the north, east, and west (within one mile) are designated as Prime Farmland as well. The existing PG&E Gates Substation is designated as Urban Built-Up Land and the two parcels adjacent to the existing PG&E Gates Substation are designated as Farmland of Local Importance (California Department of Conservation, 2020b). See **Figure 4.2-1**, *Agricultural Resources*.

### Williamson Act

The Proposed Project site is located on agricultural land subject to an active Williamson Act contract, and all adjacent lands (within one mile) are also under active Williamson Act contracts, excluding the two PG&E-owned parcels located to the south (Fresno County, 2020a).

### Zoning Districts

The Proposed Project is zoned AE-20 (Exclusive Agricultural District, 20-acre minimum lot size) (Fresno County, 2018). The AE-20 District is intended to be an exclusive district for agriculture and for those uses that are necessary and an integral part of agricultural operations. This district is also intended to protect the general welfare of the agricultural community from encroachments of nonrelated agricultural uses, which by their nature would be injurious to the physical and economic well-being of the agricultural district. The area to the southwest of the Proposed Project site that is designated as AE-40 (Exclusive Agriculture District, 40-acre minimum lot size) has the same intended zoning as AE-20 except it has a 40-acre minimum lot size (Fresno County, 2018).

Electrical transmission substations and electric distribution substations that are subject to local jurisdiction are permitted uses in AE Districts and are subject to review and approval by the Fresno County Director of the Department of Public Works and Planning who must make the following findings:

- That the site of the proposed use is adequate in size and shape to accommodate said use and all yards, spaces, walls and fences, parking, loading, landscaping and other features required by this Division, to adjust said use with land and uses in the neighborhood.

- That the site for the proposed use relates to streets and highways adequate in width and pavement type to carry the quantity and kind of traffic generated by the proposed use.

- That the proposed use would not be detrimental to the character of the development in the immediate neighborhood or the public health, safety, and general welfare.

- That the proposed development be consistent with the General Plan (Fresno County Municipal Code, Section 872).

Electric transmission facilities that are regulated by the California Public Utilities Commission (CPUC) are not subject to local land use and zoning regulations or discretionary permits. See **Section 4.2.2**, *Regulatory Setting* below for additional details.

#### 4.2.1.2 Forestry Resources

There are no applicable forestry resources, forest land, timberland, or timberland zoned timberland production areas in the Proposed Project area as defined by Public Resources Code 12220(g)25, Public Resources Code 4526, or Government Code Section 51104(g).

### 4.2.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

#### 4.2.2.1 Regulatory Setting

### Federal

There are no applicable regulations for Agricultural or Forestry Resources that apply to the Proposed Project.

### State

#### *Williamson Act*

The California Land Conservation Act, better known as the Williamson Act, is designed to preserve agricultural and open space land (California Government Code Section 51200 et seq.). It establishes a program of private landowner contracts that voluntarily restrict land to agricultural and open space uses. In return, Williamson Act parcels receive a lower property tax rate consistent with their actual use instead of their market rate value. Lands under contract may also support uses that are "compatible with the agricultural, recreational, or open-space use of [the] land" subject to the contract (California Government Code Section 51201[e]).

#### *Farmland Mapping and Monitoring Program*

The California Department of Conservation (DOC), under the Division of Land Resource Protection, has established the Farmland Mapping and Monitoring Program (FMMP) to monitor the conversion of the state's farmland to and from agricultural use. The FMMP maps agriculturally viable lands and designates specific categories including Prime, Unique, non-Prime, or Farmland of Statewide Importance.

### Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order 131-D (GO 131-D), Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters" (CPUC, 1995). Consequently, public utilities are directed to consider local regulations and consult with local agencies, but county regulations are not applicable as Fresno County does not have jurisdiction over the Proposed Project. Because the CPUC has exclusive jurisdiction over the Proposed Project siting, design, and construction, the Proposed Project is not subject to local land use and zoning regulations or discretionary permits. This section identifies local agriculture and forestry plans and regulations for informational purposes, and to assist with California Environmental Quality Act (CEQA) review. Although LS Power Grid California (LSPGC) is not subject to local discretionary permitting, ministerial permits would be secured as required.

#### *Fresno County General Plan*

The Fresno County General Plan encourages maintaining agriculturally designated lands for agriculture use, directing urban growth away from agricultural land to areas of Fresno County where public facilities and infrastructure are available or can be provided consistent with the adopted General Plan or Community Plan (Fresno County, 2000).

***Fresno County, Zoning Ordinances, Agriculture***

The AE District is intended to be an exclusive district for agriculture and for those uses which are necessary and an integral part of the agricultural operation. This district is intended to protect the general welfare of the agricultural community from encroachments of nonrelated agricultural uses which by their nature would be injurious to the physical and economic well-being of the agricultural district (Fresno County, 2020b).

### 4.2.3 IMPACT QUESTIONS

#### 4.2.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to Agricultural and Forestry resources come from the CEQA, Appendix G Environmental Checklist (as amended in December 2019). According to the CEQA Environmental Checklist, in determining whether impacts to agricultural resources are significant environmental effect, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provide in Forest Protocols adopted by the California Air Resources Board. A project may cause a potentially significant impact if it would:

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use; or

- Conflict with existing zoning for agricultural use, or a Williamson Act contract; or

- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)); or

- Result in the loss of forest land or conversion of forest land to non-forest use; or

- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

#### 4.2.3.2 Additional CEQA Impact Questions

Pursuant to CPUC's *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-Filing Proponent's Environmental Assessments* (2019), there are no additional CEQA Impact Questions required for Agricultural and Forestry Resources.

### 4.2.4 IMPACT ANALYSIS

#### 4.2.4.1 Impact Analysis

**In determining whether impacts to agricultural resources are significant environmental effect, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provide in Forest Protocols adopted by the California Air Resources Board.**

**Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

**Less-Than-Significant Impact.** The Proposed Project would require the permanent conversion of less than 10 acres of Prime Farmland to non-agricultural use to accommodate the STATCOM, switchyard and associated facilities, and ancillary facilities such as a stormwater detention basin, access roads, and parking. The remaining acreage of the 20-acre applicant-owned parcel would not be developed and would remain available for future agricultural use. However, the almost 10-acre site, after the Proposed Project's use and decommissioning, is anticipated to be used for infrastructure since it is located adjacent to existing PG&E Gates Substation and infrastructure facilities. The amount of Prime Farmland that would be converted to non-agricultural land is less than 10 acres, which California Government Code Section 51222 recognizes as the minimum size a parcel needs to be to sustain agricultural use in the case of prime agricultural land. LSPGC has included **Applicant Proposed Measure (APM) AGR-1**, as detailed below, and therefore, the Proposed Project would have a less-than-significant impact from the conversion of less than 10 acres of Prime Farmland to non-agricultural use.

**Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?**

**Less-Than-Significant Impact.** The Proposed Project would not conflict with existing zoning for agricultural use, as electrical substations are allowed uses in AE zoning districts provided they meet certain requirements (e.g., not be detrimental to the character of the development in the immediate neighborhood or the public health, safety, and general welfare; and be consistent with the General Plan) (Fresno County Municipal Code, Section 872).

As part of the Proposed Project, LSPGC holds an option to purchase 20 acres of a 230-acre parcel which is under a Williamson Act contract. Implementation of the Proposed Project would impact only the 20-acre portion of the Williamson Act contract. The remaining portion of the Williamson Act contract (210 acres) would remain be unaffected. Because the Proposed Project has potential to conflict with an existing Williamson Act, impacts could be significant.

There are four primary ways a project such as the Proposed Project can avoid conflicting with a Williamson Act contract.

First, the property owner can elect not to renew the Williamson Act contract at the end of its term. Here, however, this process would take ten years. Because the Proposed Project must be operational no later than 2024, nonrenewal is not a feasible means of avoiding a Williamson Act contract conflict in this instance.

Second, the property owner can obtain a determination from the county that the proposed use is compatible with the Williamson Act contract. Section 51238.3 of the Williamson Act provides that compatible uses defined at the time a contract was originally signed determine which uses are presently compatible under the contract. Here, compatible uses under the Williamson Act contract for the agricultural property in question are, by the contract's terms, determined by reference to the county ordinance that was in effect at the time the contract was signed. Specifically, the original 1970 contract provides that the property "shall be subject to all restrictions and conditions adopted by resolution by the Board of Supervisors of Fresno County, California on November 4, 1969 and recorded November 5, 1969." Exhibit A of the County's 1969 Williamson Act resolution provides that "[p]ublic utility and public services, structures, uses and buildings" are compatible uses. The Proposed Project would be a public utility structure approved by the CPUC. The Proposed Project is, therefore, compatible with the existing Williamson Act contract for the project site.

Third, the county and the landowner can cancel the 20-acre portion of the contract that covers the Proposed Project area. The Williamson Act allows landowners to petition the county for cancellation of any contract as to all or any part of the contracted property. Once a petition is filed, the cancellation process proceeds in two phases. First, the county decides whether to approve a tentative cancellation of the contract, subject to conditions of approval. Tentative cancellation is appropriate where (i) cancellation is consistent with the purposes of the Williamson Act, or (ii) cancellation is in the public interest. Second, the county must approve *final* cancellation. Final cancellation requires that (i) the landowner must pay the applicable cancellation fee (at least 12.5 percent of the assessed value of the property), and (ii) the landowner must obtain all permits necessary to commence construction of the alternative land use described in the proposal.

Here, the Proposed Project is in the public interest, as it is a key infrastructure project designed to maintain stability of the electric grid. California's recent blackouts have only underscored the need for dynamic reactive support systems like the Proposed Project. The Proposed Project also appears to be consistent with the purposes of the Williamson Act. Cancellation is unlikely to result in the removal of adjacent lands from agricultural use, given the relatively small footprint of the Proposed Project, its location adjacent to an existing substation, and the fact that it would not introduce a use incompatible with agricultural uses on adjacent lands. Similarly, given that the Proposed Project is an unmanned facility designed to complement the adjacent substation, it is not likely to result in discontinuous patterns of urban development. As explained in **Section 4.11,** *Land Use and Planning* and depicted in **Figure 4.11-1,** *Land Use and Zoning*, the Proposed Project is consistent with Fresno County's General Plan. Finally, particularly given the importance of locating the Proposed Project, in close proximity to the existing PG&E Gates Substation, there is no proximate noncontracted land which is available and suitable for the proposed use. Thus, cancellation is warranted here.

Fourth, and finally, conflict with a Williamson Act contract can be avoided by cancelling the contract by eminent domain. By statute, when a public entity files an eminent domain action, any underlying Williamson Act contract is automatically deemed null and void. The same rules apply to eminent domain in lieu: when land is acquired in lieu of eminent domain for a public improvement by a public agency or person, the Williamson Act contract is automatically deemed null and void. (California Government Code Section 51295). Because LSPGC would be authorized as a "public utility" upon approval of the Proposed Project's Permit to Construct from the CPUC, it may cancel the Williamson Act for the Proposed Project site via eminent domain or eminent domain in lieu.

In order to reduce impacts associated with a Williamson Act conflict, **APM AGR-1** (Williamson Act Cancellation Regulatory Process) would ensure that conflicts with a Williamson Act contract are avoided via cancellation, a consistency determination, or eminent domain. With implementation of **APM AGR-1**, impacts would be less than significant.

**Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?**

**No Impact.** No areas of forest land, timberland, or timberland zoned Timberland Production are located within the Proposed Project area. The Proposed Project would not conflict with the zoning or cause the rezoning of forest lands or result in the conversion of timberland. Therefore, no impacts would occur under this criterion.

**Would the project result in the loss of forest land or conversion of forest land to non-forest use?**

**No Impact.** No areas of forest land are located within the Proposed Project area. The Proposed Project would not result in the loss or conversion of forest land to non-forest use. Therefore, no impacts would occur under this criterion.

**Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?**

**Less-Than-Significant Impact.** As discussed above, the Proposed Project would not result in the temporary or permanent loss of forest land. The Proposed Project would result in the loss of less than 10 acres of agricultural land to non-agricultural uses. The permanent conversion of farmland to non-agricultural use has been minimized to the extent practicable while still meeting the Proposed Project's purpose and need. In addition, the amount of agricultural land that would be converted to non-agricultural land is less than 10 acres, which is noted in California Government Code Section 51222 as the size of a parcel large enough to sustain agricultural use in the case of prime agricultural land. Therefore, impacts would be less than significant. In addition, LSPGC has included **APM AGR-1**, pursuant to which, all impacts to agricultural land would be adequately assessed and avoided, minimized, or appropriately mitigated to less than significant by ensuring that the Williamson Act contract for the 20-acre portion of the Proposed Project site is cancelled, consistent, or nullified.

The Proposed Project O&M activities would not result in the conversion of farmland or forest land. Stormwater and any potential pollutants or hazardous materials generated at the substation would be retained on-site or disposed of at properly licensed facilities and, thus, would not affect the adjacent agricultural uses. Therefore, O&M activities would not have any adverse impact on agricultural activities.

### 4.2.5 CPUC DRAFT ENVIRONMENTAL MEASURES

There are no CPUC Draft Environmental Measures suggested for Agriculture and Forestry Resources.

### 4.2.6 APPLICANT PROPOSED MEASURES

The following utilities specific APMs would be implemented on the Proposed Project.

**APM AGR-1**

Prior to commencing construction of the Proposed Project, LSPGC must ensure that the Williamson Act contract for the 20-acre portion of the Proposed Project site impacted by the Proposed Project is:

- Cancelled pursuant to Title 5, Division 1, Part 1, Chapter 7, Article 5 of the California Government Code;
- Determined by Fresno County to be consistent with the Proposed Project; or
- Nullified via eminent domain or eminent domain in lieu pursuant Title 5, Division 1, Part 1, Chapter 7, Article 6 of the California Government Code

## 4.3 AIR QUALITY

| | Where available, the significance criteria by the applicable air quality management district or air pollution control district may be relied upon to the following determinations. Would the project: | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Conflict with or obstruct implementation of the applicable air quality plan? | | | X | |
| b. | Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? | | | X | |
| c. | Expose sensitive receptors to substantial pollutant concentrations? | | | X | |
| d. | Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? | | | X | |

This section describes the existing Air Quality within the vicinity of the Proposed Project as well as potential impacts to Air Quality that could result from construction and operation and maintenance (O&M) of the Proposed Project.

### 4.3.1 ENVIRONMENTAL SETTING

The Proposed Project is located within an unincorporated area of Fresno County directly north of, and adjacent to, the Pacific Gas and Electric (PG&E) owned Gates Substation. The Proposed Project is located approximately 3.3 miles southwest of the city of Huron. The land to the north, east, and west of the Proposed Project is primarily used for agricultural purposes with no development, and the existing PG&E Gates Substation is located to the south.

#### 4.3.1.1 Air Quality Plans

The state of California has 35 specific air districts, which are each responsible for ensuring that the criteria pollutants are below the National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS). Air basins that exceed either the NAAQS or the CAAQS for any criteria pollutants are designated as “non-attainment areas” for that pollutant. Currently, there are 15 non-attainment areas for the federal ozone standard and two non-attainment areas for the $PM_{2.5}$ standard, and many areas are in non-attainment for $PM_{10}$ as well. California, therefore, created the California State Implementation Plan (SIP), which is designed to provide control measures needed to attain ambient air quality standards. The Proposed Project is located within the county of Fresno which is located within the San Joaquin Valley Air Basin (SJVAB) which is a large air basin within that state. The San Joaquin Valley Air Pollution Control District (SJVAPCD) is the government agency which regulates sources of air pollution within the

county of Fresno, and it is the jurisdictional entity that is responsible for implementing the SIP. The SJVAPCD developed a Regional Air Quality Management plan to provide control measures to try to achieve attainment status for state ozone standards. An attainment plan is available for ozone, Particulate Matter and Carbon Monoxide (SJVAPCD, 2020a). The attainment status for criteria pollutants within SJVAB is shown in **Table 4.3-1,** *San Joaquin Valley Attainment Status by Pollutant*.

**Table 4.3-1: San Joaquin Valley Attainment Status by Pollutant**

| Criteria Pollutant | Federal Designation | State Designation |
|---|---|---|
| Ozone (1-Hour) | No Federal Standard* | Nonattainment/Severe |
| Ozone (8-Hour) | Nonattainment/Extreme** | Nonattainment |
| PM10 | Attainment | Nonattainment |
| PM2.5 | Non-Attainment*** | Nonattainment |
| Carbon Monoxide | Attainment/Unclassified | Attainment/Unclassified |
| Nitrogen Dioxide | Attainment/Unclassified | Attainment |
| Sulfur Dioxide | Attainment/Unclassified | Attainment |
| Lead | No Designation/Classification | Attainment |
| Hydrogen Sulfide | No Federal Standard | Unclassified |
| Sulfates | No Federal Standard | Attainment |
| Visibility | No Federal Standard | Unclassified |
| Vinyl Chloride | No Federal Standard | Attainment |

* Effective June 15, 2005, the U.S. Environmental Protection Agency (EPA) revoked the federal 1-hour ozone standard, including associated designations and classifications. EPA had previously classified the SJVAB as extreme nonattainment for this standard. EPA approved the 2004 Extreme Ozone Attainment Demonstration Plan on March 8, 2010 (effective April 7, 2010). Many applicable requirements for extreme 1-hour ozone nonattainment areas continue to apply to the SJVAB.
** Though the Valley was initially classified as serious nonattainment for the 1997 8-hour ozone standard, EPA approved Valley reclassification to extreme nonattainment in the Federal Register on May 5, 2010 (effective June 4, 2010).
*** The Valley is designated nonattainment for the 1997 PM2.5 NAAQS. EPA designated the Valley as nonattainment for the 2006 PM2.5 NAAQS on November 13, 2009 (effective December 14, 2009).
(SJVAPCD, 2020a)

### 4.3.1.2 Air Quality

#### Criteria Pollutants

The Proposed Project is located within the SJVAB. Criteria pollutants are measured using monitoring equipment by SJVAPCD in various locations (stations) throughout the SJVAB. This data is used to determine attainment status when compared to the NAAQS and CAAQS. The SJVAPCD is responsible for monitoring and reporting monitoring data and California Air Resources Board (CARBs) data is updated yearly (CARB, 2020). **Table 4.3-2,** *Three-Year Ambient Air Quality Summary San Joaquin Valley Air Basin*, identifies the criteria pollutants monitored by SJVAPCD for the basin as an average. **Table 4.3-2** does not contain ambient data for Carbon Monoxide (CO) because SJVAPCD does not monitor CO.

| Table 4.3-2: Three-Year Ambient Air Quality Summary San Joaquin Valley Air Basin | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Pollutant** | **Closest Recorded Ambient Monitoring Site** | **Averaging Time** | **CAAQS** | **NAAQS** | **2016** | **2017** | **2018** | **Days Exceeded over 3 years** |
| $O_3$ (ppm) | San Joaquin Valley Air Basin Average | 1 Hour | 0.09 ppm | No Standard | 0.131 | 0.143 | 0.129 | 3 |
| | | 8 Hour | 0.070 ppm | 0.070 ppm | 0.101 | 0.112 | 0.101 | 345 |
| $PM_{10}$ ($\mu g/m^3$) | | 24 Hour | 50 $\mu g/m^3$ | 150 $\mu g/m^3$ | 132.5 | 210 | 250.4 | 435 |
| | | Annual Arithmetic Mean | 20 $\mu g/m^3$ | No Standard | 47.3 | 48.4 | 53.0 | Not Reported[1] |
| $PM_{2.5}$ ($\mu g/m^3$) | | 24 Hour | No Standard | 35 $\mu g/m^3$ | 66.4 | 113.4 | 189.8 | 142 |
| | | Annual Arithmetic Mean | 12 $\mu g/m^3$ | 15 $\mu g/m^3$ | 16 | 16.8 | 18.7 | Not Reported[1] |
| $NO_2$ (ppm) | | Annual Arithmetic Mean | 0.030 ppm | 0.053 ppm | 0.012 | 0.020 | 0.013 | Not Reported[1] |
| | | 1 Hour | 0.18 ppm | 0.100 ppm | 0.072 | 0.066 | 0.076 | Not Reported[1] |

[1] Daily data is not available. The emissions are reported as annual only, and daily exceedances are not tracked or reported (CARB, 2020).

### San Joaquin Valley Fever

The San Joaquin Valley fever, or Valley fever for short, is a respiratory disease caused by fungus spores found within soils within the southwestern United States. According to the California Department of Public Health (CDPH), Valley fever most commonly affects the respiratory system, causing symptoms such as coughing, difficulty breathing, fever, chest pain and general fatigue. While Valley fever can become serious and even fatal, leading to recorded deaths and hospitalizations each year in California, most people who are exposed to the fungus do not become ill (Centers for Disease Control [CDC], 2020). Most cases of Valley fever within California occur in the central valley and central coast regions. Reported cases of Valley fever in California have steadily increased between the years 2000 (approximately 1,000 cases) and 2018 (more than 7,500 cases) (CDPH, 2020). Most reported cases of Valley Fever occur in California and Arizona (CDC, 2020). In 2019, there were a total of 9,004 reported cases in California (CDPH, 2019). On average in California, there are approximately 80 deaths and 1,000 hospitalizations from Valley fever (CDPH, 2020). Valley fever is not communicable, and most cases occur from outdoor exposure (inhalation) of dust. At risk populations include those who work outdoors in high-risk areas, including farmers and construction workers. Fresno County, where the Proposed Project is located, is considered an endemic county by the state of California. Endemic counties are defined as those counties with an annual rate of infection greater than 20 cases per 100,000 population. Specifically, Fresno County reported 621 cases in 2019, with 3,454 reported cases since 2013. In 2019, Fresno County had the second highest total number cases (621) and the fifth highest rate (60.8 cases per 100,000 population) among counties within California.

#### 4.3.1.3 Sensitive Receptor Locations

A graphical representation of the Proposed Project site is shown in **Figure 4.3-1,** *Construction Site and Sensitive Receptor Locations.* The red point (#1) represents the closest sensitive receptor location (residences) and is roughly 1.8 miles from the Proposed Project site outlined in green. There are no other sensitive receptors within that distance from the Proposed Project site.

### 4.3.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

#### 4.3.2.1 Regulatory Setting

**Federal**

***Federal Clean Air Act***

The Federal Air Quality Standards were developed per the requirements of The Federal Clean Air Act (CAA), which is a federal law that was passed in 1970 and further amended in 1990. This law provides the basis for the national air pollution control effort. An important element of the CAA included the development of NAAQS for major air pollutants.

The CAA established two types of air quality standards otherwise known as primary and secondary standards. Primary Standards set limits for the intention of protecting public health, which includes sensitive populations such as asthmatics, children, and the elderly. Secondary Standards set limits to protect public welfare to include the protection against decreased visibility, damage to animals, crops, vegetation, and buildings.

The Environmental Protection Agency (EPA) Office of Air Quality Planning and Standards has set NAAQS for principal pollutants, which are called "criteria" pollutants. These pollutants are defined below:

- **Carbon Monoxide (CO)** is a colorless, odorless, and tasteless gas and is produced from the partial combustion of carbon-containing compounds, notably in internal-combustion engines. Carbon monoxide usually forms when there is a reduced availability of oxygen present during the combustion process. Exposure to CO near the levels of the ambient air quality standards can lead to fatigue, headaches, confusion, and dizziness. CO interferes with the blood's ability to carry oxygen.

- **Lead (Pb)** is a potent neurotoxin that accumulates in soft tissues and bone over time. The major sources of lead emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. Because lead is only slowly excreted, exposures to small amounts of lead from a variety of sources can accumulate to harmful levels. Effects from inhalation of lead near the level of the ambient air quality standard include impaired blood formation and nerve conduction. Lead can adversely affect the nervous, reproductive, digestive, immune, and blood-forming systems. Symptoms can include fatigue, anxiety, short-term memory loss, depression, weakness in the extremities, and learning disabilities in children.

- **Nitrogen Dioxide ($NO_2$)** is a reactive, oxidizing gas capable of damaging cells lining the respiratory tract and is one of the nitrogen oxides emitted from high-temperature combustion, such as those occurring in trucks, cars, power plants, home heaters, and gas stoves. In the presence of other air contaminants, $NO_2$ is usually visible as a reddish-brown air layer over urban areas. $NO_2$ along with other traffic-related pollutants is associated with respiratory symptoms, respiratory illness, and respiratory impairment. Studies in animals have reported biochemical, structural, and cellular changes in the lung when exposed to $NO_2$ above the level of the current state air quality standard. Clinical studies of human subjects suggest that $NO_2$ exposure to levels near the current standard may worsen the effect of allergens in allergic asthmatics, especially in children.

- **Particulate Matter ($PM_{10}$ or $PM_{2.5}$)** is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary in shape, size, and chemical composition, and can be made up of multiple materials such as metal, soot, soil, and dust. $PM_{10}$ particles are 10 microns (µm) or less and $PM_{2.5}$ particles are 2.5 (µm) or less. These particles can contribute significantly to regional haze and reduction of visibility in California. Exposure to PM levels exceeding current air quality standards increases the risk of allergies such as asthma and respiratory illness.

- **Ozone ($O_3$)** is a highly oxidative unstable gas capable of damaging the linings of the respiratory tract. This pollutant forms in the atmosphere through reactions between chemicals directly emitted from vehicles, industrial plants, and many other sources. Exposure to ozone above ambient air quality standards can lead to human health effects such as lung inflammation, tissue damage and impaired lung functioning. Ozone can also damage materials such as rubber, fabrics, and plastics.

- **Sulfur Dioxide ($SO_2$)** is a gaseous compound of sulfur and oxygen and is formed when sulfur-containing fuel is burned by mobile sources, such as locomotives, ships, and off-road diesel equipment. $SO_2$ is also emitted from several industrial processes, such as petroleum refining and metal processing. Effects from $SO_2$ exposures at levels near the one-hour standard include bronchoconstriction accompanied by symptoms, which may include wheezing, shortness of breath and chest tightness, especially during exercise or physical activity. Children, the elderly, and people with asthma, cardiovascular disease, or chronic lung disease (such as bronchitis or emphysema) are most susceptible to these symptoms. Continued exposure at elevated levels of $SO_2$ results in increased incidence of pulmonary symptoms and disease, decreased pulmonary function, and increased risk of mortality.

**State**

***California Air Resources Board***

CARB sets the laws and regulations for air quality on the state level. CAAQS is similar to the NAAQS and also restricts four additional contaminants. **Table 4.3-3,** *Ambient Air Quality Standards* on the following page identifies both the NAAQS and CAAQS. The additional contaminants as regulated by the CAAQS are defined below:

- **Visibility Reducing Particles** are particles in the air that obstruct the visibility.

- **Sulfates** are salts of Sulfuric Acid. Sulfates occur as microscopic particles (aerosols) resulting from fossil fuel and biomass combustion. They increase the acidity of the atmosphere and form acid rain.

- **Hydrogen Sulfide ($H_2S$)** is a colorless, toxic, and flammable gas with a recognizable smell of rotten eggs or flatulence. $H_2S$ occurs naturally in crude petroleum, natural gas, volcanic gases, and hot springs. Usually, $H_2S$ is formed from bacterial breakdown of organic matter. Exposure to low concentrations of hydrogen sulfide may cause irritation to the eyes, nose, or throat. It may also cause difficulty in breathing for some asthmatics. Brief exposures to high concentrations of hydrogen sulfide (greater than 500 Parts per Million (ppm) can cause a loss of consciousness and possibly death.

- **Vinyl Chloride** also known as chloroethene, is a toxic, carcinogenic, colorless gas with a sweet odor. It is an industrial chemical mainly used to produce its polymer, polyvinyl chloride (PVC).

**Table 4.3-3: Ambient Air Quality Standards**

| Pollutant | Average Time | California Standards[1] | | Federal Standards[2] | | |
|---|---|---|---|---|---|---|
| | | Concentration[3] | Method[4] | Primary[3,5] | Secondary[3,6] | Method[7] |
| Ozone ($O_3$)[8] | 1 Hour | 0.09 ppm (180 µg/m$^3$) | Ultraviolet Photometry | - | Same as Primary Standard | Ultraviolet Photometry |
| | 8 Hour | 0.070 ppm (137 µg/m3) | | 0.070 ppm (137 µg/m3) | | |
| Respirable Particulate Matter (PM10)[9] | 24 Hour | 50 µg/m3 | Gravimetric or Beta Attenuation | 150 µg/m3 | Same as Primary Standard | Inertial Separation and Gravimetric Analysis |
| | Annual Arithmetic Mean | 20 µg/m3 | | - | | |
| Fine Particulate Matter (PM2.5)[9] | 24 Hour | No Separate State Standard | | 35 µg/m3 | Same as Primary Standard | Inertial Separation and Gravimetric Analysis |
| | Annual Arithmetic Mean | 12 µg/m3 | Gravimetric or Beta Attenuation | 12 µg/m3 | 15 µg/m3 | |
| Carbon Monoxide (CO) | 8 hour | 9.0 ppm (10mg/m3) | Non-Dispersive Infrared Photometry (NDIR) | 9 ppm (10 mg/m3) | - | Non-Dispersive Infrared Photometry |
| | 1 hour | 20 ppm (23 mg/m3) | | 35 ppm (40 mg/m3) | | |
| Nitrogen Dioxide ($NO_2$)[10] | Annual Arithmetic Mean | 0.030 ppm (57 µg/m3) | Gas Phase Chemiluminescence | 0.053 ppm (100 µg/m3)[8] | Same as Primary Standard | Gas Phase Chemiluminescence |
| | 1 Hour | 0.18 ppm (339 µg/m3) | | 0.100 ppm[8] (188/ µg/m3) | - | |
| Sulfur Dioxide ($SO_2$)[11] | Annual Arithmetic Mean | - | Ultraviolet Fluorescence | 0.030 ppm[10] (for Certain Areas) | - | Ultraviolet Flourescence; Spectrophotometry (Pararoosaniline Method)[9] |
| | 24 Hour | 0.04 ppm (105 µg/m3) | | 0.14 ppm[10] (for Certain Areas) (See Footnote 9) | - | |
| | 3 Hour | - | | - | 0.5 ppm (1300 µg/m3) | |
| | 1 Hour | 0.25 ppm (655 µg/m3) | | 75 ppb (196 µg/m3) | - | |
| Lead[12,13] | 30 Day Average | 1.5 µg/m3 | Atomic Absorption | - | | - |
| | Calendar Quarter | - | | 1.5 µg/m3 | Same as Primary Standard | High Volume Sampler and Atomic Absorption |
| | Rolling 3-Month Average | - | | 0.15 µg/m3 | | |
| Visibility Reducing Particles | 8 Hour | See footnote 14 | | | | |
| Sulfates | 24 Hour | 25 µg/m3 | Ion Chromatography | | | |
| Hydrogen Sulfide | 1 Hour | 0.03 ppm (42 µg/m3) | Ultraviolet Fluorescence | | | |
| Vinyl Chloride[12] | 24 Hour | 0.01 ppm (26 µg/m3) | Gas Chromatography | | | |

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m3 is equal to or less than one. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the U.S. EPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the U.S. EPA.
8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 µg/m3 to 12.0 µg/m3 . The existing national 24- hour PM2.5 standards (primary and secondary) were retained at 35 µg/m3 , as was the annual secondary standard of 15 µg/m3 . The existing 24-hour PM10 standards (primary and secondary) of 150 µg/m3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
11. On June 2, 2010, a new 1-hour SO2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Source: (WRCC, 2018)

### *AB 203*

Assembly Bill (AB) No. 203 is an amendment to the California Labor Code that addresses worker awareness training relating to Valley fever. Specifically, AB 203 requires construction employers who work in counties with high rates of Valley fever (i.e., endemic counties) to train their employees on awareness and minimizing the risks of Valley fever (State of California, 2019). Initial trainings had to be implemented by May of 2020, and training must be refreshed annually (CDPH, 2020).

## Local

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order 131-D (GO 131-D), Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters" (CPUC, 1995). Consequently, public utilities are directed to consider local regulations and consult with local agencies, but county regulations are not applicable as Fresno County does not have jurisdiction over the Proposed Project. Because the CPUC has exclusive jurisdiction over the Proposed Project siting, design, and construction, the Proposed Project is not subject to local land use and zoning regulations or discretionary permits. This section identifies Air Quality regulations for informational purposes and to assist with California Environmental Quality Act (CEQA) review. Although LS Power Grid California, LLC (LSPGC) is not subject to local discretionary permitting, ministerial permits would be secured as required.

### *Fresno County General Plan*

The Fresno County General Plan contains the following Air Quality goal and policies aimed at reducing air emissions from development projects, including the Proposed Project (Fresno County, 2000):

| | |
|---|---|
| **Goal OS-G** | To improve air quality and minimize the adverse effects of air pollution in Fresno County. Policies Environmental Assessment and Mitigation |
| **Policy OS-G.13** | The County shall include fugitive dust control measures as a requirement for subdivision maps, site plans, and grading permits. This will assist in implementing the SJVUAPCD's particulate matter of less than ten (10) microns ($PM_{10}$) regulation (Regulation VIII). Enforcement actions can be coordinated with the Air District's Compliance Division. |
| **Policy OS-G 14** | The County shall require all access roads, driveways, and parking areas serving new commercial and industrial development to be constructed with materials that minimize particulate emissions and are appropriate to the scale and intensity of use. |

### *San Joaquin Valley Air Pollution Control District Regulation VIII and Rule 8021*

The SJVAPCD Regulation VIII, *Fugitive $PM_{10}$ Prohibition*, and Rule 8021, *Construction, Demolition, Excavation, Extraction, and other Earthmoving Activities*, include requirements for particulate matter and dust control for applicable projects within the basin (SJVAPCD, 2020b). As intimated by the title, Rule 8021 applies to earthmoving activities, including construction, demolition, and excavations. The intent of Rule 8021 is to reduce the public nuisance from fugitive dust. The key requirements of Rule 8021 are reduction of visible dust emission (VDE) to less than 20 percent opacity and the preparation of a Dust Control Plan. The Dust Control Plan must include specific measure to implemented to reduce the VDE below 20 percent (SJVAPCD, 2004).

### *San Joaquin Valley Air Pollution Control District Significance Thresholds*

The SJVAPCD has established significance thresholds for Criteria Pollutants for use in all county-related Air Quality Impact Assessments and for determining CEQA air quality impacts (SJVAPCD, 2015a). These thresholds can be used to demonstrate that a project's total emissions would not result in a significant impact as defined by CEQA. Should emissions be found to exceed these thresholds, additional modeling is required to demonstrate that a project's total air quality impacts are below the state and federal ambient air quality standards. These significance thresholds for construction and daily operations are shown in **Table 4.3-4,** *SJVAPCD Significance Thresholds for Criteria Pollutants.*

Non-Criteria pollutants such as Hazardous Air Pollutants or Toxic Air Contaminants (TACs) are also regulated by the SJVAPCD. These are broken out into Carcinogens and Non-Carcinogens (Acute and Chronic). A project cannot result in a cancer risk equal to or greater than 20 in one million for the Maximally Exposed Individual (MEI) (SJVAPCD, 2015b). For both Acute and Chronic Non-Carcinogens, a project cannot result in a Hazard Index equal to or greater than one for the MEI (SJVAPCD, 2015b).

**Table 4.3-4: SJVAPCD Significance Thresholds for Criteria Pollutants**

| Pollutant/Precursor | Construction Emissions | Operational Emissions | |
|---|---|---|---|
| | | Permitted Equipment and Activities | Non-Permitted Equipment and Activities |
| | Emissions (Tons/Yr) | Emissions (Tons/Yr) | Emissions (Tons/Yr) |
| Carbon Monoxide (CO) | 100 | 100 | 100 |
| Nitrogen Oxide ($NO_x$) | 10 | 10 | 10 |
| Reactive Organic Gases (ROG) | 10 | 10 | 10 |
| Sulfur Oxide ($SO_x$) | 27 | 27 | 27 |
| Respirable Particulate Matter ($PM_{10}$ and $PM_{2.5}$) | 15 | 15 | 15 |

In addition, some projects are required to implement PM and $NO_x$ reduction measures as required under District Rule 9510 Indirect Source Review (ISR) which was adopted by the District's Governing Board in 2005 to reduce the impacts of growth in emissions resulting from new land development in the San Joaquin Valley (SJVAPCD, 2005). District Rule 9510 applies to new development projects that would equal or exceed specific size limits called "applicability

thresholds." The applicability thresholds were established at levels intended to capture projects that emit at least two tons of $NO_x$ or two tons of $PM_{10}$ per year (SJVAPCD, 2012).

#### 4.3.2.2 Air Permits

The Proposed Project does not propose any stationary emission source equipment and would, therefore, not require any air quality permits.

### 4.3.3 IMPACT QUESTIONS

#### 4.3.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to Air Quality come from the CEQA, Appendix G Environmental Checklist (as amended in December 2019). Where available, the significance criteria by the applicable air quality management district or air pollution control district may be relied upon to the following determinations. According to the CEQA Environmental Checklist, a project may cause a potentially significant impact if it would:

- Conflict with or obstruct implementation of the applicable air quality; or
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard; or
- Expose sensitive receptors to substantial pollutant concentrations; or
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

#### 4.3.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-Filing Proponent's Environmental Assessments* (CPUC, 2019), there are no additional CEQA Impact Questions required for Air Quality.

### 4.3.4 IMPACT ANALYSIS

#### 4.3.4.1 Impact Analysis

**Would the project conflict with or obstruct implementation of the applicable air quality plan?**

**Less-than-Significant Impact.** The SJVAPCD has developed an air quality plan consistent with California's SIP. As part of the plan, projects are required to show that project-related emissions would generate less-than-significant air quality emissions.

Potential air quality impacts related to the Proposed Project construction and operations were calculated using the latest California Emissions Estimator Model (CalEEMod) (Version 2016.3.2)

air quality model, which was developed by BREEZE Software for SCAQMD in 2017. The construction module in CalEEMod is used to calculate the emissions associated with the Proposed Project construction and uses methodologies presented in the U.S. EPA AP-42 document with emphasis on Chapter 11.9. The CalEEMod input/output model is included as Attachment 1 of the **Appendix 4.3-A**, *Air Quality Assessment*.

The Proposed Project's construction includes site preparation and grading, installation of drainage and retention basins, foundations/supports, setting of equipment, wiring and electrical system installation, and assembly of the accessory components. The Proposed Project site is approximately 20 acres and would require the grading of approximately 8.75 acres. The Proposed Project would require an import of roughly 17,000 cubic yards (CY) of suitable base material and export of roughly 2,000 CY. The Proposed Project plans to start grading and construction in March of 2022 and be completed in December of 2023. Construction is assumed to occur six days per week. CalEEMod does not directly incorporate Tiered equipment by default, but rather incorporates equipment fleet mixture based on the construction year. For the unmitigated emissions estimate, these defaults were used. Material hauling/truck details along with worker trips are provided within **Section 3.0,** *Project Description* (See **Table 3-6,** *Estimated Average Daily Construction Traffic)* and were manually updated within the CalEEMod software. **Table 4.3-5,** *Anticipated Construction Equipment and Durations* shows the expected equipment and durations as provided by the project engineer.

**Table 4.3-5: Anticipated Construction Equipment and Durations**

| Equipment Identification | Estimated Start | Estimated Completion | Quantity | HP |
|---|---|---|---|---|
| **Site Preparation/Road Work** | March 2022 | May 2022 | | |
| Graders | | | 1 | 250 |
| Off-Highway Trucks (Dump Truck) | | | 4 | 415 |
| Off-Highway Trucks (Water Truck) | | | 4 | 300 |
| Rollers | | | 1 | 405 |
| Rubber Tired Loaders (4-5 yard) | | | 1 | 275 |
| **Below-Grade Construction** | June 2022 | August 2022 | | |
| Excavators | | | 1 | 108 |
| Off-Highway Trucks (Water Truck) | | | 4 | 300 |
| Forklifts | | | 1 | 100 |
| Tractors/Loaders/Backhoes | | | 1 | 68 |
| Excavators | | | 1 | 70 |
| Rubber Tired Loaders (4-5 yard) | | | 1 | 275 |
| Drill Rig | | | 1 | 125 |
| Off-Highway Trucks (Dump Truck) | | | 1 | 415 |
| Skid Steer Loaders | | | 1 | 74 |
| Trenchers | | | 1 | 75 |
| **Above-Grade Construction and Equipment Installation** | September 2022 | August 2023 | | |
| Aerial Lifts | | | 1 | 49 |
| Aerial Lifts | | | 1 | 74 |
| Cranes (17 Ton) | | | 1 | 250 |
| Cranes (30 ton) | | | 1 | 130 |

| Table 4.3-5: Anticipated Construction Equipment and Durations | | | | |
|---|---|---|---|---|
| **Equipment Identification** | **Estimated Start** | **Estimated Completion** | **Quantity** | **HP** |
| Forklifts | | | 2 | 130 |
| Welding Truck | | | 1 | 395 |
| **Commissioning and Testing[1]** | June 2023 | December 2023 | | |
| Forklifts | | | 2 | 130 |
| Aerial Lifts | | | 1 | 49 |
| [1] Commissioning and Testing estimated between 6/15/23 – 12/15/23. For purposes of modeling and to avoid double counting, Forklifts and Aerial Lifts are the same units as Above Grade Construction. For this purpose, commissioning and testing was modeled with a start date of 8/16/23. | | | | |

**Table 4.3-6,** *Expected Construction Emissions Summary – Tons per Year* summarizes the construction emissions in tons per year based on the construction activities and equipment identified in **Table 4.3-5**. Based on the modeling for the unmitigated case, the Proposed Project would not exceed SJVAPCD thresholds of significance and would not require mitigation to comply. However, the Proposed Project would exceed the Rule 9510 threshold for $NO_x$, and, therefore, would require mitigation to comply with Rule 9510.

| Table 4.3-6: Expected Construction Emissions Summary – Tons per Year | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Year** | **ROG** | **$NO_x$** | **CO** | **$SO_2$** | **$PM_{10}$ (Dust)** | **$PM_{10}$ (Exhaust)** | **$PM_{10}$ (Total)** | **$PM_{2.5}$ (Dust)** | **$PM_{2.5}$ (Exhaust)** | **$PM_{2.5}$ (Total)** |
| 2022 (Unmitigated) | 0.41 | *3.69* | 2.96 | 0.01 | 0.10 | 0.13 | 0.23 | 0.02 | 0.12 | 0.15 |
| 2023 (Unmitigated) | 0.13 | 1.17 | 1.02 | 0.00 | 0.08 | 0.04 | 0.12 | 0.02 | 0.04 | 0.06 |
| SJVAPCD Significance Threshold (Tons/Year) | 10 | 10 | 100 | 27 | - | - | 15 | - | - | 15 |
| **Significant?** | **No** | **No** | **No** | **No** | - | - | **No** | - | - | **No** |
| Rule 9510 Significance Threshold (Tons/Year) | | 2 | | | | | 2 | | | |
| **Exceeds?** | **N/A** | **Yes** | **N/A** | **N/A** | - | - | **No** | - | - | **N/A** |

When the Rule 9510 threshold is exceeded, the emissions must be reduced by at least 20 percent for the Proposed Project to remain in compliance. In reference to the Proposed Project's $NO_x$ emissions in 2022, the Proposed Project would be required to reduce $NO_x$ emissions by 0.738 ton, for a 2022 annual total of below 2.952 tons. Reducing $NO_x$ emissions within construction equipment can generally be achieved by providing a mixture of construction equipment that assumes a higher percentage of Tier 4 construction equipment. Tier 4 engines are the most efficient engines currently produced in reducing $NO_x$ emissions, and all construction equipment produced in California since 2014 is required to be Tier 4. In order to determine the required level of mitigation (i.e., percentage of Tier 4 equipment within the overall Proposed Project construction fleet), a mitigated case was run using CalEEMod. All inputs were the same as the unmitigated case, except the percentage of Tier 4 equipment was manually entered into the model run. Specifically, the mitigation case was run assuming approximately 32 percent Tier 4 equipment, resulting in year 2022 $NO_x$ emissions of 2.89 tons and a reduction of approximately 21.7 percent

compared to the unmitigated case. Applicant Proposed Measure (**APM**) **AQ-1** (*Use of Tier 4 Equipment*) would be implemented ensure the minimum amount of Tier 4 equipment is utilized during construction year 2022.

As shown in **Table 4.3-6**, *Estimated Average Daily Construction Traffic* the Proposed Project would result in less-than-significant emissions of criteria pollutants during the construction phase and, as discussed above, **APM AQ-1** would ensure compliance with Rule 9510. Therefore, the Proposed Project construction would not conflict with any air quality management plans, and construction-related impacts would be less than significant under this criterion. Emissions from the eventual decommissioning would be similar to those from the Proposed Project construction. To be conservative, the emissions from decommissioning were assumed to be the same as those from construction. This assumption is considered conservative because decommissioning would result in fewer emissions of criteria pollutants than construction. Therefore, impacts from decommissioning would be less than significant.

Proposed Project operations are expected to begin in 2023. Once operational, the Proposed Project would generate very low air quality emissions from daily operations. Anticipated operations emissions are limited to sources such as worker trips, area sources such as landscaping, and energy usage from on-site auxiliary equipment usage (e.g., control room heating, ventilation, and air conditioning [HVAC] units, communications equipment, and facility lighting). The total demand on-site would be approximately six kilowatts (kW) continuous per building or roughly 105,120 kilowatt hours (kWH) per year. Since the Proposed Project would use only electrical energy, the energy source emissions would be zero. Mobile vehicle visits to the Proposed Project site associated with periodic O&M would also generate air emissions. Monthly operations staff operations and maintenance visits, with crews of two to four persons are expected to generate two to four trips, twice per month. For purposes of preparing an overly conservative analysis, it was assumed that the Proposed Project would generate four trips per day using a rural setting. The expected daily pollutant generation from these sources is estimated in CalEEMod using the assumptions above (**Appendix 4.3-A**, *Air Quality Assessment*).

The total annual emission estimates are shown in **Table 4.3-7,** *Expected Annual Pollutant Generation (Tons/Year)***.** Based upon these calculations, the Proposed Project operations would produce less-than-significant air quality impacts during operations.

**Table 4.3-7: Expected Annual Pollutant Generation (Tons/Year)**

| | ROG | $NO_x$ | CO | $SO_x$ | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|---|
| Area | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Energy | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Mobile | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 |
| **Total (Unmitigated)** | **0.04** | **0.01** | **0.01** | **0.00** | **0.00** | **0.00** |
| SJVAPCD Significance Threshold (Tons/Year) | 10 | 10 | 100 | 27 | 15 | 15 |
| **Significant?** | **No** | **No** | **No** | **No** | **No** | **No** |

Daily pollutant generation assumes trip distances within CalEEMod.

As shown in **Table 4.3-7**, the Proposed Project would result in less-than-significant emissions of criteria pollutants during the operations phase. Therefore, the Proposed Project operations would not conflict with any air quality management plans, and operations related impacts would be less than significant under this criterion.

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

**Less-than-Significant Impact.** The Proposed Project was analyzed for construction, decommissioning, and operational air quality emissions**.** Under this analysis, the Proposed Project would generate less-than-significant air quality direct impacts. With respect to an analysis of the Proposed Project's impacts under this criterion, it is important to note that air quality impacts relating to criteria pollutants are inherently cumulative. Emissions from desperate sources throughout the Air Basin are additive and cumulatively contribute to the basin's attainment status with respect to NAAQS and CAAQS.

Because of this, most significance thresholds are developed such that an individual project's significance determination can also be determinative of its cumulative impact. That is to say, if a project's individual emissions exceed applicable significance thresholds, such impact would be considered individually significant as well as resulting in a cumulatively considerable contribution to a significant cumulative impact. The SJVAPCD's thresholds of significance that are used as the basis for determining the Proposed Project's impacts relating to criteria pollutants were developed with respect to the fact that air quality impacts are inherently cumulative.

Therefore, while additional projects and other emissions sources would be active concurrently with the Proposed Project (see **Section 5.0**, *Cumulative and Other CEQA Considerations*), the severity of the Proposed Project's cumulative effect on air quality can be determined by its comparison to the SJVAPCD's significance thresholds. As described above and summarized in **Tables 4.3-6** and **4.3-7**, the Proposed Project would not exceed any of the SJVAPCD's thresholds of significance and **APM AQ-1** would ensure compliance with Rule 9510. It is also important to note that both construction and operational emissions would be well below the applicable CEQA thresholds. Therefore, the Proposed Project's contribution to potential significant cumulative criteria pollutant impacts is not considered to be significant. Impacts under this criterion are less than significant.

**Would the project expose sensitive receptors to substantial pollutant concentrations?**

**Less-than-Significant Impact.** The Proposed Project is located within a rural area in the SJVAPCD and the nearest sensitive receptors are 1.8 miles away from the Proposed Project site (refer to **Figure 4.3-1**, *Construction Site and Sensitive Receptor Locations*). The red point (#1) on **Figure 4.3-1** represents the closest sensitive residential receptor location and is the primary receiver where impacts were analyzed. Potential harmful airborne pollutants or hazards that could be caused by, or arise because of the Proposed Project, are diesel particulate matter (DPM), criteria pollutants, and Valley fever contaminated dust. Therefore, each of these is addressed under this criterion with respect to the Proposed Project.

To be conservative with respect to potential impacts associated with DPM, a construction phase health risk assessment was conducted as described below and in **Appendix 4.3-A**. DPM is a product of diesel exhaust and is the most common and potentially harmful emission related to construction activities and other actions that involve the utilization of diesel-powered equipment. Exposure to DPM is known to cause cancer and acute and chronic health effects. DPM emissions

can be estimated using the annual $PM_{10}$ exhaust emissions from on-site construction operations obtained from the annual CalEEMod model output by summing each on-site source for the construction duration. The Air Quality Dispersion Modeling (AERMOD) dispersion model is then used to model the dispersion of DPM at the nearest sensitive receptor. The AERMOD files for the Proposed Project are included in Attachment B of the *Air Quality Assessment* (**Appendix 4.3-A)** for the unmitigated scenario.

Once the dispersed concentrations of diesel particulates are estimated in the surrounding air, they are used to evaluate estimated exposure to people. Exposure is evaluated by calculating the dose in milligrams per kilogram body weight per day (mg/kg/d). For residential exposure, the breathing rates are determined for specific age groups, so inhalation dose (Dose-air) is calculated for each of these age groups, 3rd trimester, 0<2, 2<9, 2<16, 16<30, and 16-70 years. The following algorithms calculate this dose for exposure through the inhalation pathways. The worst-case cancer risk dose calculation is defined in Equation 1 below (OEHHA, 2015):

*Equation 1* $$Dose_{air}=C_{air}*(BR/BW)*A*EF*(1x10^{-6})$$

| | | |
|---|---|---|
| $Dose_{air}$ | = | Dose through inhalation (mg/kg/d) |
| $C_{air}$ | = | Concentration in air (µg/m3) Annual average DPM concentration in µg/m3 - AERMOD predicts annual averages. |
| BR/BW | = | Daily breathing rate normalized to body weight (L/kg BW-day). See Table I.2 for the daily breathing rate for each age range. |
| A | = | Inhalation absorption factor (assumed to be 1) |
| EF | = | Exposure frequency (unitless, days/365 days) |
| 1x10-6 | = | Milligrams to micrograms conversion ($10^{-3}$ mg/ µg), cubic meters to liters conversion ($10^{-3}$ $m^3$/l) |

Cancer risk is calculated by multiplying the daily inhalation or oral dose, by a cancer potency factor, the age sensitivity factor, the frequency of time spent at home and the exposure duration divided by averaging time, to yield the excess cancer risk. As described below, the excess cancer risk is calculated separately for each age grouping and then summed to yield cancer risk for any given location. Specific factors as modeled are presented in **Appendix 4.3-A**, *Air Quality Assessment*). The worst-case cancer risk calculation is defined in Equation 2 below (OEHHA, February 2015):

*Equation 2* $$RISK_{inh\text{-}res}=DOSE_{air} \times CPF \times ASF \times ED/AT \times FAH$$

| | | |
|---|---|---|
| $RISK_{inh\text{-}res}$ | = | Residential inhalation cancer risk |
| $DOSE_{air}$ | = | Daily inhalation dose (mg/kg-day) |
| CPF | = | Inhalation cancer potency factor (mg/kg-$day^{-1}$) |
| ASF | = | Age sensitivity factor for a specified age group (unitless) |
| ED | = | Exposure duration (in years) for a specified age group |
| AT | = | Averaging time for lifetime cancer risk (years) |
| FAH | = | Fraction of time spent at home (unitless) |

The California Office of Environmental Health Hazard Assessment (OEHHA) recommends that an exposure duration (residency time) of 30 years be used to estimate individual cancer risk for the Maximally Exposed Individual Resident (MEIR). OEHHA also recommends that the 30-year exposure duration be used as the basis for public notification and risk reduction audits and plans. Exposure durations of nine years and 70 years are also recommended to be evaluated for the MEIR to show the range of cancer risk based on residency periods. If a facility is notifying the public regarding cancer risk, the nine- and 70-year cancer risk estimates are useful for people who have resided in their current residence for periods shorter and longer than 30 years. Health risk calculations are shown in Attachment C of the *Air Quality Assessment* (**Appendix 4.3-A**)

Non-Cancer risks or risks defined as chronic or acute are also known with respect to DPM and are determined by the hazard index. To calculate hazard index, DPM concentration is divided by its chronic Reference Exposure Levels (REL). Where the total equals or exceeds one, a health hazard is presumed to exist. RELs are published by the Office of Environmental Health Hazard Assessment (OEHHA, 2015). Diesel Exhaust has a REL of 5 µg/m$^3$ and targets the respiratory system.

The nearest sensitive receptors to the Proposed Project site are identified in **Figure 4.3-1**, *Construction Site and Sensitive Receptor Locations* above and are greater than one mile from the Proposed Project site. Based upon the annual air quality modeling results presented in **Appendix 4.3-A**, worst-case unmitigated $PM_{10}$ from exhaust emissions (i.e., DPM emissions) would cumulatively produce 0.143 ton (over the total construction duration of 640 days and a total of 547 work days) or an average of 0.00235 grams/second. The average emission rate over the grading area is 5.85x10$^{-8}$ g/m$^2$/s, which was calculated as follows:

$$\frac{0.00235\,\frac{grams}{second}}{9.2\ acres * 4{,}046\,\frac{meters^2}{acre}} = 6.32 * 10^{-8}\ \frac{\frac{grams}{meters^2}}{second}$$

Utilizing the AERMOD dispersion model, the worst-case annual concentration of DPM from Proposed Project construction is estimated at 0.00006 µg/m$^3$ at the identified sensitive receptor located 1.8 miles from the Proposed Project site. Utilizing the risk equation identified above**,** the inhalation cancer risk for the closest residential receptor was found to be less than one in one million exposed. This is well below the allowable 20 per one million exposed (SJVAPCD, 2015).

Finally, there are known acute and chronic health risks associated with diesel exhaust which are considered non-cancer risks. These risks are calculated based on the methods described above and in **Appendix 4.3-A**. From this we find that the annual concentration of 0.00006 µg/m$^3$ divided by the REL of 5 µg/m$^3$ yields a Health Hazard Index less than one. Therefore, no acute or chronic health risks are expected, and all health risks associated with DPM are considered less than significant.

Valley fever is a disease that typically affects the respiratory system and is communicated by fungal spores within soil and airborne dust. Therefore, at risk activities include those that either create high levels of dust, require workers to be in close contact with soils and dusts, or both. The Proposed Project is located within unincorporated Fresno County, which is located in the

California Central Valley. The California Central Valley is the region of California considered to be of highest risk for Valley fever (CDPH, 2020); therefore, Valley fever is a health risk of concern in relation to the Proposed Project. As discussed above, the nearest sensitive receptor to the Proposed Project site are residences located approximately 1.8 miles away. At this distance, dust created at the Proposed Project site would be of concern. While Valley fever is a risk for anyone living or working in the Proposed Project vicinity, the addition of the Proposed Project would not increase this risk for the existing residences. However, for the construction workers and other project personnel who would be on-site during times of dust transport, a risk to their health would occur.

The Proposed Project activities that would result in the greatest risk would be those involving the excavation and transport of soils, such as grading. These activities, along with localized wind conditions, create the work conditions with the highest risk. According to the CDPH and the CDC, avoiding working in soils and dusty conditions is the best preventative measure. For workers who cannot avoid soil disturbance (such as farmers and construction workers), avoiding or mitigating dust as well as other engineering controls become the primary preventative measures. The CDPH Occupational Health Branch (OHB) and the CDC make recommendations for the protection of workers. The primary protection measures relate to the following: worker training, dust suppression, and personal protective equipment (PPE). As of May 2020, employers are required to provide workers with Valley fever awareness and protection training for work that occurs in endemic areas. With respect to dust suppression, SJVAPCD Rule 8021 requires projects to reduce VDE to less than 20 percent opacity (SJVAPCD, 2020b). The Proposed Project's compliance with these regulatory requirements would reduce the potential impacts from Valley fever to a level that is less than significant. Therefore, **APMs AQ-2** (*Dust Control Plan*) and **AQ-3** (*Valley Fever Worker Awareness Training*) are included as part of the Proposed Project.

Finally, emissions of criteria pollutants also have the potential to effect human health. The primary pollutant of concern is ozone. However, ozone is not directly emitted by any of the elements of the Proposed Project. Rather, ozone is a byproduct of certain criteria pollutants that are emitted by the Proposed Project; namely $NO_x$, VOCs, and ROGs. These pollutants are considered to be precursors for ozone. Ozone is detrimental to human health when it is inhaled as part of the air human beings breathe. Inhalation of ozone can lead to numerous respiratory effects, ranging from shortness of breath to chronic obstructive pulmonary disease (COPD). The adverse effects of ozone are intensified for those individuals who have pre-existing respiratory illness (such as asthma, emphysema, and bronchitis) or are otherwise more sensitive (such as children and the elderly). While ozone is tracked at a regional level through the NAAQS and CAAQS attainment classifications, accurate analysis of specific health impacts from ozone based on project-specific emissions of precursors have not been established. The SJVAPCD and nearby South Coast Air Quality Management District (SCAQMD), who created the CalEEMod program that calculates project-specific emissions of criteria pollutants, has asserted this conclusion in the past (SJVAPCD, 2015c) (SCAQMD, 2015). Therefore, the potential localized health impacts from the Proposed Project's emissions of criteria pollutants is addressed qualitatively through application of the Proposed Project's performance with respect to the SJVAPCD's regional significance thresholds. As discussed above, the Proposed Project's emissions of $NO_x$, ROG, and VOCs are well below the published thresholds. Therefore, impacts to human health are considered to be less than significant.

**Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?**

**Less-than-Significant Impact.** The Proposed Project may create temporary construction odors from combustion engine equipment but would not be considered significant due to the highly dispersive nature of diesel exhaust. Also, it should be noted that the nearest residential receptor is approximately 1.8 miles away. Therefore, less-than-significant impacts are expected.

The Proposed Project is not anticipated to result in emissions that could cause odors or other adverse effect during operations. No impacts would occur.

### 4.3.5 CPUC DRAFT ENVIRONMENTAL MEASURES

While the CPUC includes a Draft Environmental Measure for dust control within the Proponent's Environmental Assessment Guidelines document (CPUC, 2019), it is not included within this document. The Proposed Project has included Applicant Proposed Measures (**APM**) **AQ-2**, Dust Control Plan, instead. **APM AQ-2** was included in place of the CPUC's Draft Environmental Measure because the Dust Control Plan described in **APM AQ-2** is based on a requirement from the SJVAPCD (Rule 8021), which would supersede the measures prescribed in the CPUC measure.

### 4.3.6 APPLICANT PROPOSED MEASURES

The Proposed Project includes three APMs relating to Air Quality, as outlined below.

**APM AQ-1**

The Proposed Project would ensure that at least 32 percent of all diesel-powered equipment use (tracked as horse-power hours) during construction year 2022 is from equipment that meet USEPA-certified Tier 4 standards, the highest USEPA-certified tiered emission standards.

Prior to the commencement of construction, LSPGC shall develop a diesel-powered equipment use hours tracking tool and procedure. The tracking tool shall be utilized by the Project to keep track of the certified engine tier and daily equipment use hours of all off-road diesel-powered equipment. If all diesel-powered equipment is certified Tier 4, the tracking tool would not be required; however, the Project would be required to verify, record, and track the engine tier of all equipment. The tracking tool shall be maintained by the Project and tracking updates shall be submitted to the CPUC on a monthly basis to track the Project's compliance. Records of the engine tier of all equipment shall be kept onsite and made available to the CPUC upon request.

**APM AQ-2**

The Proposed Project would comply with SJVAPCD Rule 8021 and would prepare and implement a Dust Control Plan for approval by the SJVAPCD Air Pollution Control Officer (APCO). The Dust Control Plan would include specific dust control measures as prescribed within Rule 8021, or as otherwise requested by the APCO. This plan would be submitted and approved prior to contruction.

**APM AQ-3**

The Proposed Project would comply with AB 203 and provide Valley fever awareness training to all construction workers, inspectors, monitors, and any other project personnel that are required to perform work in or near disturbed soils or dust emissions at the Proposed Project site. The Valley fever awareness training materials would be prepared by a qualified professional, adapted from agency published trainings (CDPH, CDC, etc.), or otherwise produced by a qualified source. The Valley fever awareness training would be incorporated into the Proposed Project's overall Worker Environmental Awareness Program (WEAP) training.

## 4.4 BIOLOGICAL RESOURCES

| Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | | | X | |
| b. | Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service? | | | | X |
| c. | Have a substantial adverse effect on state or federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | | | | X |
| d. | Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | | | X | |
| e. | Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | | | | X |
| f. | Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | | | | X |

| | | | | | |
|---|---|---|---|---|---|
| g. | Would the project create a substantial collision or electrocution risk for birds or bats? | | | X | |

This section describes the Biological Resources within the vicinity of the Proposed Project as well as potential impacts that could result from construction and operation and maintenance (O&M) of the Proposed Project.

### 4.4.1 ENVIRONMENTAL SETTING

The Proposed Project is located within an unincorporated area of Fresno County directly north of, and adjacent to, the Pacific Gas and Electric (PG&E) owned Gates Substation. The Proposed Project is located approximately 3.3 miles southwest of the city of Huron. The land to the north, east, and west of the Proposed Project is primarily used for agricultural purposes with no development, and the existing PG&E Gates Substation is located to the south.

The Proposed Project is located to the east of the California Southern Coast Range. The Kettleman Hills are located approximately five miles south and southwest of the Proposed Project. These hills separate the San Joaquin Valley to the east and Pleasant Valley and the Kettleman Plain to the west. The Guijarral Hills are located approximately 4.3 miles west of the Proposed Project. The San Luis Canal, which connects to the California Aqueduct, is located approximately four miles east of the Proposed Project. The Proposed Project region ranges in elevation from 304 to 910 feet above mean sea level (amsl), with the highest points in the Kettleman Hills and lowest near the San Luis Canal. Elevations within the Proposed Project site and immediately surrounding area are flat and range from 387 to 406 feet amsl (United State Geological Survey [USGS], 2020).

#### 4.4.1.1 Biological Resources Technical Report

The analysis presented in this section is based in part on the Proposed Project-specific Biological Resources Technical Report (BRTR; **Appendix 4.4-A**), which documents existing conditions, the potential for occurrence of special-status species, and the findings of biological surveys. Most of the information on the regulatory setting, methods, environmental setting, and impact analysis has been summarized from the BRTR. Photographs of the Proposed Project are included in the BRTR.

#### 4.4.1.2 Survey Area (Local Setting)

A 1,000-foot buffer was surveyed around the Proposed Project site as well as the proposed access road that exits the site in the southeast corner and runs east along an unnamed dirt farm road then south along Trinity Avenue to Jayne Avenue to define the Biological Resources Survey Area (Survey Area). The Proposed Project and Survey Area (**Figure 4.4-1**, *Proposed Project*) includes all areas of permanent and temporary impacts associated with the construction of the Proposed Project and is the area for which the potential for occurrence of special-status species was analyzed. Consistent with the Swainson's Hawk (SWHA) Technical Advisory Committee's (2000) "Recommended Timing and Methodology for SWHA Nesting Surveys in California's

Central Valley," and the California Department of Fish and Wildlife (CDFW)-approved survey plan, SWHA surveys were conducted in 2020 within a 0.5-mile buffer around the Proposed Project site.

#### 4.4.1.3 Vegetation Communities and Land Cover

The approximately 463.8-acre Survey Area only supports non-native vegetation communities, and no native vegetation communities or wildlife habitats exist within about four miles of the Proposed Project. Since there are no natural vegetation communities, no formal vegetation classification system was used. A vacant area owned by PG&E is located immediately south of the Proposed Project and north of the PG&E Gates Substation and is regularly disturbed (it appears to be disked).

The Proposed Project site, the Survey Area, and a majority of the Proposed Project region (5-mile buffer) are dominated by agricultural land (vineyards, orchards, and row crops) and disturbed or developed areas such as the PG&E Gates Substation, solar facilities, heavily disturbed fields, and paved and dirt roads. All components of the Proposed Project would be located on existing agricultural (vineyard) and disturbed lands. Proposed Project access roads are located on existing and frequently used dirt roads (Trinity Avenue and a private unnamed farm road).

The approximate acreage of each of the vegetation communities and land cover types that was mapped within the Survey Area is summarized in **Table 4.4-1**, *Vegetation Communities and Land Cover Types.* Brief descriptions of each community or cover type are provided following the table. Vegetation community and land cover mapping is shown on **Figure 4.4-2**, *Vegetation Communities*. None of the vegetation communities or land cover types that were mapped in the Survey Area are considered sensitive.

**Table 4.4-1: Vegetation Communities and Land Cover Types**

| Vegetation Community of Land Cover Type Name | Approximate Acreage in Survey Area | Percent of Total Acreage |
|---|---|---|
| Disturbed | 185.8 | 40% |
| Agriculture – Row Crops | 90.0 | 19% |
| Agriculture – Orchard | 93.1 | 20% |
| Agriculture – Vineyard | 94.9 | 21% |
| **Total** | **463.8** | **100%** |

**Disturbed**

Disturbed areas (40 percent of the Survey Area) support no vegetation or sparsely distributed non-native vegetation due to human activities. This cover type includes developed areas such as the PG&E Gates Substation, paved roads and compacted dirt roads, and frequently disturbed

(disked) lands immediately north and southeast of the PG&E Gates Substation that support only sparse, non-native vegetation communities. No small mammal burrows were observed in this cover type.

**Agriculture – Row Crops**

Row crops (19 percent of the Survey Area) are comprised entirely of crops including vegetables and alfalfa. These areas are frequently harvested. Row crops are currently found immediately east of the Proposed Project across South Trinity Avenue as well as immediately south and southeast of the PG&E Gates Substation across West Jayne Avenue.

**Agriculture – Orchard**

Orchards (20 percent of the Survey Area) are comprised entirely of citrus and nut trees. Orchards are currently located immediately east of the PG&E Gates Substation and the Proposed Project's access road along South Trinity Avenue.

**Agriculture – Vineyard**

Vineyards (21 percent of the Survey Area) are comprised entirely of grape vines. The Proposed Project site would be primarily located within the vineyard cover type.

**Sensitive Natural Vegetation Communities**

There are no sensitive natural vegetation communities that meet the definition of a biological resource under California Environmental Quality Act (CEQA) (i.e., rare, designated or otherwise protected) within the Survey Area.

#### 4.4.1.4 Aquatic Features

There are no significant aquatic resources or potentially jurisdictional features within the Proposed Project site or Survey Area. There are two small water conveyance features (agricultural drainage ditches) adjacent to the southern and northern sides of West Jayne Avenue (**Figure 4.4-2**, *Vegetation Communities*). These ditches support no riparian vegetation and only have running water occasionally due to run-off from agricultural fields following irrigation events. These features are not expected to be considered jurisdictional by the U.S. Army Corps of Engineers (ACOE), the Regional Water Quality Control Board (RWQCB), or CDFW and would not be impacted by construction, operation, or decommissioning of the Proposed Project.

The only feature identified by the National Wetlands Inventory (NWI) is located approximately 0.4-mile northeast of the Proposed Project in an agricultural field just north of West Phelps Avenue and east of South Trinity Avenue (**Figure 4.4-3,** *NWI Wetlands*) (USFWS, 2020a). This potential feature was field verified during biological surveys, and no aquatic resources or potentially jurisdictional waters were present. Row crops cover the entire parcel, and no evidence of a canal or similar feature was observed in the vicinity of the NWI-mapped feature. The Proposed Project would not impact any potentially jurisdictional features or aquatic resources.

#### 4.4.1.5 Habitat Assessment

Special-status species are plants and wildlife that require special consideration or protection and have been listed as rare, threatened, or endangered, by federal, state, or other agencies because of their rarity, vulnerability to habitat loss, population decline, or other factors. Species listed as threatened or endangered are protected under federal or state law. Other species have been designated as special status by state resource agencies or by policy of local agencies to meet conservation objectives.

Special-status plant and wildlife species identified during the literature and database search (five-mile buffer) were analyzed with the following definitions of their potential to occur within the Survey Area:

- **Not Expected:** The Survey Area does not support suitable habitat for a particular species and the known range for a particular species is outside of the Survey Area.
- **Low Potential:** The Survey Area provides limited suitable habitat for a particular species. The known range for a particular species may be outside of the Survey Area.
- **Moderate Potential:** The Survey Area provides suitable habitat for a particular species. The known range for a particular species may include the Survey Area.
- **High Potential:** The Survey Area provides ideal habitat conditions for a particular species or known populations occur in the immediate vicinity.
- **Present:** Species was observed within the Survey Area during biological surveys or other site visits.

**Biological Surveys**

A biological survey of the Survey Area was conducted to analyze the potential for occurrence of special-status species, plants, and animals, sensitive vegetation communities and habitats, and to document vegetation cover types and aquatic resources.

**General Wildlife**

Very few wildlife species were observed during field surveys, and all of the common species that were observed were typical of agricultural and disturbed habitats, including killdeer (*Charadrius vociferus*), western kingbird (*Tyrannus verticalis*), red-winged blackbird (*Agelaius phoeniceus*), mourning dove (*Zenaida macroura*), Eurasian collared-dove (*Streptopelia decaocto*), northern mockingbird (*Mimus polyglottos*), European starling (*Sturnus vulgaris*), house finch (*Haemorhous mexicanus*), rock pigeon (*Columba livia*), great horned owl (*Bubo virginianus*), black-headed grosbeak (*Pheucticus melanocephalus*), common raven (*Corvus corax*), and red-tailed hawk (*Buteo jamaicensis*).

Transmission structures in the vicinity of the Proposed Project provide suitable nesting habitat for some raptors, and the site and surrounding agricultural fields provide suitable foraging habitat. Two red-tailed hawk nests were observed on transmission structures during SWHA surveys.

No other wildlife species were observed during field surveys. The Proposed Project site is generally too disturbed to support burrowing mammals, but some small mammal burrows may be present between periods of heavy disturbance associated with agricultural activities.

**Special-Status Plants**

All special-status plant species found in Information for Planning and Consulting (IPaC) (USFWS, 2020b), California Native Plant Society (CNPS) (2020), and California Natural Diversity Database (CNDDB) (CDFW, 2020a) occurrence records within the Proposed Project region were evaluated for their potential to occur in the Survey Area based on the presence of suitable habitat, elevation, and soils (**Table 4.4-2**, *Habitat Assessment*). The IPaC report is provided in the BRTR **(Appendix 4.4-A)**; CNDDB records are shown on **Figure 4.4-4**, *CNDDB* and soils are shown on **Figure 4.4-5**, *Soil Types* (United States Department of Agriculture, Natural Resources Conservation Service [USDA NRCS], 2019). There is no United States Fish and Wildlife Service (USFWS) critical habitat for special-status species plants mapped within five miles of the Proposed Project (USFWS, 2020b). Based on the literature review, eight special-status plant species documented within the Proposed Project region were evaluated for their potential to occur within the Survey Area (**Table 4.4-2**, *Habitat Assessment*). No special-status plant species were identified as having the potential to occur within the Survey Area. No special-status plants were observed in the Survey Area during biological surveys, although the surveys were not conducted within the blooming or phenological identification period for most species. Due to the high level of disturbance associated with agricultural operations and the PG&E Gates Substation, as well as the lack of native vegetation, it was concluded that the Survey Area does not contain suitable habitat for special-status plant species, and none are expected to occur.

**Special-Status Wildlife**

All special-status species wildlife found in the IPaC, (USFWS, 2020b), CNDDB (CDFW, 2020b) occurrence records within the Proposed Project region and the Western Bat Working Group (WBWG) priority bats that were determined to have an overlapping range with the Proposed Project (WBWG, 2020b) were evaluated for their potential to occur within the Survey Area based on the presence of suitable habitat (**Table 4.4-2**, *Habitat Assessment*). The IPaC report is provided in the BRTR **(Appendix 4.4-A)**; CNDDB records are shown on **Figure 4.4-4**, *CNDDB*. There is no USFWS critical habitat for special-status species wildlife mapped within five miles of the Proposed Project (USFWS, 2020b). Based on the literature review, 17 special-status mammals, six birds, two reptiles, two amphibians, one fish, and one crustacean documented within the Proposed Project region were evaluated for their potential to occur within the Survey Area (**Table 4.4-2**, *Habitat Assessment*). The only special-status wildlife species that was observed during biological surveys was the red-tailed hawk (raptors are protected by the Migratory Bird Treaty Act [MBTA] and the California Fish and Game Code). Two active red-tailed hawk nests were observed during SWHA (*Buteo swainsoni*, SWHA) surveys on transmission structures within 0.5 mile of the Proposed Project (one approximately 750 feet north, one approximately 0.5 mile northwest). Only one special-status bird (loggerhead shrike, *Lanius ludovicianus,* USFWS BCC, CDFW SSC) was identified as having moderate or high potential to occur within the Survey Area. Raptors (protected by the MBTA and the California Fish and Game Code) were identified as having a high potential to occur within the Survey Area. The remainder of the species that were evaluated are not expected to occur or have a low potential to occur. The

loggerhead shrike and raptor species that were or may be encountered within the Survey Area are described in more detail following **Table 4.4-2**, *Habitat Assessment*.
The SWHA is listed as a California state-threatened species under the California Endangered Species Act (CESA). The CDFW requested that SWHA surveys be conducted. They were conducted as recommended in the SWHA Technical Advisory Committee's (2000) "Recommended Timing and Methodology for SWHA Nesting Surveys in California's Central Valley," and in CDFW-approved survey plan, within a 0.5-mile buffer around the Proposed Project. No SWHA nesting habitat, individuals, or nests were observed within the 0.5-mile buffer (**Figure 4.4-6**, *Swainson's Hawk Survey with Raptor Nest Locations*). The BRTR details the results of the SWHA surveys (**Appendix 4.4-A**).

**Special Status Species Descriptions**

The following special status descriptions are used in **Table 4.4-2**.

- **FE** = Federally Endangered
- **FT** = Federally Threatened
- **SE** = State Endangered
- **ST** = State Threatened
- **CSSC** = California Species of Special Concern
- **CFP** = California Fully Protected
- **CFGC** = California Fish and Game Code Protected
- **BCC** = USFWS Bird of Conservation Concern
- **MBTA** = Migratory Bird Treatment Act Protected
- **1B.1**: Plants rare, threatened, or endangered in California and elsewhere, seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)
- **1B.2**: Plants rare, threatened, or endangered in California and elsewhere, moderately threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat)
- **4.2**: Plants of limited distribution – a watch list, moderately threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat)
- **Western Bat Working Group-H (WBWG-H)**: The High (H) designation represents those species considered the highest priority for funding, planning, and conservation actions. Information about status and threats to most species could result in effective conservation actions being implemented should a commitment to management exist. These species are imperiled or are at high risk of imperilment.
- **WBWG-M**: The Medium (M) designation indicates a level of concern that should warrant closer evaluation, more research, and conservation actions of both the species and possible threats. A lack of meaningful information is a major obstacle in adequately assessing these species' status and should be considered a threat.

| Table 4.4-2: Habitat Assessment | | | | |
|---|---|---|---|---|
| **Common Name** | **Scientific Name** | **Status*** | **Habitat** | **Potential for Occurrence** |
| **Plants** | | | | |
| Crownscale | *Atriplex coronata* var. *coronate* | 4.2 | Usually occurs in wetlands in vernal pool habitats. Occurs in shadscale scrub, valley grasslands, freshwater wetlands, and riparian habitats. Occurs at elevations below 650 feet. This annual herb blooms from March through October (Calflora, 2020; Jepson, 2020). | Not expected to occur within the Survey Area based on lack of vernal pools or other natural riparian areas. No known occurrences within 5 miles of the Proposed Project based on CNDDB records (CDFW, 2020b). |
| Brittlescale | *Atriplex depressa* | 1B.2 | Occurs in shadscale scrub, valley grasslands, alkali sink, and riparian habitats in saline or alkaline clay soils. Occurs at elevations below 1,000 feet. This annual herb blooms between April and October (Calflora, 2020; Jepson, 2020). | Not expected to occur within the Survey Area based on lack of suitable habitats and the high level of disturbance at the site and in surrounding areas. No known occurrences within 5 miles of the Proposed Project based on CNDDB records (CDFW, 2020b). |
| California Jewelflower | *Caulanthus californicus* | FE, SE, 1B.1 | Occurs in non-native grassland, upper Sonoran subshrub scrub, and juniper woodland. Typically occurs in areas with dense herbaceous cover and in primarily subalkaline, sandy loams. Occurs at elevations between 240 and 2,950 feet. This annual herb blooms from February through May (USFWS, 1998; Calflora, 2020; Jepson, 2020). | Not expected to occur within the Survey Area based on lack of suitable habitats and the high level of disturbance at the site and in surrounding areas. The nearest CNDDB occurrence was recorded approximately 5 miles north of the Proposed Project, but that occurrence has been extirpated (CDFW, 2020b). |
| Lemmon's Jewelflower | *Caulanthus lemmonii* | 1B.2 | Occurs in grasslands, chaparral and scrub habitats. Occurs at elevations between 260 and 3,280 feet. This annual herb blooms from March through May (Calflora, 2020; Jepson, 2020). | Not expected to occur within the Survey Area based on lack of suitable habitats and the high level of disturbance at the site and in surrounding areas. No known occurrences within 5 miles of the |

| Table 4.4-2: Habitat Assessment | | | | |
|---|---|---|---|---|
| **Common Name** | **Scientific Name** | **Status*** | **Habitat** | **Potential for Occurrence** |
| | | | | Proposed Project based on CNDDB records (CDFW, 2020b). |
| Recurved Larkspur | *Delphinium recurvatum* | 1B.2 | Occurs in poorly drained, fine, alkaline soils in shadscale scrub, valley grassland, and foothill woodland. Occurs at elevations between 100 and 2,000 feet. This perennial herb blooms from March through June (Calflora, 2020; Jepson, 2020). | Not expected to occur within the Survey Area based on lack of suitable habitats and the high level of disturbance at the site and in surrounding areas. No known occurrences within 5 miles of the Proposed Project based on CNDDB records (CDFW, 2020b). |
| Kern Mallow | *Eremalche parryi* ssp. *Kernensis* | FE, 1B.2 | Occurs primarily in Valley saltbush scrub habitats where it grows under and around saltbushes. Occurs in alkaline sandy loam or clay soils at elevations between 315 and 900 feet. Only known to occupy a small range near Lokern, CA. This annual herb blooms from March through May (USFWS, 1998; Calflora, 2020). | Not expected to occur within the Survey Area based on lack of suitable habitats, distance to the only known population (approximately 60 miles southeast of Proposed Project), and the high level of disturbance at the site and in surrounding areas. No known occurrences within 5 miles of the Proposed Project based on CNDDB records (CDFW, 2020b). |
| Hoover's Eriastrum | *Eriastrum hooveri* | 4.2 | Occurs in alkali sinks, washes, on slopes, and on ridgetops. Occurs in a wide variety of plant communities between 260 and 920 feet in elevation. This annual herb blooms from March through July (Calflora, 2020; Jepson, 2020). | Not expected to occur within the Survey Area based on lack of suitable habitats and the high level of disturbance at the site and in surrounding areas. No known occurrences within 5 miles of the Proposed Project based on CNDDB records (CDFW, 2020b). |
| San Joaquin Woolythreads | *Monolopia congdonii* | FE, 1B.2 | Occurs in non-native grassland, Valley saltbush scrub, and subshrub scrub. Typically occupies habitats with less than 10% shrub cover and | Not expected to occur within the Survey Area based on lack of suitable habitats and the |

| Table 4.4-2: Habitat Assessment | | | | |
|---|---|---|---|---|
| **Common Name** | **Scientific Name** | **Status*** | **Habitat** | **Potential for Occurrence** |
| | | | with neutral to subalkaline soils. Occurs at elevations between 300 and 2,300 feet. This annual herb blooms from February through May (Calflora, 2020; Jepson, 2020) | high level of disturbance at the site and in surrounding areas. The nearest CNDDB occurrences were recorded approximately 5 miles north of the Proposed Project and 4-5 miles south of the Proposed Project in native habitats in the Kettleman Hills (CDFW, 2020b). |
| **Mammals** | | | | |
| Giant Kangaroo Rat | *Dipodomys ingens* | FE, SE | Inhabits primarily annual grassland communities with few shrubs, well-drained, sandy-loam soils located on gentle slopes (less than 11 percent) in areas with about 6.3 inches or less of annual precipitation, and free from winter flooding. Develops burrow systems for cover and reproduction (USFWS, 1998). | Not expected to occur within the Survey Area based on lack of annual grassland habitats and the high level of disturbance at the site and in surrounding areas. No known occurrences within 5 miles of the Proposed Project based on CNDDB records (CDFW, 2020b). |
| San Joaquin Kit Fox | *Vulpes macrotis mutica* | FE, ST | Inhabits grasslands and scrublands that can have a moderate level of human disturbance, such as active oil fields, wind turbines, and agricultural matrices of row crops, irrigated pasture, orchards, vineyards, and grazed annual grassland. In agricultural areas, San Joaquin kit foxes inhabit grazed, non-irrigated grasslands, but also live next to and forage in tilled or fallow fields, irrigated row crops, orchards, and vineyards. Prefers loose-textured soils for digging but can be found on virtually every soil type (USFWS, 1998). | Low potential to occur within the Survey Area based on lack of grassland and rangeland habitat for denning in the vicinity of the Proposed Project. May occasionally traverse the area but is unlikely to den in the Survey Area due to the high level of disturbance. No CNDDB occurrences have been recorded within 3 miles of the Proposed Project, but occurrences have been recorded within 3 and 5 miles of the Proposed Project to the northeast, east, southeast, south, |

| Table 4.4-2: Habitat Assessment | | | | |
|---|---|---|---|---|
| **Common Name** | **Scientific Name** | **Status*** | **Habitat** | **Potential for Occurrence** |
| | | | | southwest, and west (CDFW, 2020b). |
| Tipton Kangaroo Rat | *Dipodomys nitratoides nitratoides* | FE, SE | Limited to arid-land communities occupying the Valley floor of the Tulare Basin in level or nearly level sites. Sparsely scattered woody shrub cover is associated with high population density, but also occupies annual grassland and grazed annual grassland. Develops burrow systems for cover and reproduction (USFWS, 1998). | Not expected to occur within the Survey Area based on lack of shrubland or annual grassland habitat and the high level of disturbance at the site and in surrounding areas. No known occurrences within 5 miles of the Proposed Project based on CNDDB records (CDFW, 2020b). |
| Short-Nosed Kangaroo Rat | *Dipodomys nitratoides brevinasus* | CSSC | Generally found on friable soils on flat or gently rolling terrain in grassland or desert shrub vegetation. Uses burrows for cover and reproduction (ESRP, 2020). | Not expected to occur within the Survey Area based on lack of grassland or shrubland habitat and the high level of disturbance at the site and in surrounding areas. The nearest CNDDB occurrence was recorded approximately 5 miles west of the Proposed Project in the Guijarral Hills (CDFW, 2020b). |
| American Badger | *Taxidea taxus* | CSSC | Prefers open areas in relatively dry grasslands, open forests and creosote bush scrub, as well as occasionally agricultural land. Prefers areas with sandy/loamy, friable soils where burrowing is easier (CDFW, 2020a). | Low potential to occur within the Survey Area. No suitable soils for burrowing exist, but badgers may occasionally traverse the Proposed Project site. The nearest CNDDB occurrences were recorded approximately 4.5 miles north and 5 miles south of the Proposed Project (CDFW, 2020b). |
| Nelson's Antelope Squirrel | *Ammospermophilus nelsoni* | ST | Inhabits the arid grassland, shrubland, and alkali sink habitats of the San Joaquin Valley and | Not expected to occur within the Survey Area based on absence of |

| Table 4.4-2: Habitat Assessment | | | | |
|---|---|---|---|---|
| **Common Name** | **Scientific Name** | **Status*** | **Habitat** | **Potential for Occurrence** |
| | | | surrounding foothills. Uses burrows for cover and reproduction (ESRP, 2020). | suitable natural habitats and the high level of disturbance on the Proposed Project site and in surrounding areas. The nearest CNDDB occurrence was recorded approximately 4.5 miles north of the Proposed Project (CDFW, 2020b). |
| Tulare Grasshopper Mouse | *Onychomys torridus tularensis* | CSSC | Typically inhabits arid shrublands, grasslands, blue oak woodlands, subshrub communities, alkali sink and mesquite shrublands. Prefers hot, arid communities. Uses burrows for cover and reproduction (ESRP, 2020). | Not expected to occur within the Survey Area based on lack of suitable natural habitats and the high level of disturbance on the Proposed Project site and in surrounding areas. The nearest CNDDB occurrence was recorded approximately 5 miles south of the Proposed Project area (CDFW, 2020b). |
| Western Mastiff Bat | *Eumops perotis californicus* | CSSC, WBWG-H | Primarily a cliff dwelling species where maternity colonies roost under exfoliating rock slabs. These bats have also been found roosting in similar crevices in large boulders or buildings. Forages in large flocks over desert washes, floodplains, grassland, and agricultural areas (WBWG, 2020b). | Low potential for occurrence within the Survey Area for foraging. No suitable roosting habitat is present, but foraging individuals may occur within vineyards, orchards, and row crops in the area. The nearest CNDDB occurrence was recorded approximately 4.5 miles north of the Proposed Project area (CDFW, 2020b). |
| Townsend's Big-Eared Bat | *Corynorhinus townsendii* | CSSC, WBWG-H | Occurs in a wide variety of habitats including coniferous forests, mixed forests, deserts, native prairies, riparian communities, active agricultural areas, and coastal habitat types. Forages near edge habitats along streams and adjacent to and within a variety of wooded | Low potential for occurrence within the Survey Area for foraging. No suitable roosting habitat is present, but foraging individuals may occur within orchards, vineyards, and row |

| Table 4.4-2: Habitat Assessment | | | | |
|---|---|---|---|---|
| **Common Name** | **Scientific Name** | **Status*** | **Habitat** | **Potential for Occurrence** |
| | | | habitats. Requires caves or mines for roosting habitat (WBWG, 2020b). | crops. No known occurrences within 5 miles of the Proposed Project based on CNDDB records (CDFW, 2020b). |
| Pallid Bat | *Antrozous pallidus* | CSSC, WBWG-H | Occurs in arid and semi-arid landscapes, primarily found in grasslands, shrub-steppe, and desert environments with rocky outcrops. Utilizes open vegetation for foraging. Most commonly roosts in rock crevices, but buildings, bridges, and trees are also used (WBWG, 2020b). | Low potential for occurrence within the Survey Area for foraging. No suitable roosting habitat is present, but foraging individuals may occur within orchards, vineyards, and row crops. No known occurrences within 5 miles of the Proposed Project based on CNDDB records (CDFW, 2020b). |
| Spotted Bat | *Euderma maculatum* | CSSC, WBWG-H | Occurs in a wide variety of habitats from arid, low desert habitats to high elevation coniferous forests. Prominent rock features are a necessary feature for roosting. Forages in close proximity to roost sites (WBWG, 2020b). | Not expected to occur within the Survey Area based on lack of suitable roosting habitats in the vicinity of the Survey Area and because foraging is restricted to areas near roosting sites. No known occurrences within 5 miles of the Proposed Project based on CNDDB records (CDFW, 2020b). |
| Western Red Bat | *Lasiurus blossevillii* | CSSC, WBWG-H | Prefers riparian woodlands and other forests. Primarily roosts in trees along forest edges adjacent to streams or open fields, but will sometimes use orchards and buildings for day roosts. Forages over open areas near the roosting sites (WBWG, 2020b). | Low potential for occurrence within the Survey Area for foraging; could potentially use orchard trees for day roosts. Low likelihood since these bats prefer forested areas. No known occurrences within 5 miles of the Proposed Project based on CNDDB records (CDFW, 2020b). |

| Table 4.4-2: Habitat Assessment | | | | |
|---|---|---|---|---|
| **Common Name** | **Scientific Name** | **Status*** | **Habitat** | **Potential for Occurrence** |
| Hoary Bat | *Lasiurus cinereus* | WBWG-M | The most widespread bat in the United States. Prefers coniferous and broadleaf trees at the edges of clearings but will also use dense forested areas. Usually roosts in the foliage of trees. Forages in open areas near roosting areas (WBWG, 2020b). | Not expected to occur within the Survey Area based on absence of suitable forest habitats in the vicinity of the Survey Area. |
| Long-Eared Myotis | *Myotis evotis* | WBWG-M | Occurs in semiarid shrublands, sage, chaparral, and agricultural areas, but is usually associated with coniferous forests. Roosts under tree bark, in hollow trees, caves, mines, cliff crevices, sinkholes, rocky outcrops, buildings, and under bridges. Forages amongst and along the edges of forested areas (WBWG, 2020b). | Not expected to occur within the Survey Area based on lack of suitable forest habitats in the vicinity of the Survey Area. |
| Little Brown Myotis | *Myotis lucifugus* | WBWG-M | Widespread and common in mesic, forested areas of temperate North America. Will exploit a wide variety of natural and man-made roost sites in woodland/forested areas where water sources are nearby. Feeds over water and other open areas such as agricultural fields and grasslands (WBWG, 2020b). | Not expected to occur within the Survey Area based on lack of suitable forest habitats in the vicinity of the Survey Area. |
| Fringed Myotis | *Myotis thysanodes* | WBWG-H | Common in drier woodlands but is found in other habitats such as desert scrub and grassland where forested areas and water sources are nearby. Tends to forage along forest edges. Uses caves, mines, and buildings as roost areas (Keinath, 2004). | Not expected to occur within the Survey Area based on lack of suitable forest habitats in the vicinity of the Survey Area. |
| Long-Legged Myotis | *Myotis volans* | WBWG-H | Primarily occupies coniferous forests but will seasonally use riparian and desert habitats. Uses caves and mine tunnels for hibernaculum. Feeds in and around forest canopies (WBWG, 2020b). | Not expected to occur within the Survey Area based on lack of suitable forest habitats in the vicinity of the Survey Area. |
| **Birds** | | | | |
| Swainson's Hawk | *Buteo swainsoni* | ST, BCC | Overwinters in South America. Habitat in the breeding range consists of open stands of grass | Low potential to occur within the Survey area during breeding season. |

| Table 4.4-2: Habitat Assessment | | | | |
|---|---|---|---|---|
| **Common Name** | **Scientific Name** | **Status*** | **Habitat** | **Potential for Occurrence** |
| | | | dominated vegetation, sparse shrublands, open woodlands, and agricultural lands – primarily those dominated by row, grain, and hay crops. Nests in scattered trees within these landscapes, such as in riparian trees near grasslands or agricultural areas (Bechard et al. 2020). | Some potential foraging habitat exists in the row crop fields to the east of the Proposed Project area and south of Gates Substation. No Swainson's Hawk nests or individuals were observed during field surveys within the 0.5-mile buffer in 2020. The nearest CNDDB occurrence was recorded approximately 5 miles northeast of the Proposed Project area (CDFW, 2020b). |
| California Condor | *Gymnogyps californianus* | FE, SE | Nesting habitat is typically in cliffs in mountainous areas, but occasionally will use cave-like cavities in large trees such as coast redwood (*Sequoia sempervirens*) and giant sequoia (*Sequoiadendron giganteum*). Forages in relatively open grassland and woodland regions and along coastlines. May range hundreds of miles to forage (Finkelstein et al., 2020) | Low potential to occur within the Survey Area. Foraging is unlikely due to the disturbance levels in the area and the lack of suitable foraging habitat, but potential foraging habitat exists within 5 miles of the Proposed Project in the Kettleman Hills to the south. No known occurrences within 5 miles of the Proposed Project based on CNDDB records (CDFW, 2020b). |
| Western Burrowing Owl | *Athene cunicularia* | BCC, CSSC | Open habitats with low or sparse vegetation such as prairie pastures, desert scrub, agricultural, and disturbed areas. Especially alongside canals and berms associated with agriculture. Forages over low vegetation and typically will not forage within trees or tall shrubs (Poulin et al., 2020). | Low potential to occur within the Survey Area. Some suitable foraging habitat exists to the east of the Proposed Project area and south of Gates Substation in row crop fields, but this species typically does not forage in orchards or vineyards like those present on the Proposed Project site. Some suitable nesting habitat may exist along berms or in the field south of the Proposed |

| Table 4.4-2: Habitat Assessment | | | | |
|---|---|---|---|---|
| **Common Name** | **Scientific Name** | **Status*** | **Habitat** | **Potential for Occurrence** |
| | | | | Project if burrows are present. No suitable burrows or individuals have been observed during surveys. The nearest CNDDB occurrences were recorded approximately 4.5 miles to the NNE and SE of the Proposed Project (CDFW, 2020b). |
| Loggerhead Shrike | *Lanius ludovicianus* | BCC, CSSC | Open country with short vegetation, such as pastures with fence rows, mowed roadsides, golf courses, agricultural fields, riparian areas, and open woodland (Yosef, 2020). | Moderate potential to occur within the Survey Area based on suitable foraging habitats existing along roadways, near agricultural fields, and in the disturbed areas north of Gates Substation. Low potential for nesting in orchard trees within the Survey Area. The nearest CNDDB occurrence was recorded approximately 3.75 miles southeast of the Proposed Project (CDFW, 2020b). |
| Tricolored Blackbird | *Agelaius tricolor* | BCC, ST | Typically nests in large and dense marshes but in recent decades use of certain agricultural crops and upland shrubs and thistles has increased in the San Joaquin Valley. Annual grasslands with invasive shrubs and weeds are also used. Forages over water, certain agricultural fields, alkali scrub, coast live oak, and other land cover types that support insect prey. Orchards, vineyards and cultivated row crops provide little to no breeding season foraging opportunities (Beedy et al., 2020). | Low potential for occurrence within the Survey Area. Suitable foraging and breeding habitat is limited in extent and quality and may vary contingent on which crops are cultivated in a given year; no suitable agricultural types were observed during field surveys. The nearest CNDDB occurrence was recorded approximately 5 miles southeast of the Proposed Project (CDFW, 2020b). |
| White-Tailed Kite | *Elanus leucurus* | CFP | Generally occurs in low elevation grassland, agricultural, wetland, | Low potential for occurrence within the |

| Table 4.4-2: Habitat Assessment | | | | |
|---|---|---|---|---|
| **Common Name** | **Scientific Name** | **Status*** | **Habitat** | **Potential for Occurrence** |
| | | | oak-woodland, or savannah habitats. Riparian areas adjacent to open areas are also used. Usually nests in solitary trees but may also nest in larger stands or in shrubs. Prefers foraging over grasslands and near grazed fields, but will also use cultivated land, open woodland, and shrubland (Dunk, 2020). | Survey Area. White-tailed kites may use row crop fields for foraging purposes, but no suitable habitats for nesting occur. No known occurrences within 5 miles of the Proposed Project based on CNDDB records (CDFW, 2020b). |
| Raptors | | MBTA, CFGC | Various. | High potential for occurrence within the Survey Area. Raptors could be found foraging within vineyards, row crops, and within disturbed areas and perching or nesting on transmission line towers. Red-tailed hawks and active red-tailed hawk nests were observed during Swainson's hawk protocol surveys in 2020. All nests were located on transmission line towers. |
| **Reptiles** | | | | |
| Blunt-Nosed Leopard Lizard | *Gambelia sila* | FE, SE | Inhabits open, sparsely vegetated areas of low relief on the floor of the Central Valley and the surrounding foothills. They are generally absent from areas of steep slopes, dense vegetation (such as row crop fields), or areas of seasonal flooding. Requires small mammal burrows for cover and shelter (USWFS, 1998). | Not expected to occur within the Survey Area based on lack of suitable habitat and the high level of disturbance at the site and in surrounding areas. The nearest CNDDB occurrences were recorded approximately 4-5 miles west and southwest of the Proposed Project site, primarily near native communities within and north of the Kettleman Hills (CDFW, 2020b) |
| Giant Garter Snake | *Thamnophis gigas* | FT, ST | Inhabits agricultural wetlands and other waterways such as irrigation | Not expected to occur within the Survey Area |

| Table 4.4-2: Habitat Assessment | | | | |
|---|---|---|---|---|
| **Common Name** | **Scientific Name** | **Status*** | **Habitat** | **Potential for Occurrence** |
| | | | and drainage canals, sloughs, ponds, small lakes, low gradient streams, and adjacent uplands in the Central Valley with small mammal burrows or other soil crevices to escape floodwaters (USFWS, 2016) | based on lack of perennial waterways at the site and in surrounding areas. The only water feature in the Survey Area is the agricultural ditch south of Jayne Avenue that is frequently dredged and disturbed and only has flowing water during part of the year. No known occurrences within 5 miles of the Proposed Project based on CNDDB records (CDFW, 2020b). |
| **Amphibians** | | | | |
| California Red-Legged Frog | *Rana draytonii* | FT, CSSC | Inhabits areas within 1-2 miles of breeding habitats that stay cool and moist through the summer, including pools of slow moving streams, perennial or ephemeral ponds, and upland sheltering habitat such as rocks, burrows, logs, densely vegetated areas, and man-made structures such as culverts, abandoned sheds, and livestock troughs. Breeds in aquatic habitats (USFWS, 2017b). | Not expected to occur within the Survey Area based on lack of riparian habitat at the site and in surrounding areas. The only water feature in the Survey Area is the agricultural ditch south of Jayne Avenue that is frequently dredged, support no riparian vegetation, and only have flowing water during part of the year. No known occurrences within 5 miles of the Proposed Project based on CNDDB records (CDFW, 2020b). |
| California Tiger Salamander | *Ambystoma californiense* | FT, ST | Inhabits grasslands and low foothills with pools or ponds (primarily natural ephemeral pools or ponds that mimic them, such as stock ponds that are allowed to go dry) for breeding purposes. Spends most of its time underground in small mammal burrows (USFWS, 2017a) | Not expected to occur within the Survey Area based on lack of ephemeral pool or pond habitats at the site and in surrounding areas. No known occurrences within 5 miles of the Proposed Project based on CNDDB records (CDFW, 2020b). |

| Table 4.4-2: Habitat Assessment | | | | |
|---|---|---|---|---|
| **Common Name** | **Scientific Name** | **Status*** | **Habitat** | **Potential for Occurrence** |
| **Fishes** | | | | |
| Delta Smelt | *Hypomesus transpacificus* | FT, SE | Delta smelt are a euryhaline (a species that tolerates a wide range of salinities) fish that rarely occur in water with more than 10-12 parts per thousand salinity. They are endemic to the upper Sacramento-San Joaquin estuary (USFWS, 2017c). | Not expected to occur within the Survey Area based on lack of suitable aquatic habitats at the site and in surrounding areas. No known occurrences within 5 miles of the Proposed Project based on CNDDB records (CDFW, 2020b). |
| **Crustaceans** | | | | |
| Vernal Pool Fairy Shrimp | *Branchinecta lynchi* | FT | These fairy shrimp have an ephemeral lifestyle, and exist only in vernal pools or vernal pool-like habitat; the species does not occur in riverine, marine, or other permanent bodies of water. When the temporary pools dry, offspring persist in suspended development as desiccation resistant embryos (USFWS, 2007). | Not expected to occur within the Survey Area based on lack of suitable ephemeral pools at the site and in surrounding areas. No known occurrences within 5 miles of the Proposed Project based on CNDDB records (CDFW, 2020b). |

### *Loggerhead Shrike*

The loggerhead shrike is the only true shrike that occurs exclusively in North America. It inhabits ecotones, grasslands, and other open habitats and feeds on a variety of invertebrate and vertebrate prey. Throughout most of the southern part of its range in the southern U.S. and Mexico, the loggerhead shrike is a resident, while northern populations are migratory (Yosef, 2020). This shrike is a small avian predator that hunts from perches and impales prey on sharp objects such as thorns and barbed-wire fences. The species occupies open country with short vegetation: pastures with fence rows, old orchards, mowed roadsides, cemeteries, golf courses, agricultural fields, riparian areas, and open woodlands (Yosef, 2020). Breeders usually settle near isolated trees or large shrubs, and resident shrikes use the same habitats all year.

No loggerhead shrikes were observed during the biological survey or any of the SWHA protocol surveys. The nearest known CNDDB occurrence was recorded along the San Luis Canal approximately 3.75 miles to the southeast of the Proposed Project (CDFW, 2020b). Loggerhead shrikes have a moderate potential to use the Proposed Project area for foraging. There are barbed wire fences that surround nearby agricultural fields and chain link fences that surround the PG&E Gates Substation as well as posts throughout the vineyard areas that could provide perching opportunities for hunting loggerhead shrikes. There are also numerous potential prey species in the area such as insects, small mammals, birds, and reptiles that are encountered in the vineyards, orchards, and row crops. Loggerhead shrikes have a low potential to use the Survey Area for nesting. Loggerhead shrikes usually nest in isolated trees but may use orchard trees or shrubs within disturbed areas for nesting.

### *Raptors*

Per California Fish and Game Code 3503.5, all raptors are protected under state law. Several federal- or state-threatened, USFWS BCC, CDFW FP, or CDFW SSC raptor species have a low potential to occur within the Survey Area at different times throughout the year. Examples include: SWHA, burrowing owl, California condor, white-tailed kite, ferruginous hawk (*Buteo regalis*), merlin (*Falco columbarius*), northern harrier (*Circus hudsonius*), and prairie falcon (*Falco mexicanus*). Examples of non-listed raptor species that are known to occur or have a high potential to occur within the Survey Area include: red-tailed hawk, barn owl (*Tyto alba*), great-horned owl (*Bubo virginianus*), turkey vulture (*Cathartes aura*), and American kestrel (*Falco sparverius*). The raptor species with the highest potential to occur in the Survey Area are those that use and inhabit a wide range of habitats including agricultural and disturbed areas. Habitat use varies based on species and time of year. Foraging and nesting individuals have the potential to occur within the Survey Area. The Central Valley exhibits high wintering densities of several raptor species, such as American kestrels and red-tailed hawks.

Two active red-tailed hawk nests were observed during SWHA surveys on transmission towers within the 0.5-mile Survey Area. These nests all had young fledge during the 2020 season. The only other raptor species that was observed during field surveys was a great-horned owl. It is anticipated that raptors would only nest on transmission towers in the area due to the lack of suitable natural nesting opportunities. Not all species nest on transmission structures; the two most likely to nest on transmission structures in the Survey Area include red-tailed hawks and American kestrels.

#### 4.4.1.6 Critical Habitat

The USFWS designates critical habitat under the Endangered Species Act (ESA) for the survival and recovery of federally listed endangered and threatened species. Protected habitats include areas for foraging, breeding, roosting, shelter, and movement or migration. There are no designated or proposed critical habitats located within the Survey Area or the Proposed Project region (USFWS, 2020b).

#### 4.4.1.7 Native Wildlife Corridors and Nursery Sites

Wildlife migration corridors are areas that connect suitable wildlife habitats in a region that would otherwise be fragmented by rugged terrain, changes in vegetation, or human disturbance. Natural features (e.g., canyon drainages, ridgelines, or areas with vegetation cover) provide corridors for wildlife travel. Wildlife corridors are important because they provide access to mates, food, and water; allow the dispersal of individuals away from high-population or high-density areas; and facilitate genetic diversity. CEQA guidelines require that project proponents disclose and mitigate for significant impacts on wildlife corridors. Impacts to wildlife corridors, such as human disturbance and development, can cause harm to migrating species, cause species to exceed population thresholds in fragmented patches, or prevent healthy gene flow between populations. Wildlife species migrate through both upland areas and drainage areas, depending on the species. Species that need protective cover from predators (e.g., mammals, reptiles, and smaller avian species) tend to migrate along natural drainages and riparian corridors that have high vegetative cover. These areas also serve as important sources of food resources (e.g., insects and seeds) for these species.

No riparian corridors or other potential terrestrial wildlife migration corridors exist within the Proposed Project site or Survey Area. Several riparian corridors exist within five miles of the Proposed Project site that could potentially be used by terrestrial wildlife as movement corridors. Los Gatos Creek is located approximately 3.2 miles to the northwest of the Proposed Project. This creek drains from the Coast Range south and west of the town of Coalinga to an area north and east of the town of Huron where the creek ends approximately 2.75 miles west of the San Luis Canal. Zapato Chino Creek joins Los Gatos Creek approximately 3.75 miles west-northwest of the Proposed Project, flowing from the Coast Range to the southwest. The San Luis Canal is located approximately four miles east of the Proposed Project region. These riparian corridors could be used, but none occur near the Proposed Project. The level of disturbance from the existing PG&E Gates Substation, solar facilities, and agricultural operations in the immediate vicinity of the project greatly reduce the possibility of the area being used for migration or as potential nursery sites.

The Guijarral and Kettleman Hills exist approximately 4.3 miles west and five miles southwest of the Proposed Project, respectively. These are the only natural areas within five miles of the Proposed Project that could potentially be used for nursery sites.

The Proposed Project lies within the Pacific Flyway – an important north-south migration corridor that runs along the Pacific coast of the Americas from Alaska to Patagonia, including all of North America, lying west of the Rocky Mountains. The Pacific Flyway links breeding grounds to the north with wintering areas to the south and is used by many different species of birds during migration. Many birds use locations in California's Central Valley as a stopover point or wintering area. The Survey Area consists of solely agricultural and disturbed areas, thereby diminishing the

potential for avian species to use the area as a stopover point, but some species may fly through or use nearby agricultural fields for foraging purposes during migration.

The Proposed Project site does not provide any potential wildlife nursery sites because of its extensive past and current use for agriculture and developed areas; therefore, the Proposed Project would not affect wildlife nursery sites.

#### 4.4.1.8 Biological Resource Management Areas

The Proposed Project and Survey Area do not occur within any biological resource management areas, and there are no adopted plans applicable to the Proposed Project.

### 4.4.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

#### 4.4.2.1 Regulatory Setting

**Federal**

***Federal Endangered Species Act of 1973***

The ESA of 1973 (16 United States Code [U.S.C.] 1531–1544), as amended, protects federally listed threatened and endangered species from unlawful take. "Take" under the ESA includes activities such as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." The USFWS regulations define harm to include some type of "significant habitat modification or degradation."

***Migratory Bird Treaty Act***

The Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703 et seq.) makes it unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess; offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried, or received any native migratory bird, part, nest, egg or product. Nearly all North American species are classified as "migratory birds" and are subject to protection under this act, including all species that are discussed in this document. The United States Department of the Interior (USDOI) Office of the Solicitor's memorandum M-37050 clarified USDOI policy with respect to the MBTA and concluded that "the take of birds, eggs or nests occurring as a result of an activity, the purpose of which is not to take birds, eggs or nests, is not prohibited by the MBTA." Under this opinion, incidental take (takings and/or killings that directly and foreseeably result from, but are not the purpose of, an activity) of migratory bird species was not strictly prohibited by the MBTA. The ESA, the Bald and Golden Eagle Protection Act (BGEPA), and California state laws and regulations were not changed by M-37050. On August 11, 2020, the United States District Court for the Southern District of New York vacated M-37050 and remanded to USDOI for further proceedings. USDOI has proposed, but not yet finalized, regulations that would codify M-37050. As discussed in further detail below, California's Migratory Bird Protection Act was created in response to M-37050.

### *Bald and Golden Eagle Protection Act*

The BGEPA (16 U.S.C. 668-668c), enacted in 1940 and as amended, prohibits anyone, without a permit issued by the USFWS, from "taking" bald and golden eagles, including their parts, nests, or eggs. The BGEPA defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." For the purposes of these guidelines, "disturb" means: “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available:

- injury to an eagle; or
- a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior; or
- nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

### *Clean Water Act*

The Clean Water Act (CWA; 33 USC 1251 et seq.), as amended, provides a structure for regulating the discharge of pollutants into the waters of the U.S. Through the CWA, the Environmental Protection Agency (EPA) is given the authority to implement pollution control programs. These include setting wastewater standards for industry and water quality standards for contaminants in surface waters. The discharge of any pollutant from a point source into navigable waters is illegal unless permitted under the act’s provisions.

Section 404 of the CWA regulates the discharge of dredged, excavated, or fill material in wetlands, streams, rivers, and other waters of the US. The ACOE is the federal agency authorized to issue Section 404 permits for certain activities conducted in wetlands or other waters of the US. Section 401 of the CWA grants each state the right to ensure that the state's interests are protected on any federally permitted activity resulting in any discharge into navigable waters within the state. In California, the State Water Resources Control Board (SWRCB) and the nine RWQCBs are responsible for implementing Section 401 of the CWA. For a proposed project that requires an ACOE CWA Section 404 permit, the RWQCB must certify that such discharge complies with state water quality standards through a Water Quality Certification determination under Section 401 of the CWA.

## State

### *California Endangered Species Act*

The CDFW administers the CESA of 1984, which prohibits the “taking” of listed species except as otherwise provided in state law. Section 86 of the Fish and Game Code defines “take” as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” Under certain circumstances, the CESA applies these take prohibitions to species petitioned for listing (state candidates). Pursuant to the requirements of the CESA, state lead agencies (as defined under CEQA Public Resources Code Section 21067) are required to consult with the CDFW to ensure that any action or project is not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat.

Additionally, the CDFW encourages informal consultation on any proposed project that may impact a candidate species. The CESA requires the CDFW to maintain a list of threatened and endangered species. The CDFW also maintains a list of candidates for listing under the CESA and of species of special concern (or watch list species).

### *State Fully Protected Species*

California Fish and Game Code Sections 3511, 4700, 5050 and 5515 designate 37 species of wildlife as Fully Protected in California. The classification of Fully Protected was the state's initial effort in the 1960s to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, mammals, amphibians and reptiles, birds, and mammals. Most fully protected species have also been listed as threatened or endangered species under ESA or CESA. Fully Protected species may not be taken or possessed at any time, and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

### *California Fish and Game Code Section 1602*

Under Section 1602 of the Fish and Game Code, CDFW regulates activities that would divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. CDFW has jurisdiction over riparian habitats associated with watercourses. Jurisdictional waters are delineated by the outer edge of riparian vegetation or at the top of the bank of streams or lakes, whichever is wider. Section 1602 of the Fish and Game Code requires any person who proposes a project that would substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake or use materials from a streambed to notify the CDFW before beginning the project. If the CDFW determines that the project may adversely affect existing fish and wildlife resources, a Lake or Streambed Alteration Agreement is required.

### *Native Plant Protection Act*

The Native Plant Protection Act (NPPA; California Fish and Game Code Section 1900-1913) prohibits the taking, possessing, or sale within the state of any plant listed by CDFW as rare, threatened, or endangered. An exception to this prohibition allows landowners, under specified circumstances, to take listed plant species, provided that the owners first notify CDFW at least ten days prior to the initiation of activities that would destroy them. The NPPA exempts from "take" prohibition "the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, or other right of way."

### *California Environmental Quality Act*

CEQA requires lead agencies to evaluate the environmental impact associated with a proposed project. CEQA requires that a local agency prepare an Environmental Impact Report (EIR) on any project it proposes to approve that may have a significant effect on the environment or a Mitigated Negative Declaration if the project would not have significant or unmitigable effects. The purpose of a CEQA document is to provide decision-makers, public agencies, and the general public with an objective document that fully discloses the potential environmental effects of a proposed project. The process is specifically designed to objectively evaluate and disclose potentially significant direct, indirect, and cumulative impacts of a proposed project; to identify

alternatives that may reduce or eliminate a project's significant effects; and to identify feasible measures that mitigate significant effects of a project.

### *Porter-Cologne Water Quality Control Act*

The Porter-Cologne Act grants the SWRCB and the RWQCBs power to protect water quality and is the primary vehicle for implementation of California's responsibilities under the federal CWA. Any person proposing to discharge waste to waters of the state within any region must file a report of waste discharge with the appropriate regional board.

### *California Migratory Bird Protection Act*

Assembly Bill (AB) No. 454 is an act to amend, repeal, and add Section 3513 of the California Fish and Game Code, relating to migratory birds. This act, which was approved by the governor on September 27, 2019, relates to the M-37050 memorandum to the federal MBTA. This AB amends Section 3513 to read: "It is unlawful to take or possess any migratory nongame bird as designated in the federal Migratory Bird Treaty Act (16 U.S.C. Sec. 703 et seq.) before January 1, 2017, any additional migratory nongame bird that may be designated in that federal act after that date, or any part of a migratory nongame bird described in this section, except as provided by rules and regulations adopted by the United States Secretary of the Interior under that federal act before January 1, 2017, or subsequent rules or regulations adopted pursuant to that federal act, unless those rules or regulations are inconsistent with this code." AB-454 effectively disregards M-37050 of the MBTA in the state of California and continues to follow the pre-January 1, 2017 MBTA regulations.

## Local

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order 131-D (GO 131-D), Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters" (CPUC 1995). Consequently, public utilities are directed to consider local regulations and consult with local agencies, but county regulations are not applicable as Fresno County does not have jurisdiction over the Proposed Project. This section includes a summary of local related policies, plans or programs for informational purposes.

### *Fresno County General Plan*

The following relevant biological goals and policies from the Fresno County General Plan (Fresno County, 2000) were reviewed, and the following summaries are provided for informational purposes only.

**Goal OS-E** To help protect, restore, and enhance habitats in Fresno County that support fish and wildlife species so that populations are maintained at viable levels.

**Policy OS-E.1** The County shall support efforts to avoid the "net" loss of important wildlife habitat where practicable. In cases where habitat loss cannot be avoided, the County shall impose adequate mitigation for the loss of wildlife habitat that is critical to supporting special-status species and/or other valuable or unique wildlife resources. Mitigation shall be at sufficient ratios to replace the function, and value of the habitat that was removed or degraded. Mitigation may be achieved through any combination of creation, restoration, conservation easements, and/or mitigation banking. Conservation easements should include provisions for maintenance and management in perpetuity. The County shall recommend coordination with the USFWS and the California Department of Fish and Game to ensure that appropriate mitigation measures and the concerns of these agencies are adequately addressed. Important habitat and habitat components include nesting, breeding and foraging areas, important spawning grounds, migratory routes, migratory stopover areas, oak woodlands, vernal pools, wildlife movement corridors, and other unique wildlife habitats (e.g., alkali scrub) critical to protecting and sustaining wildlife populations.

**Policy OS-E.2** The County shall require adequate buffer zones between construction activities and significant wildlife resources, including both on-site habitats that are purposely avoided and significant habitats that are adjacent to the project site, in order to avoid the degradation and disruption of critical life cycle activities such as breeding and feeding. The width of the buffer zone should vary depending on the location, species, etc. A final determination shall be made based on informal consultation with the USFWS and/or the California Department of Fish and Game.

**Policy OS-E.3** The County shall require development in areas known to have particular value for wildlife to be carefully planned and, where possible, located so that the value of the habitat for wildlife is maintained.

**Policy OS-E.4** The County shall encourage private landowners to adopt sound wildlife habitat management practices, as recommended by the California Department of Fish and Game officials and the USFWS.

**Policy OS-E.6** The County shall ensure the conservation of large, continuous expanses of native vegetation to provide suitable habitat for maintaining abundant and diverse wildlife populations, as long as this preservation does not threaten the economic well-being of the County.

**Policy OS-E.9** Prior to approval of discretionary development permits, the County shall require, as part of any required environmental review process, a biological resources evaluation of the project site by a qualified biologist. The evaluation shall be based upon field reconnaissance performed at the appropriate time of year to determine the presence or absence of significant resources and/or special-status plants or animals. Such evaluation will consider the potential for significant impact on these resources and will either identify feasible mitigation measures or indicate why mitigation is not feasible.

**Policy OS-E.10** The County shall support state and federal programs to acquire significant fish and wildlife habitat areas for permanent protection and/or passive recreation use.

**Policy OS-E.17** The County should preserve, to the maximum possible extent, areas defined as habitats for rare or endangered animal and plant species in a natural state consistent with state and federal endangered species laws.

**Policy OS-E.18** The County should preserve areas identified as habitats for rare or endangered plant and animal species primarily using open space easements and appropriate zoning that restrict development in these sensitive areas.

**Goal OS-B** To maintain healthy, sustainable forests in Fresno County, conserve forest resources, enhance the quality and diversity of forest ecosystems, reduce conflicts between forestry and other uses, encourage a sustained yield of forest products, protect and conserve lands identified as suitable for commercial timber production within the county, and conserve forest lands that have other resource values including recreation, grazing, watershed, and wildlife habitats.

**Policy OS-B.2** The County shall work closely with agencies involved in the management of forest ecosystems and shall coordinate with state and federal agencies, private landowners, and private preservation/ conservation groups in habitat preservation and protection of rare, endangered, threatened, and special concern species, to ensure consistency in efforts and to encourage joint planning and development of areas to be preserved. The County shall encourage state and federal agencies to give notice to and coordinate with the County on any pending, contemplated, or proposed actions affecting local communities and citizens of the County. The County will encourage State and Federal agencies to address adverse impacts on citizens and communities of Fresno County, including environmental, health, safety, private property, and economic impacts.

**Goal OS-F** To preserve and protect the valuable vegetation resources of Fresno County.

**Policy OS-F.5** The County shall establish procedures for identifying and preserving rare, threatened, and endangered plant species that may be adversely affected by public or private development projects. The County shall require, as part of the environmental review process, a biological resources evaluation of the project site by a qualified biologist. The evaluation shall be based on field reconnaissance performed at the appropriate time of year to determine the presence or absence of significant plant resources and/or special-status plant species. Such evaluation shall consider the potential for significant impact on these resources and shall either identify feasible mitigation measures or indicate why mitigation is not feasible.

**Policy OS-F.8** The County should encourage landowners to maintain natural vegetation or plant suitable vegetation along fence lines, drainage and irrigation ditches, and on unused or marginal land for the benefit of wildlife.

#### 4.4.2.2 Habitat Conservation Plan

The Proposed Project is located approximately three miles east of the boundary for the Aera Energy Southwest San Joaquin Valley Habitat Conservation Plan (HCP) and Natural Community Conservation Plan (NCCP), which is currently in the planning stage. This HCP, if approved, would not be applicable to the Proposed Project. There are no adopted NCCPs in Fresno County or in the adjacent Kings County, and no local, regional, or state HCPs that would apply to the Proposed Project.

### 4.4.3 IMPACT QUESTIONS

#### 4.4.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to Biological Resources come from the CEQA, Appendix G (as amended in December 2019), Environmental Checklist. According to the CEQA Checklist, a project may cause a potentially significant impact if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service; or

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service; or

- Have a substantial adverse effect on state or federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means; or

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

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or

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

#### 4.4.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-Filing Proponent's Environmental Assessments* (CPUC, 2019), the following additional CEQA impact question is required for biological resources:

- Would the project create a substantial collision or electrocution risk for birds or bats.

### 4.4.4 IMPACT ANALYSIS

#### 4.4.4.1 Impact Analysis

**Would 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 California Department of Fish and Game or U.S. Fish and Wildlife Service?**

**Less-than-Significant Impact.** The Proposed Project would result in 9.8 acres of permanent impacts (8.46 acres of vineyard and 1.35 acres of disturbed) and 13.69 acres of temporary impacts (11.41 acres of vineyard and 2.28 acres of disturbed). The Applicant would restore all areas (including the borrow area) that are temporarily disturbed by the Proposed Project activities to approximate pre-construction conditions. All areas would be carefully assessed to be sure all residual construction debris and waste is removed and transported off-site to an approved disposal facility. The Applicant would conduct a final inspection to ensure that cleanup activities are successfully completed as required. Areas that are disturbed by grading, auguring, or equipment movement would be restored to their original contours and drainage patterns. Work areas would be recompacted, and salvaged topsoil materials would be re-spread following recontouring to aid in restoration of temporary disturbed areas. Revegetation activities would be conducted in accordance with the Proposed Project SWPPP. Restoration could include recontouring, reseeding, and planting replacement vegetation, as appropriate. Erosion control measures may be required and would also be implemented in accordance with the Proposed Project SWPPP and Applicant Proposed Measures (APMs) recommended herein. After decommissioning and restoration, it is anticipated the Proposed Project site would be used for infrastructure purposes and not anticipated to return to agriculture.

There were only a small number of special-status wildlife species that were determined to have a moderate or high potential to occur within the area of the Proposed Project; the loggerhead shrike (BCC, CSSC), and raptor species (MBTA, CFGC). No special-status plant species were determined to have the potential to occur within the area of the Proposed Project. Species with a low potential to occur within the Survey Area include San Joaquin kit fox (FE, ST), American badger (CSSC), western mastiff bat (CSSC, WBWG-H), Townsends big-eared bat (CSSC, WBWG-H), pallid bat (CSSC, WBWG-H), western red bat (CSSC, WBWG-H), SWHA (BCC, ST), California condor (FE, SE), western burrowing owl (BCC, CSSC), tricolored blackbird (BCC, ST), and white-tailed kite (CFP).

Due to the low quantity of observations of special-status animals at the Proposed Project during surveys conducted in 2019 and 2020 (only red-tailed hawks were observed), the limited number of special-status species that could occur, the small footprint of the Proposed Project in relation to local and global ranges and populations of these species, the highly disturbed agricultural and industrial landscape, and the high level of human activity and disturbance already occurring in the Survey Area and Proposed Project region, impacts to special-status animals would be less than significant. Implementation of the APMs described below would further reduce impacts.

Direct impacts that may be caused by the Proposed Project would come from potential vehicle strikes, entrapment in excavations, collision and electrocution risk from powerlines and other

Proposed Project structures, and permanent loss of approximately 9.8 acres of potentially suitable foraging habitat for loggerhead shrikes, raptors, and other special-status wildlife species with low potential to occur (such as bats). These impacts would be less than significant before implementation of APMs. These potential direct impacts would be avoided or further minimized by implementation of **APMs BIO-1** (speed limit would reduce the potential for vehicle collisions)**, BIO-2** (electrocutions would be minimized by implementation of Avian Power Line Interaction Committee [APLIC] measures on the distribution line)**, BIO-3** (collisions would be minimized by implementation of APLIC measures on the distribution line)**, BIO-4** (nest avoidance buffers would be applied if necessary)**, BIO-5** (active raptor nests would be monitored to avoid disturbance), **BIO-6** (holes or trenches are filled or covered) and **BIO-7** (outdoor lighting would be minimized). The permanent loss of approximately 9.8 acres of potentially suitable foraging habitat is unavoidable. The high quantity of similar habitat (vineyards) in the region would help minimize the potential for impacts to special-status species caused by the loss of this habitat. The number of vehicles during construction would be greater than during operation; very few vehicles would access the Proposed Project site during operation.

Indirect impacts to special-status wildlife species during construction could include decreased suitability of habitat in the vicinity of the Proposed Project caused by factors such as increased noise and light from construction activities and vehicles, as well as increased human activity, which would be minimized by implementation of **APMs BIO-7** (outdoor lighting would be minimized) and **BIO-8** (Workers Environmental Awareness Program [WEAP] training would be given to all workers). Noise from construction can affect avian species in multiple ways, such as depressing breeding success by acoustical masking, interfering with intra-specific communication, and interfering with the detection of predators. Construction could disrupt breeding and foraging, prevent birds from attending to nests, or cause birds to flush from their nests, endangering eggs and chicks. Noise during construction is expected to be short-term in nature and minimal and would be even lower during operations. The active nests that were discovered during SWHA surveys (and any other active nests that may be discovered during pre-construction surveys) would be monitored and avoided per **APMs BIO-4** and **BIO-5**. Night lighting associated with construction may also temporarily affect avian and bat species' roosting and foraging behavior, especially for bat species that are active after dark. These impacts would be minimized by implementation of **APM BIO-7**.

The current level of disturbance and human activity associated with the existing PG&E Gates Substation and agriculture in the area is high. All foreseeable direct and indirect impacts to special-status species would not increase significantly during construction, operations, or decommissioning compared to background levels. The temporary construction period and small-scale nature of the Proposed Project would not significantly increase the levels of disturbance and human activity that may indirectly impact wildlife species. Decommissioning impacts are conservatively estimated to be similar to construction impacts. The level of disturbance associated with long-term operation would be much less than that of the adjacent existing PG&E Gates Substation. There is a large amount of similar habitat in the area (including in the parcels surrounding and north of the Proposed Project) so that the permanent loss of approximately 9.8 acres of potentially suitable foraging habitat for loggerhead shrike, raptors, and other species would be less than significant. The recommended APMs would further reduce any risk of direct and indirect impacts to special-status wildlife species to a level that is less than significant.

**Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?**

**No Impact.** No riparian habitats or other sensitive natural communities are located within the Survey Area for the Proposed Project; therefore, no impacts would occur under this criterion.

**Would the project have a substantial adverse effect on state or federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

**No Impact.** No federal or state protected wetlands are located within the area of the Proposed Project; therefore, no impacts would occur under this criterion.

**Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?**

**Less-Than-Significant Impact.** Significant impacts on wildlife movement could occur if a wildlife movement corridor were to be interrupted by a feature that physically blocks wildlife movement (e.g., a roadway) or if suitable habitat that supports wildlife in the movement corridor were to be directly removed during construction or indirectly affected by construction noise or dust. The small, 9.8 acres of permanent disturbance area at the Proposed Project site is located in a highly disturbed agricultural and industrial area that is generally lacking in sensitive natural communities that support wildlife species or provide wildlife nursery sites and would not interfere with local short-distance wildlife movement and is not located within resident or migratory corridors except the Pacific Flyway, which, as stated above, covers roughly one third of the North American continent.

Several tall (135- to 199-foot) take-off towers or lightning shield mast structures would be installed during construction, as well as numerous 135-foot or shorter structures associated with the STATCOM and switchyard. These structures would be located within close proximity to the existing PG&E Gates Substation, which already contains numerous structures that are as tall or taller. In addition, five existing 500 kV transmission lines currently exit from the north and south of the PG&E Gates Substation. The transmission towers associated with these lines stand between 150 and 200 feet tall. There are also multiple smaller transmission lines (<100 kV and 230 kV) that exit the PG&E Gates Substation in all directions. The existence of these tall substation and transmission structures and lines in the area means that the addition of structures associated with the Proposed Project is unlikely to have an additional impact on migrating birds such as rerouting migration paths. The very small scale of the Proposed Project footprint (~10 acres) would have minimal potential for new impacts to wildlife migration corridors and impacts would be less than significant. Recommended **APMs BIO-1** (speed limit would reduce the potential for vehicle collisions)**, BIO-2** (electrocutions would be minimized by implementation of APLIC measures on the distribution line)**, BIO-3** (collisions would be minimized by implementation of APLIC measures on the distribution line) and **BIO-8** (WEAP training would be given to all workers) would also help to further reduce any potential impacts to migration corridors.

No nursery sites exist in the Survey Area, and none would be impacted by the Proposed Project.

**Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

**No Impact.** Because the CPUC has exclusive jurisdiction over its siting, design, and construction, the Proposed Project is not subject to local land use and zoning regulations or discretionary permits. However, local regulations relating to biological resources were reviewed to ensure that the Proposed Project would not be in conflict with local policies or ordinances protecting biological resources. One of the Fresno County General Plan Open Space Element Goals (Fresno County, 2000) calls for a Biological Resource Evaluation to be prepared by a qualified biologist prior to approval of discretionary development permits to determine potential significant impacts on "significant resources and/or special-status plants or animals." A BRTR was prepared by a qualified biologist for the Proposed Project that satisfies the objectives set forth in the plan. Implementation of the Proposed Project would not conflict with local policies or ordinances relating to biological resources. Therefore, no impacts would occur under this criterion.

**Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?**

**No Impact.** There are no adopted plans applicable to the Proposed Project. The Proposed Project is located approximately three miles to the east of the boundary for the Aera Energy Southwest San Joaquin Valley HCP and NCCP, which is currently in the planning stage and, because of geographic separation, it will not apply to the Proposed Project. There are no adopted NCCPs in Fresno County or in the adjacent Kings County, and no local, regional, or state HCPs that would apply to the Proposed Project. Therefore, no impacts would occur under this criterion.

**Would the project create a substantial collision or electrocution risk for birds or bats?**

**Less-than-Significant Impact.** Direct risks to bird and bat species could include collision and electrocution associated with the short distribution power line and STATCOM. Impacts would be less than significant because the distribution line is very short and dimensions of the equipment at the STATCOM are generally large enough that there is no risk of electrocution. Potential impacts during construction, operation, and decommissioning activities would be further reduced or avoided by implementation of **APMs BIO-2** (electrocutions would be minimized by implementation of APLIC measures on the distribution line) and **BIO-3** (collisions would be minimized by implementation of APLIC measures on the distribution line). The adjacent PG&E Gates Substation and associated transmission lines include many tall structures with transmission lines that already present a risk for collision and electrocution, but resident birds and bats have likely grown accustomed to these obstructions. The Proposed Project would not add a significant number of structures to the immediate area, and these would be designed to minimize the potential for collision and electrocution risk.

### 4.4.5 CPUC DRAFT ENVIRONMENTAL MEASURES

There are no CPUC Draft Environmental Measures suggested for Biological Resources.

### 4.4.6 APPLICANT PROPOSED MEASURES

The following Biological Resources specific APMs would be implemented on the Proposed Project.

**APM BIO-1**

Speed of vehicles driving along proposed access roads and on the Proposed Project site during construction and O&M would be limited to 15 mph. In addition, construction and maintenance employees would be advised that care should be exercised when commuting to and from the Proposed Project area to reduce accidents and animal road mortality.

**APM BIO-2**

Conductors and ground wires would be spaced sufficiently apart so that raptors cannot contact two conductors or one conductor and a ground wire causing electrocution (APLIC, 2006), or raptor protection would be installed subject to PG&E consent for application of such measures to its components of the Proposed Project, such as distribution lines.

**APM BIO-3**

Appropriate methods to reduce the risks of avian collisions would be incorporated into the Proposed Project's design (APLIC, 2012), subject to PG&E consent for application of such measures to its components of the Proposed Project, such as distribution lines.

**APM BIO-4**

If feasible, the Applicant would avoid construction during the migratory bird nesting or breeding season. When it is not feasible to avoid construction during the nesting or breeding season, the Applicant would perform a survey in the area where the work is to occur. This survey would be performed to determine the presence or absence of nesting birds. If an active nest (i.e., containing eggs or young) is identified, a suitable construction buffer would be implemented to ensure that the nesting or breeding activities are not substantially adversely affected. If the nesting or breeding activities are being conducted by a federal- or state-listed species, the Applicant would consult with the USFWS and CDFW as necessary. Monitoring of the nest would continue until the birds have fledged or construction is no longer occurring on the site. If an inactive nest is identified, careful nest removal under the supervision and direction of qualified biologists would occur wherever feasible.

**APM BIO-5**

If a raptor nest is observed during pre-construction surveys, a qualified biologist would determine if it is active. If the nest is determined to be active, the biological monitor would monitor the nest to ensure that nesting or breeding activities are not substantially adversely affected. If the biological monitor determines that activities associated with the Proposed Project are disturbing or disrupting nesting or breeding activities, the monitor would make recommendations to reduce noise or disturbance in the vicinity of the nest.

**APM BIO-6**

All excavated holes or trenches that are not be filled at the end of a workday would be covered, or a wildlife escape ramp would be installed to prevent the inadvertent entrapment of wildlife species.

**APM BIO-7**

The use of outdoor lighting during construction and O&M would be minimized whenever practicable.

**APM BIO-8**

A WEAP would be implemented to educate all construction and O&M workers on site-specific biological and non-biological resources and proper work practices to avoid harming wildlife during construction or O&M activities.

## 4.5 CULTURAL RESOURCES

| Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Cause a substantial adverse change in the significance of a historical resources pursuant to §15064.5? | | | | X |
| b. | Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | | | X | |
| c. | Disturb any human remains, including those interred outside of dedicated cemeteries? | | | X | |

This section describes the Cultural Resources within the vicinity of the Proposed Project, as well as potential impacts resulting from construction and operation and maintenance (O&M) of the Proposed Project.

### 4.5.1 ENVIRONMENTAL SETTING

The Proposed Project is located within an unincorporated area of Fresno County directly north of, and adjacent to, the Pacific Gas and Electric (PG&E) owned Gates Substation. The Proposed Project is located approximately 3.3 miles southwest of the city of Huron. The land to the north, east, and west of the Proposed Project site is primarily used for agricultural purposes with no development, and the existing PG&E Gates Substation is located to the south.

#### Area of Potential Effects

Pursuant to 36 Code of Federal Regulations [CFR] 800.4(a) (1), an Area of Potential Effects (APE) is the geographic area within which an undertaking may directly or indirectly alter the character or use of historic properties eligible for listing on the National Register of Historic Places (NRHP).

#### Survey Area

The Survey Area consists of the APE as well as a buffer of approximately 15 meters. The buffer is included during the pedestrian survey to account for resources that are outside but adjacent to the APE that may be impacted by Proposed Project activities.

#### Record Search Area

The Record Search Area consists of the APE plus a buffer of one mile. The buffer is included during background research to identify any previous studies or previously recorded historic or archaeological resources in the wider project area.

#### 4.5.1.1 Cultural Resource Reports

The Cultural Resources Technical Report (Mengers, 2020) is included in **Appendix 4.5-A**. The confidential version of this appendix was submitted separately to California Public Utilities Commission (CPUC) staff under Public Utilities Code Section 583.

#### 4.5.1.2 Cultural Resources Summary

Background research included a record search review, historic map review, geoarchaeological assessment, Sacred Lands File (SLF) search, and Native American tribal outreach. The record search and SLF search were negative for resources within the Proposed Project APE. The geoarchaeological assessment indicates a moderate likelihood of prehistoric subsurface resources. Tribal outreach indicates a likelihood of ethnohistoric subsurface resources.

No archaeological resources were located during the surface survey, conducted on May 18, 2019. The entirety of the survey area is an old-vine vineyard and adjacent dirt roads. Ground visibility throughout the survey area was excellent. There are no known cultural resources in the APE.

**Methods**

Information on the character and location of cultural resources at the Proposed Project site and local vicinity was compiled from background and archival research at the California Historical Resources Information System (CHRIS) through the Southern San Joaquin Valley Information Center (SSJVIC). The Native American Heritage Commission (NAHC) and interested Native American individuals also were contacted. The research and Native American outreach were supplemented by an intensive survey of the Proposed Project site. The information was then used to evaluate the Proposed Project against the California Environmental Quality Act (CEQA), Appendix G Environmental Checklist (as amended in December 2019) significance criteria to determine potential impacts.

**Records Search and Historical Research**

A record search was conducted to determine if any historic properties or archaeological resources listed or potentially eligible for listing on the National Register of Historic Places (NRHP) or California Register of Historic Resources (CRHR) were present within or immediately adjacent to the APE. The record search request was submitted by Digtech to the SSJVIC. That request was fulfilled by the SSJVIC on May 13, 2019.

Materials consulted by the SSJVIC included prehistoric and historic archaeological resource and report databases, California Office of Historic Preservation (OHP) Historic Properties Directory, NRHP, CRHR, California Historical Landmark, California Historical Points of Interest, California Inventory of Historic Resources, and Archaeological Determinations of Eligibility. The record search area included a one-mile buffer of the APE.

Historical maps were consulted of the record search area, including the original survey plat map of 1855 (Bureau of Land Management, 2020), historical topographic maps (US Geological Survey [USGS] 1:125,000 Coalinga 1912; USGS 1:62,500 Guijarral Hills 1933, 1936, and 1937, Huron 1933 and 1937, and Polvadero Gap 1942; USGS 1:24,000 Guijarral Hills 1956 and 1971 and

Huron 1956 and 1971) (USGS, 2020), and historic aerial photographs (1963, 1969, 1994, 2005, 2009, 2010, and 2012) (NETROnline, 2020).

**Buried Site Sensitivity**

Geoarchaeological assessments for nearby projects were consulted (Kaijankoski, 2010). These included surface soil assessments and rated the *archaeological sensitivity*, or potential to support the presence of buried prehistoric archaeological deposits, of the area based on geologic unit and environmental parameters such as distance to water and landform slope.

**Archaeological Survey**

The survey area included of the Proposed Project site (20 acres), plus the remainder of the surrounding parcel (72 acres), plus a buffer for a total of approximately 98 acres. The survey plan entailed 5-10 meter transects depending on ground visibility and accessibility. Previously unrecorded resources encountered would be recorded on digital DPR 523 site forms, and their locations recorded using a handheld device running Environmental System Research Institute (ESRI) Arc Collector software. Wildnote software was used for recording field notes, and digital photographs were taken with an iPhone X 12-megapixel camera. No cultural materials were collected during the surface survey. Photographs and field notes are held by the cultural resource management firm that conducted the survey.

**Native American Coordination**

A SLF search request of the Proposed Project area was submitted to the NAHC on June 30, 2020. The SLF Search was returned by the NAHC with negative results on July 1, 2020 (**Appendix 4.18-A**). The NAHC provided a list of Native American contacts who may be able to supply information pertinent to the Proposed Project area (**Appendix 4.18-B**). Each of the 13 individuals listed were contacted by mail or email sent on July 2, 2020. A sample letter is attached (**Appendix 4.18-C**).

**Cultural Setting**

The Proposed Project is located at the western edge of the San Joaquin Valley at the base of the eastern foothills of the Diablo Range. It is located within the Tulare Lake Basin watershed, a component of the San Francisco Bay Delta watershed. Major rivers in the watershed, including the Kings, Tule, and Kern Rivers, come out of the Sierra Nevada Mountains. Drainages on the west side of the San Joaquin Valley are small and widely dispersed compared to those on the Sierra slopes. The Proposed Project site and surrounding parcel are currently in use for agricultural production, including mature vineyards and row crops surrounded by dirt roads.

***Prehistory***

Most Late Pleistocene landscapes in the San Joaquin Valley have been destroyed or buried by Holocene-epoch erosion and deposition, while most surface sites, including village mounds, have been obliterated by erosion and agricultural development. Thus, very few archaeological sites exist throughout the Central Valley prior to 2,500 Before the Common Era (BCE) and the cultural-

historical framework, especially in the southern San Joaquin Valley, is poorly defined (Rosenthal et al., 2010).

### *Paleo-Indian Period (11,550-8,550 BCE)*

Investigation within remaining Pleistocene deposits in the southern San Joaquin Valley indicates occupation dates between 11,550 BCE-9,550 BCE, based on a large cache of Clovis-like concave base projectile points in the Tulare Lake basin (Rosenthal et al., 2010).

### *Lower Archaic Period (8,550-5,550 BCE)*

Archaeological sites in the San Joaquin Valley are extremely limited in this period due to significant alluvial depositions circa 9050 BCE and 5550 BCE; however, stone tool assemblages from the Tulare Lake basin resemble those from the Great Basin area (Rosenthal et al., 2010).

### *Middle Archaic Period (5,550-550 BCE)*

A warmer and drier climate during this period led to lake desiccation in the San Joaquin Valley while rising sea levels created the Sacramento-San Joaquin delta to the north. Distinct foothill and valley settlement-subsistence patterns are evidenced, as are stable, year-round residence along rivers and well-established trade networks. The Windmiller Pattern of oriented and extended burials likely developed in this period, possibly in the San Joaquin Valley (Rosenthal et al., 2010). Intensification of subsistence practices is indicated by new fishing technologies, increased groundstone use, and expansion of manufacturing industries.

### *Upper Archaic Period (550 BCE-AD 1100)*

A cooler, wetter, and more stable environment during this period led to the return of lakes in the San Joaquin Valley. Village mounds appear in the Delta region after 700 BCE, while Windmiller descendants are evident in the San Joaquin Valley through the end of the period. A sharp population increase throughout the Central Valley after 500 BCE was accompanied by more reliance on fishing, acorn processing, and soft technology. Southern San Joaquin Valley sites are rare, although they indicate year-round villages and aquatic and terrestrial resource exploitation (Rosenthal et al., 2010).

### *Emergent Period (AD 1100-Historic)*

Evidence exists for continued increase of population and social complexity across the Central Valley during this period, including a transition to cremation, decentralization of production, and development of a monetized system of exchange. Villages expanded along foothill streams, valleys, rivers, and sloughs. While there is little direct evidence of plant use in the San Joaquin Valley, mortars and pestles were common elsewhere in the Central Valley after 1000 AD, and fish- and plant-based subsistence strategies dominated. This period saw the introduction of bows and arrows and pottery to the region, especially in the eastern foothills. At the time of European contact, 15 tribal groups, collectively referred to as Yokuts, occupied the southern San Joaquin Valley (Wallace, 1978).

### *Ethnography*

The southern San Joaquin Valley and lower foothills were inhabited by Yokuts tribes that were linguistically related to the California Penutian language family of central and coastal California (Silverstein, 1978). The Southern Valley Yokuts' homeland stretched from present-day Fresno to south of Bakersfield and encompassed Tulare, Buena Vista, and Kern Lakes and the surrounding sloughs and marshes. Southern Valley Yokuts' lifeways were closely linked to the lake/slough/marsh environmental setting.

Subsistence was centered on fish, primarily lake trout and anadromous fish. Nets strung between tule rafts and shore poles were employed, as well as hand nets, basket traps, and spears. Fish were generally broiled on hot coals or sun dried. Reliance on game was low, although roasted turtles were favored, and snares and nets were used to catch waterfowl. Plant foods included ground tule roots and seeds, as well as grassnut roots and clover. Acorns were acquired by trading fish with tribes farther east. Single-family huts, granaries, and sweathouses were constructed of tule mats over wood frames. Tule was also used for baskets and other crafts, including watercraft (Silverstein, 1978).

Social organization was based on the biological family, patrilineal totemic lineages, and exogamous totemic lineage, and was divided into moieties for rituals and games. Significant life-cycle rituals included birth, puberty, marriage, and death; group rituals included an annual six-day festival honoring the dead, first-fruit rites, and a springtime Datura rite. No political unity existed between tribes; instead, they were organized into self-governing miniature tribes of about 350 people, each with a different dialect. Tribal land, covering on average about 250 square miles, was owned collectively; any member could use its resources. Population of the Southern Valley Yokuts at European contact is estimated at 15,000. Most tribes were spread across several settlements, with one dominant larger village (Wallace, 1978).

The plains and foothills of the west side of the San Joaquin Valley were occupied by several Southern Valley Yokuts tribes, the largest of which was the Tache. The Tache wintered at the village of Poza Chaná, five miles southwest of present-day Huron (3.5 miles northwest of the Proposed Project site). Poza Chaná functioned as a trading village, where tribes from the coast would come inland to trade shell beads and other ocean resources for obsidian, soapstone beads, and seeds (Breschini and Haversat 1987). According to confidential tribal knowledge provided by the Dumna Wo-Wah Tribal Government, the Proposed Project area was historically used for habitation, resource collection, and ceremonial purposes (Ledger, 2020).

### *History*

#### *Spanish Period (1772–1822)*

The earliest recorded European entry into the southern San Joaquin Valley was the Pedro Fages expedition of 1772. The Francisco Garcés expedition of 1776 terminated approximately 20 miles north of present-day Bakersfield. The 1806 Gabriel Moraga-Fr. Pedro Muñoz expedition reached the Tule River and the Koyeti village of Chokowesho, near present-day Porterville. Records of contact with and impact on Native Americans are minimal from this period; no ranchos were established in the San Joaquin Valley. However, almost all the Yokuts along the plains and foothills of the west side of the San Joaquin Valley had been taken to the Spanish missions on

the Pacific coast (Breschini and Haversat, 1987). The region was used a rendezvous point for neophytes fleeing the Mission system, which resulted in the transmission of some foreign native and European culture and physiological threats to the area.

### *Mexican Period (1822–1848)*

Most European activity in the region during the Mexican period consisted of punitive expeditions to recover or acquire livestock, thieves, or slaves. Expeditions by fur trappers, traders, and explorers during this period included those led by Jedidiah Smith (1827), Kit Carson (1830) and John Fremont (1844). European influence during this period increased, as evidenced by the 1833 malaria epidemic which exterminated most remaining Yokuts west of the San Joaquin River (Breschini and Haversat, 1987).

### *American Period (1848–Present)*

The San Joaquin Valley was on the primary wagon route from the eastern United States to the California gold fields farther north in the Sierra Nevada foothills. Settlement in the region during the early American period primarily consisted of removal by force of Native Americans and the construction of trading posts and ferries at river crossings along the Los Angeles-Stockton road, most of which were established by 1850. Remaining Native Americans were removed to reservations, including the Sebastian (Tejon) Indian Reservation (1853-1864) and the Fresno River Farm (1854-1860).

Many towns through the San Joaquin Valley were established by the Southern Pacific Railroad (SPRR) in the 1870s and 1880s as the southern trans-continental railroad was constructed down the valley from San Francisco to Tehachapi Pass. For larger towns, such as Merced, Modesto, and Fresno, the SPRR constructed the rail infrastructure, and their holding company built civic improvements and sold lots. Small towns, including Coalinga and Huron closer to the Proposed Project site, began as coaling or watering stations along the SPRR line (Orsi, 2005). By the early 20th century, some of these towns developed economies distinct from the railroad, including oil extraction at Coalinga and wool production at Huron.

Agriculture in the San Joaquin Valley began early in the American period, encouraged by an 1857 drainage and reclamation law. By 1900, much of the surface-water flow in the Valley had been diverted for agricultural use. SPRR land grant and settlement policies favored the development of small family farms (Orsi, 2005). Large tracts of land were also used for cattle ranching, especially by the Miller and Lux Company, an early corporate farming entity. The Central Valley Project, beginning in the 1930s, constructed an immense system of dams, canals, and aqueducts throughout the San Joaquin Valley. It pushed out many small farmers, which were replaced by large-scale corporate farms employing massive numbers of agricultural laborers, including many immigrants and refugees from the Dust Bowl. Large-scale commercial agriculture remained the main industry in the San Joaquin Valley through the 20th century, producing most of the agricultural production in California.

### Records Search and Historical Research

The SSJVIC record search indicated that no portion of the APE has been subjected to an intensive pedestrian survey within the past five years. Earlier surveys of the APE were conducted in 1977

(FR-00433, ~10% coverage) and 2001 (FR-02015, ~10% coverage). An additional nine reports were identified outside of the APE but within the one-mile search buffer (**Appendix 4.5-A).**

The record search identified one resource within the APE, a historic-era built environment resource detailed below (P-10-006610). One additional resource is located outside of the APE but within the one-mile search buffer. This resource (P-10-006640), a historic-era electrical transmission line, is approximately 200 meters southeast of the APE.

P-10-006610: Originally recorded in 2015 by Applied EarthWorks as part of the Central Valley Power Connect Project, this resource is the PG&E Gates-Panoche transmission line, constructed in the late 1940s (**Appendix 4.5-A,** *Confidential Version)*. It consists of two sets of 230kV three-phase conductors (No. 1 & No. 2) supported by 100-foot-high double circuit steel lattice towers and runs from the PG&E Gates Substation 43.2 miles northwest to the Panoche Substation. The resource was evaluated in 2015 and was determined not eligible for listing on the NRHP or CRHR (Asselin et al., 2015).

The review of historic maps agrees with the development history of the west side of Fresno County. On the 1855 survey map, nothing is shown in the Proposed Project area. The nearest feature is a wagon road segment approximately 3.5 miles to the northeast. The 1912 map shows no roads or structures in the Proposed Project area. Maps from the 1930s show paved Jayne Avenue south of the APE, as well as dirt roads running diagonally across the parcel surrounding the APE, though no structures. The 1942 map shows four structures approximately 0.5 mile to the east of the Proposed Project area. The 1950s maps show these same structures, now labelled Sommerville Farms, with adjacent grain tanks and nearby wells and oil tanks; the PG&E Gates Substation to the south of the APE; and transmission lines crossing the Proposed Project APE, including the Gates-Panoche line and a line running north along Trinity Avenue. The 1970s maps show an expanded PG&E Gates Substation and additional transmission lines. At no point are any structures shown within the APE.

**Buried Site Sensitivity**

The *archaeological sensitivity* assessment was conducted in 2010 and found that the Proposed Project area lies on the middle part of the Coalinga fan, one of the largest alluvial fans emitting from the western foothills in this portion of the San Joaquin Valley (Kaijankoski, 2010). Los Gatos Creek, a seasonal creek, is the principal drainage for the fan and is located 3.2 miles northwest of the Proposed Project area. While surface soils in the Proposed Project area are young enough to overlie older prehistoric archaeological sites, the report concluded that without a nearby source of fresh water, it is unlikely the Proposed Project area attracted any prolonged human use or settlement, and that *archaeological sensitivity* is, therefore, rated Moderate.

**Archaeological Survey**

The surface survey was conducted on May 18, 2019 by Digtech Principal Investigator Chris Webster, M.S., RPA. No contact was made in the field with any landowners or other personnel, and there were no problems with access to the Proposed Project area. The entirety of the survey area is an old-vine vineyard. The northern, eastern, and southern boundaries of the survey area are wide dirt roads, while the western boundary runs through the vineyard following the rows of

vines. There is no portion of the APE that is not plowed and/or heavily disturbed. Ground visibility was excellent throughout the survey area.

No archaeological resources were located during the surface survey. One existing historical built-environment resource (P-10-006610) crosses the southwest portion of the parcel but is outside the Proposed Project footprint. This resource, the PG&E Gates-Panoche transmission line, was evaluated in 2015 and determined ineligible for listing on the NRHP and CRHR (Asselin, et al., 2015). The resource appeared as recorded. No cultural materials were collected during the surface survey. Survey notes and photographs are maintained by Digital Technologies in Archaeological Consulting, LLC, in their Reno, Nevada office.

**Native American Coordination**

To date, three contacts have responded to outreach efforts as described in **Section 4.18** *Tribal Cultural Resources*. On July 2, 2020, Big Sandy Rancheria Tribal Chairperson Elizabeth D. Kipp wrote that they have no comment on the Proposed Project but would like to be notified of any cultural discoveries. On July 8, 2020, Dumna Wo-Wah Tribal Government Chairman Robert G. Ledger, Sr. replied by email and provided confidential tribal knowledge that indicates a high likelihood of buried artifacts in the Proposed Project area, that they would like a monitor on site during ground disturbing activities, and that they would like to participate in official consultation regarding the Proposed Project. The details of Chairman Ledger's confidential tribal information are on file. On July 29, 2020, Tribal Liaison Dirk Charley said that the Proposed Project is outside the area of interest of the Dunlap Band of Mono Indians, and they defer to a closer tribe.

#### 4.5.1.3 Cultural Resource Survey Boundaries

The APE consists of the Proposed Project site of approximately 20 acres, as well as the remainder of the 72-acre parcel surrounding the Proposed Project site. The study area consists of the APE and a buffer around it which totals approximately 98 acres. See **Figure 4.5-1**, *Cultural Resources Survey Boundaries*.

### 4.5.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project. Section 106 of the National Historic Preservation Act (NHPA) does not apply to the Proposed Project because no federal agency discretionary action is required, and no federal lands or monies are involved.

#### 4.5.2.1 Regulatory Setting

**Federal**

There are no applicable federal regulations for cultural resources that apply to the Proposed Project.

## State

### *California Health and Safety Code and Public Resources Code*

Broad provisions for the protection of Native American cultural resources are contained in the California Health and Safety Code, Division 7, Part 2, Chapter 5 (Sections 8010 through 8030).

Several provisions of the Public Resources Code (PRC) also govern archaeological finds of human remains and associated objects. Procedures are detailed under PRC Section 5097.98 through 5097.996 for actions to be taken whenever Native American remains are discovered. Furthermore, Section 7050.5 of the California Health and Safety Code states that any person who knowingly mutilates or disinters, wantonly disturbs, or willfully removes human remains in or from any location other than a dedicated cemetery without authority of law is guilty of a misdemeanor, except as provided in PRC Section 5097.99. Any person removing human remains without authority of law or written permission of the person or persons having the right to control the remains under PRC Section 7100 has committed a public offense that is punishable by imprisonment.

PRC Chapter 1.7, Section 5097.5/5097.9 (Stats. 1965, c. 1136, p. 2792), entitled Archaeological, Paleontological, and Historical Sites, defines any unauthorized disturbance or removal of a fossil site or remains on public land as a misdemeanor. A person shall not knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands.

### *Assembly Bill 52*

Assembly Bill 52 (AB 52) established that Tribal Cultural Resources (TCR) must be considered under CEQA and also provided for additional Native American consultation requirements for the lead agency. A TCR is a site, feature, place, cultural landscape, sacred place, or object that is considered of cultural value to a California Native American Tribe. A TCR is either:

- On the CRHR or a local historic register;
- Eligible for the CRHR or a local historic register; or
- The lead agency determines that the resource meets the register criteria.

A project that has potential to impact a TCR such that it would cause a substantial adverse change constitutes a significant effect on the environment unless mitigation reduces such effects to a less-than-significant level. On July 30, 2016, the California Natural Resources Agency adopted the final text for tribal cultural resources update to Appendix G of the CEQA Guidelines, which was approved by the Office of Administrative Law on September 27, 2016.

AB 52 amended California PRC Section 5097.94, and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3.

PRC Section 21080.3.1 requires that within 14 days of a lead agency determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency provide formal notification to the designated contact or a tribal representative of California Native American Tribes that are traditionally and culturally affiliated with the geographic area of the project (as defined in PRC Section 21073) and who have requested in writing to be informed by the lead agency (PRC Section 21080.3.1(b)). Tribes interested in consultation must respond in writing within 30 days from receipt of the lead agency's formal notification and the lead agency must begin consultation within 30 days of receiving the tribe's request for consultation (PRC Sections 21080.3.1(d) and 21080.3.1(e)).

PRC Section 21080.3.2(a) identifies the following as potential consultation discussion topics: the type of environmental review necessary; the significance of tribal cultural resources; the significance of the project's impacts on the tribal cultural resources; project alternatives or appropriate measures for preservation; and mitigation measures. Consultation is considered concluded when either: (1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or (2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached (PRC Section 21080.3.2(b)).

If a California Native American tribe has requested consultation pursuant to Section 21080.3.1 and has failed to provide comments to the lead agency, or otherwise failed to engage in the consultation process, or if the lead agency has complied with Section 21080.3.1(d) and the California Native American tribe has failed to request consultation within 30 days, the lead agency may certify an Environmental Impact Report (EIR) or adopt a Mitigated Negative Declaration (MND) (PRC Section 21082.3(d)(2) and (3)).

PRC Section 21082.3(c)(1) states that any information, including, but not limited to, the location, description, and use of the tribal cultural resources, that is submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public without the prior consent of the tribe that provided the information. If the lead agency publishes any information submitted by a California Native American tribe during the consultation or environmental review process, that information shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public.

### Local

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order 131-D (GO 131-D), Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters" (CPUC, 1995). Consequently, public utilities are directed to consider local regulations and consult with local agencies, but county regulations are not applicable as Fresno County does not have jurisdiction over the Proposed Project. Because the CPUC has exclusive jurisdiction over the Proposed Project siting, design, and construction, the Proposed Project is not subject to local land

use and zoning regulations or discretionary permits. This section identifies local land use plans and regulations for informational purposes and to assist with California Environmental Quality Act (CEQA) review. Although LS Power Grid California, LLC (LSPGC) is not subject to local discretionary permitting, ministerial permits would be secured as required.

**Fresno County Code of Ordinances**

Pursuant to Fresno County Code of Ordinances § 816.2-D.i, Public Utility Facilities are permitted uses within Exclusive Agriculture (AE) Districts, subject to approval of a conditional use permit by the Fresno County Director of Public Works and Planning. However, the CPUC has preemptive power under the California Constitution (Article XII, Section 8) over local jurisdictions with respect to regulation of investor-owned public utilities and electric utility siting. The CPUC, therefore has ultimate decision-making authority over land use decisions for the Proposed Project.

***Fresno County General Plan***

The following relevant Cultural Resources goals and policies from the Fresno County General Plan were reviewed, and the following summaries are provided for informational purposes.

**Goal OS-J** To identify, protect, and enhance Fresno County's important historical, archeological, paleontological, geological, and cultural sites and their contributing environment.

**Policy OS-J.1** The County shall require that discretionary development projects, as part of any required CEQA review, identify and protect important historical, archeological, paleontological, and cultural sites and their contributing environment from damage, destruction, and abuse to the maximum extent feasible. Project-level mitigation shall include accurate site surveys, consideration of project alternatives to preserve archeological and historic resources, and provision for resource recovery and preservation when displacement is unavoidable.

**Policy OS-J.2** The County shall, within the limits of its authority and responsibility, maintain confidentiality regarding the locations of archeological sites in order to preserve and protect these resources from vandalism and the unauthorized removal of artifacts.

### 4.5.3 Impact Questions

#### 4.5.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to Cultural Resources come from the CEQA Appendix G, Environmental Checklist (as amended in December 2019). According to the CEQA Environmental Checklist, a project may cause a potentially significant impact if it would:

- Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5; or

- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5; or

- Disturb any human remains, including those interred outside of dedicated cemeteries.

#### 4.5.3.2 Additional CEQA Impact Questions

Pursuant to CPUC's *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-Filing Proponent's Environmental Assessments* (2019), there are no additional CEQA Impact Questions required for Cultural Resources.

### 4.5.4 IMPACT ANALYSIS

#### 4.5.4.1 Impact Anaysis

**Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?**

**No Impact.** As there are no known historical resources, as defined in Section 15064.5, within the APE. Therefore, no impacts would occur under this criterion.

**Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?**

**Less-Than-Significant Impact.** There are no known archaeological resources within the APE, so there would be no impact to known archeological resources. However, there may be unrecorded subsurface prehistoric remains, as indicated by the "moderate" result of the archaeological sensitivity study (Kaijankoski, 2010). There may also be previously recorded ethnohistoric era remains within the Proposed Project APE based on tribal knowledge provided (Ledger, 2020). The Proposed Project would entail excavation that may encounter archaeological remains. Applicant Proposed Measure (**APM) CUL-1** (Development and Implementation of a Worker Environmental Awareness Program), **APM CUL-3** (Archaeological and Native American Monitoring), and **APM CUL-4** (Unanticipated Discovery of Potentially Significant Prehistoric and Historic Resources) would reduce impacts to less than significant if previously unidentified cultural resources are encountered during construction. **APM CUL-2** (Cultural Resources Inventory) would reduce impacts to less than significant if the Proposed Project APE is expanded or adjusted.

#### 4.5.4.2 Human Remains

**Would the project disturb any human remains, including those interred outside of dedicated cemeteries?**

**Less-Than-Significant Impact.** There are no known graves in the Proposed Project area. The likelihood of encountering unanticipated subsurface human remains during the Proposed Project construction is low based on the survey that was conducted. However, based on confidential tribal knowledge provided during background research, unrecorded human remains may be present within the APE (Ledger, 2020). If encountered, **APM CUL-3** (Archaeological and Native American

Monitoring) and **APM CUL-5** (Unanticipated Discovery of Human Remains) would ensure that impacts to human remains are reduced to less than significant.

### 4.5.5 CPUC DRAFT ENVIRONMENTAL MEASURES

The CPUC recommends a Draft Environmental Measure for Cultural Resources associated with the discovery of human remains. The recommended APM has been included in **Section 4.5.6**, *Applicant Proposed Measures* as **APM CUL-5** (Unanticipated Discovery of Human Remains).

### 4.5.6 APPLICANT PROPOSED MEASURES

The following cultural resource specific APMs would be implemented on the Proposed Project.

**APM CUL-1**

LSPGC would design and implement a Worker Environmental Awareness Program (WEAP) that would be provided to all Proposed Project personnel who may encounter and/or alter historical resources or unique archaeological properties, including construction supervisors and field personnel. The WEAP would be submitted and approved by the CPUC prior to construction. No construction worker would be involved in ground disturbing activities without having participated in the WEAP. The WEAP would include, at a minimum:

- Training on how to identify potential cultural resources and human remains during the construction process;
- A review of applicable local, state and federal ordinances, laws and regulations pertaining to historic preservation;
- A discussion of procedures to be followed in the event that unanticipated cultural resources are discovered during implementation of the Proposed Project;
- A discussion of disciplinary and other actions that could be taken against persons violating historic preservation laws and LSPGC policies; and
- A statement by the construction company or applicable employer agreeing to abide by the WEAP, LSPGC policies and other applicable laws and regulations.

The WEAP may be conducted in concert with other environmental or safety awareness and education programs for the Proposed Project, provided that the program elements pertaining to cultural resources are provided by a qualified archaeologist.

**APM CUL-2**

If proposed facilities and ground-disturbing activities move outside the previously surveyed footprint, those areas would be subjected to a cultural resources inventory to ensure that any newly identified cultural resources are avoided by ground disturbing activities.

**APM CUL-3**

If subsurface prehistoric or ethnohistoric resources are encountered during construction, archaeological and Native American monitoring is recommended during all excavation associated with the Proposed Project. A qualified archaeologist and a member of the Dumna Wo-Wah Tribal Government shall be retained by LSPGC to monitor excavation associated with the Proposed Project to ensure that there is no impact to any significant unanticipated cultural resource. Prior to construction, LSPGC would consult with a designated representative of the Dumna Wo-Wah Tribal Government on the appropriate course of action to be taken should unanticipated cultural materials, and specifically human remains, be discovered during construction.

**APM CUL-4**

In the event that previously unidentified cultural resources are uncovered during implementation of the Proposed Project, all work within 100 feet (30 meters) of the discovery would be halted and redirected to another location. LSPGC's qualified archaeologist would inspect the discovery and determine whether further investigation is required. If the discovery can be avoided and no further impacts would occur, the resource would be documented on State of California Department of Parks and Recreation cultural resource records and no further effort would be required. If the resource cannot be avoided and may be subject to further impact, LSPGC would evaluate the significance and CRHR eligibility of the resources and, in consultation with the CPUC, determine appropriate treatment measures. Preservation in place shall be the preferred means to avoid impacts to significant historical resources. Consistent with CEQA Section 15126.4(b)(3), if it is demonstrated that resources cannot feasibly be avoided, LSPGC's qualified archaeologist, in consultation with the CPUC and, if the unearthed resource is prehistoric or Native American in nature, the Native American monitor, shall develop additional treatment measures, such as data recovery consistent with CEQA Guidelines 15126.4(b)(3)(C)-(D). Archaeological materials recovered during any investigation shall be curated at an accredited curation facility.

**APM CUL-5**

Avoidance and protection of inadvertent discoveries that contain human remains shall be the preferred protection strategy where feasible and otherwise managed pursuant to the standards of CEQA Guidelines 15064.5(d) and (e). If human remains are discovered during construction or O&M activities, all work shall be diverted from the area of the discovery, and the CPUC shall be informed immediately. The Applicant shall contact the County Coroner to determine whether or not the remains are Native American. If the remains are determined to be Native American, the Coroner would contact the NAHC. The NAHC would then identify the person or persons it believes to be the most likely descendant of the deceased Native American, who in turn would make recommendations for the appropriate means of treating the human remains and any associated funerary objects. No part of the Proposed Project is located on federal land.

## 4.6 ENERGY

| Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? | | | X | |
| b. | Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? | | | | X |
| c. | Add capacity for the purpose of serving a non-renewable energy source? | | | | X |

This section describes the Energy resources within the vicinity of the Proposed Project, as well as the potential impacts that could result from construction and operation and maintenance (O&M) of the Proposed Project.

### 4.6.1 ENVIRONMENTAL SETTING

The Proposed Project is located within an unincorporated area of Fresno County directly north of, and adjacent to, the Pacific Gas and Electric (PG&E) owned Gates Substation. The Proposed Project is located approximately 3.3 miles southwest of the city of Huron. The lands to the north, east, and west of the Proposed Project site are primarily used for agricultural purposes with no development, and the existing PG&E Gates Substation is located to the south.

The PG&E Gates Substation is an integral part of the Central Valley 500 kilovolt (kV) transmission system importing and exporting hydro- and natural gas-generated electricity to other substations in the region (California Independent Service Operator [CAISO], 2019). The Proposed Project facility would support the regional transmission system by providing voltage support and grid stability. The Proposed Project would provide reliable operation of the extra high voltage transmission system buses in the electrical proximity of the PG&E Gates 500 kV Substation after the retirement of the Diablo Canyon nuclear generating units.

O&M of the existing PG&E Gates Substation requires little or no use of energy and instead serves as a means to deliver energy. The existing PG&E Gates Substation is unmanned and remotely controlled with workers being on-site for required inspections or as needed in emergency situations. Similarly, the Proposed Project facilities would also be unmanned and remotely controlled and would require little use of energy.

#### 4.6.1.1 Existing Energy Use

The Proposed Project site has limited existing energy use. It is currently an active agricultural site and the only energy usage is associated with agricultural equipment, farm worker vehicles, and irrigation of the existing vineyards.

#### 4.6.1.2 Local and Regional Energy Use

Diesel and regular unleaded gasoline are utilized within Fresno County and across all parts of the PG&E service territory. Regular unleaded gasoline is typically used to fuel passenger cars and small trucks whereas diesel fuel is used in large trucks and construction equipment. Estimated Fresno County gasoline sales in 2019 totaled 376 million gallons and estimated diesel fuel sales totaled 49 million gallons (CEC, 2020).

Based on the requirements of Senate Bill (SB) 100 (State of California, 2018) utility providers are required to have 60 percent of their energy portfolio supplied by renewable energy sources by 2030. As of 2018, PG&E had achieved an approximately 39 percent renewable portfolio. Given this, PG&E's renewable portfolio for 2023 (the Proposed Project in-service year) is estimated to be 47.8 percent. The ratio of renewable energy would be expected in increase each year until reaching 60 percent by 2030 as required by California's Renewable Portfolio Standard (RPS).

### 4.6.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

#### 4.6.2.1 Regulatory Setting

**Federal**

***Energy Policy and Conservation Act and Energy Independence and Security Act***

The Energy Policy and Conservation Act (EPCA) was enacted in 1975 in response to an oil shortage crisis that occurred in 1973. The intent of the EPCA was to stabilize the national energy supply by increasing domestic production and storage and reducing demand through energy conservation. One of the key components of the EPCA was the establishment of Corporate Average Fuel Economy Standards, which are further discussed below. The EPCA was amended in 2007 by the Energy Independence and Security Act (EISA). The function of the EISA is to bolster energy security in US by implementing energy efficiency standards for federal agencies and facilities, improving vehicle fuel economy, implementing sustainable building practices for federal facilities and renovations, and requiring increase use of renewable energy.

***Corporate Average Fuel Economy Standards***

As part of the EPCA, the Corporate Average Fuel Economy Standards, or CAFE, were required to reduce the demand for gasoline by increasing the fuel efficiency (i.e., miles per gallon) of passenger cars and light trucks sold in the United States. Specifically, these standards require automakers to achieve fleet-wide average fuel efficiencies, starting the year 1978. The US Department of Transportation, National Highway Traffic and Safety Administration regulate the CAFE standards, including setting the standards and enforcing compliance. The US

Environmental Protection Agency (EPA) assists by providing technical support for the CAFE, including calculating the average fuel economy levels.

### *Energy Policy Act of 2005*

The Energy Policy Act of 2005 addresses energy production in the nation and covers such topics as energy efficiency, renewable energy, oil and gas, coal, Tribal energy, nuclear matters and security, vehicles and motor fuels (including ethanol), hydrogen, electricity, energy tax incentives, hydropower and geothermal energy, and climate change technology. The Energy Policy Act of 2005 provides incentives to reduce demand on non-renewable energy sources, such as tax credits for fuel efficient vehicles or appliances.

## State

### *California Integrated Energy Policy*

SB 1389 was passed in 2002, requiring the California Energy Commission (CEC) to develop an integrated energy plan every two years for electricity, natural gas, and transportation fuels for the California Energy Policy Report. The report provides an assessment of the status of the major energy sectors and provides policy recommendations to conserve resources, protect the environment, ensure reliability, enhance the state's economy, and protect public health. The CEC has adopted the 2018 Integrated Energy Policy Report Update, which focuses on a variety of issues facing California including climate adaptation and California's clean energy economy.

### *California Renewables Portfolio Standard*

The RPS requires all load-serving entities in California to procure a portion of their electricity sales from eligible renewable resources. SB 350 requires retail sellers and publicly owned utilities to procure 50% of their electricity from eligible renewable resources by 2030. In 2018, SB 100 was signed into law which increased the RPS to 60% by 2030 and requires all of the state's electricity to come from carbon-free resources by 2045. The CEC certifies facilities that generate renewable energy as eligible for the RPS. To be eligible to take part in the RPS program, facilities must meet specific criteria for the renewable energy resource type, location, and metering techniques, as well as many other factors related to renewable energy generation.

### *Energy Action Plan and Loading Order*

California has mandated and implemented aggressive energy use reduction programs for electricity and other resources. In 2003, California's first Energy Action Plan (EAP) established a high-level, coherent approach to meeting California's electricity and natural gas needs and set forth the "loading order" to address California's future energy needs. The "loading order" established that the state, in meeting its energy needs, would invest first in energy efficiency and demand-side resources, followed by renewable resources, and only then in clean conventional electricity supply (California Public Utilities Commission [CPUC], 2008). Since that time, the CPUC and CEC have overseen the plans, policies, and programs for prioritizing the preferred resources, including energy efficiency and renewable energy.

### *California Advanced Clean Cars Program/ Zero Emission Vehicle Program*

The California Advanced Clean Cars Program (ACC I) was adopted by the California Air Resources Board (CARB) in 2012 with the goal of reducing emissions of criteria pollutants and Green House Gases (GHGs) and packaging criteria pollutant (i.e., smog) and GHG reduction regulations into a single program. The Low-Emission Vehicle (LEV) regulations and Zero Emission Vehicle (ZEV) regulations were both rolled into the ACC I in 2012. The LEV regulations include emission standards that are anticipated to reduce vehicle emissions of criteria pollutants by 75 percent in 2025 when compared to 2012 average vehicles. The ZEV regulations require vehicle manufacturers to steadily increase the production of ZEVs, such as fuel cell cars, battery powered cars, and plug-in hybrid electric cars. In November of 2020, Executive Order N-79-20 was published which expressly adopted the goal of 100 percent ZEVs sold in California by 2035.

### *CARB Heavy-Duty Engine and Vehicle Omnibus Regulation*

The Truck and Bus Regulation was enacted to reduce mobile source emission of toxic air contaminants, which represent a large risk to human health within the state. Nearly all trucks and buses will be required to have 2010 or newer engines by the year 2023. Key reductions within the post-2010 engines are emissions of particulate matter and oxides of nitrogen ($NO_x$). After the year 2020, only vehicles that are compliant with the Truck and Bus Regulation will be registered by the California Department of Motor Vehicles.

Off-road vehicles, such as construction equipment, are regulated by the In-Use Off-Road Diesel-Fueled Regulations. These regulations apply to all self-propelled off-road diesel vehicles with a horsepower rating of 25 or higher. As with the Truck and Bus Regulations, the purpose of the Off-Road Regulations is to reduce the emissions of particulate matter and $NO_x$. Applicable equipment must be registered with the CARB and the information is stored and tracked through the Diesel Off-Road Online Reporting System (DOORS).

## Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order 131-D (GO 131-D), Section XIV.B, “Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC’s jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters” (CPUC, 1995). Consequently, public utilities are directed to consider local regulations and consult with local agencies, but county regulations are not applicable as Fresno County does not have jurisdiction over the Proposed Project. Because the CPUC has exclusive jurisdiction over the Proposed Project siting, design, and construction, the Proposed Project is not subject to local land use and zoning regulations or discretionary permits. This section identifies local policies and regulations pertaining to energy resources for informational purposes and to assist with California Environmental Quality Act (CEQA) review. Although LS Power Grid California, LLC (LSPGC) is not subject to local discretionary permitting, ministerial permits would be secured as required.

### *Fresno County General Plan*

The Fresno County General Plan 2020 does not include any goals, policies, mandates or programs that apply to the Proposed Project. The General Plan does include multiple policies and goals relating to participation and support of state and federal energy conservation programs, including PG&E's Energy Partnership Program. The county's focus with respect to energy use and conservation is the incorporation of energy efficient design and construction for housing.

## 4.6.3 IMPACT QUESTIONS

### 4.6.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to Energy come from the CEQA, Appendix G, Environmental Checklist (as amended in December 2019). According to the CEQA Checklist, a project may cause a potentially significant impact if it would:

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

- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

### 4.6.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-Filing Proponent's Environmental Assessments* (CPUC, 2019), the following additional CEQA Impact Questions are required for Energy:

- Would the project add capacity for the purpose of serving a non-renewable energy resource?

## 4.6.4 IMPACT ANALYSIS

### 4.6.4.1 Impact Analysis

**Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?**

**Less-Than-Significant Impact.** Construction activity associated with the Proposed Project would require the consumption of fossil fuel resources, such as diesel fuel and gasoline, to power the construction equipment, construction vehicles, and work crew vehicles. Proposed Project construction activities are not anticipated to involve the consumption of natural gas. Additionally, construction would utilize electrical energy from the existing distribution system to power construction trailers, lighting, and other equipment.

The short-term use of fuels by equipment and motor vehicle trips during construction and decommissioning would be necessary to install the facilities. Using the estimated GHG emissions (refer to **Section 4.8**, *Greenhouse Gas Emissions* and **Appendix 4.8-A**) the volume of diesel and

gasoline fuels during construction were calculated. These calculations are shown in **Appendix 4.6-A**, *Fuels Use Calculations*. Construction of the Proposed Project is estimated to consume a total of approximately 10,899 gallons of gasoline and 104,853 gallons of diesel fuel. Because the Proposed Project is not anticipated to utilize helicopters, no jet fuel or aviation gas would be consumed. To put these estimates in context, estimated Fresno County gasoline sales in 2019 totaled 376 million gallons, and estimated diesel fuel sales totaled 49 million gallons (CEC, 2020). Therefore, the Proposed Project's use of diesel and gasoline fuels is de minimis compared to the volumes consumed within the county per year.

Construction activities would utilize existing energy from the distribution system at the existing PG&E Gates Substation. A temporary distribution line (i.e., 12 kV) would be established to provide power as needed to the construction site. This temporary power, provided by PG&E, would be representative of PG&E's current energy supply portfolio. Based on the requirements of SB 100 (State of California, 2018) utility providers are required to have 60 percent of their energy portfolio supplied by renewable energy sources by 2030. As of 2018, PG&E had achieved an approximately 39 percent renewable portfolio. Given this, PG&E's renewable portfolio for 2023 (the Proposed Project in-service year) is estimated to be 47.8 percent. The ratio of renewable energy would be expected in increase each year until reaching 60 percent by 2030 as required by California's RPS.

Maintenance and normal operations, including inspections of the Proposed Project components, would require use of fossil fuels (e.g., diesel, gasoline) for motor vehicle trips and occasional use of off-road equipment. Use of these fuels would be necessary for normal O&M activities including periodic inspections, equipment testing, and repairs. However, no new full-time staffing or induced population growth would occur because no new crews would be added by the Proposed Project, and maintenance would be incorporated within existing maintenance programs. Using the GHG emissions estimates (refer to **Section 4.8,** *Greenhouse Gas Emissions* and **Appendix 4.8-A**), O&M of the Proposed Project is anticipated to utilize approximately 477 gallons of gasoline per year (refer to **Appendix 4.6-A**, *Fuels Use Calculations*). As with construction fuel usage, the Proposed Project's O&M usage is minimal compared with the total volumes consumed in Fresno County on a yearly basis.

Operation of Proposed Project equipment, such as lighting and heating, ventilation, and air conditioning (HVAC), would also consume energy. It is assumed that the total demand on-site would be six kilowatts (kW) continuous per building or roughly 105,120 kilowatt hours (kWH) per year. Since the Proposed Project would use only electrical energy, the energy usage is assumed to be representative of PG&E's current energy supply portfolio. As of 2018, PG&E had achieved an approximately 39 percent renewable portfolio. Given this, PG&E's renewable portfolio for 2023 (first operational year of the Proposed Project) is estimated to be 47.8 percent. The ratio of renewable energy would be expected in increase each year until reaching 60 percent by 2030 as required by California's RPS.

The Proposed Project would not increase the nominal voltage of any existing transmission line but would allow for more efficient transmission and use of energy already being generated within the PG&E system, including increasing renewable sources in the Central Valley. By upgrading the existing system to be more reliable, the Proposed Project would improve the efficiency of the system's ability to transfer and deliver electricity to California's end users and result in a net benefit in relation to the efficient use of energy within the PG&E Gates Substation service area.

The Proposed Project has been designed to comply with all applicable federal, state, and local energy use conservation requirements and would not result in significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. Impacts would be less than significant under this criterion.

**Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?**

**No Impact.** The Proposed Project would comply with the state RPS program. The CPUC implements and administers RPS compliance rules for California's retail sellers of electricity which include large and small investor-owned utilities (IOUs), electric service providers (ESPs) and community choice aggregators (CCAs). The CEC is responsible for the certification of electrical generation facilities as eligible renewable energy resources and adopting regulations for the enforcement of RPS procurement requirements for public owned utilities (POUs) (CPUC, 2020).

California's three large IOUs collectively served 36% of their 2017 retail electricity sales with renewable power. The Small and Multi-Jurisdictional Utilities (SMJUs) and ESPs served roughly 27% of retail sales with renewables and CCAs collectively served 50% of retail sales with renewable power. All retail sellers utilize a mix of RPS resources such as wind, solar PV, solar thermal, hydroelectricity, geothermal, and bioenergy to meet their renewable procurement targets (CPUC, 2020).

During construction of the Proposed Project, there would be a temporary increase in demand for electricity resources and fuel resources for vehicles and construction equipment; however, this temporary increase would be very minor and would not conflict with the long-term goals of the RPS Plan. Operation of the Proposed Project would also require minor amounts of electricity and fuel resources. However, the Proposed Project would increase the efficiency of the existing transmission network and would not introduce new energy demands or increase capacity. As previously described, the Proposed Project would allow for more efficient transmission and use of energy already being generated within the PG&E system, including increasing renewable sources. The Proposed Project that would improve California's ability to supply renewable energy to end-use customers and to achieve statewide renewable energy goals. Specifically, increased production of the renewable energy within the greater PG&E service territory. Additionally, the Proposed Project would not prevent renewable energy sources from being used as a source of electricity in the future. Therefore, the Proposed Project would not conflict with the implementation of the state RPS program.

**Would the project add capacity for the purpose of serving a non-renewable energy source?**

**No Impact.** The Proposed Project would be consistent with the guidelines of the RPS Plan to reach RPS targets for renewable resources. The Proposed Project would provide reliable operation of the extra high voltage transmission system buses in the electrical proximity of the PG&E Gates 500 kV Substation after the retirement of the Diablo Canyon nuclear generating units (CAISO, 2019). The Proposed Project would be implemented to meet existing and future system reliability and voltage support demands; and as such, it would not increase capacity of the transmission or distribution system nor increase the demand for electricity. Therefore, the Proposed Project would not add capacity that would result in an increase in energy from non-renewable sources, such as coal and natural gas.

The Proposed Project, including the direct and indirect use of energy during construction and operation, would upgrade facilities that would improve California's ability to supply renewable energy to end-use customers and to achieve statewide renewable energy goals. Specifically, increased production of the renewable energy within the greater PG&E service territory and within the load area of the PG&E Gates Substation would be affected by the stabilization effect the Proposed Project would have on the transmission system. Two solar energy generation facilities (Gates Solar Facility and West Gates Solar Facility) are located within 2.3 miles of the PG&E Gates Substation and provide renewable energy through the PG&E Gates Substation. In addition, within the next five years, multiple utility scale solar energy generation facilities and a battery energy storage facility are projected to be constructed and directly connected to the PG&E Gates Substation. Additional information on these projects is provided in **Section 5.0**, *Cumulative and Other CEQA Considerations*.

### 4.6.5 CPUC DRAFT ENVIRONMENTAL MEASURES

There are no CPUC Draft Environmental Measures suggested for Energy.

### 4.6.6 APPLICANT PROPOSED MEASURES

No Applicant Proposed Measures would be implemented for Energy because no significant impact would occur.

## 4.7 GEOLOGY, SOILS, AND PALEONTOLOGICAL RESOURCES

| | Would the project: | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: | | | | |
| | i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. | | | | X |
| | ii) Strong seismic ground shaking? | | | X | |
| | iii) Seismic-related ground failure, including liquefaction? | | | | X |
| | iv) Landslides? | | | | X |
| b. | Result in substantial soil erosion or the loss of topsoil? | | | X | |
| c. | Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | | | X | |
| d. | Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property? | | | | X |
| e. | Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? | | | | X |
| f. | Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | | | X | |

This section describes the Geology, Soils, and Paleontological Resources within the vicinity of the Proposed Project as well as potential impacts that could result from construction and operation and maintenance (O&M) of the Proposed Project.

### 4.7.1 ENVIRONMENTAL SETTING

The Proposed Project is located within an unincorporated area of Fresno County directly north of, and adjacent to, the Pacific Gas and Electric (PG&E) owned Gates Substation. The Proposed Project is located approximately 3.3 miles southwest of the city of Huron. The land to the north, east, and west of the Proposed Project is primarily used for agricultural purposes with no development, and the existing PG&E Gates Substation is located to the south.

#### 4.7.1.1 Regional and Local Geologic Setting

The Proposed Project area is located within the San Joaquin Valley which is in the southern portion of California's Central Valley. The San Joaquin Valley is characterized by hot, dry summers and cool rainy winters. The Central Valley is also referred to as the Great Valley Geomorphic Province. California's Central Valley extends for approximately 450 miles from low-lying hills near Red Bluff on the north to the San Emigdio and Tehachapi Mountains near Bakersfield on the south. The Central Valley is bounded on the northeast by a volcanic plateau of the Cascade Range; on the east by the Sierra Nevada, which rise to a maximum height of over 14,000 feet above mean sea level; and on the west by the Coast Ranges, including the Diablo Range. Elevations in the Central Valley range from slightly below mean sea level to 400 feet above mean sea level at its northern and southern ends. The northern one-third of the valley is known as the Sacramento Valley and the southern two-thirds as the San Joaquin Valley (Norris and Webb, 1990; Williamson et al., 1989).

The Central Valley is directly underlain by unconsolidated sedimentary deposits that are in turn underlain by a sequence of marine and continental sedimentary rocks consisting of shale, siltstone, and sandstone. Beneath these rocks lies an impermeable basement complex of igneous and metamorphic rocks that are up to 13,000 feet below ground surface (bgs). These basement rocks are a subsurface extension of the same rocks that occur in the Sierra Nevada (Williamson et al., 1989).

The Central Valley is often regarded as one continuous but heterogeneous aquifer system. The chief source of groundwater in the Central Valley is located within the upper 1,000 feet of deposits. These deposits include intercalated lenses of clay, silt, silty and sandy clay, clayey and silty sand, sand, gravel, cobbles, and boulders. The eastern portion of the San Joaquin Valley contains aquifer material characterized as coarse-grained, well-sorted, medium-to-coarse grained, fluvial sediments, ranging from 400 and 500 feet thick in the valley center and thinner toward the east and west (Williamson et al., 1989).

The elevation at the Proposed Project site ranges from 404 feet above mean sea level near the southeastern portion of the site to 410 feet above mean sea level near the northwestern portion of the site. The existing PG&E Gates Substation property, which is located adjacent to and south of the Proposed Project, is mostly developed and graded. The adjacent area to north, east, and west of the Proposed Project site is also characterized by relatively flat land with active agriculture (vineyard), with a gradual slope to the southeast. Agriculture is the dominant land use in the area surrounding the Proposed Project site.

#### 4.7.1.2 Seismic Hazards

**Figure 4.7-1**, *Known Active Faults Within the Proposed Project Area/Regional Area*, identifies the known active faults within ten miles of the Proposed Project. Within the ten-mile buffer, there are two known faults, which are considered Pre-Quaternary faults (older than 1.6 million years and without recognized Quaternary displacement). One of the faults is near Avenal, about seven miles away from the Proposed Project site. The other is about ten miles southeast of the Proposed Project site. The two closest fault zones are Nunez Fault Zone, about 18 miles northwest from the Proposed Project site, and San Andres Fault Zone, about 24 miles southwest from the Proposed Project site. These Fault Zones are further described below.

**Fault Zones**

***Nunez Fault***

The Nunez Fault is considered a Quaternary fault and is located approximately 18 miles northwest of the Proposed Project site. The Nunez Fault experienced surface rupture during the 1983 Coalinga earthquake and is designated as an Earthquake Hazard Zone under the Alquist-Priolo Earthquake Fault Zoning Act of 1994 (Fresno County, 2000a).

***San Andreas Fault***

This is the nearest fault of major historical significance located to the west of the Proposed Project site. The San Andreas Fault is about 31 miles southwest of the Proposed Project site. These active right-lateral, strike-slip faults extend in a northwest-southeast direction to the northwest and west Fresno County. The San Andreas Fault also extends to the southwest of Fresno County as it traverses from the Gulf of California in Mexico to the Mendocino coast in northern California. This fault accommodates the majority of movement between the Pacific and North American plates (Fresno County, 2000a).

**Landslides**

Given that the Proposed Project site is located on the valley floor away from any slopes, no previous landslides in the immediate area have occurred. Certain areas in Fresno County are more prone to landslides than others. Such areas can be found in the foothill and mountain areas located east of the Proposed Project area where fractured and steep slopes are present in the Sierra Nevada, where less consolidated or weathered soils overlie bedrock in the Coast Range, or where inadequate ground cover accelerates erosion. There is no risk of large landslides where the Proposed Project is located, due to its relatively flat topography (0-2 percent slope) and distance from hills, mountains, or slopes. The Proposed Project site is not located within a landslide hazard area, as indicated by the Fresno County General Plan (Fresno County, 2000b).

**Liquefaction**

Liquefaction is a seismic phenomenon in which loose, saturated, fine-grained granular soils behave similar to a fluid when subjected to high-intensity ground shaking. An increase in pore water pressure occurs as the soil attempts to compact in response to the shaking, resulting in

less grain-to-grain soil contact and, therefore, loss of strength. Liquefaction occurs when three general conditions exist: shallow groundwater (40 feet bgs or less); low density, fine-grained sandy soils; and high-intensity ground motion. Effects of liquefaction on level ground can include sand boils, settlement, and bearing capacity failures below structural foundations. California Geological Survey (CGS) has designated certain areas within California as potential liquefaction hazard zones. These are areas that are considered at a risk of liquefaction-related ground failure during a seismic event, based upon mapped surficial deposits and the presence of a relatively shallow water table. The Proposed Project site is not located within a liquefaction hazard zone mapped by the CGS (Terracon, 2019 [included in **Appendix 4.7-A**]).

#### 4.7.1.3 Geologic Units

The San Joaquin Valley is underlain by thousands of feet of sediments derived from the adjacent uplands and deposited in a variety of marine and nonmarine environments. The valley began to separate from the open ocean approximately 150 million years ago when subduction of Franciscan marine sediments and volcanics beneath the edge of the old ocean shifted it vertically and created a barrier for the movement of sediments. The Proposed Project site is underlain by Pleistocene-Holocene aged unconsolidated and semi-consolidated alluvium, lake, playa, and terrace deposits (Matthews and Burnett, 1965).

Geologic units that occur within the Proposed Project area are shown in **Figure 4.7-2**, *Geologic Units at Proposed Project Area*. The geological unit at the Proposed Project site is Quaternary alluvial material. The site has been classified as Seismic Site Classification D, and no unstable geologic units were identified in the Proposed Project area (Terracon, 2019). Seismic Site Classification D corresponds to buildings and structures in areas expected to experience severe and destructive ground shaking, but not located close to a major fault (International Seismic Application Technologies, 2020).

Given that the Proposed Project is located on the valley floor away from any slopes, no previous landslides in the immediate area have occurred. Areas more prone to landslides can be found in the foothill and mountain areas located east of the Proposed Project area where fractured and steep slopes are present in the Sierra Nevada, where less consolidated or weathered soils overlie bedrock in the Coast Range, or where inadequate ground cover accelerates erosion. Other areas where steep slopes are present, however, are not heavily populated and most are located in federal or state lands, although roadways such as State Route (SR) 168 in eastern Fresno County and SR 198 in western Fresno County could be affected by landslides in the event of an earthquake or heavy rain. There is no risk of large landslides in the Proposed Project area due to its relatively flat topography (Terracon, 2019).

#### 4.7.1.4 Soils

Soil types as discussed in this section are based on review of the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey. As depicted on **Figure 4.7-3**, *Soil Types in the Proposed Project Area,* the Proposed Project site is completely underlain by the Westhaven loam (0-2 percent slopes). Within a mile radius of the Proposed Project site, the soil is made up of minor components of Wasco sandy loam (0-2 percent slopes), Kimberlina sandy loam (0-2 percent slopes) and Excelsior sandy loam (0-2 percent

slopes) (USDA NRCS, 2019). Surface runoff is low, and permeability is moderately slow. Sandy loams are not expansive (have low linear extensibility) and compact well for construction. The county of Fresno also determined that the Proposed Project area does not contain expansive soils (Fresno County, 2000b). Soils at the Proposed Project area have a low risk of corrosion of concrete and a moderate risk of corrosion of uncoated steel, and they are moderately susceptible to erosion from wind and water.

The Westhaven series is formed in alluvium derived predominantly from calcareous sedimentary rock and consists of loams, silty clay loam, and loamy sand to silty clay loam. The soil between depths of four and 12 inches is dry in all parts from April through December and is not moist in some or all parts for as long as 90 consecutive days. The particle-size control section averages 18 to 35 percent clay. Less than 15 percent of the particles are fine sand or coarser, by weighted average, between depths of ten to 40 inches. Calcium carbonate equivalent is zero to five percent. The Westhaven series consists of very deep, well drained soils with low runoff and moderately slow permeability. These soils are subject to very rare to occasional flooding in some places, in others they are protected by dams and levees.

Natural forces, both chemical and physical, are continually at work breaking down soils. Erosion poses two hazards: it removes soils, thereby undermining roads and buildings and producing unstable slopes; and it deposits eroded soil in reservoirs, lakes, drainage structures, and on roads as mudslides. In the eastern Fresno County area, soils exhibiting moderately high to high erosion potential are located within the Sierra Nevada and the foothills and generally coincide with land slope areas that exceed 30 percent. However, within the valley, erosion is generally not problematic (Fresno County, 2000b).

Subsurface materials encountered within the vicinity of the Proposed Project generally consisted of interbedded sandy silt, poorly graded gravel with silt, silty sand, and silt with sand at depths from zero to 27 feet. Lean and silty clay, along with silty sand and sand silt were found at depths between 27 to 45 feet. These were underlain by medium dense to poorly graded sand with silt clay and gravel to the maximum depth explored of 51½ feet (Terracon 2019).

According the Preliminary Geotechnical Engineering Report, included in **Appendix 4.7-A**, groundwater was not encountered in any of the test pits or in any previous explorations and is anticipated to be below the proposed grading elevations (Terracon 2019). However, groundwater level fluctuations can occur due to seasonal variations in the amount of rainfall, runoff, and other factors. Therefore, groundwater levels during construction may be higher or lower than anticipated (Terracon, 2019).

#### 4.7.1.5 Paleontological Report

In August 2020, the Department of PaleoServices of the San Diego Natural History Museum (SDNHM) prepared the Paleontological Resources Technical Report (PaleoServices, 2020), included in **Appendix 4.7-B.** The report summarizes the results of a paleontological records search of the paleontological collections at the SDNHM, a search of the online paleontological collections database at the University of California Museum of Paleontology (UCMP), and a review of relevant paleontological and geologic literature. These tasks were undertaken to determine whether any documented fossil collection localities are located within the Proposed

Project area or within a 500-foot buffer of the site. The report assigns a paleontological resource sensitivity rating to the geologic units underlying the Proposed Project site. The rating is based on the published geologic mapping, the results of the paleontological records searches, literature review, and assessment of potential Proposed Project-related impacts to paleontological resources.

The Proposed Project site lies on the nearly level valley floor in the heavily agricultural western portion of the central San Joaquin Valley, just east of the Guijarral Hills and Anticline Ridge, and north of the Kettleman Hills. The site is underlain at the surface by primarily Holocene-age surficial sediments consisting of alluvial gravel, sand, and clay derived and transported downstream from the older geologic units exposed within the nearby breached anticlines of the Kettleman Hills and Anticline Ridge. The precise thickness of these Holocene sediments is unknown in the vicinity of the Proposed Project site. Presumably, the Holocene-age deposits transition down section (i.e., at depth) into older, Pleistocene-age deposits. The depth of this temporal transition is conservatively estimated to occur at 15 feet or more bgs.

The results of the paleontological records searches and literature review indicate that fossils have not been documented from Holocene-age or Pleistocene-age sedimentary deposits or within a 500-foot buffer of the Proposed Project site, nor within an expanded five mile radius of the Proposed Project site. However, fossils are known from late Pleistocene-age sedimentary deposits at several locations elsewhere in the west-central San Joaquin Valley (located between 20 and 35 miles from the Proposed Project site). These deposits have yielded fossil remains of large-bodied mammals (e.g., mammoth, ground sloth, horse, mule deer, elk, camel, pronghorn, ox, bison, American lion, fox, coyote, dire wolf, badger), as well as small mammals (e.g., rabbit, beaver, pocket gopher, vole, wood rat, heteromyid rodent, mole) and other terrestrial or freshwater vertebrates (e.g., bony fish, pond turtle, rattlesnake, loon).

Following the paleontological potential criteria developed by the Society of Vertebrate Paleontology (SVP) (2010), the sedimentary deposits that occur within the Proposed Project site are assigned a low paleontological potential at depths of less than 15 feet bgs (where they are assumed to be Holocene in age) and an undetermined paleontological potential at depths greater than 15 feet bgs (where the sediments may have been deposited during the Pleistocene).

### 4.7.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

#### 4.7.2.1 Regulatory Setting

**Federal**

There are no regulations for Geology, Soils, and Paleontological Resources applicable to the Proposed Project.

## State

### *Alquist-Priolo Earthquake Fault Zoning Act*

California enacted the Alquist-Priolo Earthquake Fault Zoning Act in 1972 (Public Resource Code [PRC] Sections 2621 et seq.), which requires the establishment of "Earthquake Fault Zones" (EFZ) (formerly known as "Special Studies Zones") along known active faults in California. Under the Alquist-Priolo Earthquake Fault Zoning Act, construction along or across faults is strictly regulated if they are "sufficiently active" and "well defined." A fault is considered sufficiently active if one or more of its segments shows evidence of displacement during Holocene time (defined for purposes of the Act as referring to approximately the last 11,000 years). A fault is considered well defined if its trace can be clearly identified by a trained geologist at the ground surface or in the shallow subsurface, using standard professional techniques, criteria, and judgment. The Act also provides criteria for designating known fault rupture zones, which are used in planning and engineering design of facilities such as the Proposed Project.

### *Seismic Hazards Mapping Act*

Like the Alquist-Priolo Earthquake Fault Zoning Act, the Seismic Hazards Mapping Act of 1990 (PRC Sections 2690-2699.6) is intended to reduce damage resulting from earthquakes. While the Alquist-Priolo Earthquake Fault Zoning Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including strong ground shaking, liquefaction, and seismically induced landslides. Its provisions are similar in concept to the Alquist-Priolo Earthquake Fault Zoning Act in that the state is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides and other corollary hazards, and cities and counties are required to regulate development within mapped Seismic Hazard Zones. Under the Seismic Hazards Mapping Act, permit review is the primary mechanism for local regulation of development. Specifically, cities and counties are prohibited from issuing development permits for sites within Seismic Hazard Zones until appropriate site specific geologic and/or geotechnical investigations have been carried out, and measures to reduce potential damage have been incorporated into the development plans.

### *California Building Standards Code*

The California Building Standards Commission provides a minimum standard for building design with the California Building Code (CBC), which is based on the International Code Council but has been modified for California conditions. Chapter 23 of the CBC contains specific requirements for seismic safety. Chapter 29 of the CBC regulates excavation, foundations, and retaining walls. Chapter 33 of the CBC contains specific requirements pertaining to site demolition, excavation, and construction to protect people and property from hazards associated with excavation cave-ins and falling debris or construction materials. Chapter 70 of the CBC regulates grading activities, including drainage and erosion control. Construction activities are subject to occupational safety standards for excavation, shoring, and trenching, as specified in California Occupational Health and Safety Administration (California Code of Regulations [CCR] Title 8) and in Section A33 of the CBC.

## Local

The California Public Utility Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order 131-D (GO 131-D), Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters" (CPUC, 1995). Consequently, public utilities are directed to consider local regulations and consult with local agencies, but the county regulations are not applicable as Fresno County does not have jurisdiction over the Proposed Project. Because the CPUC has exclusive jurisdiction over the Proposed Project siting, design, and construction, the Proposed Project is not subject to local land use and zoning regulations or discretionary permits. This section identifies related portions of local land use plans and regulations for informational purposes, and to assist with California Environmental Quality Act (CEQA) review. Although LS Power Grid California, LLC (LSPGC) is not subject to local discretionary permitting, ministerial permits would be secured as required.

### *Fresno County General Plan*

The following relevant Geology, Soils, and Paleontological Resources goals and policies from the Fresno County General Plan were reviewed, and the following summaries are provided for informational purposes.

**Goal HS-D** To minimize the loss of life, injury, and property damage due to seismic and geologic hazards.

**Policy HS-D.3** The County shall require that a soils engineering and geologic-seismic analysis be prepared by a California-registered engineer or engineering geologist prior to permitting development, including public infrastructure projects, in areas prone to geologic or seismic hazards (i.e., fault rupture, ground shaking, lateral spreading, lurch cracking, fault creep, liquefaction, subsidence, settlement, landslides, mudslides, unstable slopes, or avalanche).

**Policy HS-D.4** The County shall require all proposed structures, additions to structures, utilities, or public facilities situated within areas subject to geologic-seismic hazards as identified in the soils engineering and geologic-seismic analysis to be sited, designed, and constructed in accordance with applicable provisions of the Uniform Building Code (Title 24 of the CCR) and other relevant professional standards to minimize or prevent damage or loss and to minimize the risk to public safety.

**Policy HS-D.8** The County shall require a soils report by a California-registered engineer or engineering geologist for any proposed development, including public infrastructure projects, that requires a County permit and is located in an area containing soils with high "expansive" or "shrink-swell" properties. Development in such areas shall be prohibited unless suitable design and

construction measures are incorporated to reduce the potential risks associated with these conditions.

**Goal OS-J** To identify, protect, and enhance Fresno County's important historical, archaeological, paleontological, geological, and cultural sites and their contributing environment.

**Policy OS-J.1** The County shall require that discretionary development projects, as part of any required CEQA review, identify and protect important historical, archeological, paleontological, and cultural sites and their contributing environment from damage, destruction, and abuse to the maximum extent feasible. Project-level mitigation shall include accurate site surveys, consideration of project alternatives to preserve archeological and historic resources and provision for resource recovery and preservation when displacement is unavoidable.

### 4.7.3 IMPACT QUESTIONS

#### 4.7.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to Hydrology and Water Quality come from the CEQA, Appendix G Environmental Checklist (as amended in December 2019). According to the CEQA Checklist, a project may cause a potentially significant impact if it would:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
    - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. Refer to Division of Mines and Geology Special Publication 42; or
    - Strong seismic ground shaking; or
    - Seismic-related ground failure, including liquefaction; or
    - Landslides; or
- Result in substantial soil erosion or the loss of topsoil; or
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse; or
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property; or

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

- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

#### 4.7.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-Filing Proponent's Environmental Assessments* (CPUC 2019), there are no additional CEQA Impact Questions required for Geology, Soils and Paleontological Resources.

### 4.7.4 IMPACT ANALYSIS

#### 4.7.4.1 Impact Analysis

**Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:**

**Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?**

**No Impact.** No known active faults are located on or near the Proposed Project site, nor is the Proposed Project site within an Alquist-Priolo EFZ. Therefore, no impacts would occur under this criterion.

**Strong seismic ground shaking?**

**Less-Than-Significant Impact.** Faults in surrounding areas could result in ground shaking within the Proposed Project area. The area has a moderate risk of an earthquake, but the proposed Static Synchronous Compensator (STATCOM) Substation facility would be unmanned; therefore, impacts to human life are not expected unless workers were present for maintenance during seismic activity. The Proposed Project facilities would be engineered to withstand predicted ground shaking and would meet or exceed the relevant seismic requirements. Therefore, the impacts would be less than significant under this criterion.

**Seismic-related ground failure, including liquefaction?**

**No Impact.** The Proposed Project site is not located within a liquefaction hazard zone mapped by the CGS. Therefore, no impacts would occur under this criterion.

**Landslides?**

**No Impact.** The Proposed Project site's surrounding area consists of gently sloping (zero to two percent) topography, and the site is not located near any hills, mountains, or slopes. No landslides

are anticipated to occur in or near the Proposed Project. Therefore, no impacts would occur under this criterion.

**Result in substantial soil erosion or the loss of topsoil?**

**Less-Than-Significant Impact.** The Proposed Project would result in more than one acre of soil disturbance. As a result, the Proposed Project would be required to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) in accordance with the State's General Permit for Stormwater Discharges Associated with Construction Activities (Construction General Permit [CGP]) (2009-009-DWQ, as amended). The SWPPP would include measures to limit erosion and off-site transport of pollutants from construction activities. The plan would designate best management practices (BMPs) that would be followed during construction to help stabilize disturbed areas and reduce erosion, sedimentation, and pollutant transport. Preparation of a SWPPP is included as **APM WQ-1**, described in **Section 4.10**, *Hydrology and Water Quality*.

The Proposed Project site has a flat topography distant from any slopes, and site soil consists of predominantly well-drained sandy loams, typically consisting of less than or equal to 15 percent clays (USDA NRCS, 2019). The Project's Preliminary Geotechnical Engineering Report, included in **Appendix 4.7-A**, identified soil characteristics and made recommendations for the design of the Proposed Project to reduce impacts to soil erosion. The report found that the near surface, medium stiff silt soils on the Proposed Project site could become unstable with typical earthwork and construction traffic, especially after precipitation events. To mitigate this, effective site drainage and erosion and sediment controls per the SWPPP would be completed early in the construction sequence and maintained after construction to avoid potential issues. Furthermore, implementation of **APM GEO-1** detailed below, would minimize impacts of the Proposed Project on erosion and loss of topsoil.

While soil erosion or loss of topsoil could result from excavation or grading activities during construction, the implementation of **APMs GEO-1** would ensure that soil erosion and loss of topsoil would remain less than significant.

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

**Less-Than-Significant Impact.** The county of Fresno has determined that the Proposed Project area does not contain expansive soils (Fresno County, 2000b). The Project's Preliminary Geotechnical Engineering Report, included in **Appendix 4.7-A**, did not identify the Proposed Project site as being located on unstable geologic units or predominantly unstable soils. However, the near surface, medium stiff silt soils on the Proposed Project site could become unstable with typical earthwork and construction traffic, especially after precipitation events (Terracon, 2019). As such, the report made recommendations regarding geotechnical requirements on the Proposed Project site. **APM GEO-1 and GEO-2** are proposed measures to reduce any impacts from unstable soils on the Proposed Project Site.

Based upon the subsurface conditions determined from the geotechnical exploration, subgrade soils exposed during construction are anticipated to be relatively workable. However, the

workability of the subgrade may be affected by precipitation, repetitive construction traffic, or other factors. If unworkable conditions develop, workability may be improved by scarifying and drying the exposed subgrade soils (Terracon, 2019).

The report identified that near surface soils on the Proposed Project site would have low bearing capacity. As such, engineered fill would be required. Engineered fill would extend to a minimum depth of 12 inches below the bottom of foundations or two feet below existing grades, whichever is greater. Grading for the Proposed Project improvements would incorporate the limits of the improvement footprints plus a lateral distance of five feet beyond the outside edge of perimeter footings. Subgrade soils beneath exterior slabs would be scarified, moisture conditioned, and compacted to a minimum depth of ten inches. The moisture content and compaction of subgrade soils would be maintained until slab construction. Exposed areas, which would receive fill once properly cleared and benched where necessary, would be scarified to a minimum depth of ten inches, moisture conditioned, and compacted per the compaction requirements identified in the Proposed Project's Preliminary Geotechnical Engineering Report (Terracon, 2019). All fill materials used would be inorganic soils free of vegetation, debris, and fragments larger than three inches in size. Pea gravel or other similar non-cementitious, poorly graded materials would not be used as fill or backfill without the prior approval of the geotechnical engineer (Terracon, 2019).

The proposed mechanical and electrical equipment for the Proposed Project may be supported on either a reinforced concrete mat slab foundation or shallow spread footing foundation. The control building and lightly loaded ancillary structures may be supported on shallow spread footing foundations. Earthwork for the Proposed Project would be observed and evaluated by a geotechnical engineer. The evaluation of earthwork would include observation and testing of engineered fill, subgrade preparation, foundation bearing soils, and other geotechnical conditions exposed during the construction of the Proposed Project (Terracon, 2019).

The base of all foundation excavations would be free of water and loose soil prior to placing concrete. Concrete would be placed after excavating to reduce bearing soil disturbance. Excessively wet or dry material or any loose/disturbed material in the bottom of the footing excavations would be removed or reconditioned before foundation concrete is placed. The bottom of foundation footings would be at least one foot below an imaginary plane with an inclination of 1.5 horizontal to one vertical extending upward from the nearest edge of the adjacent trench (Terracon, 2019).

Drilled shafts would have a minimum (center-to-center) spacing of three diameters. Closer spacing may require a reduction in axial load capacity. Axial capacity reduction would be determined by comparing the allowable axial capacity determined from the sum of individual piles in a group versus the capacity calculated using the perimeter and base of the pile group acting as a unit. The lesser of the two capacities would be used in design.

Sandy and gravelly subgrade materials were encountered within the area of the Proposed Project. To prevent collapse of the sidewalls, the use of temporary steel casing and/or slurry drilling procedures may be required for construction of the drilled shaft foundations (Terracon, 2019).

These proposed geotechnical requirements would, along with **APM GEO-2**, reduce the effect from unstable geologic units or soils on the Proposed Project to a less-than-significant level.

### *Landslides*

The Proposed Project site is located on the valley floor away from any slopes, and no previous landslides in the immediate area have occurred. There is no risk of large landslides where the Proposed Project site is located, due to its relatively flat topography (zero to two percent slope) and distance from hills, mountains, or slopes. The Proposed Project area is not located within a landslide hazard area, as indicated by the Fresno County General Plan (Fresno County, 2000b). As such, there would be no impact.

### *Subsidence*

The Proposed Project does not involve the withdrawal of fluid, such as groundwater, although the Proposed Project is located within an alluvial basin. As such, there would be no impact.

### *Lateral Spreading*

The potential for lateral spreading at the Proposed Project site is low due to the absence of topographic features susceptible to lateral spreading. The Proposed Project does not involve the withdrawal of fluid, such as groundwater, although the Proposed Project is located within an alluvial basin. As such, there would be no impact.

### *Liquefaction*

The Proposed Project site is not located within a liquefaction hazard zone mapped by the CGS (Terracon, 2019). As such, there would be no impact.

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

**No Impact.** The Proposed Project site is not located in an area with expansive surficial soil. (Fresno County, 2000a; Fresno County, 2000b; USDS NRCS, 2020) Therefore, no impacts would occur under this criterion.

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

**No Impact.** The Proposed Project does not include a wastewater disposal system. Therefore, no impacts would occur under this criterion.

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

**Less-Than-Significant Impact.** The Holocene-age sedimentary deposits present at the surface of the Proposed Project site are assigned a low paleontological potential and grade downward into older Pleistocene-age sedimentary deposits. This transition is estimated to occur at approximately 15 feet bgs. Accordingly, construction of the Proposed Project is not anticipated to

result in impacts to paleontological resources due to the relatively shallow nature of planned earthwork, which is limited to approximately ten feet or less below ground surface, where sedimentary deposits are likely Holocene in age. Therefore, implementation of a paleontological mitigation program is not recommended. In the unlikely event that fossils are unearthed during construction (i.e., an inadvertent discovery), **APMs PALEO-1** and **PALEO-2** would be implemented to reduce impacts to less-than-significant levels.

### 4.7.5 CPUC DRAFT ENVIRONMENTAL MEASURES

There are no CPUC Draft Environmental Measures suggested for Geology, Soils, and Paleontological Resources.

### 4.7.6 APPLICANT PROPOSED MEASURES

**APM GEO-1**

The following measures would be implemented during construction to minimize impacts from geological hazards and disturbance to soils:

- Keep vehicle and construction equipment within the limits of the Proposed Project and in approved construction work areas to reduce disturbance to topsoil;
- Prior to grading, salvage topsoil to a depth of six inches or to actual depth if shallower (as identified in site-specific geotechnical investigation report) to avoid mixing of soil horizons;
- Avoid construction in areas with saturated soils, whenever practical, to reduce impacts to soil structure and allow safe access. Similarly, avoid topsoil salvage in saturated soils to maintain soil structure;
- Keep topsoil material on-site in the immediate vicinity of the temporary disturbance or at a nearby approved work area to be used in restoration of temporary disturbed areas. Temporary disturbance areas would be re-contoured following construction to match pre-construction grades. Areas would be allowed to re-vegetate naturally or would be reseeded with a native seed mix from a local source if necessary. On-site material storage would be sited and managed in accordance with all required permits and approvals; and
- Keep vegetation removal and soil disturbance to a minimum and limited to only the areas needed for construction. Removed vegetation would be disposed of off-site to an appropriate licensed facility or can be chipped on-site to be used as mulch during restoration.

**APM GEO-2**

The structural requirements of the CBC are applicable to certain structural components of the Proposed Project, including the control enclosures. LSPGC and/or its contractors would design such structures to comply with such CBC standards and shall adhere to and implement all design

recommendations and parameters established in the Proposed Project's Supplemental Geotechnical Engineering Report to be prepared and submitted to the CPUC upon completion.

**APM PALEO-1**

In the unlikely event that fossils are unearthed during earthwork activities (i.e., an inadvertent discovery), earthwork within the vicinity of the discovery shall immediately halt, and a qualified paleontologist should evaluate the discovery. Earthwork shall be diverted until the significance of the fossil discovery can be assessed by the qualified paleontologist. If the fossil discovery is deemed significant, the fossil shall be recovered using appropriate recovery techniques based on the type, size, and mode of preservation of the unearthed fossil. Earthwork may resume in the area of the fossil discovery once the fossil has been recovered and the qualified paleontologist deems the site has been mitigated to the extent necessary. Additional earthwork following the fossil discovery may be monitored for paleontological resources on an as-needed basis, at the discretion of the qualified paleontologist.

**APM PALEO-2**

Recovered fossils shall be prepared, identified, catalogued, and stored in a recognized professional repository (e.g., the SDNHM, the University of California Museum of Paleontology) along with associated field notes, photographs, and compiled fossil locality data. Donation of the fossils should be accompanied by financial support for initial specimen curation and storage. A final summary report should be completed that outlines the results of the mitigation program. This report should include discussions of the methods used, stratigraphic section(s) exposed, fossils collected, and significance of recovered fossils. This report shall be submitted to appropriate agencies, as well as to the designated repository.

## 4.8 GREENHOUSE GAS EMISSIONS

| Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | | | X | |
| b. | Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | | | X | |

This section describes the Greenhouse Gas (GHG) Emissions within the vicinity of the Proposed Project as well as potential impacts that could result from construction and operation and maintenance (O&M) of the Proposed Project.

### 4.8.1 ENVIRONMENTAL SETTING

The Proposed Project is located in an unincorporated area of Fresno County directly north of, and adjacent to, the Pacific Gas and Electric (PG&E) owned Gates Substation. The Proposed Project is located approximately 3.3 miles southwest of the city of Huron. The land to the north, east, and west of the Proposed Project is primarily used for agricultural purposes with no development, and the existing PG&E Gates Substation is located to the south.

#### 4.8.1.1 GHG Setting

GHGs, such as water vapor and carbon dioxide, are abundant in the earth's atmosphere. These gases are called "Greenhouse Gases" because they absorb and emit thermal infrared radiation, which acts like an insulator to the planet. Without these gases, the earth's ambient temperature would either be extremely hot during the day or blistering cold at night. However, because these gases can both absorb and emit heat, the earth's temperature does not sway too far in either direction.

Over the years, scientists have measured a rise in carbon dioxide, and the general consensus is that human activities contribute to the heating of the planet. Other GHGs, such as methane and nitrous oxide, also contribute to global warming.

GHGs of concern, as analyzed in this study, are Carbon Dioxide ($CO_2$), Methane ($CH_4$), Nitrous Oxide ($N_2O$) and Sulfur Hexafluoride ($SF_6$). To simplify GHG calculations $CH_4$, $N_2O$ and $SF_6$ are converted to equivalent amounts of $CO_2$ and are identified as carbon dioxide equivalent ($MTCO_2e$). $CO_2e$ is calculated by multiplying the calculated levels of $CH_4$, $N_2O$ and $SF_6$ by a Global Warming Potential (GWP). The latest California Emissions Estimator Model (CalEEMod 2016.3.2) developed by Breeze Software uses the Intergovernmental Panel on Climate Change (IPCC) 2007 report as source data for GWP factors for both $CH_4$ and $N_2O$ (CAPCOA, September 2016), using the 100 year periods of 25, 298, 22,800 respectively (IPCC, 2007).

The existing Proposed Project site is generally level and has been previously disturbed for mostly agricultural purposes. The site is generally flat, and on-site elevations are at or around 400 feet above mean sea level. The Proposed Project is located within an area utilized for agricultural and utility infrastructure uses with industrial uses nearby. GHG production on-site is generally low with all emissions generated from agricultural uses.

The Proposed Project seeks to construct two, new STATCOM facilities and two, new single circuit 500 kilovolt (kV) transmission lines that would connect to the existing PG&E Gates Substation. The STATCOM facility would also include three 550kV gas-insulated circuit breakers that utilize $SF_6$ which is a very strong GHG. The STATCOM facility would support the regional transmission system by providing voltage support and grid stability at the Gates 500 kV bus. This would facilitate the reliable operation of the extra high voltage transmission system buses in the electrical proximity of the PG&E Gates Substation after the retirement of the Diablo Canyon nuclear generating units. GHGs generated from the Proposed Project would be from construction on-site as well as electrical usage, $SF_6$ leakage, and vehicular trips from O&M activities.

### 4.8.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

#### 4.8.2.1 Regulatory Setting

**Federal**

***Clean Air Act***

On April 2, 2007, in *Massachusetts v. Environmental Protection Agency (EPA)*, the Supreme Court directed the EPA Administrator to determine whether GHG emissions from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare. In making these decisions, the EPA Administrator is required to follow the language of Section 202(a) of the federal Clean Air Act. On December 7, 2009, the EPA Administrator signed a final rule with two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act:

- The Administrator found that elevated concentrations of GHGs—$CO_2$, $CH_4$, $N_2O$, Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), and Sulfur hexafluoride ($SF_6$)—in the atmosphere threaten the public health and welfare of current and future generations. This is referred to as the “endangerment finding.”

- The Administrator further found the combined emissions of GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG air pollution that endangers public health and welfare. This is referred to as the “cause or contribute finding.”

These two findings were necessary to establish the foundation for regulation of GHGs from new motor vehicles as air pollutants under the Clean Air Act.

## State

### *Executive Order S-3-05*

Executive Order (EO) S-3-05 (June 2005) established the following statewide goals: GHG emissions should be reduced to 2000 levels by 2010, 1990 levels by 2020, and 80 percent below 1990 levels by 2050.

### *Assembly Bill (AB) 32 and CARB's Climate Change Scoping Plan*

In furtherance of the goals established in EO S-3-05, the Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020.

Under AB 32, the California Air Resource Board (CARB) is responsible for and is recognized as having the expertise to carry out and develop the programs and regulations necessary to achieve the GHG emissions reduction mandate of AB 32. Therefore, in furtherance of AB 32, CARB adopted regulations requiring the reporting and verification of GHG emissions from specified sources, such as industrial facilities, fuel suppliers and electricity importers (see Health & Safety Code Section 35830; Cal. Code Regs., tit. 17, §§95100 et seq.). CARB is also required to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 relatedly authorized CARB to adopt market-based compliance mechanisms to meet the specified requirements. Finally, CARB is ultimately responsible for monitoring compliance and enforcing any rule, regulation, order, emission limitation, emission reduction measure, or market-based compliance mechanism adopted.

In 2007, CARB approved a limit on the statewide GHG emissions level for year 2020 consistent with the determined 1990 baseline (427 million metric tons [MMT] $CO_2e$). CARB's adoption of this limit is in accordance with Health and Safety Code Section 38550.

Further, in 2008, CARB adopted the *Climate Change Scoping Plan: A Framework for Change* (*Scoping Plan*) in accordance with Health and Safety Code Section 38561. The *Scoping Plan* established an overall framework for the measures that would be implemented to reduce California's GHG emissions for various emission sources/sectors to 1990 levels by 2020. The 2008 *Scoping Plan* evaluated opportunities for sector-specific reductions, integrated all CARB and Climate Action Team[1] early actions and additional GHG reduction features by both entities, identified additional measures to be pursued as regulations, and outlined the role of a cap-and-trade program. The key elements of the 2008 *Scoping Plan* include the following (CARB, 2008):

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewable energy mix of 33 percent;

[1] The Climate Action Team is comprised of state agency secretaries and heads of state agencies, boards and departments; these members work to coordinate statewide efforts to implement GHG emissions reduction programs and adaptation programs.

- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85 percent of California's GHG emissions;

- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets;

- Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and

- Creating targeted fees, including a public goods charge on water use, fees on high GWP gases, and a fee to fund the administrative costs of the state of California's long-term commitment to AB 32 implementation.

In the 2008 *Scoping Plan*, CARB determined that achieving the 1990 emissions level in 2020 would require a reduction in GHG emissions of approximately 28.5 percent from the otherwise projected 2020 emissions level; i.e., those emissions that would occur in 2020, absent GHG-reducing laws and regulations (referred to as "Business-As-Usual" [BAU]). For purposes of calculating this percent reduction, CARB assumed that all new electricity generation would be supplied by natural gas plants, no further regulatory action would impact vehicle fuel efficiency, and building energy efficiency codes would be held at 2005 standards.

In the 2011 Final Supplement to the *Scoping Plan's* Functional Equivalent Document, CARB revised its estimates of the projected 2020 emissions level in light of the economic recession and the availability of updated information about GHG reduction regulations (CARB, 2011). Based on the new economic data, CARB determined that achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of 21.7 percent (down from 28.5 percent) from the BAU conditions. When the 2020 emissions level projection was updated to account for newly implemented regulatory measures, including Pavley I (model years 2009–2016) and the Renewables Portfolio Standard (12 percent to 20 percent), CARB determined that achieving the 1990 emissions level in 2020 would require a reduction in GHG emissions of 16 percent (down from 28.5 percent) from the BAU conditions.

In 2014, CARB adopted the *First Update to the Climate Change Scoping Plan: Building on the Framework* (*First Update*). The stated purpose of the *First Update* was to "highlight California's success to date in reducing its GHG emissions and lay the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050." The *First Update* found that California is on track to meet the 2020 emissions reduction mandate established by AB 32 and noted that California could reduce emissions further by 2030 to levels squarely in line with those needed to stay on track to reduce emissions to 80 percent below 1990 levels by 2050 if the state realizes the expected benefits of existing policy goals.

In conjunction with the *First Update*, CARB identified "six key focus areas comprising major components of the state's economy to evaluate and describe the larger transformative actions that would be needed to meet the state's more expansive emission reduction needs by 2050." Those six areas are: (1) energy; (2) transportation (vehicles/equipment, sustainable communities, housing, fuels, and infrastructure); (3) agriculture; (4) water; (5) waste management; and (6)

natural and working lands. The *First Update* identified key recommended actions for each sector that would facilitate achievement of EO S-3-05's 2050 reduction goal.

Based on CARB's research efforts presented in the *First Update*, it has a "strong sense of the mix of technologies needed to reduce emissions through 2050." Those technologies include energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies.

As part of the *First Update*, CARB recalculated the state's 1990 emissions level using more recent global warming potentials identified by the IPCC. Using the recalculated 1990 emissions level (431 MMT $CO_2e$) and the revised 2020 emissions level projection identified in the 2011 Final Supplement, CARB determined that achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of approximately 15 percent (instead of 28.5 percent or 16 percent) from the BAU conditions.

In November 2017, CARB released *California's 2017 Climate Change Scoping Plan* (*Second Update*) for public review and comment (CARB, 2017a). This update proposes CARB's strategy for achieving the state's 2030 GHG target as established in Sentate Bill (SB) 32 (discussed below). The strategy includes continuing the Cap-and-Trade Program through 2030[2], inclusive policies and broad support for clean technologies, enhanced industrial efficiency and competitiveness, prioritization of transportation sustainability, continued leadership on clean energy, putting waste resources to beneficial use, supporting resilient agricultural and rural economics and natural and working lands, securing California's water supplies, and cleaning the air and public health.

When discussing project-level GHG emissions reduction actions and thresholds, the *Second Update* states "[a]chieving no additional increase in GHG emissions, resulting in no contribution to GHG impacts, is an appropriate overall objective for new development." However, the *Second Update* also recognizes that such an achievement "may not be feasible or appropriate for every project … and the inability of a project to mitigate its GHG emissions to net zero does not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA." CARB's Governing Board adopted the *Second Update* in December 2017.

### *SB 32 and AB 197*

SB 32 and AB 197 (enacted in 2016) are companion bills that set a new statewide GHG reduction target; make changes to CARB's membership and increase legislative oversight of CARB's climate change-based activities; and expand dissemination of GHG and other air quality-related emissions data to enhance transparency and accountability. More specifically, SB 32 codified the 2030 emissions reduction goal of EO B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40 percent below 1990 levels by 2030. AB 197 established the Joint Legislative Committee on Climate Change Policies, consisting of at least three members of the Senate and three members of the Assembly, in order to provide ongoing oversight over implementation of the state's climate policies.

[2] In July 2017, AB 398 was enacted into law, thereby extending the legislatively-authorized lifetime of the Cap-and-Trade Program to December 31, 2030.

AB 197 also added two members of the Legislature to CARB as nonvoting members. The legislation further requires CARB to make available and update (at least annually via its website) emissions data for GHGs, criteria air pollutants, and Toxic Air Contaminants (TACs) from reporting facilities; and identify specific information for GHG emissions reduction measures when updating the scoping plan, including information regarding the range of projected GHG emissions and air pollution reductions that result from each measure and the cost-effectiveness (including avoided social costs) of each measure (see Health & Safety Code Section 38562.7).

### *EO B-55-18*

In 2018, the Governor expanded upon EO S-3-05 by issuing Executive Order B-55-18 and creating a statewide goal of carbon neutrality by 2045. EO B-55-18 identifies CARB as the lead agency to develop a framework for implementation and progress tracking toward this goal. It should be noted that consistency with a statewide carbon neutrality target by 2045 represents the Governor's policy goal but is not required to make a significance determination. The state has already determined that 80 percent below 1990 levels by 2050 is a long-term target that represents California's share of emissions reductions to stabilize and limit global warming and "avoid dangerous climate change". EO B-30-15 sets forth the 2050 target endorsed by the IPCC's findings and notes that the state's 2050 target would "attain a level of emissions necessary to avoid dangerous climate change" because it may limit global warming to two degrees Celsius by 2050.

### *AB 1493*

In response to the transportation sector accounting for more than half of California's $CO_2$ emissions, AB 1493 was enacted in July 2002. AB 1493 required CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles determined by CARB to be vehicles that are primarily used for noncommercial personal transportation in the state. The bill required that CARB set GHG emission standards for motor vehicles manufactured in 2009 and all subsequent model years. CARB adopted the standards in September 2004. When fully phased in, the near-term (2009–2012) standards would result in a reduction of about 22 percent in GHG emissions compared to the emissions from the 2002 fleet, while the mid-term (2013–2016) standards would result in a reduction of about 30 percent (CARB, 2017b).

### *SB 375*

SB 375 (2008) addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. SB 375 required CARB to adopt regional GHG reduction targets for the automobile and light-truck sector for 2020 and 2035. Regional metropolitan planning organizations (MPOs) are then responsible for preparing a Sustainable Communities Strategy (SCS) within their Regional Transportation Plan. The goal of the SCS is to establish a forecasted development pattern for the region that, after considering transportation measures and policies, would achieve, if feasible and if implemented, the GHG reduction targets. If a SCS is unable to achieve the GHG reduction target, an MPO must prepare an Alternative Planning Strategy demonstrating how the GHG reduction target would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies.

### *Advanced Clean Cars Program*

In January 2012, CARB approved the Advanced Clean Cars program, a new emissions-control program for model years 2015 through 2025. The program combines the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package. The package includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars (CARB, 2017b). To improve air quality, CARB also has implemented new emission standards to reduce smog-forming emissions beginning with 2015 model year vehicles. It is estimated that, in 2025, cars would emit 75 percent less smog-forming pollution than the average new car sold today. To reduce GHG emissions, CARB, in conjunction with the EPA and the NHTSA, also has adopted new GHG standards for model year 2017 to 2025 vehicles; the new standards are estimated to reduce GHG emissions by 34 percent in 2025 (CARB, 2012).

### *EO B-16-12*

EO B-16-12 (March 2012) directs state entities under the Governor's direction and control to support and facilitate development and distribution of ZEVs. This EO also sets a long-term target of reaching 1.5 million zero-emission vehicles on California's roadways by 2025. On a statewide basis, EO B-16-12 also establishes a GHG emissions reduction target from the transportation sector equaling 80 percent less than 1990 levels by 2050. In furtherance of this EO, the Governor convened an Interagency Working Group on Zero-Emission Vehicles that has published multiple reports regarding the progress made on the penetration of ZEVs in the statewide vehicle fleet. As of January 2018, the Governor has called for as many as 1.5 million EV by 2025 and up to five million EV by 2030 (Office of Governor Edmund G. Brown Jr., 2018).

### *AB 1236*

AB 1236 (2015), as enacted in California's Planning and Zoning Law, requires local land use jurisdictions to approve applications for the installation of electric vehicle charging stations, as defined, through the issuance of specified permits unless there is substantial evidence in the record that the proposed installation would have a specific, adverse impact upon the public health or safety, and there is no feasible method to satisfactorily mitigate or avoid the specific, adverse impact. The bill requires local land use jurisdictions with a population of 200,000 or more residents to adopt an ordinance, by September 30, 2016, that creates an expedited and streamlined permitting process for electric vehicle charging stations, as specified.

### *SB 350*

In 2015, SB 350 – the Clean Energy and Pollution Reduction Act – was enacted into law. As one of its elements, SB 350 establishes a statewide policy for widespread electrification of the transportation sector, recognizing that such electrification is required for achievement of the state's 2030 and 2050 reduction targets (see Public Utilities Code Section 740.12).

### *$SF_6$ Leakage Requirements*

In 2010, the CARB published final regulations for $SF_6$ and outlined requirements for equipment operational from 2011 to beyond 2020. The purpose of this regulation is to achieve greenhouse gas emission reductions by reducing $SF_6$ emissions from gas insulated switchgear. Based on the requirements, the allowable leakage rate in 2011 was 10 percent. The allowable leakage rate in 2020

and each calendar year thereafter is 1 percent or a 90 percent reduction (CARB, 2010) from 2011 allowable rate.

***SB 1078***

SB 1078 (2002) established the Renewables Portfolio Standard (RPS) program, which requires an annual increase in renewable generation by the utilities equivalent to at least one percent of sales, with an aggregate goal of 20 percent by 2017. This goal was subsequently accelerated, requiring utilities to obtain 20 percent of their power from renewable sources by 2010.

***SB X1 2***

SB X1 2 (2011) expanded the RPS by establishing that 20 percent of the total electricity sold to retail customers in California per year by December 31, 2013, and 33 percent by December 31, 2020, and in subsequent years be secured from qualifying renewable energy sources. Under the bill, a renewable electrical generation facility is one that uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation of 30 megawatts or less, digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current, and that meets other specified requirements with respect to its location. In addition to the retail sellers previously covered by the RPS, SB X1 2 added local, publicly owned electric utilities to the RPS.

***SB 350***

SB 350 (2015) further expanded the RPS by establishing that 50 percent of the total electricity sold to retail customers in California per year by December 31, 2030 be secured from qualifying renewable energy sources. In addition, SB 350 includes the goal to double the energy efficiency savings in electricity and natural gas final end uses (such as heating, cooling, lighting, or class of energy uses on which an energy-efficiency program is focused) of retail customers through energy conservation and efficiency.

***SB 100***

SB 100 (2018) has further accelerated and expanded the RPS, requiring achievement of a 50 percent RPS by December 31, 2026 and a 60 percent RPS by December 31, 2030. SB 100 also established a new statewide policy goal that calls for eligible renewable energy resources and zero-carbon resources to supply 100 percent of electricity retail sales and 100 percent of electricity procured to serve all state agencies by December 31, 2045.

**Local**

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order 131-D (GO 131-D), Section XIV.B, “Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC’s jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters” (1995). Consequently, public utilities are directed to consider local regulations and consult with local agencies, but county regulations are not applicable as Fresno County does not have jurisdiction over the Proposed Project. Because the CPUC has exclusive jurisdiction over the Proposed

Project siting, design, and construction, the Proposed Project is not subject to local land use and zoning regulations or discretionary permits. This section identifies local GHG plans and regulations for informational purposes and to assist with California Environmental Quality Act (CEQA) review. Although LS Power Grid California, LLC (LSPGC) is not subject to local discretionary permitting, ministerial permits would be secured as required.

***Climate Change Action Plan***

The Proposed Project is located within the jurisdiction managed by San Joaquin Valley Air Pollution Control District (SJVAPCD).

CEQA requires lead agencies to establish specific procedures for administering its responsibilities under CEQA, including orderly evaluation of projects and preparation of environmental documents. In response to this, in August 2008, SJVAPCDs Governing Board adopted the Climate Change Action Plan (CCAP). Based on that plan, the district created processes to evaluate GHG significance. The plan covers projects that include Best Performance Standards (BPS), which are more typical of residential or commercial type projects, and projects that do not implement BPS (SJVAPCD, 2009).

Projects implementing BPS would not require quantification of project specific GHG emissions. Consistent with California Environmental Quality Act (CEQA), Guidelines, such projects would be determined to have a less-than-significant individual and cumulative impact for GHG emissions.

Projects not implementing BPS would require quantification of project-specific GHG emissions and demonstration that project-specific GHG emissions would be reduced or mitigated by at least 29 percent, compared to BAU, including GHG emission reductions achieved since the 2002-2004 baseline period. Projects achieving at least a 29 percent GHG emission reduction compared to BAU would be determined to have a less-than-significant individual and cumulative impact for GHG.

Since the Proposed Project is not a typical residential or commercial development project, including standard BPS is not applicable, so using a comparison between a BAU scenario in 2004 and an operational scenario estimated at 2023 would be appropriate. The comparison analysis would be required to show a 29 percent reduction over BAU.

### 4.8.3 IMPACT QUESTIONS

#### 4.8.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to Greenhouse Gases come from the CEQA, Appendix G Environmental Checklist (as amended in December 2019). According to the CEQA Environmental Checklist, a project may cause a potentially significant impact if it would:

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

- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

#### 4.8.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-Filing Proponent's Environmental Assessments* (CPUC, 2019a), there are no additional CEQA Impact Questions required for Greenhouse Gas Emissions.

### 4.8.4 IMPACT ANALYSIS

#### 4.8.4.1 Impact Analysis

**Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

**Less-than-Significant Impact.** The Proposed Project was analyzed using SJVAPCDs Business-as-Usual (BAU) approach which requires projects to have a reduction of GHG emissions of at least 29 percent from BAU, which is set at the year 2004. Projects that achieve this threshold are considered to have less-than-significant impacts. The Proposed Project would result in direct or indirect GHG emissions from project construction, project operations and maintenance activities, project operations energy consumption, and $SF_6$ leakage from project circuit breakers. To determine the significance of the Proposed Project's GHG impacts, these sources of GHG emissions were evaluated for the Proposed Project and the BAU scenario. For construction emissions, operation and maintenance activities, and operations energy usage, CalEEMod (version 2016.3.2)[3] was used to model emissions for both the BAU (2004) and the Proposed Project (2022 – 2023). CalEEMod GHG models for both BAU and the Proposed Project operational year (2023) are provided as Attachment A in **Appendix 4.8-A**, *Greenhouse Gases Screening Letter*. Construction emissions were amortized over 30 years based on the projected operational life of the Proposed Project. Emissions from the eventual decommissioning would be similar to those from Proposed Project construction. To be conservative, the emissions from decommissioning were assumed to be the same as those from construction. This assumption is considered conservative because decommissioning would result in fewer emissions of GHGs than construction. At the current level of Proposed Project design, the final $SF_6$ volume within the circuit breakers is not yet known. However, the manufacturer was able to provide typical values, and these were used in this analysis. In addition, the Proposed Project would comply with CARB regulations regarding $SF_6$ leak rates. The typical volume of $SF_6$ gas was used in conjunction with regulatory limits for leak rate to compare project emissions to BAU.

The Proposed Project construction includes site preparation and grading, installation of drainage and retention basins, installation of foundations/supports, setting of equipment, wiring and electrical system installation, and assembly of the accessory components. The Proposed Project would require site grading as well as import of roughly 17,000 cubic yards (CY) of suitable base material and export of roughly 2,000 CY. The Proposed Project plans to start grading and construction in March of 2022 and be completed in the December of 2023 and was assumed to have a 6-day work week (Monday through Saturday). The estimated equipment list and construction task durations are shown in **Table 4.8-1**, *Anticipated Construction Equipment and Durations.* Material hauling/truck details along with worker trips were provided within **Section 3.0**, *Project Description* (See **Table 3-6**) and was manually updated within the CalEEMod software.

[3] CalEEMod 2016.3.2 air quality and GHG model, which was developed by BREEZE Software for South Coast Air Quality Management District (SCAQMD) in 2017. CalEEMod utilizes EMFAC 2014 for vehicular emission rates for each operational year. SJVAPCD recognizes the CalEEMod Version 2016.3.2 as an acceptable model for projects of this nature.

| Table 4.8-1: Anticipated Construction Equipment and Durations | | | | |
|---|---|---|---|---|
| **Equipment Identification** | **Estimated Start** | **Estimated Completion** | **Quantity** | **HP** |
| **Site Preparation/Road Work** | 03/15/2022 | 5/28/2022 | | |
| Graders | | | 1 | 250 |
| Off-Highway Trucks (Dump Truck) | | | 4 | 415 |
| Off-Highway Trucks (Water Truck) | | | 4 | 300 |
| Rollers | | | 1 | 405 |
| Rubber Tired Loaders (4-5 yard) | | | 1 | 275 |
| **Below-Grade Construction** | 06/1/2022 | 8/30/2022 | | |
| Excavators | | | 1 | 108 |
| Off-Highway Trucks (Water Truck) | | | 4 | 300 |
| Forklifts | | | 1 | 100 |
| Tractors/Loaders/Backhoes | | | 1 | 68 |
| Excavators | | | 1 | 70 |
| Rubber Tired Loaders (4-5 yard) | | | 1 | 275 |
| Drill Rig | | | 1 | 125 |
| Off-Highway Trucks (Dump Truck) | | | 1 | 415 |
| Skid Steer Loaders | | | 1 | 74 |
| Trenchers | | | 1 | 75 |
| **Above Grade Construction and Equipment Installation** | 09/1/2022 | 8/15/2023 | | |
| Aerial Lifts | | | 1 | 49 |
| Aerial Lifts | | | 1 | 74 |
| Cranes (17 Ton) | | | 1 | 250 |
| Cranes (30 ton) | | | 1 | 130 |
| Forklifts | | | 2 | 130 |
| Welders | | | 1 | 395 |
| **Commissioning and Testing** [1] | 8/16/23 | 12/15/23 | | |
| Forklifts | | | 2 | 130 |
| Aerial Lifts | | | 1 | 49 |

[1] Commissioning and Testing estimated between 6/15/2023 and 12/15/2023. For the purposes of modeling and to avoid double-counting, forklifts and aerial lifts are the same units as within Above Grade Construction. For this purpose, commissioning and testing was modeled with a start date of 8/16/2023.

Based on modeling conducted (refer to **Appendix 4.8-A**), BAU construction (between 2003 and 2004) for the Proposed Project would generate 1,395 Metric Tons (MT) $CO_2e$ over the estimated construction period. Given the fact that the total emissions would ultimately contribute to cumulative levels, it is acceptable to average the total construction emission over the life of the Proposed Project (i.e., amortize), which is assumed to be 30 years (SCAQMD, 2008). Given this, as shown in **Table 4.8-2**, *Expected Annual Construction* $CO_2e$ *Emissions (BAU),* the Proposed Project would add approximately 46.51 MT $CO_2e$ per year from construction.

| Table 4.8-2: Expected Annual Construction $CO_2e$ Emissions (BAU) | | | | | | |
|---|---|---|---|---|---|---|
| **Year** | **Bio-$CO_2$** | **NBio-$CO_2$** | **Total $CO_2$** | **$CH_4$** | **$N_2O$** | **$CO_2e$ (MT/Yr)** |
| 2003 | 0.00 | 1,057.16 | 1,057.16 | 0.17 | 0.00 | 1,061.47 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 2004 | 0.00 | 332.39 | 332.29 | 0.06 | 0.00 | 332.97 |
| | | | | | **Total** | **1,395.39** |
| | | | | | **Yearly Average Construction Emissions (Metric Tons/year over 30 years)** | **46.51** |
| Expected Construction emissions are based upon CalEEMod modeling assumptions (**Table 4.8-1** above though years modified to 2003 and 2004) | | | | | | |

Similarly, as shown in **Table 4.8-3**, *Expected Annual Construction* $CO_2e$ *Emissions (Project),* Proposed Project construction (between 2022 and 2023) would generate 1,173.66 MT $CO_2e$ over the estimated construction period. This equates to an annual average of 39.12 MT $CO_2e$ per year from construction. The reductions achieved are primarily due to the fact that both construction equipment and worker vehicles used are more efficient in 2023. GHG emissions from the eventual decommissioning of the Proposed Project would be expected to result in similar reduction when compared to BAU. While GHG impacts from construction are anticipated to be less than significant, **Applicant Proposed Measure** (**APM**) **GHG-1** is being proposed to minimize GHG emissions through low-cost emission reduction measures that are common for construction projects in California.

**Table 4.8-3: Expected Annual Construction $CO_2e$ Emissions (Project)**

| Year | Bio-$CO_2$ | NBio-$CO_2$ | Total $CO_2$ | $CH_4$ | $N_2O$ | $CO_2e$ (MT/Yr) |
|---|---|---|---|---|---|---|
| 2022 | 0.00 | 886.72 | 886.72 | 0.25 | 0.00 | 892.87 |
| 2023 | 0.00 | 279.53 | 279.53 | 0.05 | 0.00 | 280.78 |
| | | | | | Total | 1,173.66 |
| | | | | | Yearly Average Construction Emissions (Metric Tons/year over 30 years) | 39.12 |
| Expected Construction emissions are based upon CalEEMod modeling assumptions (Table 4.8-1 above) | | | | | | |

Operations of the Proposed Project would begin once construction is completed. Operational emissions sources would include the consumption of energy on-site from project auxiliary equipment, such as control room HVAC units, communications equipment, and lighting. It is assumed that the total demand on-site would be six kilowatts (kW) continuous per building or roughly 105,120 kWH per year and was modeled as such within CalEEMod. CalEEMod was used to estimate annual operational-related emissions for both the 2004 BAU scenario and the Proposed Project scenario which would be operational in 2023.

Regarding the Proposed Project's energy intensity factors, CalEEMod's default rates do not include state regulated renewable energy mandates for energy providers such as PG&E[4]. Given this, PG&E energy-intensity factors for 2023 were calculated and were modeled as such within CalEEMod (CPUC, 2019b). Under the BAU approach, energy consumption at BAU would not include RPS under SB 100. In 2023, the Proposed Project would utilize energy with RPS expected to be near 47.8 percent.

Additional emissions during Proposed Project operations would occur from mobile vehicle visits to the Proposed Project site associated with periodic O&M activities. Typical operations would include monthly staff operations and maintenance visits, with crews of two to four persons generating two to four trips twice per month. For purposes of preparing an overly conservative analysis, it was assumed that the Proposed Project would generate four trips per day using a rural setting. These parameters

[4] Based on the requirements of SB 100 (State of California, 2018) utility providers are required to have 60 percent of their portfolio supplied by renewable energy sources. To date, PG&E has achieved 39 percent and in 2023, PG&E should have 47.8 percent in place to meet requirements of SB 100 in 2030.

were utilized for the GHG emission modeling (refer to Attachment A of **Appendix 4.8-A**, *Greenhouse Gas Screening Letter*).

Finally, the Proposed Project would install and operate three 550kV gas insulated circuit breakers, which would contain $SF_6$ used for insulation. Based on CARBs 2010 regulations, the allowable $SF_6$ leak rate for circuit breakers was 10 percent in the year 2011. To be conservative, BAU (defined as year 2004) was assumed to have the same leakage rate allowed in 2011 under CARBs regulations. CARB's regulations also dictate that the maximum allowable $SF_6$ leak rate for year 2020 and beyond is one percent. Therefore, Proposed Project operations are assumed to achieve the currently required maximum leak rate of one percent. This comparison is considered to be conservative because the $SF_6$ leak rate in 2004 likely could have been greater than 10 percent and the actual Proposed Project $SF_6$ leak rates may be less than the required one percent. When the Proposed Project is compared to BAU, a 90 percent per year leak reduction is realized. While the final amount of $SF_6$ that will be used in the circuit breakers is not yet known, the manufacturer lists a typical storage of 595 pounds per circuit breaker, or 1,785 pounds total. In 2023, the circuit breakers can emit up to a maximum of 17.85 pounds of $SF_6$ by law. Under the baseline scenario in 2004, $SF_6$ regulations are not readily available. Therefore, 2011 $SF_6$ regulations were used as a conservative BAU baseline. Under these baseline conditions, Proposed Project's circuit breakers could emit up to 178.5 pounds of $SF_6$.

Under the BAU scenario, the expected operational emissions including amortized construction emissions would be expected to generate 2,017.11 $MTCO_2e$ per year (See **Table 4.8-4,** *Operational Emissions Summary MT/Year [BAU]*). It should be noted that the Proposed Project scenario analyzed herein includes both annualized construction and operational emissions combined to reflect the total annual GHG emission produced by the Proposed Project.

**Table 4.8-4: Operational Emissions Summary MT/Year (BAU)**

| Year | Bio-$CO_2$ | NBio-$CO_2$ | Total $CO_2$ | $CH_4$ | $N_2O$ | $CO_2e$ (MT/Yr) |
|---|---|---|---|---|---|---|
| Area | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Energy | 0.00 | 30.58 | 30.58 | 0.00 | 0.00 | 30.70 |
| Mobile | 0.00 | 4.87 | 4.87 | 0.00 | 0.00 | 4.90 |
| Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Water | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | | | Sub Total (MT/Year) | 35.60 |
| | | | | | $SF_6$ emissions (Allowed 10 percent or 178.5 pounds) | 1,935 |
| | | | | | Amortized Construction Emissions (Table 4.8-2 above) | 46.51 |
| | | | | | **Total Construction and Operations (MT/Year)** | **2,017.11** |

Data is in Metric Tons (MT). Conversion rate is 1 pound = 0.000453592 MT.
Data is presented in decimal format and may have rounding errors.
Pounds of $SF_6$ is converted to $CO_2e$ using the global warming potential of 23,900.

Under the 2023 Proposed Project scenario, the expected operational emissions including amortized construction would generate emissions of 65.98 $MTCO_2e$ per year (See **Table 4.8-5,** *Operational Emissions Summary MT/Year [Project]*).

| Table 4.8-5: Operational Emissions Summary MT/Year (Project) | | | | | | |
|---|---|---|---|---|---|---|
| **Year** | **Bio-$CO_2$** | **NBio-$CO_2$** | **Total $CO_2$** | **$CH_4$** | **$N_2O$** | **$CO_2e$ (MT/Yr)** |
| Area | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Energy | 0.00 | 15.98 | 15.98 | 0.00 | 0.00 | 16.04 |
| Mobile | 0.00 | 4.19 | 4.19 | 0.00 | 0.00 | 4.20 |
| Waste | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Water | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Sub Total (MT/Year) | | | | | | 20.23 |
| $SF_6$ Emissions (Allowed 1 percent or 17.85 pounds) | | | | | | 19.35 |
| Amortized Construction Emissions (Table 4.8-3 above) | | | | | | 39.12 |
| **Total Construction and Operations (MT/Year)** | | | | | | **78.70** |
| **Combined BAU Scenario** | | | | | | **2,017.11** |
| **Reduction over BAU** | | | | | | **1,938.41** |
| **Percentage Reduction over BAU** | | | | | | **96.1 %** |
| Data is in Metric Tons (MT). Conversion rate is 1 pound = 0.000453592 MT.<br>Data is presented in decimal format and may have rounding errors.<br>Pounds of $SF_6$ is converted to $CO_2e$ using the global warming potential of 23,900. | | | | | | |

As shown in **Table 4.8-5**, *Operational Emissions Summary MT/Year (Project)* the Proposed Project's GHG emissions reduction of 96.1 percent is above the SJCAPCD's minimum of 29 percent. Therefore, impacts would be less than significant under this criterion. **APM GHG-1** would also be implemented to minimize the emissions of GHGs during construction of the Proposed Project.

Aside from the physical emissions of GHGs from construction and operation of the Proposed Project, implementation of the Proposed Project would serve to help integrate existing and future renewable energy projects. By making the transmission system more compatible with renewable energy generation, emissions of GHGs would be indirectly reduced. This affect would increase over time as the PG&E renewable portfolio continues to increase towards reaching the requirement of 60 percent by 2030.

**Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?**

**Less-than-Significant Impact.** In August 2008, SJVAPCDs Governing Board adopted the CCAP. Based on that plan, the district came up with processes to evaluate GHG significance. The plan covers projects that include BPS, which are more typical of residential or commercial type projects, as well as projects that do not implement BPS.

Projects not implementing BPS, such as the Proposed Project, would require quantification of project-specific GHG emissions and demonstration that project-specific GHG emissions would be reduced or mitigated by at least 29 percent, compared to BAU, including GHG emission reductions achieved since the 2002-2004 baseline period. Projects achieving at least a 29 percent GHG emission reduction compared to BAU would be determined to have a less-than-significant individual and cumulative impact for GHG.

Based on findings shown in **Table 4.8-5**, *Operational Emissions Summary MT/Year (Project),* the Proposed Project would generate a 96.1 percent reduction in GHG emissions over BAU, which is above the SJCAPCD's threshold of 29 percent. Therefore, GHG impacts would be considered less than significant under this criterion.

#### 4.8.4.2 Natural Gas Storage Accident Conditions

The Proposed Project does not involve the storage or transmission of natural gas.

#### 4.8.4.3 Monitoring and Contingency Plan

The Proposed Project does not involve the storage or transmission of natural gas.

### 4.8.5 CPUC DRAFT ENVIRONMENTAL MEASURES

The Proposed Project does not include any CPUC Draft Environmental Measures. However, **APM GHG-1** has been included to reduce emissions of GHGs.

### 4.8.6 APPLICANT PROPOSED MEASURES

While impacts are anticipated to be less than significant based solely on the Proposed Project as described in **Section 3.0**, *Project Description*, the applicant has included the following APM to reduce emissions of GHGs during construction activities.

**APM GHG-1**

The following measures shall be implemented to minimize greenhouse gas emissions from all construction sites:

- If suitable park-and-ride facilities are available in the Proposed Project vicinity, construction workers shall be encouraged to carpool to the job site.
- Demolition debris shall be recycled for reuse to the extent feasible.
- The contractor shall use line power instead of diesel generators at all construction sites where line power is available.
- The contractor shall maintain construction equipment per manufacturing specifications.

## 4.9 HAZARDS, HAZARDOUS MATERIALS, AND PUBLIC SAFETY

| Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | | | X | |
| b. | Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | | | X | |
| c. | Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | | | | X |
| d. | Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | | | | X |
| e. | For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? | | | | X |
| f. | Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | | | X | |
| g. | Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? | | | X | |
| h. | Create a significant hazard to air traffic from the installation of new power lines and structures? | | | | X |
| i. | Create a significant hazard to the public or environment through the transport of heavy materials using helicopters? | | | | X |

| Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| j. | Expose people to a significant risk of injury or death involving unexploded ordnance? | | | | X |
| k. | Expose workers or the public to excessive shock hazards? | | | X | |

This section describes the Hazards, Hazardous Materials, and Public Safety within the vicinity of the Proposed Project as well as potential impacts that could result from construction and operation and maintenance (O&M) of the Proposed Project.

### 4.9.1 ENVIRONMENTAL SETTING

The Proposed Project site is located within an unincorporated area of Fresno County directly north of, and adjacent to, the Pacific Gas and Electric (PG&E) owned Gates Substation. The Proposed Project is located approximately 3.3 miles southwest of the city of Huron. The land to the north, east, and west of the Proposed Project site are used exclusively for agricultural purposes with no development, and the existing PG&E Gates Substation is located to the south.

Topography in the vicinity of the Proposed Project site is flat with active agriculture. Geologic and hydrologic conditions in the Proposed Project are described in **Sections 4.7 and 4.10**, *Geology, Soils, and Paleontological Resources* and *Hydrology and Water Quality*, respectively.

Based on a review of topographic maps and aerial photographs dating as early as 1912, the Proposed Project and surrounding property consisted of native land. A small 2-track road appears to cross through the central and southeastern portions of the Proposed Project in the late 1930s and early 1940s. Agricultural activities had begun on the Proposed Project and surrounding land by the mid-1950s. Around this same time, a portion of the existing adjacent PG&E Gates Substation had been developed with transmission lines entering the substation. By the early 1970s, the PG&E Gates Substation had developed further to the southwest of the Proposed Project site. Besides the PG&E Gates Substation, the Proposed Project site and surrounding area continued to consist of agricultural activities. Little change was observed on the Proposed Project site or surrounding properties from the mid-1970s to the present time, with agricultural activities continuing on the Proposed Project site.

Currently, the PG&E Gates Substation houses mineral oil-filled electrical equipment (e.g., transformers, regulators, oil circuit breakers) and associated equipment, material, and controls. The PG&E Gates Substation is listed as a hazardous waste generator, Auto Repair/Maintenance Model Plan, containing Emergency Planning Community Right-to-Know Act (EPCRA) Batteries and as having above-ground storage tank (AST) capacity of 10,000 to 99,999 gallons. Larger ASTs, located near the PG&E Gates Substation, do not appear to be immediately adjacent to the Proposed Project.

#### 4.9.1.1 Hazardous Materials Report

In March 2020, Mathis and Associates, Inc. prepared the Phase I Environmental Site Assessment (ESA) (Mathis and Associates, 2020) for the Proposed Project site. The Phase I ESA was prepared under the guidance of Standard Practice E 1527-13 of American Society for Testing Materials International (ASTM). Practice E 1527-13 defines the extent and limit of "appropriate inquiry" as defined in 42 U.S.C. §9601(35) (B) for Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) liability and defense provisions. The objective of the Phase I ESA was to determine the presence or absence of recognized environmental conditions (RECs), controlled recognized environmental conditions (CRECs) and historical recognized environmental conditions (HRECs), as defined in the ASTM standard as "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment." The assessment included review of historical property uses of the Proposed Project area, review of historical topographic maps and aerial photographs, review of previous environmental reports or assessments conducted in the vicinity, review of federal and state environmental records databases including an environmental database report generated by GeoSearch and reconnaissance survey of the Proposed Project area. The databases search by GeoSearch was conducted in accordance with ASTM Standard E 1527-13 and included the required databases as well as several additional federal and state databases and databases proprietary to GeoSearch. The Phase I ESA and GeoSearch report are provided in **Appendix 4.9-A**.

In addition to the Phase I ESA and database resources reviewed therein, other potential site hazards and hazardous materials in the vicinity of the Proposed Project site were evaluated through review of the following available resources:

- State Water Resources Control Board (SWRCB) GeoTracker database;
- Department of Toxic Substances Control (DTSC) EnvironStor database;
- California Department of Conservation (CDC), Wellfinder;
- California Department of Water Resources (DWR); and
- Fresno County Tax Assessor.

The Phase I ESA included an environmental regulatory review to establish the environmental history of the Proposed Project site and surrounding area to ascertain whether hazardous waste or hazardous material management, handling, treatment, or disposal activities have occurred on or near the Proposed Project. An environmental database report generated by GeoSearch on March 23, 2020, did not identify any relevant nearby hazardous waste sites or facilities. The PG&E Gates Substation is listed as a hazardous waste generator, Auto Repair/Maintenance Model Plan, containing EPCRA Batteries and as having AST capacity of 10,000 to 99,999 gallons.

The Phase I ESA also included a reconnaissance survey of the Proposed Project area and review of supplemental records from the SWRCB GeoTracker website, which contains environmental data for regulated facilities in California including cleanup sites and hazardous waste facilities, and the DTSC EnviroStor website (2020), which includes data for leaking underground storage tanks and other cleanup sites, disposal sites, and hazardous waste permitted facilities. No sites were identified within a two-mile radius of the Proposed Project site.

The Phase I ESA had the following relevant findings and conclusions with regard to the Proposed Project:

- No relevant nearby hazardous wastes or materials sites or facilities were listed in the supplemental databases search. The adjacent PG&E Gates Substation is listed as a hazardous waste generator. However, no relevant releases of hazardous waste have been reported in association with this facility.

- No wells, evidence of underground storage tanks, or evidence of spills, staining, or leaking of hazardous materials or petroleum products were found within the Proposed Project area.

- Review of historical aerial photographs and topographic maps did not identify any past uses of the Proposed Project area considered to be RECs.

- No potential sources of vapor intrusion or vapor encroachment were identified that would be considered to be RECs for the Proposed Project.

- No evidence of RECs was identified in connection with the Proposed Project.

#### 4.9.1.2 Airport Land Use Plan

No portion of the Proposed Project comes within one mile of a public, private, or military airport runway or associated airport land use plan. The closest public airports are the New Coalinga Municipal Airport, which is approximately 10 miles west of the Proposed Project site, and the Harris Ranch Airport, which is approximately 9.1 miles northwest of the Proposed Project site. In addition, the Lemoore Naval Air Station is located approximately 15 miles northeast of the Proposed Project site (California Public Records, 2020).

#### 4.9.1.3 Fire Hazard

As defined by CAL FIRE, the Proposed Project site is located within an a “unzoned” Local Responsibility Area (LRA) (CAL FIRE, 2018a) and is not located within a State Responsibility Area (SRA) (CAL FIRE, 2018b). The closest SRA is approximately eight miles from the Proposed Project site.

CAL FIRE adopted Fire Hazard Severity Zone (FHSZ) mapping for SRAs throughout the state. These maps rate wildfire hazards as “moderate,” “high,” or “very high” based on fuel loading, slope, fire weather, and other relevant factors. In the vicinity of the Proposed Project, the closest SRA area (moderate) is located approximately eight miles to the southwest, near the city of Coalinga (CAL FIRE, 2018a). CAL FIRE has mapped the Proposed Project site as being in an “unzoned” fire hazard severity zone (CAL FIRE, 2020).

The California Public Utilities Commission (CPUC) mapped high fire threat areas where more stringent requirements would be implemented due to the elevated risk for power line fires. The CPUC High Fire Threat District Map identifies three tiers of elevated risk for fires associated with utilities. The Proposed Project site is not located within a CPUC designated Fire Threat District (CPUC, 2020a).

Additionally, irrigated and cultivated agricultural fields and road corridors reduce potential fire hazards in the Proposed Project vicinity. Furthermore, the adjacent PG&E Gates Substation has an active vegetation management program that removes vegetation from the undeveloped portions of their property to further reduce the area's fire hazard risks.

#### 4.9.1.4 Metallic Objects

There are no known existing metallic pipelines or cables located within 25 feet of the Proposed Project site.

### 4.9.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

#### 4.9.2.1 Regulatory Setting

**Federal**

***Resource Conservation and Recovery Act***

Under the Resource Conservation and Recovery Act (RCRA) of 1976 (RCRA; 42 USC section 6901 et seq.), individual states may implement their own hazardous waste programs in lieu of RCRA as long as the state program is at least as stringent as the federal RCRA requirements (USEPA, 2020). RCRA (42 USC section 6901 et seq.) regulates hazardous waste from the time that waste is generated until its final disposal through management, storage, transport, and treatment. The federal government approved California's RCRA program, called the Hazardous Waste Control Law (HWCL), in 1992. In California, the RCRA program is administered by the California Environmental Protection Agency (CalEPA) Department of Toxic Substances Control (DTSC), per direction of the U.S. Environmental Protection Agency (USEPA).

***Comprehensive Environmental Response, Compensation, and Liability Act***

The CERCLA (CERCLA; 42 USC Chapter 103) and associated Superfund Amendments provide the USEPA with the authority to identify hazardous sites, to require site remediation, and to recover the costs of site remediation from polluters (USEPA, 2020). CERCLA also enabled the revision of the National Oil and Hazardous Substances Pollution Contingency Plan, also known as the National Contingency Plan (NCP). The NCP provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants.

***U.S. Department of Transportation Hazardous Materials Regulations***

The U.S. Department of Transportation (DOT) Hazardous Materials Regulations (Title 49 CFR Parts 100–172) cover all aspects of hazardous materials packaging, handling, and transportation (US DOT, 2015).

## State

### *Hazardous Waste Control Law*

The HWCL (California Health and Safety Code [HSC], Chapter 6.5 section 25100 et seq.) authorizes Cal/EPA's DTSC to regulate the generation, transportation, treatment, storage, and disposal of hazardous wastes (State of California, 2014). DTSC can also delegate enforcement responsibilities to local jurisdictions that enter into agreements with DTSC for the generation, transport, and disposal of hazardous materials under the authority of HWCL.

### *Hazardous Substance Account Act*

The Hazardous Substance Account Act (HSAA) (California HSC Chapter 6.8 section 25300 et seq.) is California's equivalent to CERCLA (State of California, 2015). It addresses hazardous waste sites and apportions liability for them. The HSAA also provides that owners are responsible for the cleanup of such sites and the removal of toxic substances, where possible.

The two state agencies with primary responsibility for enforcing federal and state regulations related to hazardous material transport, and responding to hazardous materials transportation emergencies are the California Highway Patrol (CHP) and California Department of Transportation (Caltrans), respectively.

### *Occupational Health and Safety*

The California Division of Occupational Safety and Health (Cal/OSHA) assumes primary responsibility for developing and enforcing workplace safety regulations within the state (California Code of Regulations [CCR] Title 8). Cal/OSHA standards are more stringent than federal OSHA regulations and take precedence (California Department of Industrial Relations, Division of OSHA, 2020).

### *Hazardous Materials Management*

The California Office of Emergency Services is the state office responsible for establishing emergency response and spill notification plans related to hazardous materials accidents. CCR Title 26 is a compilation of the chapters or titles of the CCR that are applicable to hazardous materials management.

### *Porter-Cologne Water Quality Control Act*

As discussed in more detail in **Section 4.10**, *Hydrology and Water Quality*, the Porter-Cologne Water Quality Control Act (California Water Code, Division 7) is the provision of the California Water Code that regulates water quality in California and authorizes the SWRCB and nine Regional Water Quality Control Boards (RWQCBs) to implement and enforce the regulations. The RWQCBs regulate discharges under Porter-Cologne primarily through the issuance of waste discharge requirements. Anyone discharging or proposing to discharge materials that could affect water quality must file a report of waste discharge. The SWRCB and the RWQCBs can make their own investigations or may require dischargers to carry out water quality investigations and report on water quality issues. Porter-Cologne provides several means of enforcement, including cease and desist orders, cleanup and abatement orders, administrative civil liability orders, civil court

actions, and criminal prosecution. The Proposed Project area is under the jurisdiction of the Central Valley RWQCB – Fresno Office (California Department of Water Resources, 2020).

### *Unified Hazardous Waste and Hazardous Materials Management Regulatory Program*

The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program) (CCR Title 27) was mandated by the state of California in 1993. The Unified Program was created to consolidate, coordinate, and make consistent the administrative requirements, permits, inspections, and enforcement activities for six hazardous materials programs. The program has six elements:

- Hazardous Waste Generators and Hazardous Waste On-site Treatment;
- Underground Storage Tanks;
- Aboveground Petroleum Storage Act;
- Hazardous Materials Release Response Plans and Inventories;
- California Accidental Release Prevention; and
- Uniform Fire Code Hazardous Materials Management Plans and Hazardous Materials.

### *Inventory Statements*

At the local level, this is accomplished by identifying a Certified Unified Program Agency (CUPA) that coordinates all of these activities to streamline the process for local businesses. The Fresno County Department of Public Health is approved by Cal/EPA as the CUPA for Fresno County (CalEPA, 2020).

### *Rules for Overhead Electric Line Construction*

Under Section 35 of General Order 95, the CPUC regulates all aspects of design, construction, and O&M of electrical power lines and fire safety hazards for utilities subject to their jurisdiction (CPUC, 2020b).

### *Fire Prevention Standards for Electric Utilities*

The Fire Prevention Standards for Electric Utilities (CCR Title 14, sections 1250-1258) provide definitions, maps, specifications, and clearance standards for projects under the jurisdiction of California Public Resources Code (PRC) sections 4292 and 4293 in SRAs.

### *California Fire Code*

The California Fire Code 2010 (CCR Title 24, Part 9) is based on the International Fire Code from the International Code Council and contains consensus standards related to establishing good practices to safeguard the public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new or existing buildings, structures, and premises.

### *California Public Utilities Commission*

The CPUC's Utilities Safety and Reliability Branch of the Consumer Protection and Safety Division was established, in part, to oversee the safety of privately owned electric, communications, natural gas, and propane gas systems. It enforces CPUC rules and regulations, investigates and

recommends ways to reduce utility related accidents, and advises the CPUC on related matters. The CPUC has created a list of safety-related General Orders to govern the construction and operation of power and communication lines subject to its jurisdiction.

### *California Department of Toxic Substances Control*

The California Hazardous Waste Control Act governs hazardous waste management and cleanup in the state (HSC Chapter 6.5-6.98). The act mirrors RCRA and imposes a cradle-to-grave regulatory system for handling hazardous waste in a manner that protects human health and the environment. It requires all businesses to report the quantity and locations of hazardous materials on an annual basis if the business stores (1) more than 55 gallons of a liquid or 500 pounds of a solid hazardous material, (2) more than 200 cubic feet of a compressed gas, or (3) a radioactive material that is handled in quantities for which an emergency plan is required. Businesses falling within these limits must prepare a Hazardous Material Business Plan (HMBP), which includes spill prevention, containment, emergency response measures, and a contingency plan. Implementation of the Hazardous Waste Control Act is the responsibility of the DTSC.

## Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order 131-D (GO 131-D), Section XIV.B, “Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC’s jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters” (CPUC, 1995). Consequently, public utilities are directed to consider local regulations and consult with local agencies, but county regulations are not applicable as Fresno County does not have jurisdiction over the Proposed Project. Because the CPUC has exclusive jurisdiction over the Proposed Project siting, design, and construction, the Proposed Project is not subject to local land use and zoning regulations or discretionary permits. This section identifies local hazardous materials and public safety plans and regulations for informational purposes and to assist with California Environmental Quality Act (CEQA) review. Although LS Power Grid California, LLC (LSPGC) is not subject to local discretionary permitting, ministerial permits would be secured as required.

### *Fresno County Operational Area Master Emergency Services Plan*

Fresno County Office of Emergency Services (OES) coordinates the development and maintenance of the Fresno County Operational Area Master Emergency Services Plan. This plan serves as a guide for the county's response to emergencies/disasters in the unincorporated areas of the county. The purpose of this plan is to ensure the most effective and economical use of all resources, material and manpower, for the maximum benefit and protection of effected populations in an emergency/disaster. In the county's role as the Operational Area lead agency, County OES maintains ongoing communication with local government agencies (County Departments, Incorporated Cities, Special Districts, and Public School Districts) as well as many state and federal agencies and nonprofit organizations to maintain and enhance the communities capability to respond to and recover from disasters. During disasters, these communications concern situation reports, damage assessments, declarations of emergency for local, state and federal agencies, mutual aid requests, and disaster cost reimbursement application procedures and coordination.

***Fresno County Multi-Hazard Mitigation Plan***

The Fresno County Multi-Hazard Mitigation Plan was developed in 2009 through cooperation between Fresno County and 12 other jurisdictions (incorporated and unincorporated communities, flood control districts, fire safe council) allowing for the geographical coverage of everything within Fresno County's jurisdictional boundaries. The plan identifies and analyzes existing hazards (such as earthquakes, fire, drought, and severe weather), assesses community vulnerability and mitigation capabilities, and provides mitigation strategies, a mitigation action plan, and an implementation program (Fresno County, 2018).

#### 4.9.2.2 Touch Thresholds

OSHA standards cover many electrical hazards. OSHA's general industry electrical safety standards are published in Title 29 Code of Federal Regulations (CFR), Part 1910.302 through 1910.308 -- Design Safety Standards for Electrical Systems, and 1910.331 through 1910.335 -- Electrical Safety-Related Work Practices Standards (Electronic CFR, 2020). OSHA's electrical standards are based on the National Fire Protection Association (NFPA) Standards NFPA 70, National Electric Code, and NFPA 70E, Electrical Safety Requirements for Employee Workplaces (NFPA, 2020).

The Proposed Project would be designed to all applicable standards and regulations that would provide for adequate horizontal and vertical clearances from electrical equipment. All authorized personnel working on-site, during either construction or O&M, would be trained according to OSHA, NFPA and LSPGC standards. To minimize potential exposure of the public to electric shock hazards, an 8-foot-tall chain link fence topped with one foot of barbed wire would extend around the perimeter of the Proposed Project site, thus restricting site access. Warning signs would be posted to alert persons of potential electrical hazards. All electric power lines would be designed in accordance with CPUC General Order 95 Guidelines for safe ground clearances established to protect the public from electric shock.

### 4.9.3 IMPACT QUESTIONS

#### 4.9.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to Hazards, Hazardous Materials and Public Safety come from the CEQA, Appendix G Environmental Checklist (as amended in December 2019). According to the CEQA Environmental Checklist, a project may cause a potentially significant impact if it would:

- 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; or

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

- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment; or

- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area; or

- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or

- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

#### 4.9.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-Filing Proponent's Environmental Assessments* (CPUC, 2019), the following additional CEQA Impact Questions are required for Hazards, Hazardous Materials and Public Safety:

- Would the project create a significant hazard to air traffic from the installation of new power lines and structures?

- Would the project create a significant hazard to the public or environment through the transport of heavy materials using helicopters?

- Would the project expose people to a significant risk of injury or death involving unexploded ordnance?

- Would the project expose workers or the public to excessive shock hazards?

### 4.9.4 IMPACT ANALYSIS

#### 4.9.4.1 Impact Analysis

**Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**

**Less-Than-Significant Impact.** Construction of the Proposed Project would require the routine use of construction equipment that would use or contains hazardous materials including, but not limited to, diesel fuel, gasoline, lubrication oil, hydraulic fluid, antifreeze, transmission fluid, lubricating grease, and cement slurry. Equipment containing or transporting these materials would regularly travel throughout the Proposed Project area and region during construction periods. Additionally, the Proposed Project would include 500 kilovolt (kV) transformers containing mineral oil, which is considered a hazardous material in the state of California. The three 500 kV transformers would each contain approximately 20,000 gallons of mineral oil. Such materials have the potential to result in accidental releases that may affect the public or environment (e.g., contamination of soils, surface water and/or groundwater quality impairment, and floral/faunal toxicity effects). The Proposed Project site is located within an isolated area where on-site spills

or releases have limited potential for direct contact and impact to the general public. However, off-site transport of released materials in contaminated soils, surface waters, and/or groundwater has the potential to result in impacts. On-site releases also have the potential to impact workers and the environment through direct contact. Additionally, the improper disposal of hazardous wastes on- or off-site may impact the public, workers, and/or the environment. The potential for off-site material transport in surface and groundwater resources is discussed in **Section 4.10,** *Hydrology and Water Quality.*

All hazardous materials would be stored, handled, and used in accordance with applicable regulations. Based on the anticipated volume of hazardous liquid materials, such as fuel, that would be stored and dispensed at staging areas, a Spill Prevention, Control, and Countermeasure Plan (SPCCP) would be prepared (in accordance with 40 C.F.R. Parts 112.1-112.7) in accordance with **Applicant Proposed Measure (APM) HAZ-1**. Prior to construction, a Hazardous Materials Management Plan (HMMP) would also be prepared describing hazardous materials use, transport, storage, management, and disposal protocols (**APM HAZ-2**).

The potential for the Proposed Project to result in a significant hazard to the public or environment through the transport, use, or disposal of hazardous materials would be less than significant with the implementation of the SPCCP and HMMP (**APMs HAZ-1 and HAZ-2**), and **APMs WQ-1** (Limited On-site Vehicle and Equipment Fueling) and **APM CUL-1** (Worker Environmental Awareness Program). These measures would minimize the risk of a release of hazardous substances and would help ensure that in the event of such a release, a significant hazard to the public or the environment would not result.

The Proposed Project would includes design specifications and O&M procedures in order to minimize the potential for the release or improper disposal of hazardous materials during Proposed Project operation. Each 500 kV transformer would be designed to include secondary containment that would capture the accidental release of hazardous materials. Maintenance activities would occur regularly at the Proposed Project facilities. These activities may include use of new pollutant sources including, but not limited to, oils, paints, and solvents used for routine maintenance. All materials used during O&M would be applied, stored, and disposed of consistent with manufacturer recommendations by licensed professionals and in accordance with applicable regulations. Operation of the Proposed Project would implement standard operational Best Management Practices (BMPs) consistent with **APMs HAZ-1, HAZ-2 and WQ-1**; as such, operational impacts would remain less than significant.

**Would the project 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?**

**Less-Than-Significant Impact.** According to the Phase I ESA, the Proposed Project site is not located within a known hazardous material site. If pre-existing hazardous waste is encountered on the Proposed Project site, it would be removed of and disposed in a manner consistent with all state and federal regulations. Grading and excavation are not expected to expose historic or undocumented contamination; however, the possibility cannot be completely discounted. Exposure of existing hazardous materials during construction has the potential to impact on-site workers, the public, or the environment through direct contact, off-site transport, or improper disposal. However, the potential is considered low with the implementation of the SPCCP and HMMP (**APMs HAZ-1 and HAZ-2**) which would include protocols for the handling of discovered

hazardous waste materials and worker training in the identification of potentially hazardous wastes (**APM CUL-1**). In addition, implementation of **APM HAZ-3** would require testing and disposal of soils suspected of contamination in the event they are found during construction. Implementation of these APMs would ensure that impacts from pre-existing hazardous waste would remain less than significant.

The Proposed Project's design specifications (e.g., secondary containment for 500 kV transformers) and O&M procedures would minimize the potential for the release of hazardous materials, specifically from the mineral oil contained in the 500 kV transformers. Furthermore, implementation of the SPCCP and HMWMP (**APMs HAZ-1 and HAZ-2), APM WQ-1,** and **APM CUL-1**, would ensure that impacts from the accidental release of hazardous materials during O&M would remain less than significant.

**Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**

**No Impact.** The nearest school to the Proposed Project site is the Huron Middle School, located approximately 3.7 miles to the northeast. Therefore, no impacts would occur under this criterion.

**Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?**

**No Impact.** According to the Phase I ESA, the Proposed Project site is not located on a hazardous material site. Therefore, no impacts would occur under this criterion.

**For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?**

**No Impact.** The Proposed Project site is not located within two miles of a public or private airport or associated airport land use plan. The nearest public airports are the New Coalinga Municipal Airport, which is located approximately 10 miles west of the Proposed Project site, and the Harris Ranch Airport, which is located approximately 9.1 miles northwest of the Proposed Project site. Therefore, no impacts would occur under this criterion.

**Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

**Less-Than-Significant Impact.** Construction or O&M of the Proposed Project would not impair implementation of or physically interfere with an adopted emergency response or evacuation plan. All construction would occur on private lands, although some activities, such as equipment delivery, could temporarily affect public roadways, specifically on West Jayne Avenue. This effect would be temporary and localized; however, any impacts would be less than significant because the equipment could be readily moved aside in the event of an emergency. Moreover, in accordance with **APM TRA-1** (**Preparation of a Traffic Control Plan**), potential lane closures or traffic lane modification plans would be reviewed and approved by the county of Fresno, and all construction activities would be coordinated with local law enforcement and fire protection

agencies, and emergency service providers would be notified of the timing, location, and duration of construction activities.

The Proposed Project site is not located within any emergency evacuation route. Access to the Proposed Project site would be along a private road that would intersect with West Jayne Avenue. Emergency vehicles can utilize the private road in the event of emergency response activities in the area (e.g., wildfire suppression). The presence of large construction vehicles and equipment on area roadways could impede emergency access such that emergency response times may be temporarily affected. For a discussion of traffic impacts, refer to **Section 4.17,** *Transportation.*

As described in **Section 4.15,** *Public Services*, the Proposed Project would not affect service ratios, response times, or other objectives for public services in the area. Fire, emergency and police services currently serve, and would continue to serve, the areas in which the existing PG&E Gates Substation and new Proposed Project facilities and interconnection transmission lines are located. Implementation of the above-referenced APM would reduce impacts to less than significant.

**Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?**

**Less-Than-Significant Impact**. The Proposed Project site is located within an area of irrigated and cultivated agricultural fields and along existing road corridors. In addition, the adjacent PG&E Gates Substation has an active vegetation management program (e.g., vegetation removal) for all undeveloped portions of their property, further reducing fire hazard risks. In addition, the Proposed Project is not located within a high fire threat area, as identified by CAL FIRE or the CPUC. However, heat or sparks from vehicles or equipment have the potential to ignite dry vegetation or construction materials and cause a fire. Other potential fire hazards include worker behavior such as smoking and disposing of cigarettes or parking vehicles on dry vegetation. Incorporation of **APM HAZ-4** (Fire Prevention) would further minimize potential wildfire fire impacts associated with Proposed Project construction resulting in a less-than-significant impact.

The Proposed Project would be unmanned and would only require monthly O&M inspections. These activities would not involve any high fire risk activities and LSPGC O&M personnel would follow all applicable state and federal regulations and would implement **APM HAZ-4** that would ensure wildfire risks would be less than significant.

**Would the project create a significant hazard to air traffic from the installation of new power lines and structures?**

**No Impact.** As discussed earlier, the nearest public and private use airports to the Proposed Project site are the New Coalinga Municipal Airport, which is located approximately 10 miles west of the Proposed Project site, and the Harris Ranch Airport, which is located approximately 9.1 miles northwest. Therefore, no impacts would occur under this criterion.

**Would the project create a significant hazard to the public or environment through the transport of heavy materials using helicopters?**

**No Impact.** Helicopters are not anticipated to be for construction or O&M for the Proposed Project. Therefore, no impacts would occur under this criterion.

**Would the project expose people to a significant risk of injury or death involving unexploded ordnance?**

**No Impact.** The Phase I Site Assessment did not identify any historical land uses that would have led to unexploded ordinances being on the Proposed Project site or in the vicinity. As such, the Proposed Project would not expose people to a significant risk of injury or death due to an unexploded ordnance. Therefore, no impacts would occur under this criterion.

**Would the project expose workers or the public to excessive shock hazards?**

**Less-Than-Significant Impact.** All authorized personnel working on-site, during either construction or O&M, would be trained according to OSHA safety standards (U.S. Department of Labor, 2019), which are based on applicable federal, state and local safety regulations. To minimize potential exposure of the public to electric shock hazards, an 8-foot-tall chain link fence topped with one foot of barbed wire would extend around the perimeter of the Proposed Project site, thus, restricting site access. There would be only one vehicle entrance into the yard, and this entrance would be gated and monitored remotely; thus, access would be restricted to only authorized personnel. Warning signs would be posted around the perimeter of the Proposed Project's fence and gate to alert persons of potential electrical hazards. In addition, the Proposed Project would be designed in accordance with CPUC General Order 95 Guidelines for safe ground clearances established to protect the public from electric shock.

During O&M facilities inspections, the perimeter fencing would be examined and repairs would be made as necessary. Because the facility is unstaffed, the Proposed Project would be remotely monitored by LSPGC 24 hours a day, 7 days a week. If equipment malfunctions, O&M personnel would be available to be dispatched to the site to investigate the problem and take appropriate corrective action. LSPGC has qualified operations personnel that are trained to avoid and minimize arc flash situations and are provided the appropriate arc flash personal protective equipment (e.g., fire resistant clothing, gloves and insulate tools). Proper Personal Protective Equipment (PPE) would be required when anyone is in the facility. LSPGC uses high-speed relay equipment that senses a broken-line condition and actuates circuit breakers to de-energize the line in milliseconds.

As such, impacts associated with exposure to workers and the public to excessive shock hazards would be less than significant.

### 4.9.5 CPUC Draft Environmental Measures

There are no CPUC Draft Environmental Measures suggested for Hazards, Hazardous Materials, and Public Safety.

### 4.9.6 Applicant Proposed Measures

The following for Hazards, Hazardous Materials, and Public Safety specific APMs would be implemented by the Proposed Project.

**APM HAZ-1**

A site-specific SPCCP would be prepared prior to the initiation of construction. In the event of an accidental spill, the Proposed Project would be equipped with secondary containment that meets SPCCP Guidelines. The secondary containment would be sufficiently sized to accommodate accidental spills.

**APM HAZ-2**

A HMMP would be prepared and implemented for the Proposed Project. The plan would be prepared in accordance with relevant state and federal guidelines and regulations (e.g., Cal/OSHA). The plan would include the following information related to hazardous materials and waste, as applicable:

- A list of hazardous materials present on-site during construction and O&M to be updated as needed along with product Safety Data Sheets and other information regarding storage, application, transportation, and disposal requirements;
- A Hazardous Materials Communication (i.e., HAZCOM) Plan;
- Assignments and responsibilities of Proposed Project health and safety roles;
- Standards for any secondary containment and countermeasures required for hazardous materials;
- Spill response procedures based on product and quantity. The procedures would include materials to be used, location of such materials within the Proposed Project area, and disposal protocols; and
- Protocols for the management, testing, reporting, and disposal of potentially contaminated soils or groundwater observed or discovered during construction. This would include termination of work within the area of suspected contamination sampling by an OSHA trained individual and testing at a certified laboratory.

The Proposed Project would also be equipped with lead-acid batteries to provide backup power for monitoring, alarm, protective relaying, instrumentation and control, and emergency lighting during power outages. Secondary containment would be constructed around and under the battery racks, and the HMMP would address containment from a battery leak.

The plan would be provided to the CPUC prior to construction for recordkeeping. Plan updates would be made and submitted as needed if construction activities change whereas the existing plan does not adequately address the Proposed Project.

**APM HAZ-3**

In the event that soils suspected of being contaminated (on the basis of visual, olfactory, or other evidence) are removed during site grading activities or excavation activities, the excavated soil shall be tested, and if contaminated above hazardous waste levels, shall be contained and disposed of at a licensed waste facility. The presence of known or suspected contaminated soil

shall require testing and investigation procedures to be supervised by a qualified person, as appropriate, to meet state and federal regulations.

**APM HAZ-4**

LSPGC shall implement ongoing fire patrols during the fire season as defined each year by local, state, and federal fire agencies. These dates vary from year to year, generally occurring from late spring through dry winter periods. During Red Flag Warning events, as issued daily by the National Weather Service, all construction/maintenance activities shall cease, with an exception for transmission line testing, repairs, unfinished work, or other specific activities which may be allowed if the facility/equipment poses a greater fire risk if left in its current state. Although the Proposed Project area is not located within an area designated as a Very High or High Fire Severity Zone, LSPGC will prepare a Construction Fire Prevention Plan prior to construction.

All construction/maintenance crews and inspectors shall be provided with radio and cellular telephone access that is operational in all work areas and access routes to allow for immediate reporting of fires. Communication pathways and equipment shall be tested and confirmed operational each day prior to initiating construction/maintenance activities at each work site. All fires shall be reported to the fire agencies with jurisdiction in the area immediately upon discovery of the ignition. All construction/maintenance personnel shall be trained in fire-safe actions, initial attack firefighting, and fire reporting. All construction/maintenance personnel shall be trained and equipped to extinguish small fires in order to prevent them from growing into more serious threats. All construction/maintenance personnel shall carry at all times a laminated card and be provided a hard hat sticker that list pertinent telephone numbers for reporting fires and defining immediate steps to take if a fire starts. Information on laminated contact cards and hard hat stickers shall be updated and redistributed to all construction/maintenance personnel and outdated cards and hard hat stickers shall be destroyed prior to the initiation of construction/maintenance activities on the day the information change goes into effect.

Construction/maintenance personnel shall have fire suppression equipment on all construction vehicles. Construction/maintenance personnel shall be required to park vehicles away from dry vegetation. Water tanks, fire extinguishers, and/or water trucks shall be sited or available at active project sites for fire protection during construction. The Applicant shall coordinate with applicable local fire departments prior to construction/maintenance activities to determine the appropriate amounts of fire equipment to be carried on vehicles and, should a fire occur, to coordinate fire suppression activities.

## 4.10 HYDROLOGY AND WATER QUALITY

| Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Violate any water quality standards or water discharge requirements or otherwise substantially degrade surface or groundwater quality? | | | X | |
| b. | Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? | | | X | |
| c. | Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: | | | | |
| | i) Result in substantial erosion or siltation on- or off-site? | | | X | |
| | ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? | | | X | |
| | iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? | | | X | |
| | iv) Impede or redirect flood flows? | | | X | |
| d. | In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? | | | | X |
| e. | Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | | | | X |

This section describes Hydrology and Water Quality within the vicinity of the Proposed Project, as well as potential impacts resulting from construction and operation and maintenance (O&M) of the Proposed Project.

### 4.10.1 ENVIRONMENTAL SETTING

The Proposed Project is located within an unincorporated area of Fresno County directly north of, and adjacent to, the Pacific Gas and Electric (PG&E) owned Gates Substation. The Proposed Project is located approximately 3.3 miles southwest of the city of Huron. The land to the north, east, and west of the Proposed Project is primarily used for agricultural purposes with no development, and the existing PG&E Gates Substation is located to the south.

The Central Valley Hydrologic Region is divided into three basins: the Sacramento River Basin, the San Joaquin River Basin, and the Tulare Lake Basin. The Proposed Project is located within the Tulare Lake Basin. This basin is in the southern portion of the Central Valley Region on the west side of the Sierra Nevada Mountains. The Sierra Nevada Mountain range is the most prominent feature in the region. The Kings, Kaweah, Tule, and Kern Rivers drain down the west face of the Sierra Nevada Mountains, which provide surface water supply to the Tulare Lake Basin (CVRWQCB, 2018).

The Tulare Lake Basin has a Mediterranean-type climate with warm to hot, dry summers and a pronounced cool, moist season in the late fall and winter (United State Geological Survey [USGS], 2020a). Mean monthly temperatures near the Proposed Project area range from a low of 43.6°F in December to a high of 99.5°F in August. Average annual rainfall near the Proposed Project area is 11.50 inches occurring between November and March. Average monthly rainfall drops during summer months, with less than 0.63 inches per month between May and October. (National Ocean and Atmospheric Administration, 2020).

Topography near the Proposed Project is relatively flat and contains no steep slope lands. Elevation near the Proposed Project is approximately 397 feet above sea level.

#### 4.10.1.1 Waterbodies

The Proposed Project is not crossed by any ephemeral, intermittent, or perennial surface waterbodies. No surface water bodies are in proximity to the Proposed Project site. Two small ephemeral agricultural ditches occur immediately north and south of West Jayne Avenue, approximately 0.5 mile south of the Proposed Project site. The northern agricultural ditch flows into an existing culvert under the proposed access road.

#### 4.10.1.2 Water Quality

No surface waters near the Proposed Project are listed as impaired by the Central Valley Regional Water Quality Control Board (CVRWQCB) on the most recently approved Section 303(d) listing (CVRWQCB, 2019).

#### 4.10.1.3 Groundwater Basin

The Proposed Project is within the Tulare Lake Hydrologic Region – Westside Subbasin. The Westside Subbasin comprises an area of approximately 640,000 acres in the western portion of Fresno County (California Department of Water Resources [DWR], 2015). Depth to groundwater has not been observed at the Proposed Project site. No groundwater was encountered during soil borings conducted as part of the Proposed Project's Geotechnical Engineering Report; these borings were terminated at 51.5 feet below ground surface (Terracon, 2019). The nearest

groundwater well is located over a half mile west of the Proposed Project and indicated the depth to groundwater of approximately 92 feet (Mathis and Associates, 2020).

#### 4.10.1.4 Groundwater Wells and Springs

No springs or groundwater wells are mapped within 150 feet of the Proposed Project area (Mathis and Associates, 2020; DOC, 2020; USGS, 2020b).

#### 4.10.1.5 Groundwater Management

The water-bearing units comprising the Westside Subbasin consist of unconsolidated continental deposits of Tertiary and Quaternary age. These deposits form an unconfined to semiconfined upper aquifer and a confined lower aquifer. These aquifers are separated by the Corcoran Clay (E-Clay) member of the Tulare Formation (California DWR, 2006). The depth to the top of the E-Clay varies from approximately 500 feet to 850 feet (California DWR, 1981).

The unconfined to semiconfined aquifer (upper zone) above the E-Clay includes younger alluvium, older alluvium, and the upper part of the Tulare Formation. These deposits consist of lenticular, poorly sorted clay, silt, and sand intercalated with occasional beds of well-sorted fine to medium grained sand (CVRWQCB, 2006).

The confined aquifer (lower zone) consists of the lower part of the Tulare Formation and possibly the uppermost part of the San Joaquin Formation. This unit is composed of lenticular beds of silty clay, clay, silt, and sand interbedded with occasional strata of well-sorted sand. Brackish or saline water underlies the usable groundwater in the lower zone (CVRWQCB, 2006).

Groundwater is not expected to be encountered during any subsurface excavation, and it is unlikely that the Proposed Project would require any dewatering operations.

The Westlands Water District Groundwater Sustainability Agency (GSA) and Fresno County prepared a groundwater sustainability plan for the Westside Subbasin. The GSA adopted the plan on January 8, 2020; Fresno County adopted it on January 7, 2020. According to the plan, there are no known adjudicated areas within or surrounding the Westside Subbasin.

### 4.10.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

#### 4.10.2.1 Regulatory Setting

**Federal**

***Clean Water Act***

The Proposed Project would not result in impacts to “waters of the United States” and, therefore, reference to the Clean Water Act (CWA) is provided here for informational purposes only. The CWA (33 U.S.C. Section 1251 et seq.) is the primary federal legislation that addresses water quality, pollution, and protection of the chemical, physical, and biological integrity of most waters in the United States. The CWA chiefly addresses the quality of surface waters, while groundwater

contamination is addressed by other legislation, including the Resource Conservation and Recovery Act. Section 402 of the CWA established a permit system, the National Pollutant Discharge Elimination System (NPDES), to regulate point sources of discharge into navigable waters of the United States. Under Section 404, the CWA regulates the placement of dredged or fill material into "waters of the U.S.," and, under Section 401, the CWA ensures that federally permitted activities comply with the federal CWA and state water quality laws.

### *Clean Water Act Sections 303 and 304*

Pursuant to Section 303 of the CWA, states are required to adopt water quality standards applicable to all "waters of the United States" (33 U.S.C. Section 1313). When adopting water quality standards, the states are required to consider the designated uses of the waters involved and the associated water quality criteria based upon those uses. Such standards are established taking into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and their use and value for navigation. Standards are also required to protect the public health or welfare and enhance the quality of water. Preferably, adopted water quality standards consist of specific numerical criteria; however, non-numeric criteria (e.g., narrative criteria, species dependent criteria, ecological criteria) based on bioassessment or monitoring may be utilized where numeric criteria are not available.

Under Section 303(d), states, territories, and authorized tribes are required to develop lists of "impaired waters," identifying those waters where pollution controls are not sufficient to meet designated water quality standards resulting in the impairment of beneficial uses. In making designations, it is required that the jurisdiction establish a priority ranking system accounting for the severity of the pollution. This prioritization system is used in the development of Total Maximum Daily Loads (TMDL) for these waters to address water quality issues and the restoration of beneficial uses.

Section 304(a) requires that the Environmental Protection Agency (EPA) develop criteria for water quality that reflect the latest scientific knowledge based on data and scientific judgments on pollutant concentrations and environmental or human health effects. Criteria are grouped into six categories: aquatic life, biological, nutrients, human health, microbial (pathogen), and recreational.

Implementation of Section 303 of the CWA (i.e., adoption of water quality standards, identification of beneficial uses, and identification of impaired waters) in California is performed by the State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCB). The Proposed Project is within the jurisdiction of the Central Valley RWQCB (Region 5).

### *Clean Water Act Section 401*

Section 401 of the CWA provides states and authorized tribes the opportunity to protect water quality by requiring that any applicant for a federal license or permit, conducting an activity that may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the state in which the discharge originates (33 U.S.C Section 1341). This authority ensures that federally permitted activities comply with the CWA and state water quality laws. Section 401 is implemented through a review process conducted by the RWQCB,

or, in the case of multiple RWQCB jurisdictions having authority, by the California SWRCB. The Proposed Project is within the jurisdiction of the CVRWQCB.

### *Clean Water Act Section 402*

The NPDES program, established in 1972 as part of the CWA, controls water pollution through regulation of point source pollutants discharging to waters of the United States (33 U.S.C. Section 1342). Under the NPDES program, all facilities discharging pollutants from any point source into waters of the United States are required to obtain a NPDES permit. Though broadly defined, pollutants typically include any type of industrial, municipal, and agricultural waste and, for regulatory purposes, have been grouped into three categories: conventional (Section 304(a)(4) of the CWA), toxic (Section 307(a)(1) of the CWA), and non-conventional (pollutants not otherwise defined including many nutrient or water quality parameters). The primary focus of the federal NPDES permitting program has historically been municipal and non-municipal (industrial) discharges.

In 1987, with the issuance of the 1987 Water Quality Act, Section 402 of the CWA was amended, requiring regulation of additional storm water dischargers (NPDES Storm Water Program). Phase I of the NPDES Storm Water Program addresses five categories of dischargers (Phase I Facilities) including certain industrial activities, municipal separate storm sewer systems (MS4s), and facilities considered to be significant contributors of pollutants. The Phase I industrial storm water program regulations include provisions requiring construction sites disturbing greater than five acres to obtain NPDES permits. Phase II regulations of the NPDES Storm Water Program, issued in 1999, address additional dischargers not covered by Phase I regulations. The Phase II regulations expand permitting requirements to small MS4s, construction sites of one to five acres, and certain previously exempt industrial facilities.

The EPA is the primary authority to implement NPDES, although the CWA allows the EPA to delegate NPDES authority to the states. The CWA is implemented on a state and local level in California primarily by the SWRCB and nine RWQCBs, collectively. Whereas the federal NPDES program mostly deals with point source control, current focus and regulation is shifting to nonpoint source pollution control under the authority of the RWQCBs.

### *Clean Water Act Section 404*

Section 404 of the CWA prohibits the discharge of dredged or fill material into “waters of the United States” without a permit from the U.S. Army Corps of Engineers (USACE). The Code of Federal Regulations (33 CFR 328.3[a]) establishes the specific definition of the term “waters of the United States”:

> (a) Jurisdictional waters. For purposes of the Clean Water Act, 33 U.S.C. 1251 et seq. and its implementing regulations, subject to the exclusions in paragraph (b) of this section, the term “waters of the United States” means:
>
> (1) The territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide;
> (2) Tributaries;
> (3) Lakes and ponds, and impoundments of jurisdictional waters; and

(4) Adjacent wetlands.

(b) Non-jurisdictional waters. The following are not "waters of the United States":
(1) Waters or water features that are not identified in paragraph (a)(1), (2), (3), or (4) of this section;
(2) Groundwater, including groundwater drained through subsurface drainage systems;
(3) Ephemeral features, including ephemeral streams, swales, gullies, rills, and pools;
(4) Diffuse stormwater run-off and directional sheet flow over upland;
(5) Ditches that are not waters identified in paragraph (a)(1) or (2) of this section, and those portions of ditches constructed in waters identified in paragraph (a)(4) of this section that do not satisfy the conditions of paragraph (c)(1) of this section;
(6) Prior converted cropland;
(7) Artificially irrigated areas, including fields flooded for agricultural production, that would revert to upland should application of irrigation water to that area cease;
(8) Artificial lakes and ponds, including water storage reservoirs and farm, irrigation, stock watering, and log cleaning ponds, constructed or excavated in upland or in non-jurisdictional waters, so long as those artificial lakes and ponds are not impoundments of jurisdictional waters that meet the conditions of paragraph (c)(6) of this section;
(9) Water-filled depressions constructed or excavated in upland or in non-jurisdictional waters incidental to mining or construction activity, and pits excavated in upland or in non-jurisdictional waters for the purpose of obtaining fill, sand, or gravel;
(10) Stormwater control features constructed or excavated in upland or in non-jurisdictional waters to convey, treat, infiltrate, or store stormwater run-off;
(11) Groundwater recharge, water reuse, and wastewater recycling structures, including detention, retention, and infiltration basins and ponds, constructed or excavated in upland or in non-jurisdictional waters; and
(12) Waste treatment systems.

The EPA also has authority over wetlands and may override a USACE permit. Substantial impacts to wetlands may require an individual permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions.

### *National Flood Insurance Program*

The National Flood Insurance Act of 1968 establishes the National Flood Insurance Program (NFIP), which provides private company flood insurance by the federal government. The NFIP relies on the national mapping system known as the Flood Insurance Rate Map (FIRM), which denotes special hazard areas associated with 100- and 500-year flood events. (FEMA, 2020a) Lower rates are provided through the program for communities that encourage mitigation of flood hazards.

The Federal Emergency Management Agency (FEMA) has primary authority for preparation, response, and mitigation of natural hazards, including coastal and inland floods. FEMA provides financial and technical support to local agencies in the drafting and implementation of hazard mitigation plans. CFR Title 44, Part 60 provides criteria for communities participating in the NFIP to adopt flood plain management regulations consistent with federal criteria for lands within flood-prone, mudslide- (i.e., mudflow) prone, or flood-related erosion-prone areas.

**State**

***Porter-Cologne Water Quality Control Act***

The Proposed Project would not result in impacts to "waters of State" and, therefore, reference to the Porter-Cologne Water Quality Control Act is provided here for informational purposes only. The Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq.) provides guidance for the protection of water quality and beneficial uses of water throughout the state and, along with the CWA, provides the overarching legislation governing the SWRCB and RWQCBs. "Waters of the State" are defined as any surface water or groundwater, including saline waters, which are within the boundaries of the state (California Codes: PRC Section 71200). This differs from the CWA definition of "waters of the United States" by its inclusion of groundwater and waters outside the Ordinary High Water Mark (OHWM) in its jurisdiction.

The Porter-Cologne Act requires that each regional board adopt a water quality control plan (Basin Plan) for their region. Pursuant to Porter-Cologne, these Basin Plans become part of the California Water Plan, when such plans have been reported to the legislature (Section 13141, California Water Code). The Proposed Project is located within the jurisdiction of the CWRWQCB (Region 5) and subject to the criteria within the Basin Plan for the Tulare Lake Basin (CVRWQCB, 2018).

In 1972, amendments to the Porter-Cologne Act gave California the authority and ability to operate the federal NPDES permits program. Before a permit may be issued, Section 401 of the CWA requires that the local RWQCB or, in the case of multiple RWQCB jurisdictions having authority, the SWRCB certify that the discharge would comply with applicable water quality standards. In addition, under Porter-Cologne, the RWQCB or SWRCB may also issue waste discharge requirements that set conditions on the discharge of a waste. These requirements must be consistent with the Basin Plan for the body of water that receives the waste discharge, as well as protect the beneficial uses of those receiving waters. On August 19, 1999, the SWRCB reissued the General Construction Storm Water Permit (Water Quality Order 99-08-DWQ), later amending it to apply to sites as small as one acre. On September 2, 2009, the SWRCB adopted Order No. 2009-0009-DWQ, which reissued Water Quality Order 99-08- DWQ. Order No. 2009-0009-DWQ has subsequently been amended by Order No. 2010-0014- DWQ and most recently by Order No. 2012-0006-DWQ on July 17, 2012.

The Construction General Permit (CGP) authorizes discharges of storm water and regulates discharges of pollutants in storm water associated with construction activities from construction sites that disturb one or more acres of land surface or are part of a common plan of development or sale that disturbs more than one acre of land surface where the rainfall erosivity waiver does not apply. The CGP requires proposed dischargers to file a public Notice of Intent (NOI), submit Permit Registration Documents to the SWRCB's Stormwater Mutiple Application and Report Tracking System (SMARTS) website, and obtain a Waste Discharger Identification Number prior

to beginning regulated activities. Applicability of the CGP is contingent on meeting all order conditions and requirements including the implementation of a Stormwater Pollution Prevention Plan (SWPPP). In accordance with Order No. 2010-0014-DWQ, the SWPPP must be prepared and certified by a Qualified SWPPP Developer and include information to conclude:

- All pollutants and their sources, including sources of sediment associated with construction, construction site erosion, and all other activities associated with construction activity, are controlled;

- Where not otherwise required to be under a RWQCB permit, all non-storm water discharges are identified and either eliminated, controlled, or treated;

- Site best management practices (BMPs) are effective and result in the reduction or elimination of pollutants in storm water discharges and authorized non-storm water discharges from construction activity to the best available technology (BAT)/best control technology (BCT) standard;

- Calculations and design details as well as BMP controls for site run-on are complete and correct; and

- Stabilization BMPs installed to reduce or eliminate pollutants after construction are completed.

The SWRCB and RWQCBs also implement Section 402 of the CWA, which allows the state to issue a single discharge permit for storm water runoff for the purposes of both federal and state law, as well as Section 303(d) of the CWA pursuant to the authority of the Porter-Cologne Act.

### *Water Quality Control Plan for the Tulare Lake Basin*

The Basin Plan encompasses approximately 10.5 million acres that cover the southern portion of the Central Valley Region. In an effort to preserve and enhance the region's waters, the Basin Plan establishes beneficial uses for surface and ground waters, sets narrative and numerical objectives, describes implementation programs to protect the beneficial uses of all waters in the region, and describes surveillance and monitoring activities to evaluate the effectiveness of the plan. To minimize and control adverse effects on the quality and beneficial uses of the region's ground and surface waters, the Basin Plan for the Tulare Lake Basin regulates waste discharge and reclaimed water use (CVRWQCB, 2018).

Beneficial use designations in the plan include: Municipal and Domestic Supply (MUN), Agricultural Supply (AGR), Industrial Service Supply (IND), Industrial Process Supply (PRO), Hydropower Generation (POW), Water Contact Recreation (REC-1), Non-Contact Water Recreation (REC-2), Warm Fresh Water Habitat (WARM), Cold Fresh Water Habitat (COLD), Wildlife Habitat (WILD), Rare, Threatened, or Endangered Species (RARE), Spawning Reproduction and/or Early Development (SPWN), Migration of Aquatic Organisms (MIGR), Ground Water Recharge (GWR), Freshwater Replenishment (FRSH), Aquaculture (AQUA), Preservation of Biological Habitats (BIOL), and Navigation (NAV).

In order to attain specified designated uses, the CVRWQCB is required to identify water quality objectives for all surface and ground waters in the region. These objectives must be consistent

with federal and state anti-degradation polices (40 CFR section 131.12) and State Board Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality of Waters in California.

### *California Fish and Game Code Section 1602 – Lake and Streambed Alteration Notification/Agreement*

The Proposed Project would not result in alteration or substantial disturbance of any lake or streambed; therefore, reference to the California Fish and Game Code, Sections 1601-1607, is provided here for informational purposes only. Section 1602 of the California Fish and Game Code requires that a Lake and Streambed Alteration Application be submitted to the California Department of Fish and Wildlife (CDFW) for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake." CDFW reviews the proposed actions and, if necessary, submits to the applicant a proposal for measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by the CDFW and the applicant is the Lake and Streambed Alteration Agreement.

## Local

Because the California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project, the Proposed Project is not subject to local discretionary regulations. Pursuant to CPUC General Order 131-D (GO 131-D), Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters" (CPUC, 1995). Consequently, public utilities are directed to consider local regulations and consult with local agencies, but county regulations are not applicable as Fresno County does not have jurisdiction over the Proposed Project. This section includes a summary of local related policies, plans, or programs for informational purposes.

The Fresno County Public Works and Planning Department requires and enforces standards contained in the California Building Code related to grading and construction, including those that may directly or indirectly affect surface water quality by contributing to erosion or siltation or altering existing drainage patterns.

### *Fresno County General Plan*

The following relevant Hydrology and Water Quality goals and policies from the Fresno County General Plan (Fresno County, 2000) were reviewed, and the following summaries are provided for informational purposes only.

**Goal OS-A** To protect and enhance the water quality and quantity in Fresno County's streams, creeks, and groundwater basins.

**Policy OS-A.23** The County shall protect groundwater resources from contamination and overdraft by pursuing the following efforts:

a. Identifying and controlling sources of potential contamination;
b. Protecting important groundwater recharge areas;
c. Encouraging water conservation efforts and supporting the use of surface water for urban and agricultural uses wherever feasible;
d. Encouraging the use of treated wastewater for groundwater recharge and other purposes (e.g., irrigation, landscaping, commercial, and nondomestic uses);
e. Supporting consumptive use where it can be demonstrated that this use does not exceed safe yield and is appropriately balanced with surface water supply to the same area;
f. Considering areas where recharge potential is determined to be high for designation as open space; and
g. Developing conjunctive use of surface and groundwater.

**Policy OS-A.25** The County shall minimize sedimentation and erosion through control of grading, cutting of trees, removal of vegetation, placement of roads and bridges, and use of off-road vehicles. The County shall discourage grading activities during the rainy season unless adequately mitigated to avoid sedimentation of creeks and damage to riparian habitat.

**Policy OS-A.26** The County shall continue to require the use of feasible and practical best management practices (BMPs) to protect streams from the adverse effects of construction activities and urban runoff.

**Policy OS-A.29** In areas with increased potential for groundwater degradation (e.g., **areas** with prime percolation capabilities, coarse soils, and/or shallow groundwater), the County shall only approve land uses with low risk of degrading groundwater.

**Goal PF-C** To ensure the availability of an adequate and safe water supply for domestic and agricultural consumption.

**Policy PF-C.3** To reduce demand on the County's groundwater resources, the County shall encourage the use of surface water to the maximum extent feasible.

**Goal PF-E** To provide efficient, cost-effective, and environmentally-sound storm drainage and flood control facilities that protect both life and property and to divert and retain stormwater runoff for groundwater replenishment.

**Policy PF-E.5** The County shall only approve land use-related projects that will not render inoperative any existing canal, encroach upon natural channels, and/or restrict natural channels in such a way as to increase potential flooding damage.

**Policy PF-E.6** The County shall require that drainage facilities be installed concurrently with and as a condition of development activity to ensure the protection of the new improvements as well as existing development that might exist within the watershed.

**Policy PF-E.7** The County shall require new development to pay its fair share of the costs of Fresno County storm drainage and flood control improvements within unincorporated areas.

**Policy PF-E.9** The County shall require new development to provide protection from the 100-year flood as a minimum.

**Policy PF-E.11** The County shall encourage project designs that minimize drainage concentrations and maintain, to the extent feasible, natural site drainage patterns.

**Policy PF-E.13** The County shall encourage the use of natural storm water drainage systems to preserve and enhance natural drainage features.

**Policy PF-E.14** The County shall encourage the use of retention-recharge basins for the conservation of water and the recharging of the groundwater supply.

**Policy PF-E.21** The County shall require the use of feasible and practical best management practices (BMPs) to protect streams from the adverse effects of construction activities, and shall encourage the urban storm drainage systems and agricultural activities to use BMPs.

### 4.10.3 IMPACT QUESTIONS

#### 4.10.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to Hydrology and Water Quality come from the California Environmental Quality Act (CEQA), Appendix G Environmental Checklist (as amended in December 2019). According to the CEQA Environmental Checklist, a project may cause a potentially significant impact if it would:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality; or
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin; or
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
    - Result in substantial erosion or siltation on- or off-site; or
    - Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; or
    - Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

- Impede or redirect flood flows; or

- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; or

- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

#### 4.10.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-Filing Proponent's Environmental Assessments* (CPUC, 2019), there are no additional CEQA Impact Questions required for Hydrology and Water Quality.

### 4.10.4 IMPACT ANALYSIS

#### 4.10.4.1 Impact Analysis

The Proposed Project would not require hydrostatic testing, would not use water, and would not generate waste products related to hydrostatic testing.

**Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?**

**Less-Than-Significant Impact.** The Proposed Project would not violate any water quality standards or waste discharge requirements. No surface water bodies are in proximity to the Proposed Project site, with the exception of two small agricultural ditches along West Jayne Avenue located approximately 0.5 mile south of the Proposed Project site, which is separated by an agricultural road and earthen berm. All runoff from the STATCOM Substation facility would be directed to the on-site detention basin to prevent any potential polluted runoff from entering the ditches.

LS Power Grid California, LLC (LSPGC) would assess the risk to water quality—based on site-specific soil characteristics, slope, and the construction schedule—and would develop a SWPPP that addresses potential water quality concerns. The SWPPP would specify measures for each activity that has the potential to degrade surrounding water quality through erosion, sediment runoff, and the presence of other pollutants. These measures would be implemented and monitored throughout the Proposed Project by a qualified stormwater pollution prevention plan practitioner (QSP). Impacts would be less than significant. Implementation of **Applicant Proposed Measure** (**APM) WQ-1** and **APM WQ-2** would further minimize the temporary and short-term construction-related impacts on water quality.

O&M activities may include use of new pollutant sources including, but not limited to, oils, paints, and solvents used for routine maintenance. All materials would be applied, stored, and disposed of with appropriate containment in a manner consistent with manufacturer recommendations by licensed professionals, if necessary, and in accordance with applicable regulations. Therefore, impacts under this criterion would be less than significant and would be further reduced under the implementation of **APM WQ-1** and **APM WQ-2.**

**Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?**

**Less-Than-Significant Impact.** Water supply for construction requirements is expected to be trucked in from an off-site location in the city of Huron or the city of Coalinga, which are provided water from the Westlands Water District. It is not anticipated that recycled or reclaimed water or groundwater would be used by the Proposed Project. The estimated total water needs of the Proposed Project are 740,000 gallons of water to be used for dust control, compaction, and concrete work over a period of 22 months.

The proposed Static Synchronous Compensator (STATCOM) Substation facility is currently a vineyard, which requires irrigation derived from a combination of groundwater and/or surface water sources. This water demand would cease prior to the onset of construction. Thus, overall, the Proposed Project would result in a reduction in the use of groundwater and/or surface water at the site. The Proposed Project would not require water sources for O&M activities as the STATCOM Substation facility would be unmanned.

Furthermore, a detention basin would be constructed on-site that would capture runoff from the STATCOM Substation and allow the water to percolate into the ground; thus, groundwater recharge would not be affected by the construction of impervious surfaces, such as the control enclosure and equipment foundations. Moreover, the amount of impervious surface that would be constructed is only about 17 percent of the overall Proposed Project footprint (about 1.7 acres), which is minor in relation to the surrounding area that is primarily in agricultural use. Therefore, impacts would be less than significant on groundwater supplies and recharge and would be further reduced with implementation of **APM WQ-2**.

**Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:**

**Result in substantial erosion or siltation on- or off-site?**

**Less-Than-Significant Impact.** The Proposed Project would be constructed on flat land. It would require minimal grading, and the drainage pattern of the site would not be substantially altered. The Proposed Project would require clearing of vegetation and grading for construction. Construction would involve activities that expose ground surfaces to erosion. While erosion is a natural and important process essential to maintaining the geomorphology of receiving waters, excess erosion and sedimentation can impair habitat functions and transport pollutants. All areas of exposed ground have the potential to result in increased erosion during rain events and the transport of soil particles and other materials into nearby receiving water. The Proposed Project is located on a very flat agricultural field, and minimal grading would be required for the development of the Proposed Project. It is not expected that it would contribute to sedimentation to any downstream receiving waters.

Construction of the Proposed Project would result in approximately 10.25 acres of permanent disturbance and approximately 13.6 acres of temporary disturbance on primarily disturbed and agricultural land. The site would be graded such that storm water runoff would be directed to the on-site stormwater detention pond or into existing drainage ditches along roads, eliminating the

potential for on-site erosion. Stormwater would not be allowed to leave the site, eliminating the potential for erosion to occur off site.

Construction and O&M of the Proposed Project would not result in substantial erosion or sedimentation on- or off-site. Therefore, impacts under would be less than significant and would be further reduced with implementation of **APM WQ-1** (the SWPPP).

**Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?**

**Less-Than-Significant Impact.** The Proposed Project would be constructed on flat land and would require minimal grading, and the drainage pattern of the site would not be substantially altered. Additionally, the Proposed Project includes a stormwater retention basin that would provide approximately 1,250 cubic yards of stormwater storage for the STATCOM Substation facility. The site drainage system and stormwater detention basin would be designed to collect and allow infiltration of the volume of runoff generated by impervious (17 percent) and pervious (83 percent) surfaces of the facility during a 100-year storm event. Thus, the Proposed Project would not result in flooding either on-site or off-site, and impacts would be less than significant.

**Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?**

**Less-Than-Significant Impact.** The Proposed Project would be constructed on flat land. It would require minimal grading and the drainage pattern of the site would not be substantially altered. In addition, the Proposed Project site is not served by any existing or planned public or private stormwater drainage systems, and construction would not result in activities that generate stormwater runoff. Construction and decommissioning would require the limited use of hazardous materials such as fuel, lubricants, cleaning solvents, and chemicals. They would all be stored, handled, and used in accordance with applicable regulations. A Spill Prevention, Control, and Countermeasure Plan (SPCCP) (**APM HAZ-1**) and Hazardous Materials Management Plan (HMMP) (**APM HAZ-2**) describing hazardous materials use, transport, storage, management, and disposal protocols would be prepared prior to the start of construction (refer to **Section 3.5.10.2**, *Hazardous Materials Management*). In the event of a spill or leak from equipment, the spill would be cleaned up promptly in accordance with the SPCCP and HMMP. Thus, Proposed Project construction and decommissioning would not result in substantial sources of polluted runoff. Any impacts from construction would be less than significant, and implementation of **APM WQ-1** would further reduce impacts.

The STATCOM Substation facility would also include a stormwater management system consisting of a stormwater drainage and conveyance system and an approximately 1,250-cubic-yard stormwater detention basin. The STATCOM Substation pad would be graded to drain directly toward the stormwater detention basin. This would drain via a lined ditch to the basin. The stormwater detention basin is designed to capture runoff from a 100-year storm event. Thus, during ongoing O&M activities, stormwater runoff would be retained on-site and would not affect adjacent areas. Any impacts from O&M would be less than significant.

**Impede or redirect flood flows?**

**Less-Than-Significant Impact.** The Proposed Project would be constructed on flat land. It would require minimal grading, and the drainage pattern of the site would not be substantially altered. It

is also surrounded by flat lands that have irrigation drains and road ditches which collect water and redirect flows that could reach the site. These flat lands are not expected to generate flood flows upstream of the site such that the Proposed Project would not impede or redirect flood flows. The Proposed Project is not located within a 100-year FEMA floodplain and is classified as an Area of Minimal Flood Hazard.

The Proposed Project would also include a stormwater management system consisting of a stormwater drainage and conveyance system and an approximately 1,250-cubic-yard stormwater detention basin. The STATCOM Substation pad would be graded to drain directly toward the stormwater detention basin. This would drain via a lined ditch to the basin. The stormwater detention basin is designed to capture runoff from a 100-year storm event. Impacts would be less than significant.

**Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?**

**No impact.** The Proposed Project is not located within a flood hazard zone or any identified tsunami inundation or run-up area or within a basin subject to seiche (FEMA, 2020b). Therefore, no impacts would occur under this criterion.

**Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?**

**No impact.** For the reasons discussed above, the Proposed Project would not conflict with or obstruct implementation of the Basin Plan for the Tulare Lake Basin nor any sustainable groundwater management plan. Groundwater is not expected to be encountered and none would be used for the Proposed Project. As stated in **Section 3.5.11.2**, *Liquid Waste*, while groundwater is not anticipated to be encountered, excavation dewatering effluent may be produced. This effluent would be tested, filtered and managed according to the dewatering plan developed as part of the SWPPP (**APM WQ-1**). In the unlikely event that groundwater is encountered, measures in **APM WQ-2** would ensure that no impacts would occur under this criterion.

### 4.10.5 CPUC Draft Environmental Measures

There are no CPUC Draft Environmental Measures suggested for Hydrology and Water Quality.

### 4.10.6 Applicant Proposed Measures

**APM WQ-1**

Because the Proposed Project involves more than an acre of soil disturbance, a SWPPP would be prepared as required by the state NPDES General Permit for Discharges of Stormwater Associated with Construction Activity. This plan would be prepared in accordance with the Water Board guidelines and other applicable erosion and sediment control BMPs. Implementation of the plan would help stabilize disturbed areas and would reduce erosion and sedimentation. The SWPPP would designate BMPs that would be followed during and after construction of the Proposed Project, examples of which may include the following erosion-minimizing measures:

- Using drainage control structures (e.g., straw wattles or silt fencing) to direct surface runoff away from disturbed areas;
- Strictly controlling vehicular traffic;
- Implementing a dust-control program during construction;
- Restricting access to sensitive areas;
- Using vehicle mats in wet areas; or
- Revegetating disturbed areas, where applicable, following construction.

In areas where soils are to be temporarily stockpiled, soils would be placed in a controlled area and would be managed with similar erosion control techniques. Where construction activities occur near a surface waterbody or drainage channel and drainage from these areas flows towards a waterbody or wetland, stockpiles would be placed at least 100 feet from the waterbody or would be properly contained (such as beaming or covering to minimize risk of sediment transport to the drainage). Mulching or other suitable stabilization measures would be used to protect exposed areas during and after construction activities. Erosion-control measures would be installed, as necessary, before any clearing during the wet season and before the onset of winter rains. Temporary measures, such as silt fences or wattles intended to minimize erosion from temporarily disturbed areas, would remain in place until disturbed areas have stabilized.

**APM WQ-2**

Groundwater encountered during construction would be handled and discharged in accordance with all state and federal regulations including the following:

- Recovered groundwater would be contained on site and tested prior to discharge;
- If testing determines water is suitable for land application, discharge may be applied to flat, vegetated, upland areas, used for dust control, or used in other suitable construction operations (e.g., concrete mixing);
- Land application would be made in a manner that discharge does not result in substantial erosion and would not be made directly to receiving waters or storm drains;
- Water unsuitable for land application would be disposed of at an appropriately permitted facility; and
- Discharge to surface waters or storm drains may occur only if permitted by the agency(ies) with jurisdiction over the resource (e.g., USACE, RWQCB, and/or CDFW, as applicable).

## 4.11 LAND USE AND PLANNING

| Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Physically divide an established community? | | | | X |
| b. | Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? | | | | X |

This section describes Land Use within the area of the Proposed Project, as well as the potential impacts that could result from construction and operation and maintenance (O&M) of the Proposed Project.

### 4.11.1 ENVIRONMENTAL SETTING

#### 4.11.1.1 Land Use

The Proposed Project is located within an unincorporated area of Fresno County directly north of, and adjacent to, the Pacific Gas and Electric (PG&E) owned Gates Substation. The Proposed Project is located approximately 3.3 miles southwest of the city of Huron. The land to the north, east, and west of the Proposed Project is primarily used for agriculture purposes with no development, and the existing PG&E Gates Substation is located to the south.

Fresno County historically has been California's top agricultural producing county (Fresno County, 2000). Agriculture continues to be a very important part of the local economy and is the dominant land use in Fresno County (California Department of Conservation [DOC], 2008). The Proposed Project is located within an area of predominantly agricultural land uses in southwestern Fresno County. The Proposed Project is not located within a Fresno County-designated regional planning area, community plan area, or specific plan area, and is not located within the sphere of influence of the city of Huron. **Figure 4.11-1,** *Land Use and Zoning* shows the designated land use and zoning for the vicinity of the Proposed Project.

The dominant land use in the Proposed Project area is Agriculture, specifically row crops, with the exception of the PG&E Gates Substation located directly to the south of the Proposed Project and an existing solar energy facility located west of PG&E Gates Substation.

The General Plan designation for the Proposed Project site is Agriculture. This designation provides for the production of crops and livestock and for location of necessary agriculture commercial centers, agricultural processing facilities, and certain nonagricultural activities.

The existing PG&E Gates Substation and solar facility directly south of the Proposed Project site has a land use designation of Industrial. This designation provides for restricted non-intensive manufacturing and storage activities that do not have detrimental impacts on surrounding

properties. There is also Transportation land use designation along roads near the Proposed Project site.

The Proposed Project is zoned AE-20 (Exclusive Agricultural District, 20-acre minimum lot size) (County of Fresno Zoning Ordinances, 2018) (Fresno County, 2020). The AE-20 District is intended to be an exclusive district for agriculture and for those uses that are necessary and an integral part of agricultural operations. This district is intended to protect the general welfare of the agricultural community from encroachments of nonrelated agricultural uses, which by their nature would be injurious to the physical and economic well-being of the agricultural district.

The area to the southwest of the Proposed Project site that is designated as AE-40 (Exclusive Agriculture District, 40-acre minimum lot size) which has the same intended zoning as AE-20 except the 40-acre minimum (Fresno County, 2018).

The Proposed Project is not subject to local zoning ordinances. However, for informational purposes, Fresno County's Zoning Ordinance indicates that electric transmission substations and electric distribution substations are permitted uses in Agricultural Districts, subject to review and approval by the Fresno County Director of the Department of Public Works and Planning.

#### 4.11.1.2 Special Land Uses

The location of the Proposed Project is designated as Prime Farmland. The agricultural areas immediately surrounding the Proposed Project are also mostly designated Prime Farmland interspersed with Farmland of Local Importance. The Proposed Project is also subject to a Williamson Act contract (DOC, 2009). These special land uses and associated impacts are discussed in **Section 4.2,** *Agriculture and Forestry Resources.* There are no other special land uses, such as land administered by government agencies or private conservation organizations or national landmarks, in the Proposed Project area: therefore, no mileposts are provided.

#### 4.11.1.3 Habitat Conservation Plan

Section 10 of the Federal Endangered Species Act (ESA) allows for the creation of Habitat Conservation Plans (HCP) to protect listed and candidate species in connection with the issuance of an incidental take permit for federally listed species. PG&E has an HCP to cover O&M activities in the San Joaquin Valley (PG&E San Joaquin Valley O&M HCP [Jones & Stokes, 2006]). This HCP covers O&M activities for PG&E's electric and gas transmission and distribution systems within nine counties of the San Joaquin Valley, including Fresno County. Although construction of the Proposed Project is not a covered activity, the Proposed Project area is located within the boundaries of this HCP. The Proposed Project is not expected to require use of the HCP because there are no listed or candidate species expected to be impacted (see **Section 4.4**, *Biological Resources*).

### 4.11.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

### 4.11.2.1 Regulatory Setting

#### Federal

***Habitat Conservation Plans***

As discussed above, the Proposed Project is located within the boundaries of the PG&E San Joaquin Valley O&M HCP.

#### State

There are no applicable regulations for Land Use that apply to the Proposed Project.

#### Local

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order 131-D (GO 131-D), Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters" (CPUC, 1995). Consequently, public utilities are directed to consider local regulations and consult with local agencies, but county regulations are not applicable as the Fresno County does not have jurisdiction over the Proposed Project. Because the CPUC has exclusive jurisdiction over the Proposed Project siting, design, and construction, the Proposed Project is not subject to local land use and zoning regulations or discretionary permits. This section identifies local land use plans and regulations for informational purposes and to assist with California Environmental Quality Act (CEQA) review. Although LS Power Grid California, LLC (LSPGC) is not subject to local discretionary permitting, ministerial permits would be secured as required.

***Fresno County Code of Ordinances***

Pursuant to Fresno County Code of Ordinances § 816.2-D.i, Public Utility Facilities are permitted uses within Exclusive Agriculture (AE) Districts, subject to approval of a conditional use permit by the Fresno County Director of Public Works and Planning. However, the CPUC has preemptive power under the California Constitution (Article XII, Section 8) over local jurisdictions with respect to regulation of investor-owned public utilities and electric utility siting. The CPUC, therefore, has ultimate decision-making authority over most land use decisions for the Proposed Project. However, Fresno County does have jurisdiction over removing the Proposed Project site from Williamson Act lands.

***Fresno County General Plan***

The Fresno County General Plan (2000) encourages maintaining agriculturally-designated lands for agriculture use, directing urban growth away from agricultural land to areas of Fresno County where public facilities and infrastructure are available or can be provided consistent with the adopted General Plan or Community Plan.

The following Fresno County General Plan (Fresno County, 2000) policies are relevant to the Proposed Project.

**Goal LU-A** To promote the long-term conservation of productive and potentially-productive agricultural lands and to accommodate agricultural-support services and agriculturally related activities that support the viability of agriculture and further the County's economic development goals.

**Policy LU-A.1** The County shall maintain agriculturally-designated areas for agriculture use and shall direct urban growth away from valuable agricultural lands to cities, unincorporated communities, and other areas planned for such development where public facilities and infrastructure are available.

**Policy LU-A.13** The County shall protect agricultural operations from conflicts with non-agricultural uses by requiring buffers between proposed non-agricultural uses and adjacent agricultural operations.

### 4.11.3 IMPACT QUESTIONS

#### 4.11.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to Land Use and Planning come from the CEQA, Appendix G Environmental Checklist (as amended in December 2019). According to the CEQA Environmental Checklist, a project may cause a potentially significant impact if it would:

- Physically divide an established community; or
- Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

#### 4.11.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-Filing Proponent's Environmental Assessments* (CPUC, 2019), there are no additional CEQA Impact Questions required for Land Use and Planning.

### 4.11.4 IMPACT ANALYSIS

#### 4.11.4.1 Impact Analysis

**Would the project physically divide an established community?**

**No Impact.** There are no established communities in the vicinity of the Proposed Project, and no public access (e.g., vehicular or pedestrian) located within the Proposed Project site. The Proposed Project is located within an agricultural area and would be located directly adjacent to the existing PG&E Gates Substation. As such, the development of the new Proposed Project facilities would not physically divide an established community or otherwise impede pedestrian or vehicle access to community features or services. Therefore, no impacts would occur under this criterion.

**Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?**

**No Impact.** The Proposed Project includes new facilities and interconnection transmission lines directly north of the existing PG&E Gates Substation, which is in an Industrial zoning district.

Because the CPUC has regulatory authority over the Proposed Project, the Proposed Project is not under the jurisdiction of Fresno County and, therefore, is not subject to local agency regulations. Nonetheless, the Proposed Project would not conflict with existing General Plan Land Use Element and other policies protecting agriculture since the AE-20 designation allows for certain non-agricultural activities if specified requirements are met. The Proposed Project meets these requirements because the proposed site is adequate in size and shape to accommodate all necessary features and the Proposed Project would not contribute operational traffic to local roadways. The Proposed Project would not be detrimental to the character of the development in the immediate neighborhood because it would be developing a similar electric utility infrastructure site next to an existing substation. These changes would not create an incompatible land use with existing uses. The Proposed Project would not adversely affect public health, safety, or general welfare. In addition, the Proposed Project would improve the reliability of a needed service to the surrounding area, and it is an efficient use of land because an existing substation is already present adjacent to the site. Therefore, no impacts would occur under this criterion.

### 4.11.5 CPUC Draft Environmental Measures

There are no CPUC Draft Environmental Measures suggested for Land Use and Planning.

### 4.11.6 Applicant Proposed Measures

No Applicant Proposed Measures would be implemented for Land Use and Planning because no impacts would occur.

## 4.12 MINERAL RESOURCES

| Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | | | | X |
| b. | Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan? | | | | X |

This section describes the Mineral Resources in the area of the Proposed Project, as well as the potential impacts resulting from construction and operation and maintenance (O&M) of the Proposed Project.

### 4.12.1 ENVIRONMENTAL SETTING

The Proposed Project is located within an unincorporated area of Fresno County directly north of, and adjacent to, the Pacific Gas and Electric (PG&E) owned Gates Substation. The Proposed Project is located approximately 3.3 miles southwest of the city of Huron. The land to the north, east, and west of the Proposed Project is primarily used for agricultural purposes with no development and the existing PG&E Gates Substation is located to the south.

This section describes the mineral resources extent in the vicinity of the Proposed Project. Fresno County has been a leading producer of minerals because of the abundance and wide variety present in the county. Extracted resources include aggregate products (sand and gravel), fossil fuels (oil and coal), metals (chromite, copper, gold, mercury, and tungsten), and other minerals used in construction or industrial applications (asbestos, high-grade clay, diatomite, granite, gypsum, and limestone). Aggregate and petroleum are the county's most significant extractive resources and play an important role in maintaining the county's overall economy. There are no active oil wells or gravel mines within the Proposed Project area. The Fresno County General Plan does not identify any known mineral resources on or adjacent to the Proposed Project site. (Fresno County, 2000).

The Proposed Project is not located on or near any areas designated as a Mineral Resource Zone (MRZ), (California Department of Conservation, 2019) The Proposed Project is not located within 0.5miles of any resource recovery sites or associated specific plans or land use plans delineated in the Fresno County General Plan. The Proposed Project is not located within a mile of any active mines or active mining claims (USGS, 2020).

### 4.12.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

#### 4.12.2.1 Regulatory Setting

**Federal**

The Surface Mining Control and Reclamation Act (SMCRA) (30 U.S.C. §§ 1201-1328) establishes a program for regulating surface coal mining and reclamation activities. It establishes mandatory uniform standards for these activities on state and federal lands. This includes a requirement that minimizes adverse impacts on fish, wildlife, and related environmental values. The act creates an Abandoned Mine Reclamation Fund for use in reclaiming and restoring land and water resources adversely affected by mining practices (California Department of Conservation, 2015).

**State**

The protection of regionally significant mineral resource deposits is one of the main emphases of the Surface Mining and Reclamation Act of 1975 (SMARA) (Public Resources Code § 2710 et seq.). The law specifically mandates a two-phased process, commonly referred to as classification and designation for mineral resources. The California Geological Survey is responsible under SMARA for carrying out the classification phase of the process. The California Mining and Geology Board is responsible for the second phase, which allows the Board to identify areas within a production-consumption region that contain significant deposits of certain mineral resources that may be needed to meet the region's future demand. SMARA requires the state geologist to classify lands into MRZs based on the known or inferred mineral resource potential of that land. The classification process is based solely on geology, without regard to land use or ownership. The primary goal of mineral land classification is to help ensure that the mineral resource potential of land is recognized and considered in the land use planning process. MRZ definitions are provided below in **Table 4.12-1**, *Mineral Resource Zone Definitions*.

**Table 4.12-1: Mineral Resource Zone Definitions**

| Mineral Resource Zone | Definition |
|---|---|
| MRZ-1 | Areas where available geologic information indicates there is little likelihood for the presence of mineral resources. |
| MRZ-2a | Areas that contain significant measured or indicated reserves. |
| MRZ-2b | Areas where geologic information indicates that significant inferred resources or demonstrated subeconomic resources are present. |
| MRZ-3a | Areas likely to contain undiscovered mineral deposits similar to known deposits in the same producing district or region (hypothetical resources). |
| MRZ-3b | Areas judged to be favorable geologic environments for mineral resource occurrence, but where mineral discoveries have not been made in the region (speculative resources). |
| MRZ-4 | Areas where geologic information does not rule out either the presence or absence of mineral resources. |
| MRZ-6 | Area with aggregate resources rated as highly significant. |

Source: California Department of Conservation, Division of Mines and Geology, 2015

### Local

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order 131-D (GO 131-D), Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters" (CPUC, 1995).Consequently, public utilities are directed to consider local regulations and consult with local agencies, but county regulations are not applicable as Fresno County does not have jurisdiction over the Proposed Project. This section includes a summary of local mineral resources related policies, plans or programs for informational purposes and to assist with California Environmental Quality Act (CEQA) review.

#### *Fresno County General Plan*

The following relevant Mineral Resources goals and policies from the Fresno County General Plan were reviewed, and the following summaries are provided for informational purposes.

**Goal OS-C** To conserve areas identified as containing significant mineral deposits and oil and gas resources for potential future use, while promoting the reasonable, safe, and orderly operation of mining and extraction activities within areas designated for such use, where environmental, aesthetic, and adjacent land use compatibility impacts can be adequately mitigated.

**Policy OS-C.1** The County shall not permit incompatible land uses within the impact area of existing or potential surface mining areas.

**Policy OS-C.2** The County shall not permit land uses incompatible with mineral resource recovery within areas designated as Mineral Resource Zone 2 (MRZ-2).

**Policy OS-C.10** The County shall not permit land uses that threaten the future availability of mineral resource or preclude future extraction of those resources.

## 4.12.3 IMPACT QUESTIONS

### 4.12.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to Mineral Resources come from the CEQA, Appendix G Environmental Checklist (as amended in December 2019). According to the CEQA Environmental Checklist, a project may cause a potentially significant impact if it would:

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

#### 4.12.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-Filing Proponent's Environmental Assessments* (CPUC, 2019), there are no additional CEQA Impact Questions required for Mineral Resources.

### 4.12.4 IMPACT ANALYSIS

#### 4.12.4.1 Impact Analysis

**Would the project result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?**

**No Impact.** The Proposed Project does not cross lands with known or inferred mineral resources that are of value to the region and the residents of the state, nor would the Proposed Project result in the loss of availability of any known mineral resources. The Proposed Project involves construction of new facilities. The existing substation and associated transmission lines have been in place for many years, and in that time the presence of the existing infrastructure has not resulted in the loss of availability of any mineral resource. The land on which new facilities would be constructed is currently used for agricultural purposes and adjacent to the existing facilities. No mineral resources have been identified on these lands, and construction and operation of the Proposed Project's facilities would not result in the loss of any known mineral resources. Therefore, there would be no impact under this criterion.

**Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?**

**No Impact.** The Proposed Project is not located on, or in proximity to, any mineral resource recovery sites identified in the Fresno County General Plan, or any other land use plans prepared by Fresno County. Therefore, there would be no impacts under this criterion.

### 4.12.5 CPUC DRAFT ENVIRONMENTAL MEASURES

There are no CPUC Draft Environmental Measures suggested for Mineral Resources.

### 4.12.6 APPLICANT PROPOSED MEASURES

No Applicant Proposed Measures would be implemented for Mineral Resources because no impacts would occur.

## 4.13 NOISE

| Except as provided in Public Resources Code Section 21099, would the project result in: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | | | X | |
| b. | Generation of excessive ground-borne vibration or ground-borne noise levels? | | | X | |
| c. | For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | | | | X |

This section describes the noise environment within the vicinity of the Proposed Project as well as potential impacts that could result from construction and operation and maintenance (O&M) of the Proposed Project.

### 4.13.1 ENVIRONMENTAL SETTING

The Proposed Project is located within an unincorporated area of Fresno County directly north of, and adjacent to, the Pacific Gas and Electric (PG&E) owned Gates Substation. The Proposed Project is located approximately 3.3 miles southwest of the city of Huron. The land to the north, east, and west of the Proposed Project is primarily used for agricultural purposes with no development, and the existing PG&E Gates Substation is located to the south.

#### 4.13.1.1 Noise Sensitive Land Uses

Noise-sensitive land uses, or noise-sensitive receivers, are those land uses that are sensitive to loud or intrusive noise levels. Noise sensitive receivers are associated with various land uses including residences, hospitals, places of worship, libraries and schools, nature and wildlife preserves, and parks. These are known as noise sensitive land uses. The Proposed Project is located within a region predominately occupied by agricultural land uses. The Proposed Project site is located approximately 2.2 miles east of Interstate 5 (I-5) and approximately one-mile northwest of West Jayne Avenue and adjacent to Trinity Avenue. Existing noise occurs mainly from vehicular traffic traveling on I-5 and the existing PG&E Substation directly south of the Proposed Project site.

The Proposed Project site is subject to AE20 Exclusive Agricultural zoning regulations which are intended to "protect agricultural land and provide for those uses which are necessary and an integral part of an agricultural operation." This zone is intended to protect the general welfare of the agricultural community from encroachments of non-related agricultural uses. According to Section 808.2.010(A) of the Fresno County Code, the "AE zone shall be accompanied by an acreage designation which establishes the minimum size of parcels that may be created within the zone… The AE zone is consistent with the Agriculture, Irrigated Agriculture, and Westside/Eastside Rangeland land use designations of the General Plan" (2010).

The nearest potentially noise sensitive land uses are a row of residential structures located approximately 1.8 miles to the northeast of the Proposed Project site along West Tractor Avenue (refer to **Figure 4.3-1,** *Construction Site and Sensitive Receptor Locations* in **Section 4.3**, *Air Quality*). The next nearest noise sensitive receiver is another series of residential land uses located approximately 2.3 miles to the southeast of the Proposed Project site along West Jayne Avenue. These noise sensitive land areas are located too far away from the Proposed Project to be affected by project-generated noise. Due to this, and the fact that the Proposed Project site is surrounded by agriculture and an electric substation, ambient noise measurements were not taken.

### 4.13.1.2 Noise Setting

#### Noise Fundamentals

Noise is defined as unwanted or annoying sound which interferes with or disrupts normal activities. Exposure to high noise levels has been demonstrated to cause hearing loss. The individual human response to environmental noise is based on the sensitivity of that individual, the type of noise that occurs, and when the noise occurs.

Sound is measured on a logarithmic scale consisting of sound pressure levels known as a decibel (dB). The sounds heard by humans typically do not consist of a single frequency but of a broadband of frequencies having different sound pressure levels. The method for evaluating all the frequencies of the sound is to apply an A-weighting to reflect how the human ear responds to the different sound levels at different frequencies. The A-weighted sound level adequately describes the instantaneous noise whereas the equivalent sound level depicted as Leq represents a steady sound level containing the same total acoustical energy as the actual fluctuating sound level over a given time interval (Caltrans, 2013).

The Community Noise Equivalent Level (CNEL) is the 24-hour A-weighted average for sound, with corrections for evening and nighttime hours. The corrections require an addition of five decibels to sound levels in the evening hours between 7 p.m. and 10 p.m. and an addition of ten decibels to sound levels at nighttime hours between 10 p.m. and 7 a.m. These additions are made to account for the increased sensitivity during the evening and nighttime hours when sound appears louder.

Because mobile/traffic noise levels are calculated on a logarithmic scale, a doubling of the traffic noise or acoustical energy results in a noise level increase of three dBA (Caltrans, 2013). Therefore, the doubling of the traffic volume, without changing the vehicle speeds or mix ratio, results in a noise increase of three dBA. Mobile noise levels radiate in an almost oblique fashion from the source and drop off at a rate of three dBA for each doubling of distance under hard site

conditions and at a rate of 4.5 dBA for soft site conditions. Hard site conditions consist of concrete, asphalt, and hard pack dirt while soft site conditions exist in areas having slight grade changes, landscaped areas, and vegetation. On the other hand, fixed/point sources radiate outward uniformly as it travels away from the source. Their sound levels attenuate or drop off at a rate of six dBA for each doubling of distance.

The most effective noise reduction methods consist of controlling the noise at the source, blocking the noise transmission with barriers, or relocating the receiver. Any or all of these methods could be required to reduce noise levels to an acceptable level.

**Vibration Fundamentals**

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration (Federal Transit Administration [FTA], 2018). There are several different methods that are used to quantify vibration. The peak particle velocity (ppv), in inches per second (in./sec.) is defined as the maximum instantaneous peak of the vibration signal.

Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Man-made vibration issues are, therefore, usually confined to short distances (i.e., 500 feet or less) from the source. Sensitive receivers for vibration include structures (especially older masonry structures), places occupied by people (especially residents, the elderly and sick), and vibration sensitive equipment. Most residential buildings can be exposed to ground-borne vibration levels of 0.5 in./sec. ppv without experiencing structural damage (Caltrans, 2020). The threshold of architectural damage for conventional sensitive structures is 0.2 in./sec ppv. Human response indicates 0.24 in./sec. ppv is the annoyance perception level. Long-term or repeated (frequent/intermittent) sources are perceivable and may be annoying at levels as low as 0.08 in./sec. ppv (Caltrans, 2020). Vibration from construction equipment and activities, such as excavation (i.e., continuous/frequent intermittent vibration), can be barely perceptible to human beings at 0.01 ppv (Caltrans, 2020).

**Existing Ambient Noise Environment**

The Proposed Project site and surrounding areas are dominated by electrical utilities (multiple power lines and an electrical substation) and agricultural operations. Key factors contributing the ambient noise in these areas are electric utility facilities, agricultural operations, and local roads including transportation of farm equipment and trucks. None of these noise sources produce high levels of sound, and ambient noise levels within and around the Proposed Project site are expected to be relatively low. Noise sources at the nearest noise sensitive land uses (residences located 1.8 miles northeast of the Proposed Project site along West Tractor Avenue and approximately 700 feet to 1,300 feet east of South Lassen Avenue (State Route [SR] 269) are local roads and agricultural operations. Since there have been no ambient noise measurements either at the Proposed Project site or the nearest noise sensitive land uses, estimates were made utilizing the traffic volumes identified in the Fresno County's General Plan to estimate the existing ambient noise levels. Based on traffic data in the Fresno County's General Plan, that segment of SR 269 north of West Jayne Avenue has a traffic volume of 10,600 ADT in 1995 with a posted speed limit of 55 MPH. At distances of 700 feet to 1,300 feet from SR 269, using soft propagation, the ambient noise at the residences would be approximately 50-54 dBA at the residence. Conservatively, the noise levels during the nighttime hours could be 10 decibels lower.

### 4.13.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

#### 4.13.2.1 Regulatory Setting

**Federal**

***U.S. Environmental Protection Agency***

The U.S. Environmental Protection Agency (EPA), Office of Noise Abatement and Control, was established to coordinate federal noise control activities. The federal Noise Control Act of 1972 established programs and guidelines to identify and address the effects of noise on public health and welfare and the environment. Administrators of EPA determined in 1981 that subjective issues such as noise would be better addressed at lower levels of government. Consequently, in 1982, responsibilities for regulating noise control policies were transferred to state and local governments. However, noise control guidelines and regulations contained in the rulings by EPA in prior years remain upheld by designated federal agencies.

**State**

There are no applicable regulations for Noise that apply to the Proposed Project.

**Local**

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order 131-D (GO 131-D), Section XIV.B, “Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC’s jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters” (1995) Consequently, public utilities are directed to consider local regulations and consult with local agencies, but county regulations are not applicable as Fresno County does not have jurisdiction over the Proposed Project. This section includes a summary of local related policies, plans or programs for informational purposes.

***Fresno County Code***

Chapter 8.40 of the Fresno County Code (2010) (Noise Control) provides performance standards and noise control guidelines for determining and mitigating non-transportation, or stationary, noise source impacts to adjacent properties. The purpose of the noise ordinance is to protect, create and maintain an environment free from noise that may jeopardize the health or welfare, or degrade the quality of life. It is the intent of the Noise Control Ordinance to “[p]rotect persons from excessive levels of noise within or near a residence, school, church, hospital, or public library …” The Noise Control Ordinance, Section 8.40.040 states, “[i]t is unlawful for any person, including an owner, whether through the owner or the owner's agent, lessee, sublessor, sublessee or occupant, at any location within the unincorporated area of the county, to create any noise, or to allow the creation of any noise, on property owned, leased, occupied or otherwise controlled by

such person which causes the exterior noise level when measured at any affected single- or multiple-family residence, school, hospital, church or public library situation in either the incorporated or unincorporated area to exceed the noise level standards as set forth…" in **Table 4.13-1**, *Sound Level Limits in Decibels*.

**Table 4.13-1: Sound Level Limits in Decibels**

| Category | Cumulative Number of minutes in any one-hour time period | Noise Level Standards, dBA | |
|---|---|---|---|
| | | Daytime | Nighttime |
| | | 7 a.m. to 10 p.m. | 10 p.m. to 7 a.m. |
| 1 | 30 | 50 | 45 |
| 2 | 15 | 55 | 50 |
| 3 | 5 | 60 | 55 |
| 4 | 1 | 65 | 60 |
| 5 | 0 | 70 | 65 |

Source: Fresno County Code Section 8.40.040, 2010

Pursuant to Section 8.40.060, noise generated from construction and from maintenance of utility facilities are exempt from the Fresno County Noise Control Ordinance. Specifically, noise from construction activities is exempt provided that such activities do not occur before 6 a.m. or after 9 p.m., Monday through Friday; or before 7 a.m. or after 5 p.m. on Saturday or Sunday. Construction outside of these times must be approved by the county pursuant to Noise Control Ordinance Section 8.40.110.

Notwithstanding the provisions of Section 8.40.040, noise sources associated with the operation of electrical substations are regulated by Section 8.40.090, which states the substations "shall not exceed fifty dBA" when measured at the receiving property. Since the Proposed Project site and surrounding zoning are Agriculture Exclusive, which does not have a specific noise level limit, section 8.40.090 sets a most restrictive operational exterior noise limit of 50 dBA Leq for all hours.

### *Fresno County General Plan*

The Health and Safety element of the Fresno County General Plan 2000 addresses noise control goals and policies. The Noise Element defines noise as "unwanted sound." The Noise Element also includes development standards and directives aimed towards maintaining separation between noise sensitive uses and common noise-generating land uses, many of which are desired or required within the framework of Fresno County's future development plans. Applicable policies are discussed below for informational purposes.

**Goal HS-G** To protect residential and other noise-sensitive uses from exposure to harmful or annoying noise levels; to identify maximum acceptable noise levels compatible with various land use designations; and to develop a policy framework necessary to achieve and maintain a healthful noise environment.

**Policy HS-G.6** The County shall regulate construction-related noise to reduce impacts on adjacent uses in accordance with the County's Noise Control Ordinance.

### 4.13.3 IMPACT QUESTIONS

#### 4.13.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to Noise comes from the CEQA, Appendix G (as amended in December 2019), Environmental Checklist. According to the CEQA Checklist, a project may cause a potentially significant impact if it would result in:

- Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies; or
- Generation of excessive ground-borne vibration or ground-borne noise levels; or
- For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport, would the project expose people residing or working in the project area to excessive noise levels.

#### 4.13.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-Filing Proponent's Environmental Assessments* (CPUC, 2019), there are no additional CEQA Impact Questions required for Noise.

### 4.13.4 IMPACT ANALYSIS

#### 4.13.4.1 Impact Analysis

**Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

**Less-Than-Significant Impact.** Construction noise represents a short-term impact on the ambient noise levels. Noise generated by construction equipment includes haul trucks, water trucks, graders, dozers, loaders, excavators, pile drivers, and scrapers, which can reach relatively high noise levels. The most effective method of controlling construction noise is through local control of construction hours and by limiting the hours of construction to normal weekday working hours.

Typical maximum noise levels for construction equipment at 50 feet from the source are shown in Error! Reference source not found., *Typical Noise Levels Generated by Construction Equipment*. As shown, the maximum intermittent noise levels ($L_{max}$) are expected to range between 74 and 89 dBA at approximately 50 feet. **Table 4.3-5**, *Anticipated Construction Equipment and Durations*, shows the anticipated usage of the construction equipment, including phases of construction and their respective durations (refer to **Section 4.3**, *Air Quality*).

| Table 4.13-2: Typical Noise Levels Generated by Construction Equipment | |
|---|---|
| **Equipment** | **Noise Level (dBA $L_{max}$) at 50 feet** |
| Backhoe | 80 |
| Concrete mixer | 85 |
| Pump truck | 82 |
| Crane, Mobile | 83 |
| Dozer | 85 |
| Excavator | 85 |
| Generator | 81 |
| Grader | 85 |
| Man lift/ Aerial Lift/ Forklift | 85 |
| Loader | 85 |
| Paver | 89 |
| Roller | 85 |
| Scraper | 89 |
| Trencher | 75 |
| Drill rig | 85 |
| Trucks (all types) | 74-88 |
| Sources: FHWA, 2006; Ontario Ministry of Labour, Training, and Skills Development, 2016 | |

Grading and excavation operations are typically the loudest construction activity. The grading operations for the Proposed Project would likely include equipment similar to a dozer, a grader, and a tractor/loader/backhoe. Because the Proposed Project site is currently an agricultural operation, there is no pavement or other improvement to demolish prior to constructing the Proposed Project. This list of equipment provides a conservative assessment from a noise perspective as these represent some of the loudest pieces of equipment that would be used during site preparation. Most of the construction activities would consist of clearing and grubbing the site. The equipment is anticipated to be located on the central portion of the site with some equipment potentially operating at or near the southern and eastern property lines during access road construction. Based on the Proposed Project site location, construction activity would be approximately 1.8 miles southwest of the nearest residential land use or other sensitive receptor. The construction noise generated by the Proposed Project would be 34.3 dBA at this distance as can be seen in **Table 4.13-3,** *On-Site Preparation Noise Levels*. As discussed above, the existing ambient noise levels at these residences is estimated to be 50- 54 dBA. Therefore, construction noise would not be perceptible at this location and Proposed Project construction would have no impact on noise sensitive land uses.

As can be seen in **Table 4.13-3**, *On-Site Preparation Noise Levels*, if all the site preparation equipment was operating in the same location, which is not physically possible, at a distance as close as 300 feet (to the nearest property line from the point source) noise attenuation from construction activities is -15.6 dBA. This would result in an anticipated worst-case eight-hour average

combined noise level of 64.2 dBA at the western property line. Impacts would be less than significant for construction generated noise on adjacent properties because the Fresno County Noise Control Ordinance (Section 8.40.060) exempts construction noise, provided that construction activities occur within the allowable days and times and because there are no noise-sensitive land uses on the parcels adjacent to the Proposed Project site. If construction activities are required to occur at night, the Proposed Project would comply with Section 8.40.110 of the Noise Control Ordinance.

**Table 4.13-3: On-Site Preparation Noise Levels**

| Construction Equipment | Quantity | Duty Cycle (Hours/Day) | Source Level @ 50-Feet (dBA $L_{eq}$-8h)* | Combined Noise Level @ 50-Feet (dBA $L_{eq}$-8h) |
|---|---|---|---|---|
| Grader | 1 | 8 | 74 | 74.0 |
| Scraper | 1 | 8 | 75 | 75.0 |
| Loader/Tractor | 2 | 8 | 73 | 76.0 |
| | | | Total Noise Level at 50 Feet (dBA) | 79.8 |
| | | | Distance to Nearest Property Line | 300 |
| | | | Noise Reduction Due to Distance | 15.6 |
| | | | **NEAREST PROPERTY LINE NOISE LEVEL** | **64.2** |
| | | | **Noise Level at nearest sensitive receptor located 1.8 miles away** | **34.3** |

*Source: Noise Measurements taken at several construction projects throughout southern California by Ldn.

Construction of the Proposed Project would temporarily increase traffic noise off-site from commuting construction workers and from haul trucks bringing materials to and from the Proposed Project site. All Proposed Project components would be constructed over approximately an 18-month period. However, all construction traffic would access the Proposed Project site via I-5 and West Jayne Avenue The 60 trips per day would not materially alter noise levels generated by traffic on I-5, and there are no residential or other sensitive receivers along West Jayne Avenue. Therefore, the short-term increase in traffic noise from Proposed Project construction would be less than significant.

As part of operations, the Proposed Project would include two Heating, Ventilation and Air Conditioning (HVAC) units, one for each Static Synchronous Compensator (STATCOM) facility; three 500 kV transformers, only two of which would be active simultaneously; and two 97.5 kV reactors. The HVAC are assumed to be adjacent to the STATCOM buildings, and for modeling purposes they have been located on the north sides of the buildings.

Noise level data for the transformers and reactors were taken from the National Electrical Manufacturers Association (NEMA) test results for transformers and reactors. The proposed 500 kV transformers have an unshielded noise rating of 81 dBA at one meter (3 feet). The proposed 79.5 kV reactors have an unshielded noise rating of 79 dBA at one meter. Each STATCOM facility would include a 4,000 square foot building requiring an estimated seven tons of HVAC. For modeling purposes, a Carrier 48HC-D08, 7.5 tons HVAC unit was modeled on the north side of each building.

Operational noise levels from the Proposed Project were modeled with SoundPlan Essential, version 4.0 (SoundPlan), a three-dimensional acoustical modeling software package. Propagation of modeled stationary noise sources was based on ISO Standard 9613-2, “Attenuation of Sound during Propagation Outdoors, Part 2: General Method of Calculation.” All site conditions were modeled as hard, or zero percent absorptive. The assessment methodology

assumes that all receivers would be downwind of stationary sources. This is a worst-case assumption for total noise impacts since, in reality, only some receivers would be downwind at any one time.

The operations source noise levels are presented in **Error! Reference source not found.4**, *Project Operations Source Noise Level in Decibels (dBA)*. All sound power reference levels were taken from manufactured specification sheets.

**Table 4.13-4: Project Operations Source Noise Level in Decibels (dBA)**

| Name | Sound Power Level (dBA) |
|---|---|
| Three Phase 97.5 - 500 kV Transformers | 89 |
| 97.5 kV Reactors | 87 |
| Carrier 48HC-D08 | 81 |
| Source: NEMA, 1993 | |

To be conservative, noise receptors were placed at the parcel boundaries except to the south, because the existing PG&E Gates Substation is located directly south of the Proposed Project site. All equipment was modeled as active at 100 percent power for a full hour during all hours. This is considered a reasonably conservative assumption as it would be unlikely that the transformers or reactors would be at full power for a full hour at the same time. Based on these inputs and the site layout shown in **Figure 4.13-1**, *Noise Sources and Receiver Locations*, the Proposed Project would not exceed the noise levels limit at any property boundary, as shown by Error! Reference source not found., *Operations Noise Levels in Decibels* and **Figure 4.13-2**, *Operational Noise Level Contours***.** Thus, Proposed Project operations would not require noise abatement, and impacts would be less than significant.

**Table 4.13-5: Operations Noise Levels in Decibels**

| Receiver | Description | Zone | Noise Level (dBA $L_{eq}$) | | Does the noise level exceed standard? |
|---|---|---|---|---|---|
| | | | At Property Line | County Standard | |
| 1 | Eastern Property Line | AE | 33 | 50 | No |
| 2 | Northern Property Line | AE | 24 | 50 | No |
| 3 | Western Property Line | AE | 21 | 50 | No |

In addition to facility operational noise, periodic site maintenance of the facility would also be required. On-site activities are not anticipated to result in noise levels in excess of existing landscape maintenance and agricultural operations on the existing and surrounding properties. Thus, on-site maintenance is not anticipated to result in a substantial increase in noise levels. Finally, the Fresno County Noise Control Ordinance (Section 8.40.060 (G) exempts maintenance activities for private and public utilities. The nearest sensitive receptor is located approximately 1.8 miles from the site and has an estimated ambient noise level of 50 - 54 dBA. The operational noise levels would drop at this distance to zero and would not be audible. No impacts would occur as a result of operation noise at the nearest sensitive receptor.

Therefore, impacts from construction and O&M under this criterion would be less than significant.

**Would the project result in generation of excessive ground-borne vibration or ground-borne noise levels?**

**Less-Than-Significant Impact.** Construction activities, such as tamping ground surfaces, excavation, grading, drilling, and passing heavy trucks on uneven surfaces, may produce minor ground-borne vibration in the immediate vicinity of the construction activity. Impacts from construction-related ground-borne vibration, should they occur, would be intermittent and confined to the immediate area surrounding the activity. As shown in **Table 4.13-6**, *Typical Construction Equipment Vibration Levels*, large bulldozers can create vibration levels of 0.089 in/sec PPV at 25 feet.

**Table 4.13-6: Typical Construction Equipment Vibration Levels**

| Equipment | PPV at 25 feet (in/sec) |
|---|---|
| Haul Trucks | 0.076 |
| Large Bulldozer | 0.089 |

Notes:
in/sec = inches per second; PPV = peak particle velocity
Source: Caltrans, 2020.

Installation of underground (below grade) facilities would be anticipated to generate the highest vibration levels. Below grade activities would require the use of an excavator/backhoe to dig and backfill trenches for installing the ground grid, cables, foundations, footings, and duct banks. Other activities such as facility construction would also generate vibrations; however, these vibrations levels would be less intense and would occur for a shorter duration.

The nearest sensitive receivers to construction activities at the Proposed Project Substation site would be residences located 1.8 miles to northeast, north of West Tractor Avenue. Using the reference levels in **Table 4.13-6**, *Typical Construction Equipment Vibration Levels*, predicted worst-case vibration levels of approximately 0.0001 in/sec PPV at the nearest sensitive receiver could occur from excavation and related below grade activities. These vibration levels would not be noticeable at the nearest receiver and would not exceed any identified threshold for building damage or human annoyance (Caltrans, 2020).

Operation of the Proposed Project would not be anticipated to generate substantial ground-borne vibration or ground-borne noise levels. Operation of the Proposed Project would consist of routine maintenance activities and emergency repairs. These activities would be unlikely to produce ground-borne vibration. Operation of transformers at the Proposed Project Substation could produce ground-borne vibration; however, ground-borne vibrations would be perceptible only in the immediate vicinity (i.e., less than 25 feet) of the transformer pad, if at all. No other component of the Proposed Project would generate vibrations during operation. Thus, impacts resulting from the generation of ground-borne vibration during operation of the Proposed Project would be less than significant.

Therefore, construction and O&M of the Proposed Project would result in a less-than-significant impact related to the generation of ground-borne vibration and ground-borne noise levels.

**For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?**

**No Impact.** There are no private airstrips located within the vicinity of the Proposed Project. Therefore, the Proposed Project would not expose people working or residing in the area to excessive construction or operation noise levels attributable to aircraft or airport operations. Therefore, no impacts would occur under this criterion.

### 4.13.5 CPUC DRAFT ENVIRONMENTAL MEASURES

There are no CPUC Draft Environmental Measures suggested for Noise.

### 4.13.6 APPLICANT-PROPOSED MEASURES

No Applicant Proposed Measures would be implemented for Noise because impacts would be less than significant.

## 4.14 POPULATION AND HOUSING

| Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes or business) or indirectly (e.g., through extension of roads or other infrastructure)? | | | | X |
| b. | Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? | | | | X |

This section describes Population and Housing conditions within the area of the Proposed Project, as well as the potential impacts that could result from construction and operation and maintenance (O&M) of the Proposed Project.

### 4.14.1 ENVIRONMENTAL SETTING

The Proposed Project is located within an unincorporated area of Fresno County directly north of, and adjacent to, the Pacific Gas and Electric (PG&E) owned Gates Substation. The Proposed Project is located approximately 3.3 miles southwest of the city of Huron. The land to the north, east, and west of the Proposed Project is primarily used for agricultural purposes with no development and the existing PG&E Gates Substation is located to the south.

Historical population and housing data presented below was obtained from the U.S. Census Bureau decennial censuses (2012, 2020). Population projections were obtained from the California Department of Finance (State of California, 2018). Housing development data was obtained through discussions with planning personnel at Fresno County Department of Public Works and Planning (Motta, 2020).

#### 4.14.1.1 Population Estimates

Population data from the 2010 and 2020 decennial Censuses are presented in **Table 4.14-1**, *Population and Housing Estimates*. Between 2010 and 2020, Fresno County and the city of Huron experienced population increases of 10% and 8%, respectively. According to the California Department of Finance, the population of Fresno County is projected to increase in 2030, 2040, 2050, and 2060, with the population in 2060 estimated to reach 1,291,413. According to the U.S. Bureau of Labor Statistics, the unemployment rate, as of December 2020, in Fresno County is 8.6%. The number of individuals employed in the construction industry in Fresno County is 23,914 persons, as of January 2020 (Fresno County Health Improvement Partnership [FCHIP], 2020). The unemployment rate in the city of Huron is 7.3% (Best Places. 2020). According to Data USA, the city of Huron has 202 persons employed in the construction industry (Data USA, 2020).

#### 4.14.1.2 Housing Estimates

Data on the numbers of occupied and vacant housing units and vacancy rates for Fresno County and the city of Huron are presented in **Table 4.14-1**, *Population and Housing Estimates*. As shown, vacant housing units are available near the Proposed Project in the city of Huron. In addition, there is short-term lodging near the Proposed Project that could be available at hotels and motels in the city of Huron. According to the city of Fresno Master Environmental Impact Report (MEIR), the County is anticipated to substantially increase housing based on housing projections. The future development under the General Plan Update is projected to provide adequate housing for future employees and their families within the Proposed Project Area. (City of Fresno, 2014).

**Table 4.14-1: Population and Housing Estimates**

| | Fresno County | City of Huron |
|---|---|---|
| Population, 2010 | 930,450 | 6,754 |
| Population, 2020 | 1,023,358 | 7,299 |
| Housing Units, Total | 337,128 | 1,631 |
| Housing Units, Occupied | 314,417 | 1,671 |
| Housing Units, Vacant | 22,711 | 40 |
| Vacancy Rate (%) | 6.7% | 2.5% |
| Source: U.S. Census Bureau | | |

#### 4.14.1.3 Approved Housing Developments

According to data provided by the Fresno County Department of Public Works and Planning, there are no approved or pending housing developments within one mile of the Proposed Project.

### 4.14.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

#### 4.14.2.1 Regulatory Setting

**Federal**

There are no applicable regulations for Population and Housing that apply to the Proposed Project.

**State**

There are no applicable regulations for Population and Housing that apply to the Proposed Project.

**Local**

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order 131-D (GO 131-D), Section XIV.B, “Local jurisdictions acting pursuant to local authority are preempted from

regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters" (CPUC, 1995). Consequently, public utilities are directed to consider local regulations and consult with local agencies, but county are not applicable as Fresno County does not have jurisdiction over the Proposed Project. However, there are no applicable regulations for Population and Housing that would apply to the Proposed Project.

### 4.14.3 IMPACT QUESTIONS

#### 4.14.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to Population and Housing come from the California Environmental Quality Act (CEQA), Appendix G Environmental Checklist (as amended in December 2019). According to the CEQA Environmental Checklist, a project may cause a potentially significant impact if it would:

- Induce substantial unplanned population growth in the area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through the extension of new roads or other infrastructure); or

- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

#### 4.14.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-Filing Proponent's Environmental Assessments* (CPUC, 2019), there are no additional CEQA Impact Questions required for Population and Housing.

### 4.14.4 IMPACT ANALYSIS

#### 4.14.4.1 Impact Analysis

**Would the project induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes or business) or indirectly (e.g., through extension of roads or other infrastructure)?**

**No Impact.** Construction of the Proposed Project would not induce, either directly or indirectly, substantial population growth in the area. LS Power Grid California, LLC (LSPGC) expects to utilize up to approximately 20 workers per day during construction. The labor demands of the Proposed Project would be met by existing LSPGC employees, by hiring specialty construction and electrical contractors who already reside in the surrounding areas, or by hiring specialty construction and electrical contractors from outside the local area who may temporarily reside in the vicinity of the Proposed Project while completing their roles in the construction process. Within the Proposed Project area, the number of construction personnel consists of 202 persons in the city of Huron (Data USA, 2020) and 23,914 persons in Fresno County (FCHIP, 2020).

Additionally, the Proposed Project does not include new infrastructure such as publicly accessible roads that could induce population growth. Given the small number of positions required for construction of the Proposed Project and the anticipated short-term construction period, no population growth would be induced by the construction of the Proposed Project.

The Proposed Project would not induce population growth or create new demand being that the Static Synchronous Compensator (STATCOM) Substation facility would support the exiting regional transmission system by providing voltage support and grid stability to existing customer demand. The Proposed Project would facilitate the reliable operation of an existing extra high voltage transmission system in the electrical proximity of the PG&E Gates Substation. The STATCOM Substation facility would replace the functions that the retiring Diablo Canyon nuclear generating units currently provide as discussed in **Section 3.2.3**, *System Reliability*. O&M of the Proposed Project would not induce, either directly or indirectly, substantial population growth in the area.

The Proposed Project would be operated by LSPGC's control center in Austin, Texas and LSPGC's local maintenance/technical staff, utilizing other existing LSPGC staff and outside contractor resources for maintenance and emergency response. The Proposed Project would be incorporated into LSPGC's existing programs with existing equipment, experienced staff, and trusted contractors. LSPGC currently has five staff in its transmission maintenance group. One additional local California-based field personnel would also be added to support maintenance of the facilities. LSPGC would also have a local California-based electrical engineer available to support any technical aspects of the Proposed Project. Given the small number of positions required for O&M of the Proposed Project, no population growth would be induced by the operation of the Proposed Project. The Proposed Project would not induce population growth or create new demand being that the STATCOM facility would support the exiting regional transmission system by providing voltage support and grid stability to existing customer demand. The Proposed Project would facilitate the reliable operation of the extra high voltage transmission system in the electrical proximity of the PG&E Gates Substation. The STATCOM facility would replace the functions that the retiring Diablo Canyon nuclear generating units currently provide. Thus, there would be no impacts under this criterion.

**Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?**

**No Impact.** The Proposed Project would not displace any existing housing. The Proposed Project facilities and associated interconnection transmission lines would be located on vacant and agricultural lands, absent of people and existing housing developments or residences. In addition, there are no approved or pending housing developments within one mile of the Proposed Project. No people or housing would be displaced by construction or operation of the Proposed Project, and thus, it would not be necessary to construct replacement housing elsewhere.

The construction workforce and equipment deployed for the Proposed Project would be typical for similar transmission line and substation construction projects of this size. The peak employment is anticipated to be 20 workers during construction, but on average, the workforce on site would be minimal. The workers would likely commute from the Fresno area. It is not anticipated that any construction workers would permanently relocate to the Proposed Project area.

As discussed above, the Proposed Project would be operated by LSPGC's control center in Austin, Texas and LSPGC's local maintenance/technical staff, utilizing other existing LSPGC staff and outside contractor resources for maintenance and emergency response. The Proposed Project would be incorporated into LSPGC's existing programs with existing equipment, experienced staff, and trusted contractors. LSPGC currently has five staff in its transmission maintenance group. One additional local California-based field personnel would also be added to support maintenance of the facilities. LSPGC would also have a local California-based electrical engineer available to support any technical aspects of the Proposed Project. Given the small number of positions required for O&M, the Proposed Project would have no impact to the workforce residing in the area. Thus, there would be no impacts under this criterion.

### 4.14.5 CPUC Draft Environmental Measures

There are no CPUC Draft Environmental Measures suggested for Population and Housing.

### 4.14.6 Applicant Proposed measures

No Applicant Proposed Measures would be implemented for Population and Housing because no impact would occur.

## 4.15 PUBLIC SERVICES

| Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: | | | | | |
| | Fire protection? | | | X | |
| | Police protection? | | | X | |
| | Schools? | | | | X |
| | Parks? | | | | X |
| | Other public facilities? | | | | X |

This section describes the Public Services within the vicinity of the Proposed Project, as well as the potential impacts that could result from construction and operation and maintenance (O&M) of the Proposed Project.

### 4.15.1 ENVIRONMENTAL SETTING

The Proposed Project is located within an unincorporated area of Fresno County directly north of, and adjacent to, the Pacific Gas and Electric (PG&E) owned Gates Substation. The Proposed Project is located approximately 3.3 miles southwest of the city of Huron. The land to the north, east, and west of the Proposed Project is primarily used for agricultural purposes with no development, and the existing PG&E Gates Substation is located to the south.

Public services data includes fire and police protection and maintenance of public facilities such as schools and parks and was obtained using of the Fresno County General Plan (Fresno County, 2000), the Fresno County Ordinance Code (2010), Fresno County Fire Protection District (FCFPD) website, the Fresno County Sheriff's website, and other local service information resources.

### 4.15.1.1 Service Providers

The following section discusses the public service providers that would serve the Proposed Project.

#### Police

The Fresno County Sheriff's Department provides law enforcement services to all unincorporated areas of the county, including the area of the Proposed Project. The Proposed Project is located within Patrol Area 1, which provides 24-hour law enforcement for about 2,400 square miles of western Fresno County and includes the cities of San Joaquin, Coalinga, Huron, Kerman, Mendota, and Firebaugh. Although Patrol Area 1 Substation is currently closed to the public due to staffing shortages, Sheriff staff are still working out of the Area 1 Substation and will still be assigned to the area of the Proposed Project (Fresno County Sheriff's Office, 2020). Based on available information, the average response time of the Fresno County Sheriff's Office is currently unknown. However, the Fresno Police Department (FPD) has the goal of answering 95% of all 911 emergency calls in under 15 seconds (FPD, 2019).

#### Fire

FCFPD is a full-service fire department providing emergency services to approximately 2,655 square miles of the central San Joaquin Valley and serving a population of more than 220,000 citizens in both incorporated and unincorporated areas of Fresno County (Fresno County Fire Protection District, 2020). In cooperation with the California Department of Forestry and Fire Protection (CAL FIRE), FCFPD provides emergency services for 13 district stations and nine state stations. A minimum of two to three career firefighters are on duty 24 hours per day at any given fire engine company, which allows for a minimum of 44 firefighters to be on duty daily. An Emergency Command Center serves CAL FIRE, FCFPD, and 13 other emergency agencies in the region, including the California Emergency Management Agency Region V Coordination Center. Fire protection and emergency services for the Proposed Project would be provided by FCFPD Battalion 14, Station 93, which is located within the city of Huron, with cooperation from CAL FIRE. FCFPD would be the designated first responder for all Proposed Project-related incidents. In addition, fire water storage will be available at on the Proposed Project site.

Emergency response services in the Proposed Project area are provided by Central California Emergency Medical Services, a Division of Fresno County Department of Public Health. An ambulance must be responding within two minutes of being alerted to a call requiring immediate dispatch. If the ambulance unit does not notify that they are enroute or responding within a two-minute time period, the ambulance dispatch center will send a second alert page to the ambulance and consider the dispatch of the next closest appropriate ambulance (Central California Emergency Medical Services, 2018).

#### Schools

There is a total of 32 public school districts serving more than 200,000 students in Fresno County. The Proposed Project is within District 4 of the Coalinga-Huron Unified School District (Fresno County Office of Education, 2020), which includes 12 charter, kindergarten, elementary, middle,

and high schools. Public primary education is overseen by the Fresno County Office of Education. The public school nearest the Proposed Project site is Huron Middle School, located approximately 3.7 miles northeast of the Proposed Project (see **Figure 4.15-1**, *Public Service Facilities*). There are also several private schools throughout Fresno County; however, there are no private schools within a mile of the Proposed Project site.

**Parks**

The Proposed Project is in an area composed of privately owned, mostly agricultural lands. There are no parks or other recreational areas within one mile of the Proposed Project (see **Figure 4.15-1**, *Public Service Facilities*). The closest public parks, Keenan, Chestnut, and Huron Community Parks are more than 3.7 miles to the northeast in the city of Huron. Additional information about impacts on recreational resources is provided in **Section 4.16**, *Recreation*.

**Hospitals**

No medical or mental health hospitals are in the immediate vicinity of the Proposed Project. The nearest available emergency care center is Coalinga Regional Medical Center located within the city of Coalinga, approximately 11.7 miles west of the Proposed Project. The Department of State Hospital – Coalinga (mental health hospital) is located 6.3 miles west of the Proposed Project site (see **Figure 4.15-1**, *Public Service Facilities*).

## 4.15.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

### 4.15.2.1 Regulatory Setting

**Federal**

There are no applicable regulations for Public Services that apply to the Proposed Project.

**State**

***California Fire Code***

The California Code of Regulations (CCR), Title 24, Part 9 is known as the California Fire Code. This code provides provisions for planning, precautions, and preparations for fire safety and fire protection during various activities. This includes, but is not limited to, construction, demolition, building's requirements, and guidelines for working with flammable chemicals and materials (California Building Standards Commission, 2019). The Proposed Project is located within areas categorized as Non-Wildland/Non-Urban and Urban/Unzoned according to data from the CAL FIRE (CAL FIRE). As such, the California Fire Code was reviewed for informational purposes for the Proposed Project (CAL FIRE, 2007).

### *California Public Resources Code Sections 4292 and 4293*

California Public Resources Code (PRC) Section 4292 states:

> [A]ny person that owns, controls, operates, or maintains any electrical transmission or distribution line…shall, during such times and in such areas as are determined to be necessary by the director or the agency, has primary responsibility for fire protection of such areas, maintain around and adjacent to any pole or tower which supports a switch, fuse, transformer, lightening arrester, line junction, or dead end or corner pole, a firebreak which consists of a clearing of not less than 10 feet in each direction from the outer circumference of such a pole or tower.

PRC Section 4293 states:

> [A]ny person that owns, controls, operates, or maintains any electrical transmission or distribution line upon any mountainous land, or in forest-covered land, or grass-covered land shall, during such times and in such areas as are determined to be necessary by the director or the agency which has primary responsibility for the fire protection of such area, maintain a clearance of the respective distances which are specified in this section in all directions between all vegetation and all conductors which are carrying electric current:
>
> (a) For any line which is operating at 2,400 or more volts, but less than 72,000 volts, four feet
> (b) For any line which is operating at 72,000 or more volts, but less than 110,000 volts, six feet
> (c) For any line which is operating at 110,000 or more volts, 10 feet
>
> In every case, such distance shall be sufficiently great to furnish the required clearance at any position of the wire, or conductor when the adjacent air temperature is 120 degrees Fahrenheit, or less. Dead trees, old decadent or rotten trees, trees weakened by decay or disease and trees or portions thereof that are leaning toward the line which may contact the line from the side or may fall on the line shall be felled, cut, or trimmed so as to remove such hazard.

### *Red Flag Fire Warning and Weather Watches*

Like PRC Sections 4292 and 4293, red-flag warnings and fire-weather watches aim to prevent fire events and reduce the potential for substantial damage. When extreme fire weather or behavior is present or predicted in an area, a red-flag warning or fire-weather watch may be issued to advise local fire agencies that these conditions are present. The National Weather Service issues the red flag warnings and fire weather watches, and the CAL FIRE provides safety recommendations for preventing fires. These include clearing and removing vegetation and ensuring the proper use of equipment.

## Local

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order 131-D (GO 131-

D), Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters" (CPUC, 1995). Consequently, public utilities are directed to consider local regulations and consult with local agencies, but county regulations are not applicable as Fresno County does not have jurisdiction over the Proposed Project. This section includes a summary of local related policies, plans or programs for informational purposes and to assist with California Environmental Quality Act (CEQA) review.

### *Fresno County General Plan*

The Public Facilities and Services Element of the Fresno County General Plan contains goals and policies for law enforcement, fire protection and emergency medical services, and school and library services. Fresno County has goals and policies to maintain optimal levels of service and quality for fire and police protection and public education. These also include expansion of facilities and staff as needed in conjunction with future planned development.

Fresno County General Plan contains the following potentially relevant goals and policies.

**Goal PF-G** To protect life and property by deterring crime and ensuring the prompt and efficient provision of law enforcement service and facility needs to meet the growing demand for police services associated with an increasing population.

**Policy PF-G.2** The County shall strive to maintain a staffing ratio of two (2) sworn officers serving unincorporated residents per 1,000 residents served. (This count of officers includes all ranks of deputy sheriff personnel and excludes all support positions, and all sworn officers serving county wide population interests such as bailiffs, and sworn officers serving contract cities and grant specific populations).

**Goal PF-H** To ensure the prompt and efficient provision of fire and emergency medical facility and service needs, to protect residents of and visitors to Fresno County from injury and loss of life, and to protect property from fire.

**Policy PF-H.1** The County shall work cooperatively with local fire protection districts to ensure the provision of effective fire and emergency medical services to unincorporated areas within the county.

**Policy PF-H.2** Prior to the approval of development projects, the County shall determine the need for fire protection services. New development in unincorporated areas of the County shall not be approved unless adequate fire protection facilities.

**Policy PF-H.5** The County shall require that new development be designed to maximize safety and minimize fire hazard risks to life and property.

**Policy PF-H.8** The County shall encourage local fire protection agencies in the county to maintain the following as minimum standards for average first alarm response times to emergency calls:

a. 5 minutes in urban areas;
b. 15 minutes in suburban areas; and
c. 20 minutes in rural areas.

**Policy PF-H.10** The County shall ensure that all proposed developments are reviewed for compliance with fire safety standards by responsible local fire agencies per the Uniform Fire Code and other State and local ordinances.

**Policy PF-H.11** The County shall encourage local fire protection agencies to provide and maintain advanced levels of emergency medical services (EMS) to the public, consistent with current practice.

### 4.15.3 IMPACT QUESTIONS

#### 4.15.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to Public Services come from the CEQA, Appendix G Environmental Checklist (as amended in December 2019). According to the CEQA Environmental Checklist, a project may cause a potentially significant impact if it would:

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

- Fire protection
- Police protection
- Schools
- Parks
- Other public facilities

#### 4.15.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-Filing Proponent's Environmental Assessments* (CPUC, 2019), there are no additional CEQA Impact Questions required for Public Services.

### 4.15.4 IMPACT ANALYSIS

#### 4.15.4.1 Impact Analysis

**Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services?**
**Fire and Police Protection**

**Less-than-Significant Impact.** The Proposed Project would not permanently affect service ratios, response times, or other objectives for public services in the area. Fire, emergency, and police services currently serve, and would continue to serve, the areas in which the existing PG&E Gates Substation and solar field and the Proposed Project are located. The Proposed Project would not result in a permanent need for new or additional public services because it would not directly induce population growth or result in the construction of residential or other land uses that would indirectly induce area population growth. It is not anticipated that the Proposed Project would adversely affect the use or operation of fire, police protection services, or emergency services. The Proposed Project would not require the expansion of fire protection services. Work areas would be cleared or trimmed of vegetation by LS Power Grid California, LLC (LSPGC) before staging construction equipment, thus minimizing the probability of a fire during construction. Although the need for emergency services may arise during construction of the Proposed Project, such a need would not substantially affect the provision of existing emergency services or require the provision of service beyond existing capacities. Construction is not anticipated to permanently affect response times because construction lane or road closures would be temporary and would be coordinated with local jurisdictions and emergency service providers, and traffic control would be implemented, as necessary and described in **Applicant Proposed Measure (APM) PS-1**.

As discussed above, emergency response services in the Proposed Project area are provided by Central California Emergency Medical Services. An ambulance must be responding within two minutes of being alerted to a call requiring immediate dispatch. If the ambulance unit does not notify that they are enroute or responding within a two-minute time period, the ambulance dispatch center will send a second alert page to the ambulance and consider the dispatch of the next closest appropriate ambulance (Central California Emergency Medical Services, 2018).

Although the Proposed Project would employ up to 20 construction workers at peak construction, the workforce on site would be less on average and minimal for O&M. Workers would likely commute from the greater Fresno area. The Proposed Project would not create permanent employment or displace people. There would be no relocation of people regarding governmental facilities or services. The Proposed Project would not result in a permanent need for new or additional public services because it would not directly induce population growth or result in the construction of residential or other land uses that would indirectly induce area population growth (see **Section 4.14,** *Population and Housing*).

Perimeter security fencing would be installed around the outer limits of the work area. Lighting would also be installed for security purposes during construction. Construction crews would lock up and secure each worksite to prevent theft or vandalism associated with work equipment or supplies at the completion of each workday. Once built, the permanent perimeter physical security system would consist of an eight-foot chain link security fence with an additional one-foot barbed

wire extension at the top. The Static Synchronous Compensator (STATCOM) physical security would be designed in accordance with North American Electric Reliability Corporation (NERC) Critical Infrastructure Protection (CIP) requirements with 24/7 monitoring, response, and control through the LSPGC control center and staff. The perimeter security fence would have two gates integrated with electronic access card readers, including indoor and outdoor physical security cameras placed throughout the site with at least two of the cameras placed around the exterior of the control house. The security cameras would be routed through a network video recorder located in the Wide Area Network (WAN) control panel and communicated to the LSPGC control center for monitoring.

As discussed in **Section 4.17**, *Transportation*, traffic control measures associated with construction on major streets would be implemented pursuant to all applicable industry standards and applicable local jurisdictional agency review. For overhead power lines, LSPGC would coordinate with the appropriate emergency (fire and police) personnel prior to construction to ensure that construction activities and associated lane closures would not substantially affect emergency response vehicles (refer to **Section 4.17**, *Transportation*). The Proposed Project is not anticipated to impede ingress and egress of emergency vehicles or impact emergency response times during construction and operation. Any lane or road closures associated with construction of the Proposed Project would be temporary and would be coordinated with local jurisdictions and emergency service providers (**APM PS-1**). Any traffic control would be implemented, as necessary as discussed in **Section 4.17**, *Transportation*.

Operation of the Proposed Project facilities would not impede emergency vehicle response times, as operation of the Proposed Project facilities would not require any lane or road closures and would require only minimal staffing that would not increase traffic levels near the Proposed Project. Furthermore, all newly constructed private access roads would be built to Fresno County design standards, including those standards facilitating access to emergency response vehicles. Therefore, no impacts to emergency response times are anticipated during construction and operation of the Proposed Project.

As discussed in previous sections, PG&E is currently performing O&M activities at the existing PG&E Gates Substation including inspections along associated transmission lines. The Proposed Project would include the operation of two new STATCOM facilities and interconnection transmission lines outside of the current substation. Although the Proposed Project would include the O&M of new facilities, it is not anticipated that these activities would increase significantly beyond their current levels. The Proposed Project would require no permanent on-site staffing and would not create significant permanent employment associated with O&M activities. These activities would be performed by local LSPGC personnel or contractors that would travel to the site as needed. The Proposed Project would not displace or relocate people and, therefore, would not impact governmental facilities and services. The Proposed Project would not permanently affect service ratios, response times, or other objectives for public services in the area. Fire, emergency, and police services currently serve, and would continue to serve, the areas in which the existing PG&E Gates Substation and solar field and the Proposed Project are located. Therefore, impacts would be less than significant.

**Schools, Parks, & Other Public Facilities**

**No Impact.** It is not anticipated that the Proposed Project would adversely affect the use or operation of any schools, parks, or other public facilities in the vicinity of the Proposed Project. The Proposed Project would not generate the need for new or additional public services because it would not result in construction of residential or other land uses that would induce population growth in the area. There are no schools or parks within a 0.25 mile of the Proposed Project area. The Proposed Project is not expected to generate new students for the area's schools. No new or physically altered schools would be necessary as a result of the Proposed Project. Therefore, no impacts would occur under this criterion.

### 4.15.5 CPUC DRAFT ENVIRONMENTAL MEASURES

There are no CPUC Draft Environmental Measures suggested for Public Services.

### 4.15.6 APPLICANT PROPOSED MEASURES

**APM PS-1**

LSPGC would coordinate construction activities with local law enforcement and fire protection agencies. Emergency service providers would be notified of the timing, location, and duration of construction activities.

## 4.16 RECREATION

| Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | | | | X |
| b. | Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | | | | X |
| c. | Reduce or prevent access to a designated recreation facility or area? | | | | X |
| d. | Substantially change the character of a recreational area by reducing the scenic, biological, cultural, geologic, or other important characteristics that contribute to the value of recreational facilities or areas? | | | | X |
| e. | Damage recreational trails or facilities? | | | | X |

This section describes recreational facilities within the area of the Proposed Project, as well as the potential impacts that could result from construction and operation and maintenance (O&M) of the Proposed Project.

### 4.16.1 ENVIRONMENTAL SETTING

The Proposed Project is located within an unincorporated area of Fresno County directly north of, and adjacent to, the Pacific Gas and Electric (PG&E) owned Gates Substation. The Proposed Project is located approximately 3.3 miles southwest of the city of Huron. The land to the north, east, and west of the Proposed Project is primarily used for agricultural purposes with no development, and the existing PG&E Gates Substation is located to the south.

Parks and recreation areas were identified by reviewing the Fresno County General Plan (2000) and city of Huron General Plan (2014). There are no developed recreational areas in the immediate vicinity or within one mile of the Proposed Project. The nearest recreational areas are the county-maintained Huron Fishing Access area, located approximately 7.7 miles northeast of the Proposed Project, and three municipal parks within the city of Huron, approximately 3.7 miles northeast of the Proposed Project.

### 4.16.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

#### 4.16.2.1 Regulatory Setting

**Federal**

There are no applicable regulations for Recreation that apply to the Proposed Project.

**State**

There are no applicable regulations for Recreation that apply to the Proposed Project.

**Local**

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order 131-D (GO 131-D), Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters" (CPUC, 1995). Consequently, public utilities are directed to consider local regulations and consult with local agencies, but county regulations are not applicable as the Fresno County does not have jurisdiction over the Proposed Project. This section includes a summary of local recreation related policies, plans or programs for informational purposes and to assist with California Environmental Quality Act (CEQA) review.

***Fresno County General Plan***

The following relevant Recreation goals and policies from the Fresno County General Plan were reviewed, and the following summaries are provided for informational purposes.

**Goal OS-H** To designate land for and promote the development and expansion of public and private recreational facilities to serve the needs of residents and visitors.

**Policy OS-H.6** The County shall encourage the development of parks near public facilities such as schools, community halls, libraries, museums, prehistoric sites, and open space areas and shall encourage joint-use agreements whenever possible.

**Policy OS-H.14** The County shall encourage the development of recreation facilities in western Fresno County.

### 4.16.3 IMPACT QUESTIONS

#### 4.16.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to Recreation come from the CEQA, Appendix G Environmental Checklist (as amended in December 2019). According to the CEQA Environmental Checklist, a project may cause a potentially significant impact if it would:

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

- Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

#### 4.16.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-Filing Proponent's Environmental Assessments* (CPUC, 2019), the following additional CEQA Impact Questions are required for Recreation:

- Would the project reduce or prevent access to a designated recreation facility or area?

- Would the project substantially change the character of a recreational area by reducing the scenic, biological, cultural, geologic, or other important characteristics that contribute to the value of recreational facilities or areas?

- Would the project damage recreational trails or facilities?

### 4.16.4 IMPACT ANALYSIS

#### 4.16.4.1 Impact Analysis

**Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

**No Impact.** The use of parks and recreational facilities is closely tied to population; as population increases, the use of existing parks and recreational facilities can be expected to increase proportionally. Similarly, the loss of existing parks and recreational facilities would result in a concentration of use at remaining parks and facilities.

As presented in **Section 4.14**, *Population and Housing*, the Proposed Project would not induce any population growth during construction. Given the distance from the Proposed Project, local parks are not likely to be used by workers during their break periods during construction. Therefore, construction of the Proposed Project would not result in an increase in the use of existing parks or recreational facilities.

PG&E is currently performing O&M activities, including inspections, at the existing PG&E Gates Substation, and along associated interconnection transmission lines. These current activities do not impact any recreational areas. The Proposed Project would include similar O&M activities adjacent to the existing substation and would also not impact any nearby recreational areas. Therefore, no impacts would occur under this criterion.

**Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?**

**No Impact.** The Proposed Project does not include any recreational facilities. The Proposed Project would not result in a population increase and would not require the construction or expansion of any recreational facilities. As a result, there would be no adverse physical effect on the environment from the construction of new, or expansion of existing, recreational facilities. Therefore, no impacts would occur under this criterion.

**Would the project reduce or prevent access to a designated recreation facility or area?**

**No Impact.** The Proposed Project is not located adjacent or within close, proximity to any designated recreational areas. The nearest recreational areas are located within the city of Huron, approximately 3.7 miles northeast of the Proposed Project. Given the distance to the nearest recreational areas, neither construction or O&M activities associated with the Proposed Project would reduce or prevent access to a designated recreation facility or area. Therefore, no impacts would occur under this criterion.

**Would the project substantially change the character of a recreational area by reducing the scenic, biological, cultural, geologic, or other important characteristics that contribute to the value of recreational facilities or areas?**

**No Impact.** As discussed above, the Proposed Project is not located adjacent or within close, proximity to any designated recreational areas. The nearest recreational areas are located within the city of Huron, approximately 3.7 miles northeast of the Proposed Project. Given the distance to the nearest recreational areas, the Proposed Project would not change the character of any recreational areas. Therefore, no impacts would occur under this criterion.

**Would the project damage recreational trails or facilities?**

**No Impact**. The Proposed Project is not located within close, proximity to any recreational trails or facilities and would not cause direct or indirect damage to them. Therefore, no impacts would occur under this criterion.

### 4.16.5 CPUC DRAFT ENVIRONMENTAL MEASURES

There are no CPUC Draft Environmental Measures suggested for Recreation.

### 4.16.6 APPLICANT PROPOSED MEASURES

No Applicant Proposed Measures would be implemented for Recreation because no impacts would occur.

## 4.17 TRANSPORTATION

| Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Conflict with program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? | | | X | |
| b. | Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? | | | X | |
| c. | Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | | | X | |
| d. | Result in inadequate emergency access? | | | X | |
| e. | Create potentially hazardous conditions for people walking, bicycling, or driving or for public transit operations? | | | X | |
| f. | Interfere with walking or bicycling accessibility? | | | X | |
| g. | Substantially delay public transit? | | | X | |

This section describes Transportation in the area of the Proposed Project, as well as the potential impacts resulting from construction and operation and maintenance (O&M) of the Proposed Project.

### 4.17.1 ENVIRONMENTAL SETTING

The Proposed Project is located within an unincorporated area of Fresno County directly north of, and adjacent to, the Pacific Gas and Electric (PG&E) owned Gates Substation. The Proposed Project is located approximately 3.3 miles southwest of the city of Huron. The land to the north, east, and west of the Proposed Project is primarily used for agricultural purposes with no development and the existing PG&E Gates Substation is located to the south.

#### 4.17.1.1 Circulation System

Fresno County's circulation system consists of a roadway network that is primarily rural in character, with the exception of the urban areas surrounding the cities of Fresno and Clovis and various smaller communities in the southern and western parts of the county (Fresno County, 2000). **Figure 4.17-1,** *Regional Transportation-Related Infrastructure* illustrates the transportation-related infrastructure in the regional area of the Proposed Project site, and they are discussed in the following sections.

Interstate 5 (I-5), also known as the Westside Freeway, is a major north-south regional transportation corridor in the state that is located approximately 2.2 miles west of the Proposed Project site. It is a four-lane divided highway with a posted speed limit of 65 miles per hour (mph). I-5 would serve as the regional route to the Proposed Project site. Construction and operational vehicles, as well as equipment, would utilize the West Jayne Avenue exit from I-5 then turn left at the north-south access road that would be constructed to access the Proposed Project site.

State Route 269 (SR 269), also known as Lassen Avenue, is a north-south regional transportation corridor located approximately one mile east of the Proposed Project site. It is a two-lane highway with a posted speed limit of 55 mph. SR 269 would also serve as the regional route to the Proposed Project area. Construction and operational vehicles, as well as equipment, would turn onto West Jayne Avenue from SR 269, then turn right onto the Proposed Project's north-south, all-weather access road that would be constructed to access the Static Synchronous Compensator (STATCOM) Substation facility.

The roadway network that would be used for the Proposed Project is located within the southwest portion of Fresno County, a predominantly rural area. The local circulation system near the Proposed Project area comprises primarily of private dirt roads and Fresno County-maintained roadways with individual vehicles serving as the primary mode of transportation. Local roads that serve the nearby communities and provide access to the Proposed Project site are limited. Within the vicinity of the Proposed Project area, Phelps Road is an east-west public dirt road which is located immediately north of the Proposed Project area and has no posted speed limit. South Trinity Avenue[1] (e.g., north-south access road) is a private dirt road located immediately east of the Proposed Project area with no posted speed limit. South Lake Avenue is a private, north-south dirt road located to the west of the Proposed Project area and is within Fresno County's jurisdiction with no posted speed limit. West Jayne Avenue is a public two-lane county road which runs east west and is located immediately south of the Proposed Project area with a speed limit of 55 mph. See **Figure 4.17-2**, *Local Transportation-Related Infrastructure*.

### 4.17.1.2 Existing Roadways and Circulation

The primary access to the Proposed Project for both construction and operations would be along West Jayne Avenue. West Jayne Avenue is an existing, county-owned paved roadway, providing access to the existing the PG&E Gates Substation and the Proposed Project from I-5 (to the west) and from SR 269 (to the east). Designated as a rural expressway in the Fresno County General Plan (2000), West Jayne Avenue is a two-lane road with one-lane for each direction of travel. The annual average daily traffic (AADT) for the segment of West Jayne Avenue between I-5 and SR 269 was estimated to be 3,590 in 2018 (Westlands Water District, 2017). No improvements are expected to be required along West Jayne Avenue to accommodate the Proposed Project.

SR 269 is a two-lane state highway with one-lane of traffic for each direction of travel. SR 269 carries an AADT of approximately 4,200 vehicles at its junction with SR 33 and 7,950 vehicles at its junction with SR 198 (Caltrans, 2019a).

I-5 is a four-lane state highway with two-lanes of traffic for each direction of travel. I-5 carries an AADT of approximately 39,500 vehicles at the junction with West Jayne Avenue and the junction with SR 269, as well as 41,000 vehicles at the junction with SR 198 (Caltrans, 2019a).

[1] Although the naming convention of "South Trinity Avenue" is used in publicly available mapping for the Proposed Project area, Fresno County has confirmed that the road is not a public right-of-way.

The Proposed Project site would be accessed from the proposed north-south access road, located off West Jayne Avenue at the southeast corner of the existing PG&E Gates Substation. The north-south access road is an existing one-lane, private dirt road that would be widened to approximately 20 feet and rocked (dust resistant, all-weather base rock or gravel) to approximately 100 feet north of the terminus of West Jayne Avenue. The final approximately 100 feet would be paved in order to avoid track-out[2] onto West Jayne Avenue. In addition, the Proposed Project's east-west access road, which is a one-lane private, unnamed dirt road that intersects the north-south access road at the southeast corner of the Proposed Project site, would also need to be widened and rocked to approximately 20 feet and graded to the west of the north-south access along the southern Proposed Project site boundary. Access within the STATCOM Substation facility would require a new, all-weather road that would allow access around the perimeter of the facility. This new road would be approximately 20 feet wide and approximately 3,200 feet long and would include a gate at both the entrance and exit. Construction of this internal access road would include grading and rocking per the final Proposed Project design. Access roads are depicted in **Figure 4.17-2**, *Local Transportation-Related Infrastructure.*

#### 4.17.1.3 Transit and Rail Services

There are no active rail services within 1,000 feet of the Proposed Project site. A branch of the San Joaquin Valley Railroad (SJVR) tracks run in an east/west direction from the city of Exeter (approximately 55 miles east of the Proposed Project) to the city of Huron (3.3 miles north of the Proposed Project site). The SJVR interchanges with Union Pacific Railroad and Santa Fe Railroad in Fresno. Primary commodities it transports include petroleum products, cattle feed, building products, and dry and liquid fertilizers. The SJVR operates seven days a week (Genesee and Wyoming Inc., 2015).

The Santa Fe Passenger Depot, also known as the Fresno Station, is a historic railroad station and transportation hub which is located in downtown Fresno approximately 45 miles north-east of the Proposed Project area. The Fresno Station provides rail transit north to Sacramento and Oakland, as well as south to Bakersfield (AMTRAK, 2020).

The region surrounding the Proposed Project is serviced by the Fresno County Rural Transit Agency. The route closest to the Proposed Project site is the Coalinga Intercity Transit route, which runs from Coalinga to Fresno, including along West Jayne Avenue (Fresno County Rural Transit Agency, 2020). This line runs once per day (Monday through Saturday), and there are no transit stops or stations located within 0.5 mile of the Proposed Project site. The nearest transit stop is located within the city of Huron which is located 3.8 miles north-east of the Proposed Project site.

#### 4.17.1.4 Bicycle Facilities

There are no bicycle facilities within 1,000 feet of the Proposed Project site. The Fresno County Regional Bicycle and Recreational Trails Master Plan (2013) describes the bikeways in unincorporated Fresno County. Although not yet implemented, a Class I Planned Multiple Purpose Bikeway and a Class II Planned Rural Bikeway are intended to be installed near the Proposed Project site. A section of the Class I Planned Multiple Purpose Bikeway would run from Coalinga to Huron and would be located a few miles west and north of the Proposed Project site.

[2] "Trackout" is dirt, mud, or other debris tracked onto a paved public roadway by a vehicle leaving a construction site.

Class I bikeways are defined as paved rights-of-way completely separated from streets. The Class II Planned Rural Bikeway would run along West Jayne Avenue from Coalinga to the Fresno/King County line located to the east of the Proposed Project site (Fresno County, 2013). Class II bikeways are defined as on-street routes intended to provide continuity to bikeway systems.

#### 4.17.1.5 Pedestrian Facilities

There are no designated pedestrian facilities, such as walkways, trails, or paths, near the Proposed Project site. The north-south and east-west access roads and West Jayne Avenue are the roads which would serve as access for the Proposed Project site during construction and O&M, and these could potentially serve as pedestrian paths of travel. However, the Proposed Project site is located among existing agricultural fields, and no houses are within approximately 1.8 miles.

#### 4.17.1.6 Vehicle Miles Traveled

The daily average vehicle miles traveled (VMT) on rural and urbanized public roadways in Fresno County is 6,191,770 miles (Caltrans, 2019b). Standards or thresholds related to VMT for development projects have not been established for Fresno County. On May 26, 2020, the Fresno County Board of Supervisors unanimously approved a resolution backing a delay on implementing the VMT requirements of SB 743 (Fresno County, 2020). However, the Fresno Council of Governments (COG) provides a VMT analysis guide to assist in analyzing a project for VMT impacts (Fresno COG, 2020). The Initial Screening tool provides project screening criteria to determine if a project can be screened out and considered less than significant to countywide VMT. The criteria include being located in a high-quality transit area or low-VMT zone, consisting of local-serving retail space of less than 50,000 square feet, or being a low trip generator (i.e., less than 500 daily trips generated).

### 4.17.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

#### 4.17.2.1 Regulatory Setting

**Federal**

There are no applicable regulations for Transportation that apply to the Proposed Project.

**State**

The California Department of Transportation (Caltrans) owns the rights-of-way for the state highway system and is responsible for protecting the public and infrastructure. Caltrans is also the administrating agency for regulations related to traffic safety, including the licensing of drivers, transportation of hazardous and combustible materials, and the safe operation of vehicles. Caltrans also requires transportation permits for the movement of vehicles or loads exceeding the limitations on the size and weight contained in Division 15, Chapter 5, Article 1, Section 35551, of the California Vehicle Code. Fresno County is under the jurisdiction of Caltrans District 6. Due

to the likelihood of heavy truck loads during construction, the Proposed Project may require ministerial transportation permits from Caltrans.

**Local**

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order 131-D (GO 131-D), Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters" (CPUC, 1995). Consequently, public utilities are directed to consider local regulations and consult with local agencies, but county regulations are not applicable as Fresno County does not have jurisdiction over the Proposed Project. This section includes a summary of local transportation related policies, plans or programs for informational purposes and to assist with California Environmental Quality Act (CEQA) review.

***Fresno County Regional Transportation Plan***

The Fresno COG Regional Transportation Plan (RTP) comprehensively assesses all forms of transportation available in Fresno County, as well as travel and goods movement needs through 2042. Fresno COG's first Regional Transportation Plan was adopted in 1975. Updated editions have been published every four years per federal statutes refinements of the original and subsequent plans. The Fresno County RTP provides guidance for the establishment of a coordinated transportation system for the greater Fresno County area. The plan is intended to connect and improve the regional transportation network of freeways, public transit, and roadways for both present and future residents. The RTP provides an action plan of projects and programs to address needs consistent with adopted transportation policies (Fresno COG, 2017).

***Fresno County General Plan***

The Fresno County General Plan Transportation and Circulation Element provides a framework for a balanced, multimodal transportation system for the movement of people and goods within the unincorporated areas of the county (2000). The Transportation and Circulation Element reflects the urban and rural nature of Fresno County. The element establishes standards that guide the development of the transportation system and management of access to the highway system by new development, throughout the unincorporated areas of the county. Policies in the Transportation and Circulation Element seek to create a unified, coordinated, and cost-efficient countywide street and highway system by maintaining and rehabilitating existing roads, maintaining an acceptable level of service (LOS), coordinating improvements with other local jurisdictions, maintaining adequate funding, and providing multi-modal uses where appropriate along street and highway corridors.

***Fresno County Bicycle Master Plan***

Fresno County is currently working on developing an extensive regional bikeway and recreational trail network that connects cities and unincorporated areas countywide (Fresno County, 2013). Recreational bicycling and other nonmotorized forms of transportation (e.g., hiking, equestrian) are generally localized, although there are a few existing segments of Class I (pathway separated

from the roadway) and Class II (designated bike lane adjacent to roadway) recreational trails in the county, primarily located in the urban Fresno area.

### 4.17.3 IMPACT QUESTIONS

#### 4.17.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to Transportation come from the California Environmental Quality Act (CEQA), Appendix G, Environmental Checklist. According to the CEQA Checklist, a project may cause a potentially significant impact if it would:

- Conflict with program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities; or
- Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b); or
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
- Result in inadequate emergency access.

#### 4.17.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-Filing Proponent's Environmental Assessments* (CPUC, 1995) the following additional CEQA Impact Questions required for Transportation.

- Would the project create potentially hazardous conditions for people walking, bicycling, or driving or for public transit operations?
- Would the project interfere with walking or bicycling accessibility?
- Would the project substantially delay public transit?

### 4.17.4 IMPACT ANALYSIS

#### 4.17.4.1 Impact Analysis

**Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?**

**Less-Than-Significant Impact.** Though CPUC has jurisdiction over the Proposed Project, this analysis considers the local land use plans and policies, per CPUC General Order 131-D, Section III.C. Therefore, the applicable programs, plans, ordinances, and policies for the purposes of this analysis include the Fresno COG RTP, Fresno County General Plan, and the Fresno County Bicycle Master Plan.

All construction vehicles and equipment would enter the Proposed Project site via West Jayne Avenue. Vehicles would turn north onto the north-south access road from West Jayne Avenue

into the Proposed Project area. Therefore, construction of the Proposed Project would involve a small, temporary increase in the number of vehicles along West Jayne Avenue primarily due to the transport of heavy equipment and materials to and from the Proposed Project site, as well as construction personnel vehicles. As discussed in **Section 3.6.3**, *Construction Traffic*, peak vehicle trips would be from approximately March 2022 through August 2022, during the earthwork grading and below-grade construction of the Proposed Project due to the hauling away or importation of fill. Total vehicle trips during this time period would be approximately 45 roundtrips per day, consisting of approximately 25 truck trips and 20 worker trips. Daily truck roundtrips include approximately 18 dump trucks (14 fill/rock deliveries and four excess material haul off), four water trucks, and three equipment delivery trucks. Off-peak periods of construction (September 2022 to December 2023) would have lower average worker vehicle trips and would, therefore, have correspondingly lower impacts. Total vehicle trips during the off-peak period would be approximately 20 roundtrips per day, consisting of approximately 10 truck trips (four water trucks and five equipment delivery trucks) and 10 worker trips.

As discussed above, the daily traffic volumes for West Jayne Avenue between I-5 and SR 269 was estimated to be 3,590 AADT in 2018. As such, the anticipated trips associated with construction of the Proposed Project would represent 1.26% of the estimated traffic volume of West Jayne Avenue.

Although some disruption to traffic flow may occur when the proposed telecommunication line is installed and when trucks ingress or egress from the north-south access road to West Jayne Avenue, such events would be periodic and temporary. Traffic control procedures may be implemented along West Jayne Avenue during construction and times of deliveries. Potentially, one-lane may need to be temporarily closed during installation of the telecommunication line and when equipment is being delivered to the Proposed Project site. These restrictions would be temporary, and detours are not anticipated to be necessary. However, to minimize potential impacts resulting from trucks ingress or egress from the north-south access road to West Jayne Avenue and access road improvements, and a traffic control plan **Applicant Proposed Measure** (**APM TRA-1**) would be implemented.

Trips associated with daily construction personnel traffic are not anticipated to disrupt traffic flow along West Jayne Avenue. Many workers would be reverse commuting, traveling away from metropolitan areas of Fresno County and neighboring counties towards a rural one in the morning, and then returning in the evening. In addition, parking of personal vehicles would occur within the staging area and, therefore, would not encroach upon public roadways.

The Proposed Project would result in a negligible number of additional vehicle trips during operation because the new facility would be unstaffed and remotely monitored. If equipment malfunctions, O&M personnel would be dispatched to the site to investigate the problem and take appropriate corrective action.

In addition, no alternative modes of transportation such as rail, bus, or bicycle traffic or pedestrian circulation patterns would be altered or adversely affected by construction or O&M of the Proposed Project. The Coalinga Intercity Transit route that utilizes West Jayne Avenue once per day could face a brief delay during construction deliveries; however, this would be short-term and flaggers or other traffic control measures would be utilized. There are no existing rail, bus, bicycle, or pedestrian facilities or paths present on West Jayne Avenue. No improvements to West Jayne

Avenue are associated with the Proposed Project, and therefore, future plans for a Class II Rural Bikeway would not be impacted.

As truck traffic would occur on a county-maintained roadway, a county of Fresno Traffic Control Permit and traffic control plan may also be required, which would ensure potential impacts to traffic congestion are further reduced. Therefore, because the anticipated trips associated with construction of the Proposed Project would represent slightly more than one percent of the estimated roadway capacity of West Jayne Avenue, and with implementation of **APM TRA-1** and compliance with local permits, construction and O&M of the Proposed Project would not conflict with the Fresno COG RTP, Fresno County General Plan, and the Fresno County Bicycle Master Plan. Project-generated traffic would be temporary, periodic, and managed with a traffic control plan, and existing roadways would not be permanently degraded. Therefore, less-than-significant impacts would occur.

**Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?**

**Less-Than-Significant Impact.** Section 15064.3 was added to the CEQA Guidelines to provide guidance for determining the significance of transportation impacts. This section provides criteria for determining a project's transportation impacts, including for land use projects (15064.3(b)(1)) and transportation projects (15064.3(b)(2)). The Proposed Project is not a traditional land use project that would generate VMT on a regular basis, and the county has not developed a threshold of significance for VMT. Therefore, Criteria 1 is not applicable to the Proposed Project. The Proposed Project is also not a transportation project, and Criteria 2 would not be applicable. Therefore, for the Proposed Project, a qualitative analysis of transportation impacts is provided (15064.3(b)(3)).

As discussed in **Section 4.17.1.3**, *Transit and Rail Services*, there are no transit stops or stations located within 0.5 mile of the Proposed Project; the nearest transit stop is 3.8 miles away in the city of Huron. As discussed in **Section 3.6**, *Construction Workforce, Equipment, Traffic, and Schedule*, the peak employment is anticipated to be approximately 20 workers per day, but on average, the workforce on site would be less. Total vehicle roundtrips during this time would be approximately 45 per day, consisting of approximately 25 truck trips and 20 worker trips. Therefore, the Proposed Project can be considered a low trip generator because it would generate fewer than 500 daily trips (Fresno COG, 2020).

Local labor would be used to the maximum extent practicable. According to the Fresno COG VMT Project Screening Map, the Proposed Project site is located within an area that has an average VMT per employee of 48.52 (Fresno COG, 2020). A 50-mile radius around the Proposed Project site includes parts of Fresno, Visalia, Tulare, and many other smaller cities and towns. Therefore, it is estimated that workers would commute to and from the Proposed Project site daily at an average one-way distance of approximately 50 miles. Given the rural nature of the Proposed Project location, the VMT for construction would be comparable to other rural uses in the county. Workers employed in the rural areas typically use strategies to reduce their reliance on single occupancy vehicles, such as vanpools and carpools, and, thus, reduce their commute costs. LS Power Grid California, LLC (LSPGC) would also encourage carpooling to the greatest extent possible. As outlined in **Table 3-6,** *Estimated Average Daily Construction Traffic,* the highest average VMT would occur during the below-grade construction phase. The estimated total daily average VMT of 1,900 miles during below-grade construction would last for approximately three

months and would not be considered substantial given the current traffic conditions in the vicinity of the Proposed Project area. The Proposed Project would be operated remotely and, therefore, would generate a negligible amount of VMT.

Implementation of the Proposed Project would generate vehicle trips predominantly during construction activities and would not result in any long-term increase in VMT. While no VMT thresholds have been established by Fresno County, according to the Fresno COG, the Proposed Project is likely to have a less-than-significant impact on regional VMT because construction would generate fewer than 500 daily trips (Fresno COG, 2020). Therefore, the Proposed Project would not result in transportation impacts related to increased VMT and would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). Therefore, less-than-significant impacts would occur.

**Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**

**Less-Than-Significant Impact.** The Proposed Project would involve roadway improvements and widening of the east-west and north-south access roads and the construction of a new all-weather road that would provide internal access to the STATCOM Substation facility. These road improvements and construction of a new road would not include any design features that would substantially increase traffic hazards, such as sharp curves or dangerous intersections. The north-south access road's paved intersection with West Jayne Avenue would be designed to all applicable Fresno County standards for new driveway approaches. In addition, the Proposed Project does not include incompatible uses to existing roads, such as farm equipment. Large construction trucks at local intersections would present temporary, limited-duration changes to driving conditions, as the trucks travel back and forth to the construction site. The new facility would be unstaffed and remotely monitored during operation.

LSPGC would prepare **APM TRA-1** that would describe actions to be taken during construction activities to guide traffic (e.g., signs, workers directing traffic), safeguard construction workers, provide safe passage, and minimize traffic impacts. Therefore, implementation of the Proposed Project would not substantially increase traffic hazards and would not introduce any incompatible uses to the area. Therefore, less-than-significant impacts would occur.

**Would the project result in inadequate emergency access?**

**Less-Than-Significant Impact.** Construction of the Proposed Project would not require full closure of any roads. Partial and temporary lane closures may be required along West Jayne Avenue and the other private access roads for the telecommunication line installation and delivery or road widening activities; however, flaggers or other traffic control measures would be utilized to guide traffic around active work areas in a safe manner. Once within the Proposed Project site, construction vehicles would operate within the footprint of the site and would not encroach onto adjacent public roads. LSPGC would also develop **APM TRA-1** to ensure that access is not impeded during construction.

Therefore, in the event of an emergency, vehicles inside the construction area would be able to access West Jayne Avenue to the south or the network of all-weather access roads to the north. In addition, access routes for emergency vehicles within and near the Proposed Project site would be maintained. West Jayne Avenue has a soft shoulder on both sides of the road that could be

used by traffic yielding to emergency response vehicles, and **APM TRA-1** would further assist with safe access during an emergency. No roads would be closed or impeded during operation because the new facility would be unstaffed and remotely monitored. Therefore, less-than-significant impacts would occur.

**Would the project create potentially hazardous conditions for people walking, bicycling, or driving or for public transit operations?**

**Less-Than-Significant Impact.** There are no pedestrian or bicycle facilities, such as walkways, trails, paths, or designated bike routes, near the Proposed Project area. There are no public transit stations or stops near the Proposed Project area, and the Coalinga Intercity Transit route that utilizes West Jayne Avenue runs once per day. Vehicular access is the primary mode of transportation near the Proposed Project area.

As discussed above, traffic control procedures may be implemented along West Jayne Avenue during construction and times of deliveries, and public access may be restricted. These restrictions would be temporary, and detours are not anticipated to be necessary. Flaggers or other traffic control measures would be utilized to guide traffic around active work areas in a safe manner. In addition, implementation of **APM TRA-1** would require LSPGC to implement standard safety practices and recommendations for safe traffic movement, which would also further reduce the potential for hazardous traffic conditions during construction activities.

In addition, no alternative modes of transportation such as rail, bus, or bicycle traffic or pedestrian circulation patterns would be altered or adversely affected by long-term O&M activities. Therefore, given the low likelihood of pedestrians and bicyclists, as well as the traffic control measures that would be implemented, less-than-significant impacts would occur.

**Would the project interfere with walking or bicycling accessibility?**

**Less-Than-Significant Impact.** As discussed above, there are no existing (or planned) pedestrian or bicycle facilities, such as walkways, trails, paths, or designated bike routes, near the Proposed Project area. Therefore, pedestrians and bicyclists are unlikely to utilize roads near the Proposed Project area. In addition, as discussed above, **APM TRA-1** would be implemented to ensure access along West Jayne Avenue is not impeded during construction. Operation of the Proposed Project would primarily be conducted remotely, and no changes to existing access would occur. Therefore, the Proposed Project would not interfere with walking or bicycling accessibility and less-than-significant impacts would occur.

**Would the project substantially delay public transit?**

**Less-Than-Significant Impact.** As discussed above, there are no public transit stations or stops near the Proposed Project area, and the Coalinga Intercity Transit route that utilizes West Jayne Avenue runs once per day. Slight delays to this transit route may occur if supplies are delivered at the same time and require the temporary closure of one-lane. However, flaggers or **APM TRA-1** would be utilized to guide traffic around active work areas in a safe manner. If a delay to the one public transit route occurs, it would be periodic and temporary. Therefore, less-than-significant impacts would occur.

### 4.17.5 CPUC DRAFT ENVIRONMENTAL MEASURES

There are no CPUC Draft Environmental Measures suggested for Transportation.

### 4.17.6 APPLICANT PROPOSED MEASURES

The following transportation specific APM would be implemented on the Proposed Project.

**APM TRA-1**

LSPGC would prepare a Traffic Control Plan to describe measures to be taken to guide traffic (such as signs and workers directing traffic), safeguard construction workers, provide safe passage, and minimize traffic impacts. LSPGC would follow its standard safety practices as needed, including installing appropriate barriers between work zones and transportation facilities, posting adequate signs, and using proper construction techniques. LSPGC would follow the recommendations in this manual regarding basic standards for the safe movement of traffic on highways and streets in accordance with Section 21400 of the California Vehicle Code. If required for obtaining a local encroachment permit, LSPGC would establish a Traffic Management Plan (TMP) to address haul routes, timing of heavy equipment and building material deliveries, potential street and/or lane closures, signing, lighting, and traffic control device placement. Construction activities would be coordinated with local law enforcement and fire protection agencies. Emergency service providers would be notified as required by the local permit of the timing, location, and duration of construction activities

## 4.18 TRIBAL CULTURAL RESOURCES

| **Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:** | | **Potentially Significant Impact** | **Less Than Significant with Mitigation Incorporated** | **Less Than Significant Impact** | **No Impact** |
|---|---|---|---|---|---|
| a. | Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or | | | X | |
| b. | A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. | | | X | |

This section describes the Tribal Cultural Resources within the area of the Proposed Project, as well as potential impacts resulting from construction and operation and maintenance (O&M) of the Proposed Project.

### 4.18.1 ENVIRONMENTAL SETTING

The Proposed Project is located within an unincorporated area of Fresno County directly north of, and adjacent to, the Pacific Gas and Electric (PG&E) owned Gates Substation. The Proposed Project is located approximately 3.3 miles southwest of the city of Huron. The land to the north, east, and west of the Proposed Project is primarily used for agricultural purposes with no development, and the existing PG&E Gates Substation is located to the south.

#### Area of Potential Effects

Pursuant to 36 Code of Federal Regulations [CFR] 800.4(a) (1), an area of potential effects (APE) is the geographic area within which an undertaking may directly or indirectly alter the character or use of historic properties eligible for listing in the National Register of Historic Places (NRHP).

**Record Search Area**

The Record Search Area consists of the APE plus a buffer of one mile. The buffer is included during background research to identify any previous studies or previously recorded historic or archaeological resources in the wider project area.

### 4.18.1.1 Outreach to Tribes

A Sacred Lands File (SLF) search request of the Proposed Project area was submitted to the Native American Heritage Commission (NAHC) on June 30, 2020. The SLF search was returned by the NAHC with negative results on July 1, 2020 (**Appendix 4.18-A**). The NAHC provided a list of Native American contacts who may be able to supply information pertinent to the Proposed Project area (**Appendix 4.18-B**). Each of the 13 individuals listed were contacted by mail or email sent on July 2, 2020 (**Table 4.18-1**, *Tribal Contacts*). Copies of the letters are included in **Appendix 4.18-C**.

**Table: 4.18-1 Tribal Contacts**

| Name | Affiliation | Initial Contact | Initial Reply | Follow-up Contact | Follow-up Reply | Comments |
|---|---|---|---|---|---|---|
| Elizabeth D. Kipp, Chairperson | Big Sandy Rancheria of Western Mono Indians | Email 7/2/2020 | Email 7/2/2020 | Phone 7/29/2020 | None | No comment, please inform of discoveries |
| Carol Bill, Chairperson | Cold Springs Rancheria Mono | Email 7/2/2020 | None | Phone 7/29/2020 | None | -- |
| Robert Ledger Sr., Chairperson | Dumna/Foothill Yokuts Mono | Email 7/2/2020 | Email 7/8/2020 | Email 7/14/2020 | Email 7/14/2020 | Provided confidential tribal knowledge |
| Benjamin Charley Jr., Tribal Chair | Dunlap Band of Mono Indians | Email 7/2/2020 | None | Phone 7/29/2020 | None | -- |
| Dirk Charley, Tribal Secretary | Dunlap Band of Mono Indians | Email 7/2/2020 | None | Phone 7/29/2020 | Phone 7/29/2020 | Deferred to closer tribe |
| David Alvarez, Chairperson | Traditional Choinumni Tribe | USPS 7/2/2020 | None | Phone 7/29/2020 | None | -- |
| Rick Osborne, Cultural Resources | Traditional Choinumni Tribe | Email 7/2/2020 | None | Phone 7/29/2020 | None | -- |
| Kenneth Woodrow, Chairperson | Foothill Yokuts – Mono – Wuksache | Email 7/2/2020 | None | Phone 7/29/2020 | None | -- |
| Stan Alec | Foothill Yokuts – CA Choinumni | USPS 7/2/2020 | None | Phone 7/29/2020 | None | -- |
| Ron Goode, Chairperson | North Fork Mono Tribe | Email 7/2/2020 | None | Phone 7/29/2020 | None | -- |
| Leo Sisco, Chairperson | Tache Tachi Yokut | USPS 7/2/2020 | None | Phone 7/29/2020 | None | -- |
| Leanne Walker-Grant, Chairperson | Table Mountain Rancheria – Yokuts | Email 7/2/2020 | None | Phone 7/29/2020 | None | -- |
| Bob Pennell, Cultural Resources Director | Table Mountain Rancheria – Yokuts | Email 7/2/2020 | None | Phone 7/29/2020 | None | -- |

To date, three contacts have responded to outreach efforts. On July 2, 2020, Big Sandy Rancheria Tribal Chairperson Elizabeth D. Kipp wrote that they have no comment on the Proposed Project but would like to be notified of any cultural discoveries. On July 8, 2020, Dumna Wo-Wah Tribal Government Chairman Robert G. Ledger, Sr. replied by email and provided confidential tribal knowledge that indicates a high likelihood of buried artifacts in the Proposed Project area, that they would like a monitor on site during ground disturbing activities, and that they would like to participate in official consultation regarding the Proposed Project. The details of Chairman Ledger's confidential tribal information are on file with PanGIS and are summarized below in **Section 4.18.1.2,** *Tribal Cultural Resources – Identification via Tribal Representatives*. On July 29, 2020, Tribal Liaison Dirk Charley said that the Proposed Project is outside the area of interest of the Dunlap Band of Mono Indians and they defer to a closer tribe.

### 4.18.1.2 Tribal Cultural Resources

No Tribal Cultural Resources (TCRs) were identified through publicly available documentary resources or archaeological surveys. However, potentially unrecorded TCRs were identified through communication with tribal representatives. The sections below describe the methods and results employed to identify TCRs within or adjacent to the Proposed Project APE.

#### *Identification via Records Search and Historical Research*

A record search was conducted to determine if any tribal cultural resources listed or potentially eligible for listing on the NRHP or California Register of Historic Resources (CRHR) were present within or immediately adjacent to the APE. The record search request was submitted by Digtech to the Southern San Joaquin Valley Information Center (SSJVIC) and was fulfilled on May 13, 2019.

Materials consulted by the SSJVIC included prehistoric and historic archaeological resource and report databases, California Office of Historic Preservation (OHP) Historic Properties Directory, NRHP, CRHR, California Historical Landmark, California Historical Points of Interest, California Inventory of Historic Resources, and Archaeological Determinations of Eligibility. The record search area included a one-mile buffer of the APE.

PanGIS consulted historical maps of the record search area including the original survey plat map of 1855 (Bureau of Land Management, 2020), historical topographic maps (US Geological Survey [USGS] 1:125,000 Coalinga 1912; USGS 1:62,500 Guijarral Hills 1933, 1936, and 1937, Huron 1933 and 1937, and Polvadero Gap 1942; USGS 1:24,000 Guijarral Hills 1956 and 1971 and Huron 1956 and 1971) (USGS, 2020), and historic aerial photographs (1963, 1969, 1994, 2005, 2009, 2010, and 2012) (NETROnline, 2020).

The record search identified no prehistoric or ethnographic archaeological sites or traditional cultural resources within or adjacent to the APE. The review of historic maps agrees with the development history of the west side of Fresno County. On the 1855 survey map, nothing is shown in the Proposed Project area. The nearest feature is a wagon road segment approximately 3.5 miles to the northeast. No Native American sites, villages, or place names are shown on historic maps within or adjacent to the APE.

### *Identification via Archaeological Survey*

A cultural resources pedestrian survey of the Proposed Project site and surrounding parcel was conducted on May 18, 2019 by Digtech Principal Investigator Chris Webster, M.S., RPA. There is no portion of the APE that is not plowed and/or heavily disturbed. Ground visibility was excellent throughout the survey area. No prehistoric or ethnohistoric archaeological resources or TCRs were located during the surface survey. Detailed survey methods and results are described in the *Cultural Resource Technical Report for the Gates 500 kV Dynamic Reactive Support Project, Fresno County, California* (Mengers, 2020).

### *Identification via Tribal Representatives*

As detailed above in **Section 4.18.1.1,** *Outreach to Tribes*, Dumna Wo-Wah Tribal Government Chairman Robert G. Ledger, Sr. replied by email to outreach efforts conducted as part of the SLF search for the Proposed Project. Chairman Ledger provided confidential tribal knowledge that the Proposed Project area was historically used for habitation, resource collection, and ceremonial purposes and that there is a high likelihood of buried tribal cultural resources in the Proposed Project area (Ledger, 2020). The details of Chairman Ledger's confidential tribal information are on file with PanGIS.

## 4.18.1.3 Ethnographic Study

The Proposed Project is located at the western edge of the San Joaquin Valley at the base of the eastern foothills of the Diablo Range. It is located within the Tulare Lake Basin watershed, a component of the San Francisco Bay Delta watershed. Major rivers in the watershed, including the Kings, Tule, and Kern Rivers, come out of the Sierra Nevada Mountains. Drainages on the west side of the San Joaquin Valley are small and widely dispersed compared to those on the Sierra slopes. The Proposed Project site and surrounding parcel are currently in use for agricultural production, including mature vineyards and row crops surrounded by dirt roads.

### *Prehistory*

Most Late Pleistocene landscapes in the San Joaquin Valley have been destroyed or buried by Holocene-epoch erosion and deposition, while most surface sites, including village mounds, have been obliterated by erosion and agricultural development. Thus, very few archaeological sites exist throughout the Central Valley prior to 2,500 Before the Common Era (BCE) and the cultural-historical framework, especially in the southern San Joaquin Valley, is poorly defined (Rosenthal et al., 2010).

### *Paleo-Indian Period (11,550-8,550 BCE)*

Investigation within remaining Pleistocene deposits in the southern San Joaquin Valley indicates occupation dates between 11,550 BCE-9,550 BCE, based on a large cache of Clovis-like concave base projectile points in the Tulare Lake basin (Rosenthal et al., 2010).

### *Lower Archaic Period (8,550-5,550 BCE)*

Archaeological sites in the San Joaquin Valley are extremely limited in this period due to significant alluvial depositions circa 9050 BCE and 5550 BCE; however, stone tool assemblages from the Tulare Lake basin resemble those from the Great Basin area (Rosenthal et al., 2010).

### *Middle Archaic Period (5,550-550 BCE)*

A warmer and drier climate during this period led to lake desiccation in the San Joaquin Valley while rising sea levels created the Sacramento-San Joaquin delta to the north. Distinct foothill and valley settlement-subsistence patterns are evidenced, as is stable, year-round residence along rivers and well-established trade networks. The Windmiller Pattern of oriented and extended burials likely developed in this period, possibly in the San Joaquin Valley (Rosenthal et al., 2010). Intensification of subsistence practices is indicated by new fishing technologies, increased ground stone use, and expansion of manufacturing industries.

### *Upper Archaic Period (550 BCE-AD 1100)*

A cooler, wetter, and more stable environment during this period led to the return of lakes in the San Joaquin Valley. Village mounds appear in the Delta region after 700 BCE, while Windmiller descendants are evident in the San Joaquin Valley through the end of the period. A sharp population increase throughout the Central Valley after 500 BCE was accompanied by more reliance on fishing, acorn processing, and soft technology. Southern San Joaquin Valley sites are rare, although they indicate year-round villages and aquatic and terrestrial resource exploitation (Rosenthal et al., 2010).

### *Emergent Period (AD 1100-Historic)*

Evidence exists for continued increase of population and social complexity across the Central Valley during this period, including a transition to cremation, decentralization of production, and development of a monetized system of exchange. Villages expanded along foothill streams, valleys, rivers, and sloughs. While there is little direct evidence of plant use in the San Joaquin Valley, mortars and pestles were common elsewhere in the Central Valley after 1000 AD, and fish- and plant-based subsistence strategies dominated. This period saw the introduction of bows and arrows and pottery to the region, especially in the eastern foothills. At the time of European contact, 15 tribal groups, collectively referred to as Yokuts, occupied the southern San Joaquin Valley (Wallace, 1978).

### *Ethnography*

The southern San Joaquin Valley and lower foothills were inhabited by Yokuts tribes that were linguistically related to the California Penutian language family of central and coastal California (Silverstein, 1978). The Southern Valley Yokuts' homeland stretched from present-day Fresno to south of Bakersfield and encompassed Tulare, Buena Vista, and Kern Lakes and the surrounding sloughs and marshes. Southern Valley Yokuts' lifeways were closely linked to the lake/slough/marsh environmental setting.

Subsistence was centered on fish, primarily lake trout and anadromous fish. Nets strung between tule rafts and shore poles were employed, as well as hand nets, basket traps, and spears. Fish

were generally broiled on hot coals or sun dried. Reliance on game was low, although roasted turtles were favored, and snares and nets were used to catch waterfowl. Plant foods included ground tule roots and seeds, as well as grassnut roots and clover. Acorns were acquired by trading fish with tribes farther east. Single-family huts, granaries, and sweathouses were constructed of tule mats over wood frames. Tule was also used for baskets and other crafts, including watercraft (Silverstein, 1978).

Social organization was based on the biological family, patrilineal totemic lineages, and exogamous totemic lineage, and was divided into moieties for rituals and games. Significant life-cycle rituals included birth, puberty, marriage, and death; group rituals included an annual six-day festival honoring the dead, first-fruit rites, and a springtime Datura rite. No political unity existed between tribes; instead, they were organized into self-governing miniature tribes of about 350 people, each with a different dialect. Tribal land, covering on average about 250 square miles, was owned collectively; any member could use its resources. Population of the Southern Valley Yokuts at European contact is estimated at 15,000. Most tribes were spread across several settlements, with one dominant larger village (Wallace, 1978).

The plains and foothills of the west side of the San Joaquin Valley were occupied by several Southern Valley Yokuts tribes, the largest of which was the Tache. The Tache wintered at the village of Poza Chaná, five miles southwest of present-day Huron (3.5 miles northwest of the Proposed Project site). Poza Chaná functioned as a trading village, where tribes from the coast would come inland to trade shell beads and other ocean resources for obsidian, soapstone beads, and seeds (Breschini and Haversat, 1987). According to confidential tribal knowledge provided by the Dumna Wo-Wah Tribal Government, the Proposed Project area was historically used for habitation, resource collection, and ceremonial purposes (Ledger, 2020).

### *History*

#### *Spanish Period (1772–1822)*

The earliest recorded European entry into the southern San Joaquin Valley was the Pedro Fages expedition of 1772. The Francisco Garcés expedition of 1776 terminated approximately 20 miles north of present-day Bakersfield. The 1806 Gabriel Moraga-Fr. Pedro Muñoz expedition reached the Tule River and the Koyeti village of Chokowesho, near present-day Porterville. Records of contact with and impact on Native Americans are minimal from this period; no ranchos were established in the San Joaquin Valley. However, almost all the Yokuts along the plains and foothills of the west side of the San Joaquin Valley had been taken to the Spanish missions on the Pacific coast (Breschini and Haversat, 1987). The region was used as a rendezvous point for neophytes fleeing the Mission system, which resulted in the transmission of some foreign native and European culture and physiological threats to the area.

#### *Mexican Period (1822–1848)*

Most European activity in the region during the Mexican period consisted of punitive expeditions to recover or acquire livestock, thieves, or enslaved people. Expeditions by fur trappers, traders, and explorers during this period included those led by Jedidiah Smith (1827), Kit Carson (1830) and John Fremont (1844). European influence during this period increased, as evidenced by the 1833 malaria epidemic which exterminated most remaining Yokuts west of the San Joaquin River (Breschini and Haversat, 1987).

***American Period (1848–Present)***

The San Joaquin Valley was on the primary wagon route from the eastern United States to the California gold fields farther north in the Sierra Nevada foothills. Settlement in the region during the early American period primarily consisted of removal by force of Native Americans and the construction of trading posts and ferries at river crossings along the Los Angeles-Stockton road, most of which were established by 1850. Remaining Native Americans were removed to reservations, including the Sebastian (Tejon) Indian Reservation (1853-1864) and the Fresno River Farm (1854-1860).

### 4.18.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

#### 4.18.2.1 Regulatory Setting

**Federal**

There are no applicable regulations for Tribal Cultural Resources that apply to the Proposed Project.

**State**

***California Health and Safety Code and Public Resources Code***

Broad provisions for the protection of Native American cultural resources are contained in the California Health and Safety Code, Division 7, Part 2, Chapter 5 (Sections 8010 through 8030). Several provisions of the Public Resources Code (PRC) also govern archaeological finds of human remains and associated objects. Procedures are detailed under PRC Section 5097.98 through 5097.996 for actions to be taken whenever Native American remains are discovered. Furthermore, Section 7050.5 of the California Health and Safety Code states that any person who knowingly mutilates or disinters, wantonly disturbs, or willfully removes human remains in or from any location other than a dedicated cemetery without authority of law is guilty of a misdemeanor, except as provided in PRC Section 5097.99. Any person removing human remains without authority of law or written permission of the person or persons having the right to control the remains under PRC Section 7100 has committed a public offense that is punishable by imprisonment.

PRC Chapter 1.7, Section 5097.5/5097.9 (Stats. 1965, c. 1136, p. 2792), entitled Archaeological, Paleontological, and Historical Sites, defines any unauthorized disturbance or removal of a fossil site or remains on public land as a misdemeanor. A person shall not knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands.

### *Assembly Bill 52*

Assembly Bill 52 (AB 52) was approved by California Governor Edmund Gerald "Jerry" Brown, Jr. on September 25, 2014. The act amended PRC Section 5097.94, and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. AB 52 applies specifically to projects for which a Notice of Preparation (NOP) or a Notice of Intent to Adopt a Negative Declaration or Mitigated Negative Declaration (MND) is filed on or after July 1, 2015. The primary intent of AB 52 was to include California Native American Tribes early in the environmental review process and to establish a new category of resources related to Native Americans that require consideration under the California Environmental Quality Act (CEQA), known as tribal cultural resources. PRC Section 21074(a)(1) and (2) defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe" that are either included or determined to be eligible for inclusion in the California Register or included in a local register of historical resources, or a resource that is determined to be a tribal cultural resource by a lead agency, in its discretion and supported by substantial evidence. On July 30, 2016, the California Natural Resources Agency adopted the final text for tribal cultural resources update to Appendix G of the CEQA Guidelines, which was approved by the Office of Administrative Law on September 27, 2016.

PRC Section 21080.3.1 requires that within 14 days of a lead agency determining that an application for a project is complete, or a decision by a public agency to undertake a project, the lead agency provide formal notification to the designated contact or a tribal representative of California Native American Tribes that are traditionally and culturally affiliated with the geographic area of the project (as defined in PRC Section 21073) and who have requested in writing to be informed by the lead agency (PRC Section 21080.3.1(b)). Tribes interested in consultation must respond in writing within 30 days from receipt of the lead agency's formal notification and the lead agency must begin consultation within 30 days of receiving the tribe's request for consultation (PRC Sections 21080.3.1(d) and 21080.3.1(e)).

PRC Section 21080.3.2(a) identifies the following as potential consultation discussion topics: the type of environmental review necessary; the significance of tribal cultural resources; the significance of the project's impacts on the tribal cultural resources; project alternatives or appropriate measures for preservation; and mitigation measures. Consultation is considered concluded when either: (1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or (2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached (PRC Section 21080.3.2(b)).

If a California Native American tribe has requested consultation pursuant to Section 21080.3.1 and has failed to provide comments to the lead agency, or otherwise failed to engage in the consultation process, or if the lead agency has complied with Section 21080.3.1(d) and the California Native American tribe has failed to request consultation within 30 days, the lead agency may certify an Environmental Impact Report (EIR) or adopt an MND (PRC Section 21082.3(d)(2) and (3)).

PRC Section 21082.3(c)(1) states that any information, including, but not limited to, the location, description, and use of the tribal cultural resources, that is submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public

without the prior consent of the tribe that provided the information. If the lead agency publishes any information submitted by a California Native American tribe during the consultation or environmental review process, that information shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public.

Confidentiality does not, however, apply to data or information that are, or become publicly available, are already in lawful possession of the project applicant before the provision of the information by the California Native American tribe, are independently developed by the project applicant or the project applicant's agents, or are lawfully obtained by the project applicant from a third party that is not the lead agency, a California Native American tribe, or another public agency (PRC Section 21082.3(c)(2)(B).

### Local

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order 131-D (GO 131-D), Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters" (CPUC, 1995). Consequently, public utilities are directed to consider local regulations and consult with local agencies, but county regulations are not applicable as Fresno County does not have jurisdiction over the Proposed Project. Because the CPUC has exclusive jurisdiction over the Proposed Project siting, design, and construction, the Proposed Project is not subject to local land use and zoning regulations or discretionary permits. In any event, there are no County regulations for Tribal Cultural Resources that would apply to the Proposed Project.

## 4.18.3 IMPACT QUESTIONS

### 4.18.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to Tribal Cultural Resources come from the CEQA, Appendix G (as amended in December 2019), Environmental Checklist. According to the CEQA Checklist, a project may cause a potentially significant impact if it would:

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

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

- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of

Public Resources Code Section 50421.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

### 4.18.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-Filing Proponent's Environmental Assessments* (CPUC, 2019), there are no additional CEQA Impact Questions required for Tribal Cultural Resources.

## 4.18.4 IMPACT ANALYSIS

### 4.18.4.1 Impact Analysis

**Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1 (k)?**

**Less-Than-Significant Impact.** There are no recorded TCRs within the APE. However, confidential tribal knowledge indicates that there is a high likelihood of unrecorded subsurface TCRs within the APE. The Proposed Project would entail excavation that might encounter TCRs that are eligible for listing in the CRHR or in a local register. **Applicant Proposed Measure** (**APM) CUL-1** (Development and Implementation of a Worker Environmental Awareness Program), **APM CUL-3** (Archaeological and Native American Monitoring), and **APM CUL-4** (Unanticipated Discovery of Potentially Significant Prehistoric and Historic Resources) would reduce impacts to less than significant if previously unidentified TCRs are encountered during construction. **APM CUL-2** (Cultural Resources Inventory) would reduce impacts to less than significant if the Proposed Project APE is expanded or adjusted. Based on confidential tribal knowledge provided during background research, unrecorded human remains may be present within the APE. If encountered, **APM CUL-5** (Unanticipated Discovery of Human Remains) would ensure that impacts to human remains are reduced to less than significant.

**Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 50421.1, the lead agency shall consider the significance of the resource to a California Native American tribe.**

**Less-Than-Significant Impact.** There are no recorded TCRs within the APE. However, confidential tribal knowledge indicates that there is a high likelihood of unrecorded subsurface TCRs within the APE. The Proposed Project would entail excavation that might encounter TCRs that may be determined significant by the lead agency. **APM CUL-1** (Development and

Implementation of a Worker Environmental Awareness Program), **APM CUL-3** (Archaeological and Native American Monitoring), and **APM CUL-4** (Unanticipated Discovery of Potentially Significant Prehistoric and Historic Resources) would reduce impacts to less than significant if previously unidentified TCRs are encountered during construction. **APM CUL-2** (Cultural Resources Inventory) would reduce impacts to less than significant if the Proposed Project APE is expanded or adjusted. Based on confidential tribal knowledge provided during background research, unrecorded human remains may be present within the APE. If encountered, **APM CUL-5** (Unanticipated Discovery of Human Remains) would ensure that impacts to human remains are reduced to less than significant.

#### 4.18.4.2 Information Provided by Tribes

Currently, there are no recorded TCRs within the Proposed Project APE. However, confidential tribal knowledge indicates that there is a high likelihood of unrecorded subsurface TCRs within the APE. If undocumented subsurface TCRs are present in the APE, Proposed Project ground disturbing activities might cause a substantial adverse change in the significance of these TCRs. **APM CUL-1** (Development and Implementation of a Worker Environmental Awareness Program), **APM CUL-3** (Archaeological and Native American Monitoring), and **APM CUL-4** (Unanticipated Discovery of Potentially Significant Prehistoric and Historic Resources) would reduce impacts to less than significant if previously unidentified TCRs are encountered during construction. **APM CUL-2** (Cultural Resources Inventory) would reduce impacts to less than significant if the Proposed Project APE is expanded or adjusted. Based on confidential tribal knowledge provided during background research, unrecorded human remains may be present within the APE. If encountered, **APM CUL-5** (Unanticipated Discovery of Human Remains) would ensure that impacts to human remains are reduced to less than significant.

### 4.18.5 CPUC Draft Environmental Measures

There are no CPUC Draft Environmental Measures suggested for Tribal Cultural Resources.

### 4.18.6 Applicant Proposed Measures

The Tribal Cultural Resources specific APMs are listed in **Section 4.5,** *Cultural Resources.*

## 4.19 UTILITIES AND SERVICE SYSTEMS

| Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? | | | X | |
| b. | Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? | | | | X |
| c. | Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | | | | X |
| d. | Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? | | | X | |
| e. | Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? | | | | X |
| f. | Increase the rate of corrosion of adjacent utility lines as a result of alternating current impacts? | | | X | |

This section describes the Utility and Service Systems in the vicinity of the Proposed Project, as well as the potential impacts that could result from construction and operation and maintenance (O&M) of the Proposed Project.

### 4.19.1 ENVIRONMENTAL SETTING

The Proposed Project is located within an unincorporated area of Fresno County directly north of, and adjacent to, the Pacific Gas and Electric (PG&E) owned Gates Substation. The Proposed Project is located approximately 3.3 miles southwest of the city of Huron. The lands to the north, east, and west of the Proposed Project site are primarily used for agricultural purposes with no development, and the existing PG&E Gates Substation is located to the south.

The Fresno County General Plan (Fresno County, 2000), Fresno County Ordinance Code (2010), California Code of Regulations (CCR), and local relevant websites were reviewed for regulatory information and for background information related to water, gas and electrical, sewer, stormwater, and telecommunication service providers for the Proposed Project site.

There are no existing utility and service systems that currently serve the Proposed Project site, and the Proposed Project would not result in any changes to the use of utilities and service systems within the Proposed Project area. Similarly, the new Proposed Project facilities and interconnection transmission lines associated with the Proposed Project would be unmanned and remotely controlled and would require little or no use of utility and service systems.

#### 4.19.1.1 Utility Providers

The following identifies the existing utility providers and the associated infrastructure that serves the Proposed area.

**Water**

Unincorporated areas of Fresno County receive municipal and industrial water from one of approximately 370 water service providers. However, private wells are used primarily in Fresno County, including the Proposed Project area (more than 19,000 permits have been issued for private wells in Fresno County since 1976) (Fresno Bee, 2019). Westlands Water District is the largest agricultural water district in the United States and is the primary source of irrigation water used for lands in the Proposed Project area (Westlands Water District, 2020). Water would be required for construction and would be trucked into the Proposed Project site from available local sources. The Proposed Project would not require a distribution water connection for O&M activities.

**Gas and Electrical**

PG&E provides electrical power and natural gas to Fresno County. The adjacent PG&E Gates Substation is an integral part of the Central Valley 500 kilovolt (kV) transmission system importing and exporting electricity to other substations in the region. There are numerous local electrical distribution lines in the area that could serve the Proposed Project during construction and during O&M. The Proposed Project would tap into the existing PG&E distribution line that runs along the unpaved access road, east of the Proposed Project site, by constructing a new line that would extend approximately 1,200 feet to the west on approximately 20 wood poles.

PG&E also operates transmission and distribution level natural gas lines in the Proposed Project area. The Proposed Project would not require a natural gas distribution connection.

**Sewer**

There are approximately 80 special districts in unincorporated Fresno County that provide sewage collection and treatment (Fresno County, 2020). Of these, only 30 are also capable of providing wastewater services. Fresno County owns and operates 11 wastewater treatment facilities on behalf of water works districts and county service areas. If a public system is unavailable, many rural areas rely on private on-site septic systems for wastewater treatment and disposal. Accumulated solids pumped from on-site leach fields or leach pits can be disposed of at the

Fresno-Clovis Regional Wastewater Treatment and Reclamation Facility. Because the Proposed Project would be unmanned and would not generate wastewater, it would not connect to a wastewater collection system.

**Stormwater**

Stormwater drainage in the Proposed Project area generally percolates into pervious soils or drains to nearby roadside ditches. The adjacent PG&E Gates Substation has an on-site stormwater detention system that captures the majority of runoff on that site. The Proposed Project would implement an appropriate stormwater detention system commensurate with the impacts of the Proposed Project to retain stormwater on-site and would not require a connection to a regional stormwater conveyance system.

**Telecommunications**

Communications within the vicinity of the Proposed Project includes telephone service provided by AT&T, cable television service provided by several providers, including Dish Network and Direct TV, and several internet providers, including AT&T and HughesNet. The Proposed Project requires connections to telecommunication systems for O&M activities. The Supervisory Control and Data Acquisition (SCADA) system would consist of fully redundant servers, power supplies, and Ethernet Local Area Network (LAN) and Wide Area Network (WAN) connections, routers, firewalls, and switches. It is anticipated that two telecommunication lines would be brought into the STATCOM Substation facility. The primary telecommunication connection would be provided by AT&T and would be routed undergrounded approximately 7,700 feet from east along the northern road shoulder of West Jayne Avenue (i.e., public right-of-way [ROW]) and then north along the Proposed Project's access roads, and finally into the Static Synchronous Compensator (STATCOM) Substation facility  The secondary telecommunication line would parallel the first telecommunication line through the east-west and north-access road for approximately 2,500 feet and would connect to a telecommunication line that runs diagonally through the north-south access road and into eventually into the PG&E Gates Substation. The secondary telecommunication line would be connected within the boundary of the north-south access road.

### 4.19.1.2 Utility Lines

There is no known existing utility infrastructure on the Proposed Project site. Prior to initiating construction, LS Power Grid California, LLC (LSPGC) would contact Underground Service Alert (USA), also known as USA North 811, to locate previously identified underground utilities in the immediate area. In the event that underground utilities are identified, LSPGC would work with the owner of those utilities to determine relocation procedures and locations.

### 4.19.1.3 Approved Utility Projects

No utility projects, that are not yet constructed, have been approved for construction within the Proposed Project's ROW.

### 4.19.1.4 Water Supplies

As described in **Section 3.5.9**, *Water Use and Dewatering*, the Proposed Project would not require water sources for O&M activities as the facility would be unmanned. Water used for

construction activities, such as for dust suppression and compaction requirements, would be trucked in from local sources within the city of Huron or the city of Coalinga, which are both provided water via the Westlands Water District. It is estimated that a total of up to approximately 740,000 gallons (2.2 acre-feet) of water would be used for construction purposes during the approximately 22-month course of the construction process. The Westlands Water District has an existing water capacity of 412,716 acre-feet per year to meet water use demands. The city of Coalinga receives 3,672 acre-feet of water per year, and the city of Huron receives 677 acre-feet of water per year (Westlands Water District, 2017).

#### 4.19.1.5 Landfills and Recycling

Landfills within Fresno County (closest to the Proposed Project site) include the Avenal Regional Landfill, located in Avenal, and the American Avenue Disposal Site, located in Kerman. The Avenal Regional Landfill has a permitted throughput of 6,000 tons per day of agricultural, ash, construction/demolition, industrial and municipal waste and is expected to be operational until 2042. As of 2020, the Avenal Regional Landfill has approximately 48,180,000 tons of capacity available. The American Avenue Disposal Site has a permitted throughput of 2,200 tons per day of a variety of waste materials, including agricultural, asbestos, construction/demolition, industrial, mixed municipal, and tires and is expected to be operational until 2031 (California Department of Resources Recycling and Recovery, 2019). As of 2020, American Avenue Disposal Site has approximately 8,833,000 tons of capacity available. The American Avenue Landfill also provides an oil recycling program, a triple-rinse pesticide container recycling program, and a green waste recovery program. Fresno County operates a Recycling Market Development Zone for businesses using recyclable goods and has a used oil recycling program. LSPGC would implement recycling to the maximum extent practicable during its construction and O&M activities.

### 4.19.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

#### 4.19.2.1 Regulatory Setting

**Federal**

There are no applicable regulations for Utility and Service Systems that apply to the Proposed Project.

**State**

***California Integrated Waste Management Board***

The Integrated Waste Management Act of 1989 (Public Resources Code [PRC] 40050 et seq.), administered by the California Department of Resources Recycling and Recovery, requires all local and county governments to adopt a Source Reduction and Recycling Element to identify means of reducing the amount of solid waste sent to landfills. This law set reduction targets at 25 percent by the year 1995 and 50 percent by the year 2000. Senate Bill 1016 (2007) builds on Assembly Bill (AB) 939 by implementing simplified measures of performance toward meeting solid waste reduction goals.

### *California Government Code*

Section 4216 of the California Government Code protects underground structures during excavation. Under this law, excavators are required to contact a regional notification center at least two days prior to excavation of any subsurface installations. In the Proposed Project area, USA is the regional notification center. USA notifies utility providers with buried lines within 1,000 feet of the excavation, and those providers are required to mark the specific location of their facilities prior to excavation.

The code also requires excavators to probe and expose existing utilities, in accordance with state law, before using power equipment. CCR Title 20 (2014) contains statutes relating to power plant siting and certification.

### *California Health and Safety Code § 25150.7(d)(1)*

The Integrated Waste Management Act of 1989, also known as AB 939, mandates that California's jurisdictions divert 50 percent of their solid waste from landfills. CalRecycle is under the umbrella of the California Environmental Protection Agency (CalEPA) and is responsible for the implementation of AB 939.

### *California Code of Regulations (Title 27)*

Title 27 of the CCR defines regulations for the treatment, storage, processing, and disposal of solid waste. The State Water Resources Control Board (SWRCB) maintains and regulates compliance with Title 27 of the California Code of Regulations. The compliance of the Proposed Project would be enforced by the Central Valley (Region 5) Regional Water Quality Control Board (RWQCB).

## Local

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order 131-D (GO 131-D), Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters" (CPUC, 1995). Consequently, public utilities are directed to consider local regulations and consult with local agencies, but county regulations are not applicable as Fresno County does not have jurisdiction over the Proposed Project. Because the CPUC has exclusive jurisdiction over the Proposed Project siting, design, and construction, the Proposed Project is not subject to local land use and zoning regulations or discretionary permits. This section identifies local policies and regulations pertaining to utility services for informational purposes and to assist with California Environmental Quality Act (CEQA) review. Although LSPGC is not subject to local discretionary permitting, ministerial permits would be secured as required.

### *Fresno County*

The Fresno County Code of Ordinances Title 8, Chapters 8.25 (Construction and Demolition Debris Disposal Ban) and 8.28 (Industrial Waste) provides guidelines for removal and disposal of industrial waste materials, including fluids and solid materials incidental to the construction and O&M activities of the Proposed Project. Other Fresno County ordinances include Title 14, Chapter 14.13 (Regulation of Wastewater Discharge in the County of Fresno), that addresses stormwater runoff, and Title 15, which includes multiple chapters regarding building and construction guidelines.

## 4.19.3 IMPACT QUESTIONS

### 4.19.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to Utilities and Service Systems come from the CEQA, Appendix G Environmental Checklist (as amended in December 2019). According to the CEQA Environmental Checklist, a project may cause a potentially significant impact if it would:

- Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects; or

- Not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years; or

- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments; or

- General solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or

- Not comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

### 4.19.3.2 Additional CEQA Impact Question

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-Filing Proponent's Environmental Assessments* (CPUC, 2019), the following additional CEQA Impact Questions are required for Utilities and Service Systems:

- Would the project increase the rate of corrosion of adjacent utility lines as a result of alternating current impacts?

### 4.19.4 IMPACT ANALYSIS

#### 4.19.4.1 Impact Analysis

**Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?**

**Less-Than-Significant Impact.** Proposed Project construction would require the temporary use of water and wastewater facilities by construction workers. Water used for construction activities, such as for dust suppression and compaction requirements, would be trucked in from an off-site location in the city of Huron or city of Coalinga. It is estimated that a total of up to approximately 740,000 gallons (2.2 acre-feet) of water, 37,000 gallons (0.1 acre-feet) per month, or 1,233 gallons (0.004 acre-feet) per day would be used for construction purposes during the 22-month construction process as discussed in **Section 3.5.9.1,** *Water Use*. Water used during construction activities would be temporary, minimal, and originate from local sources that have the existing capacity to service the Proposed Project's needs. Because the Proposed Project would be unmanned for O&M activities, it would not require a source of potable water.

During construction, wastewater service would be provided by portable toilets, and solid waste would be disposed at appropriately licensed off-site facilities. The construction workforce would be relatively small (maximum of approximately 20 workers on a given day), and only minimal water use and wastewater generation would be anticipated. Because the Proposed Project would be unmanned for O&M, it would not require wastewater treatment facilities.

The Proposed Project footprint would minimally increase the amount of impervious surface at the Proposed Project site. Construction of the Proposed Project would include a stormwater detention basin that would be designed for runoff for a 24-hour, 100-year storm and would be located within the northeastern portion of the site. It would be constructed in currently heavily cultivated farmlands and would not significantly impact any existing stormwater drainage patterns. During O&M activities, runoff from the site would drain to the basin where it would then filter through the underlying soils or evaporate. Runoff would be contained entirely on-site. The new basin would be designed to provide sufficient capacity to handle runoff from the Proposed Project facility. On-site stormwater would be managed consistent with the project-specific Stormwater Pollution Prevention Plan (SWPPP) and Spill Prevention Control and Countermeasure Plan (SPCCP).

For electric power, LSPGC would coordinate the appropriate distribution tap locations with PG&E, and it would require the construction of a new distribution line to the Proposed Project site. It is anticipated that distribution power would come from the existing PG&E distribution lines located on the eastern edge of the Proposed Project site. The extension of distribution power would result in the installation of approximately 20 wood poles along the Proposed Project's east-west access road. The impacts associated with this distribution line are addressed throughout this document. For the reasons discussed there, the construction of the new distribution line within a previously disturbed area (e.g., heavily cultivated farmlands) would result in less than significant impacts.

The Proposed Project would not require natural gas facilities. The STATCOM Substation would require new, redundant telecommunication facilities. The telecommunication lines would be installed underground and would be designed in order to avoid conflicts with existing utilities. As

such, installation of the telecommunication lines would not require the relocation of existing utilities. In addition, implementation of **Applicant Proposed Measure (APM) UTIL-1,** that would require all utility companies with utilities located on or crossing the Proposed Project site locate and mark existing underground utilities along their entire length, would ensure that impacts under this criterion would be less than significant.

**Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?**

**No Impact.** It is not anticipated that water would be needed for O&M activities since the STATCOM Substation facility would not have permanent on-site staff requiring water; therefore, no impacts would occur during O&M activities. Potable water would be supplied to construction workers for drinking and would be delivered to the Proposed Project site by construction vehicles and equipment. During construction, water would be used for dust control, compaction requirements, and worker needs. As described above, it is estimated that a total of approximately 740,000 gallons of water or 1,233 gallons (0.004 acre-feet) per day would be used for construction purposes during the 22-month construction process as discussed in **Section 3.5.9.1,** *Water Use*. The water would be trucked in from off-site locations in the city of Huron or city of Coalinga, both of which have adequate water supplies to serve the Proposed Project's needs in normal, dry, and multiple dry years; therefore, no new or expanded entitlements would be required to accommodate the Proposed Project's minimal, temporary, and short-term water needs. Additionally, the Proposed Project does not meet the criteria for consideration as a project subject to Water Supply Assessment Requirements under Water Code Section 10912 (State of California, 2016). Therefore, no impacts would occur under this criterion.

**Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**

**No Impact.** Portable toilets would be provided for construction workers. Wastewater would be disposed of by a third-party wastewater disposal company at appropriately licensed facilities that have adequate capacity to accommodate the Proposed Project's needs. O&M activities would be unstaffed, and the Proposed Project would not have permanent sanitary facilities. Portable toilet facilities would not be needed on-site for use during O&M activities. Therefore, no impacts would occur under this criterion.

**Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?**

**Less-Than-Significant Impact.** Solid wastes generated during construction would primarily be non-hazardous wastes including wood, metal, paper, and plastic packaging. Construction debris volumes are estimated at total of approximately 300 cubic yards. The Proposed Project would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of Fresno County solid waste reduction goals. If possible, recyclable construction material would be transported to an approved recycling facility. Construction waste that cannot be recycled would ultimately be disposed of at the Avenal Regional Landfill or another approved facility. Construction waste would be disposed of properly and in accordance with all applicable federal, state, and local laws regarding solid and hazardous

waste including, but not limited to, the California Integrated Waste Management Act of 1989 which has set reduction rates for the amount of solid waste sent to landfills. It is not anticipated that existing wood poles would be removed or need to be disposed. The Avenal Regional Landfill has sufficient capacity to accommodate the amount of waste anticipated to be generated during construction activities.

The Proposed Project would be an unmanned facility and would generate minimal solid waste because workers would only periodically visit the site to perform O&M activities. Any waste generated by O&M activities would also be disposed at the Avenal Regional Landfill, which has ample capacity. Therefore, the Proposed Project would not generate solid waste in excess of state or local standards or in excess of the capacity of local infrastructure. Therefore, impacts would be less than significant.

**Would the project comply with federal, state, and local statutes and regulations related to solid waste?**

**No Impact.** Construction and O&M activities of the Proposed Project would not be anticipated to generate a substantial amount of solid waste. As previously discussed, solid waste produced during construction would be disposed of at a nearby licensed landfill. Management and disposal of solid waste would comply with all applicable federal, state, and local statutes and regulations. As discussed in **Section 3.9.1**, *Decommissioning*, prior to removal or abandonment of the facilities, LSPGC would prepare a removal and restoration plan addressing the removal of the STATCOM Substation facility from the permitted area and any requirements for habitat restoration and revegetation which would need to be approved by the CPUC before being implemented. Thus, the Proposed Project would not violate any solid waste management and reduction statutes or regulations. Therefore, no impacts would occur under this criterion.

**Would the project increase the rate of corrosion of adjacent utility lines as a result of alternating current impacts?**

**Less-Than-Significant Impact.** Alternating Current (AC) associated with overhead electric transmission lines can cause interference with AC protection, which could lead to accelerated corrosion on buried transmission pipelines located near a power line if the current density would exceed the design standards for protection of the metallic pipelines. The review of the Proposed Project area, including a property boundary survey of the Proposed Project parcel and an 811 utility identification request, did not identify any utility pipelines within the STATCOM Substation facility (the only location with overhead electric transmission lines). LSPGC would implement **APM UTIL-1** to further ensure impacts to any adjacent utility pipelines would be avoided. **APM UTIL-1** requires that all utility companies with utilities located on or crossing the Proposed Project site locate and mark existing underground utilities along their entire length. Therefore, impacts under this criterion would be less than significant.

### 4.19.5 CPUC DRAFT ENVIRONMENTAL MEASURES

The CPUC recommends **APM UTIL-1** Draft Environmental Measure for Utilities and Service Systems.

**APM UTIL-1**

The Applicant shall notify all utility companies with utilities located within or crossing the Proposed Project ROW to locate and mark existing underground utilities along the entire length of the Proposed Project at least 14 days prior to construction. No subsurface work shall be conducted that would conflict with (i.e., directly impact or compromise the integrity of) a buried utility. In the event of a conflict, areas of subsurface excavation or pole installation shall be realigned vertically and/or horizontally, as appropriate, to avoid other utilities and provide adequate operational and safety buffering. In instances where separation between third-party utilities and underground excavations is less than five feet, the Applicant shall submit the intended construction methodology to the owner of the third-party utility for review and approval at least 30 days prior to construction. Construction methods shall be adjusted as necessary to assure that the integrity of existing utility lines is not compromised.

### 4.19.6 APPLICANT PROPOSED MEASURES

No additional APMs would be implemented for Utilities and Service Systems because no impacts would occur.

## 4.20 WILDFIRE

| If located in or near state responsibility areas or lands classified as very high fire hazard security zones, would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Substantially impair an adopted emergency response plan or emergency evacuation plan? | | | | X |
| b. | Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? | | | | X |
| c. | Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? | | | | X |
| d. | Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? | | | | X |

This section describes the potential wildfire hazards and impacts within the vicinity of the Proposed Project, as well as the potential impacts resulting from construction and operation and maintenance (O&M) of the Proposed Project.

### 4.20.1 ENVIRONMENTAL SETTING

The Proposed Project is located within an unincorporated area of Fresno County directly north of, and adjacent to, the Pacific Gas and Electric (PG&E) owned PG&E Gates Substation. The Proposed Project is located approximately 3.3 miles southwest of the city of Huron. The land to the north, east, and west of the Proposed Project is primarily used for agricultural purposes with no development and the existing PG&E Gates Substation is located to the south.

### 4.20.1.1 High Fire Risk Areas and State Responsibility Areas

Wildland fire protection in California is the responsibility of the state, local, or federal government. State responsibility areas (SRAs) are areas of the state in which the financial responsibility of preventing and suppressing fires has been determined to be primarily the responsibility of California Department of Forestry and Fire Prevention (CAL FIRE) (Section 4102 Public Resources Code). Local responsibility areas (LRAs) include incorporated cities, cultivated agriculture lands, and portions of the desert where fire protection is typically provided by city fire departments, fire protection districts, counties, and by CAL FIRE under contract to local government.

CAL FIRE adopted Fire Hazard Severity Zone (FHSZ) mapping for SRAs throughout the state (CAL FIRE, 2020a). These maps identify wildfire hazard zones and rate them as "moderate," "high," or "very high" based on fuel loading, slope, fire weather, and other relevant factors. Government Code Section 51175 requires CAL FIRE to also evaluate fire hazard severity in LRAs and to make a recommendation to the local jurisdiction where Very High Fire Hazard Severity Zones (VHFHSZ) exist. The Government Code then provides direction for the local jurisdiction to take appropriate action. To that end, CAL FIRE prepared Draft FHSZ maps for LRAs and prepared Recommended Maps, which identify VHFHSZ areas within LRAs.

The Proposed Project is located within an LRA but not a SRA (CAL FIRE, 2007a). The closest SRA to the Proposed Project is located approximately eight miles to the southwest near the city of Coalinga. This SRA is mapped as "moderate." CAL FIRE has determined that Fresno County has no VHFHSZ in its LRA (CAL FIRE, 2020a). CAL FIRE has specifically mapped the Proposed Project site as being in an LRA Unzoned area (CAL FIRE, 2007b). See **Figure 4.20-1**, *Fire Hazard Severity Zones*.

In response to the California Public Utilities Commission's (CPUC's) Fire Safety Rulemaking, the CPUC mapped high fire threat areas where more stringent requirements would be implemented due to the elevated risk for power line fires. The CPUC High Fire Threat District Map identifies three tiers of elevated risk for fires associated with utilities. As shown in **Figure 4.20-2**, *CPUC Fire Threat Districts,* the Proposed Project site is not located within a CPUC designated Fire Threat District (CPUC, 2020).

LS Power Grid California, LLC (LSPGC) and PG&E have not independently identified High FHSZ areas within the vicinity of the Proposed Project.

### 4.20.1.2 Fire Occurrence

A "wildfire" is defined in Section 51177(j) of the California Government Code as "…an unplanned, unwanted wildland fire, including unauthorized human-caused fires, escaped wildland fire use events, escaped prescribed fire projects, and all other wildland fires where the objective is to extinguish the fire."

CAL FIRE defines a “large fire” as being 300 acres or greater (CAL FIRE, 2010). The CAL FIRE Incident Archive was reviewed for large fires within a ten-mile radius of the Proposed Project area that have occurred since 2013[1]. No large fires were documented in 2013, 2014, 2015, 2016, 2018, and 2019 (CAL FIRE 2013, 2014, 2015, 2016, 2018, and 2019a). The following is a list of large fires that were documented within a ten-mile radius of the Proposed Project area.

- The Jayne Fire was a grass fire that burned approximately 4,532 acres off of Highway 33 and south of Coalinga (CAL FIRE, 2017 and 2019b). The fire started burning on April 20, 2017 as a result of unknown causes, possibly from equipment use.

- There were two fires along Interstate 5 (I-5), one in 2017 and the other in 2020. Both were not under CAL FIRE jurisdiction. The 2017 fire began on August 24 and burned approximately 2,312 acres near Quebec Avenue, north of Avenal (CAL FIRE, 2017). The cause is unknown. The 2020 fire began on May 3 and burned approximately 2,060 acres near Avenal Cutoff, south of Fresno County line (CAL FIRE, 2020b). The cause is under investigation.

#### 4.20.1.3 Fire Risk

Due to the Proposed Project’s location within a low fire risk area and surrounded by agricultural fields, fuel modeling and digital elevation models were not prepared. A summary of the average wind direction and speed, relative humidity, temperature, elevation, terrain, and vegetation is provided below.

Fresno County experiences mild seasonal variation over the course of the year. The windier part of the year lasts for approximately four months, from April to July, with average wind speeds of around 5.6 miles per hour (Weather Spark, 2020). The National Weather Service describes wind speeds between four and seven miles per hour as a Light Breeze (2020). The predominant average wind direction in Fresno varies throughout the year as well, with the most common direction being from the west. The humidity in Fresno County is relatively low and constant throughout the year, generally not exceeding 1% humidity levels. The region in which the Proposed Project is located has a climate characterized by warm to hot, dry summers while winters are characterized by mild temperatures and rain (City Data, 2020). The average temperatures in Fresno County are 39.6° F in January; 94.1° F in August; and an annual average of 62.5° F. The average annual precipitation in Fresno County is 9.86 inches.

Fresno County is located within the San Joaquin Valley in the central part of California. The terrain in Fresno County is relatively flat with a sharp rise in elevation in the east to the foothills of the Sierra Nevada Mountains. The terrain in the study area is characterized by flat topography.

Vegetation in the Proposed Project area consists primarily of agriculture. The existing PG&E Gates Substation and solar generating facility are located adjacent to the Proposed Project site to the south. The non-developed portions of the PG&E properties lack vegetation and are actively

[1] The CAL FIRE Incident Archive does not include reports for fires earlier than 2013.

disked to minimize vegetation growth. The Proposed Project would also lack vegetation and actively disked similar to the above referenced projects.

#### 4.20.1.4 Values at Risk

The only existing utility infrastructure located within 1,000 feet of the Proposed Project site are the existing PG&E Gates Substation and a solar generating facility. Both of these facilities consist of predominantly steel structures. The Proposed Project site is surrounded by existing agriculture, which has been the predominant use in the area for a number of decades. As identified in **Section 4.4,** *Biological Resources*, sensitive habitat is not located within the Proposed Project site and the surrounding area. The nearest community to the Proposed Project is the city of Huron, which is located approximately 3.3 miles northeast.

#### 4.20.1.5 Evacuation Routes

No designated evacuation routes are located adjacent to or within the Proposed Project area. During an emergency, including the risk of fire, the all-weather, north-south and east-west access roads within the Proposed Project site would provide access to West Jayne Avenue to the south and a larger network of small roads to the north.

### 4.20.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

#### 4.20.2.1 Regulatory Setting

**Federal**

***Federal Energy Regulatory Commission***

The Federal Energy Regulatory Commission (FERC) requires utilities to adopt and maintain minimum clearance standards between vegetation and transmission voltage power lines. These clearances vary depending on voltage. In most cases, the minimum clearances required in state regulations are greater than the federal requirement. In California for example, CPUC has adopted General Order 95 rather than the North American Electric Reliability Corporation (NERC) Standards as the electric safety standard for the state.

***North American Electric Reliability Corporation Standards***

NERC is a not-for-profit international regulatory authority whose mission is to assure the effective and efficient reduction of risks to the reliability and security of the grid (NERC, 2020). NERC develops and enforces reliability standards; annually assesses seasonal and long-term reliability; monitors the bulk power system through system awareness; and educates, trains, and certifies industry personnel. NERC is the Electric Reliability Organization (ERO) for North America, subject

to oversight by FERC. To improve the reliability of regional electric transmission systems and in response to the massive widespread power outage that occurred on the Eastern Seaboard, NERC developed a transmission vegetation management program that is applicable to all transmission lines operated at 200 kilovolt (kV) and above to lower-voltage lines designated by the Regional Reliability Organization as critical to the reliability of the electric system in the region (NERC, 2006). The plan establishes requirements of the formal transmission vegetation management program, which include identifying and documenting clearances between vegetation and any overhead, ungrounded supply conductors while taking into consideration transmission line voltage, the effects of ambient temperature on conductor sag under maximum design loading, fire risk, line terrain and elevation, and the effects of wind velocities on conductor sway. The clearances identified must be no less than those set forth in the Institute of Electrical and Electronics Engineers Standard 516-2009, Guide for Maintenance Methods on Energized Power Lines.

### *Federal Wildland Fire Management Policy*

The Federal Wildland Fire Management Policy was developed in 1995 and updated in 2001 by the National Wildfire Coordinating Group, a federal multi-agency group that establishes consistent and coordinated fire management policy across multiple federal jurisdictions (National Interagency Fire Center, 2009). An important component of the Federal Wildland Fire Management Policy is the acknowledgment of the essential role of fire in maintaining natural ecosystems. The Federal Wildland Fire Management Policy and its implementation include the following guiding principles: risk management is a foundation for all fire management activities; fire management plans and activities are based upon the best available science; and standardization of policies and procedures among federal agencies is an ongoing objective.

## State

### *Senate Bill 1028*

Senate Bill 1028 (2016) requires each electrical corporation to construct, maintain, and operate its electrical lines and equipment in a manner that would minimize the risk of catastrophic wildfire posed by those electrical lines and equipment, and makes a violation of these provisions by an electrical corporation a crime under state law. The bill also requires each electrical corporation to annually prepare a wildfire mitigation plan and submit to CPUC for review. The plan must include a statement of objectives, a description of preventive strategies and programs that are focused on minimizing risk associated with electric facilities, and a description of the metrics that the electric corporation uses to evaluate the overall wildfire mitigation plan performance and assumptions that underlie the use of the metrics.

### *2019 Strategic Fire Plan for California*

Developed by the Board of Forestry and Fire Protection (the Board), the Strategic Fire Plan outlines goals and objectives to implement CAL FIRE's overall policy direction and vision. The

2019 Plan demonstrates CAL FIRE's focus on: 1) fire prevention and suppression activities to protect lives, property, and ecosystem services; and 2) natural resource management to maintain the state's forests as a resilient carbon sink to meet California's climate change goals and to serve as important habitat for adaptation and mitigation. Unit Plans are developed and updated in order to implement the programs and goals of the 2019 Plan. Through the Strategic Plan, CAL FIRE implements and enforces the policies and regulations set forth by the Board and carries forth the mandates of the governor and the legislature (CAL FIRE, 2019b).

### *California Emergency Response Plan*

Pursuant to the Emergency Services Act (Government Code §8550 *et seq*.), California developed an Emergency Plan to coordinate emergency services provided by federal, state, and local governmental agencies and private persons. Response to hazardous materials incidents is one part of this plan of which is administered by the State Office of Emergency Services (OES). The OES coordinates the responses of other agencies including the United States Environmental Protection Agency (USEPA), California Highway Patrol (CHP), California Department of Fish and Wildlife (CDFW), the Regional Water Quality Control Boards (RWQCBs) (in this case, the Fresno County RWQCB), the local air districts (in this case, the Fresno County Air Pollution Control District), and local agencies. The State Emergency Plan defines the "policies, concepts, and general protocols" for the proper implementation of the California Standardized Emergency Management System (SEMS). The SEMS is an emergency management protocol that agencies within the state of California must follow during multiagency response efforts whenever state agencies are involved.

### *California Code of Regulations*

The California Fire Code is contained within Title 24, Chapter 9 of the California Code of Regulations. Based on the International Fire Code, the California Fire Code is created by the California Buildings Standards Commission and regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. Similar to the International Fire Code, the California Fire Code and the California Building Code (CBC) use a hazards classification system to determine the appropriate measures to incorporate to protect life and property.

Title 14, Division 1.5 establishes the regulations for CAL FIRE. Article 4 of Chapter 7 (§§1250-1258) codifies the State of California's Fire Prevention Standards for Electric Utilities and provides specific exemptions from electric pole, tower firebreak, and electric conductor clearance standards. It also specifies when and where standards apply.

### *Public Resources Code*

The California Public Resources Code includes a number of requirements for development within fire-prone areas. Public Resources Code Sections 4292 and 4293 are specific to utility companies and include requirements such as: any person who owns, controls, operates, or maintains any electrical transmission or distribution line must maintain a firebreak clearing around and adjacent

to any pole, tower, and conductors that carry electric current; and a ten-foot clearance must be maintained around the base of poles be cleared of all flammable vegetation.

**Local**

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order 131-D (GO 131-D), Section XIV.B, "Local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the CPUC's jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters" (CPUC, 1995). Consequently, public utilities are directed to consider local regulations and consult with local agencies, but the county's regulations are not applicable as Fresno County does not have jurisdiction over the Proposed Project. This section includes a summary of local related policies, plans or programs for informational purposes.

***Fresno County General Plan***

The Health and Safety Element of the Fresno County General Plan (2000) establishes policies and programs to protect the community from risks associated with hazardous materials and wildfire hazards. Goals and policies are further implemented in the County of Fresno Code of Regulatory Ordinances, which includes codes involving public safety, regulation of buildings, construction, and fire.

**Goal HS-B** To minimize the risk of loss of life, injury, and damage to property and natural resources resulting from fire hazards.

**Policy HS-B.1** The County shall review project proposals to identify potential fire hazards and to evaluate the effectiveness of preventive measures to reduce the risk to life and property.

**Policy HS-B.2** The County shall ensure that development in high fire hazard areas is designed and constructed in a manner that minimizes the risk from fire hazards and meets all applicable State and County fire standards. Special consideration shall be given to the use of fire-resistant construction in the underside of eaves, balconies, unenclosed roofs and floors, and other similar horizontal surfaces in areas of steep slopes.

**Policy HS-B.3** The County shall require that development in high fire hazard areas have fire resistant vegetation, cleared fire breaks separating communities or clusters of structures from native vegetation, or a long-term comprehensive vegetation and fuel management program. Fire hazard reduction measures shall be incorporated into the design of development projects in fire hazard areas.

**Policy HS-B.8** The County shall refer development proposals in the unincorporated county to the appropriate local fire agencies for review of compliance with

fire safety standards. If dual responsibility exists, both agencies shall review and comment relative to their area of responsibility. If standards are different or conflicting, the more stringent standards shall apply.

### *Fresno County Fire Protection District*

The Fresno County Fire Protection District (FCFPD) is a full-service fire department providing emergency services to approximately 2,655 square miles of the central San Joaquin Valley and serves a population of more than 220,000 citizens in both incorporated and unincorporated areas of Fresno County (Fresno County Fire Protection District, 2020). In cooperation with the CAL FIRE, FCFPD provides emergency services from 13 district stations and nine state stations. A minimum of two to three career firefighters are on duty 24 hours per day at any given fire engine company, which allows for a minimum of 44 firefighters to be on duty daily providing fire suppression, emergency medical services, and rescue. An Emergency Command Center serves CAL FIRE, FCFPD, and 13 other emergency agencies in the region, including the California Emergency Management Agency Region V Coordination Center. Fire protection and emergency services for the Proposed Project site are provided by FCFPD Battalion 14, Station 93, which is located within the city of Huron, with cooperation from CAL FIRE. FCFPD would be designated as the first responder for all Proposed Project related incidents.

The California Health and Safety Code provides that a fire protection district (in this case, the FCFPD) may adopt building standards relating to fire and panic safety that are more stringent than the building standard adopted by the State Fire Marshal and contained in the California Building Standards Code (Section 13869.7). As required by Fresno County Code of Ordinances Title 15 - Building and Construction, Chapter 15.60 – State Responsibility Area Fire Safe Regulations of the County: new construction located within the SRA of Fresno County is required to meet certain minimum uniform standards for basic emergency access, perimeter wildlife protection measures, signing and building numbering, private water supply reserves for emergency fire use and vegetation modifications. In cooperation with Fresno County and local fire protection districts, and to address their concerns where feasible, LSPGC has considered relevant policies and issues in the design of the Proposed Project.

### *California Public Utilities Commission General Orders*

#### General Order 95

CPUC General Order 95 applies to construction and reconstruction of overhead electric lines in California. The replacement of poles, towers, or other structures is considered reconstruction and requires adherence to all strength and clearance requirements of this order. The CPUC has promulgated various rules to implement the fire safety requirements of General Order 95, including:

- Rule 18A, which requires utility companies take appropriate corrective action to remedy Safety Hazards and General Order 95 nonconformances. Additionally, this rule requires that each utility company establish an auditable maintenance program.

- Rules 31.2, which requires that lines be inspected frequently and thoroughly. Rule 35, which requires that vegetation management activities be performed in order to establish necessary and reasonable clearances. These requirements apply to all overhead electrical supply and communication facilities that are covered by this General Order, including facilities on lands owned and maintained by California state and local agencies.

- Rule 38, which establishes minimum vertical, horizontal, and radial clearances of wires from other wires.

- Rule 43.2.A.2 which requires that for lines located within Tier 2 or Tier 3 zones, the wind loads required in Rule 43.2.A.1 be multiplied by a wind load factor of 1.1.

**General Order 165**

General Order 165 establishes requirements for the inspection of electric distribution and transmission facilities that are not contained within a substation. Utilities must perform "Patrol" inspections, defined as a simple visual inspection of utility equipment and structures that is designed to identify obvious structural problems and hazards, at least once per year for each piece of equipment and structure. "Detailed" inspections, where individual pieces of equipment and structures are carefully examined, are required every five years for all overhead conductor and cables, transformers, switching/protective devices, and regulators/capacitors. By July 1st of each year, each utility subject to this General Order must submit an annual report of its inspections for the previous year under penalty of perjury.

**General Order 166**

General Order 166 applies to all electric utilities subject to the jurisdiction of the CPUC with regard to matters relating to electric service reliability and/or safety. Standard 1.E requires utility companies to develop a Fire Prevention Plan, which describes measures that the electric utility would implement to mitigate the threat of power-line fires. Additionally, this standard requires that utility companies outline a plan to mitigate power line fires when wind conditions exceed the structural design standards of the line during a Red Flag Warning in a high fire threat area. Fire Prevention Plans created by utility companies are required to identify specific parts of the utility's service territory where the conditions described above may occur simultaneously. Standard 11 requires that utilities report annually to the CPUC regarding compliance with General Order 166.

### 4.20.3 IMPACT QUESTIONS

#### 4.20.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to wildfires come from the CEQA, Appendix G Environmental Checklist (as amended in December 2019), According to the CEQA Environmental Checklist, a project may cause a potentially significant impact if it is located in or near state responsibility areas or lands classified as very high fire hazard severity zones and would:

- Substantially impair an adopted emergency response plan or emergency evacuation plan; or

- Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire; or

- Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; or

- Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

#### 4.20.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-Filing Proponent's Environmental Assessments* (CPUC, 2019), there are no additional CEQA Impact Questions required for Wildfire.

### 4.20.4 IMPACT ANALYSIS

#### 4.20.4.1 Impact Analysis

**If located in or near state responsibility areas or land classified as very high fire hazard security zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?**

**No Impact**. The Proposed Project is not located within or near SRAs or lands classified as VHFHSZ. An adopted emergency response plan in Fresno County is the Master Emergency Services Plan (2017), which serves as a guide for the county's response to emergencies/disasters in the unincorporated areas of the county and ensures effective and economical use of resources, material, and personnel for maximum benefit and protection of affected populations in an emergency/disaster (Fresno County, 2020).

Most of the construction would occur on private lands, although some activities, such as the telecommunication installation and equipment delivery, could temporarily affect public roadways, specifically on West Jayne Avenue. This effect would be temporary and localized; however, any impacts would be less than significant because the equipment could be readily moved aside in the event of an emergency. Moreover, in accordance with **APM TRA-1**, potential lane closures or traffic lane modification plans would be reviewed and approved by the county of Fresno, and all construction activities would be coordinated with local law enforcement and fire protection agencies, and emergency service providers would be notified of the timing, location, and duration of construction activities. The Proposed Project would be operated remotely and would be located on private land. Therefore, construction and operation of the Proposed Project would not impair

the Fresno County Master Emergency Services Plan. In addition, no designated evacuation routes are located adjacent to or within the Proposed Project area. Therefore, no impacts would occur under this criterion.

**If located in or near state responsibility areas or land classified as very high fire hazard security zones, would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?**

**No Impact.** The Proposed Project is not located within or near SRAs or lands classified as VHFHSZ, and therefore, the risk of a wildfire is low. In addition, the Proposed Project area is characterized by flat topography, surrounded by agricultural fields, and typically experiences low windspeeds (National Weather Service, 2020). As discussed in **Section 3.5.12**, *Fire Prevention and Response*, during construction activities that are considered "hot work", LSPGC would implement buffers and clear vegetation. No personnel would be located at the facility during operations, and LSPGC would create a fire break around the STATCOM Substation in accordance with all applicable state and federal regulations. Therefore, construction and operation of the Proposed Project would not exacerbate wildfire risks, thus not exposing Proposed Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Therefore, no impacts would occur under this criterion.

**If located in or near state responsibility areas or land classified as very high fire hazard security zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?**

**No Impact.** The Proposed Project is not located within or near SRAs or lands classified as VHFHSZ. While the Proposed Project includes two new single circuit 500 kV transmission lines, the surrounding area is primarily comprised of agricultural fields with low wind speeds, and at low risk for wildfires. In addition, as discussed in **Section 3.5.12**, *Fire Prevention and Response*, during construction activities that are considered "hot work", LSPGC would implement buffers and clear vegetation. For operations, the facility would be operated remotely and LSPGC would create a fire break around the Static Synchronous Compensator (STATCOM) Substation in accordance with all applicable state and federal regulations. Therefore, the Proposed Project would not exacerbate fire risk such that temporary or ongoing impacts to the environment would occur. Therefore, no impacts would occur under this criterion.

**If located in or near state responsibility areas or land classified as very high fire hazard security zones, would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?**

**No Impact**. The Proposed Project is not located within or near SRAs or lands classified as VHFHSZ. In addition, as discussed in **Section 4.7**, *Geology, Soils, and Paleontological Resources*, the Proposed Project is not located within a landslide-prone area. As discussed in

**Section 4.10**, *Hydrology and Water Quality*, the Proposed Project would not significantly impact the drainage or existing runoff. Therefore, no impacts would occur under this criterion.

### 4.20.5 CPUC DRAFT ENVIRONMENTAL MEASURES

The CPUC Draft Environmental Measures for Wildfire include a Construction Fire Prevention Plan and Fire Prevention Practices (Construction and Maintenance) to be considered as the basis for mitigation where appropriate to address potentially significant impacts. However, because the Proposed Project is not located within an area designated as Very High or High Fire Hazard Severity Zones and there would be no impacts, these measures are not warranted. In addition, **APM HAZ-4** includes fire prevention practices for construction and maintenance as well as developing a Fire Protection Plan prior to constrcution.

### 4.20.6 APPLICANT PROPOSED MEASURES

No Applicant Proposed Measures would be implemented for Wildfires because no impacts would occur.

## 4.21 MANDATORY FINDINGS OF SIGNIFICANCE

| Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | | | X | |
| b. | Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.) | | | X | |
| c. | Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | | | X | |

This section provides an impact analysis for each of the Mandatory Findings of Significance provided in Appendix G of the California Environmental Quality Act (CEQA) Guidelines.

### 4.21.1 IMPACT QUESTIONS

#### 4.21.1.1 CEQA Impact Questions

The significance criteria for assessing the impacts to Mandatory Findings of Significance come from the CEQA, Appendix G Environmental Checklist (as amended in December 2019). According to the CEQA Checklist, a project may cause a potentially significant impact if it would:

- Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory; or

- Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.); or

- Have environmental effects which cause substantial adverse effects on human beings, either directly or indirectly.

### 4.21.2 IMPACT ANALYSIS

#### 4.21.2.1 Impact Analysis

**Would the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?**

**Less-than-Significant Impact.** See **Sections 4.3** (*Air Quality*); **4.4** (*Biological Resources*); **4.5** (*Cultural Resources*); **4.9** (*Hazards, Hazardous Materials, and Public Safety*); **4.18** (*Tribal Cultural Resources*); and **Section 5.0** (*Cumulative and Other CEQA Considerations*). For the reasons explained there, the Proposed Project does not have the potential to substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; substantially reduce the number or restrict the range of an endangered, rare or threatened species; or eliminate important examples of the major periods of California history or prehistory.

The Proposed Project is located within heavily, modified and highly, disturbed agricultural and disturbed lands adjacent to the existing Pacific Gas and Electric (PG&E) Gates Substation. These areas generally lack habitat for special-status species, sensitive aquatic resources, and sensitive natural communities. No special-status plants have a potential to occur within the Proposed Project area. Special-status animals with a high or moderate potential to occur are limited to red-tailed hawk (known to occur) and loggerhead shrike (moderate to high potential to occur); eleven other special-status species have a low potential for occurrence. The Proposed Project area has existing transmission structures nearby that support raven and raptor nests; there is a lack of trees and shrubs that are suitable for nesting birds. However, there is a potential for raptors to nest in the transmission towers and migratory birds to nest on the ground or vineyards located within and in the immediate vicinity of the Proposed Project area. No wetlands or streams are present within the Proposed Project area. Two small agricultural ditches are located approximately a half mile south of the Proposed Project, but do not support a riparian habitat, are not jurisdictional features, do not provide a habitat for fish or wildlife, and would not be affected by Proposed Project activities. Impacts on biological resources are less than significant. The Applicant would implement **Applicant Proposed Measures** (**APMs**) **BIO-1** through **BIO-8**, which further reduce the potential for impacts.

There are no known historical resources or archeological resources within the Proposed Project area. In the unlikely event that archaeological, historical or paleontological resources are

discovered during construction activities, **APMs CUL1** through **CUL-5** and **PALEO-1** and **PALEO-2** would be implemented so that the Proposed Project would not eliminate important examples of major periods of California history or prehistory. The impact would be less than significant.

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

**Less-than-Significant Impact.** A cumulative impact analysis for each resource area is presented in **Section 5.0**, *Cumulative and Other CEQA Considerations*. The Proposed Project would contribute incrementally to cumulative impacts during construction in the Proposed Project area related to air quality, greenhouse gas (GHG) emissions, hazardous materials, and traffic; however, the Proposed Project would not make a cumulatively considerable contribution to any cumulative impacts. Thus, the Proposed Project would not have environmental effects that are individually limited but cumulatively considerable. Therefore, the impact would be less than significant.

**Would the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?**

**Less-than-Significant Impact.** The Proposed Project would not adversely affect human beings, either directly or indirectly. Potential construction impacts associated with human health include the presence of hazards, hazardous materials use, temporary air quality, and GHG emissions. As discussed previously, construction impacts associated with air quality, GHG, and hazards and hazardous materials would be less than significant. APMs would further reduce the potential for adverse effects. The Proposed Project would have a beneficial effect on human beings in the Proposed Project area by increasing the stability and reliability of the regional electrical transmission system and facilitating the use of renewable energy. Therefore, the impact would be less than significant.

# 5.0 CUMULATIVE AND OTHER CEQA CONSIDERATIONS

## 5.1 CUMULATIVE IMPACTS

### 5.1.1 LIST OF CUMULATIVE PROJECTS

Projects included in the cumulative impact assessment were identified by using a list approach (CEQA Guidelines Section 15130[b][1][A]), including all pending development projects within an approximately 2-mile radius of the Proposed Project. **Table 5-1:** *Cumulative Projects* summarizes these pending development projects. **Figure 5-1:** *Cumulative Projects* depicts these projects.

**Table 5-1: Cumulative Projects**

| Project Name and Type | Project Description and Location | Proximity to Project (approx.) | Project Status and Anticipated Construction Schedule | Project Information, Date Checked and Source |
|---|---|---|---|---|
| Pacific Gas & Electric (PG&E) 500kV Dynamic Reactive Support (Interconnection with Proposed Project) | Existing PG&E Gates Substation 500kV yard would be modified and would extend 500kV buses #1 and #2 to the west and allowing the installation of a new partial 500 kV Bay #6 and Bay #2. Install new 500 kV tie-lines from the Proposed Project's Change-of-Ownership dead-end structures adjacent to Gates Substation and terminate on dead-end structures in the Gates Substation before transitioning to gas-insulated bus within the substation property and terminating at Points of Interconnection at 500 kV Breaker and a Half (BAAH) bays #2 and #6. Relocate the existing security wall to the west and north to accommodate the substation and interconnection work. Install underground conduits, pull boxes, and junction boxes as needed. Install asphalt roadway to new equipment for future substation maintenance work. | Adjacent at the PG&E Gates Substation | 2022 | Existing PG&E Gates Substation 500 kV yard would be modified and extend 500 kV buses #1 and #2 into the west and north allowing the installation of a new partial 500kV Bay #6 and Bay #2. Install new 500 kV tie-lines from Proposed Project's Change-of-Ownership structures to two new dead-ends in the Gates substation before transitioning to gas-insulated bus and terminating at Points of Interconnection (POI) at 500 kV Breaker and a Half (BAAH) bays #2 and #6.<br><br>Source: PG&E, 2020 |

**Table 5-1: Cumulative Projects**

| Project Name and Type | Project Description and Location | Proximity to Project (approx.) | Project Status and Anticipated Construction Schedule | Project Information, Date Checked and Source |
|---|---|---|---|---|
| Bank 11 Replacement-500/230 kV - Substation | Replace Bank inside existing PG&E Gates Substation | Adjacent at the PG& E Gates Substation | Projected April 2023 | Replace existing Bank 11 inside the existing PG&E Gates Substation.<br><br>Source: PG&E, 2020 |
| 230 kV Bus E BAAH Conversion | Convert the existing 230 kV double bus section E to two half bays; one full bay; one future bay with control and battery buildings; retention basin. Install (2) 230 kV sectionalizing breakers. Relocate the security wall and rearrange transmission lines to accommodate the substation work. Located inside existing PG&E Gates Substation | Adjacent at the PG& E Gates Substation | Projected April 2023 | Convert the existing 230 kV double bus section E inside the existing PG&E Gates Substation.<br><br>Source: PG&E, 2020 |
| Interconnection Customer (Generation) | Installation of a 230 kV gen-tie approximately 1800 feet in length within the northeast corner of the PG&E Gates Substation to be hung on approximately two tubular steel poles (TSPs). | Adjacent at the PG& E Gates Substation | Projected December 2021 | Installation of a 230 kV gen-tie approximately 1800 feet in length within the northeast corner of the substation to be hung on approximately two TSPs.<br><br>Source: PG&E, 2020 |
| Interconnection Customer (Generation) | Installation of a 230 kV gen-tie approximately 630 feet in length within the southeast corner of the PG&E Gates Substation to be hung on approximately two TSPs. Approximately 360 feet of 230 kV gen-tie spans outside of PG&E Gates Substation. | Adjacent at the PG& E Gates Substation | Projected November 2020 | Installation of a 230kV gen-tie approximately 630 feet in length within the southeast corner of the substation to be hung on approximately two TSPs. Approximately 360 feet of 230 kV gen-tie spans outside of PG&E Gates Substation.<br><br>Source: PG&E, 2020 |

**Table 5-1: Cumulative Projects**

| Project Name and Type | Project Description and Location | Proximity to Project (approx.) | Project Status and Anticipated Construction Schedule | Project Information, Date Checked and Source |
|---|---|---|---|---|
| Interconnection Customer (Generation) | Install 230kV bay to section "F" of the PG&E Gates Substation. Potential installation of 230 kV gen-tie line within PG&E Gates Substation property. | Adjacent at the PG& E Gates Substation | Projected October 2023 | Install 230kV bay to section "F". Potential installation of 230 kV gen-tie line within substation property. Full scope is undetermined.<br><br>Source: PG&E, 2020 |
| Fifth Standard Solar Project Complex | The project includes:<br>**Fifth Standard Solar:**<br>150 MW solar PV generation facility<br><br>**Stonecrop Solar Facility:**<br>20 MW solar PV generation facility<br><br>**Blackbriar Energy Storage**:<br>20 MW energy storage facility.<br><br>Located on South Lassen Avenue and West Jayne Avenue | Northeast of the Proposed Project (adjacent parcel) | Final EIR October 2020 and Construction of the project facilities would occur over 11 to 12 consecutive months, with an expected start between late 2020 and late 2021·<br><br>**Blackbriar Energy Storage Facility:** expected to begin construction between late 2020 and late 2021 and to be completed between mid 2021 and mid 2022.<br><br>**Fifth Standard Solar Facility:** expected to begin construction between late 2020 and late 2021, occur simultaneously with Blackbriar construction for several months, continue beyond the completion of Blackbriar, and be completed between December 2021 | The project includes:<br>**Fifth Standard Solar:**<br>150 MW solar PV generation facility<br><br>**Stonecrop Solar Facility:**<br>20 MW solar PV generation facility<br><br>**Blackbriar Energy Storage**:<br>20 MW energy storage facility.<br><br>Located on South Lassen Avenue and West Jayne Avenue<br><br>Date checked website below: 11/9/2020<br><br>Source:<br>https://ceqanet.opr.ca.gov/Project/2017091038<br><br>Stantec, 2020 |

| Table 5-1: Cumulative Projects | | | | |
|---|---|---|---|---|
| **Project Name and Type** | **Project Description and Location** | **Proximity to Project (approx.)** | **Project Status and Anticipated Construction Schedule** | **Project Information, Date Checked and Source** |
| | | | and December 2022.<br><br>**Stonecrop Solar Facility:** Construction of the Stonecrop Facility would begin after completion of Blackbriar but prior to the completion of Fifth Standard and is expected to begin between August 2021 and August 2022 and to be completed at the same time as Fifth Standard. | |

### 5.1.2 GEOGRAPHIC SCOPE

The geographic scope of analysis for cumulative impacts varies depending on the resource and should consider the extent to which impacts can be cumulative. Therefore, the sections below describe the appropriate geographic scope for each resource that would be analyzed for cumulative impacts.

As shown in **Section 4.0,** *Environmental Analysis*, implementation of the Proposed Project would result in no impacts or negligible impacts on land use, mineral resources, population and housing, recreation, and wildfire. Consequently, the Proposed Project would not have a potential to contribute to cumulative impacts related to these resource areas, and they are not discussed further.

**Aesthetics**. The geographic scope of analysis for cumulative aesthetics impacts to which the Proposed Project may contribute includes the Proposed Project's viewshed, as described in **Section 4.1.1.3,** *Viewshed Analysis*, and the resultant key observation points (KOPs) from which views into the Proposed Project are available. As such, the cumulative aesthetics impact analysis area generally encompasses the visual landscape within an approximately five-mile radius, primarily including motorists' views from West Jayne Avenue and other roadways.

**Agricultural and Forestry Resources**. The geographic scope of analysis for cumulative agricultural and forestry resource impacts includes all of the cumulative projects listed in **Table 5-1**, *Cumulative Projects*, within a radius of two miles.

**Air Quality**. The San Joaquin Valley Air Basin, which covers approximately 25,000 square miles of central California, represents the cumulative geographic scope for air quality because plans and thresholds are established at the basin level to attain air quality standards that are assigned for the entire air basin. Cumulative impacts on sensitive receptors, project workers, and odors are considered at a more localized level due to the more limited area of dispersion. The geographic scope for these impacts is a two-mile radius because impacts from projects located beyond this distance would not combine with the Proposed Project to create cumulative effects.

**Biological Resources**. The geographic scope of analysis for cumulative biological resource impacts is a two-mile radius around the Proposed Project area. This allows for a cumulative analysis of habitat, wildlife corridors, or other sensitive natural communities that stretch beyond the Proposed Project area while taking into account the developed, agricultural nature of the surrounding area.

**Cultural Resources and Tribal Cultural Resources**. The geographic scope of analysis for cumulative cultural resource impacts depends on the type of resource. Typically, prehistoric and historic resources are located subsurface and, therefore, cumulative impacts are considered at a localized level, which for the Proposed Project includes the Area of Potential Effects (APE), as defined in **Section 4.5.1,** *Environmental Setting*. The geographic scope for historic built environment resources and tribal cultural resources includes a one-mile buffer around the APE because these resources can be impacted by changes in the visual landscape or by increases in ambient noise levels, as well as direct impacts.

**Energy**. The geographic scope of analysis for energy usage (i.e., fuels) and compliance with local plans is Fresno County, which comprises approximately 6,000 square miles. The Proposed Project's fuel usage statistics were compared against fuels usage from the entire county. With respect to renewable energy usage, the PG&E service territory is used as the geographic scope of analysis because the renewable energy usage statistics applicable to the Proposed Project are those of PG&E. Finally, the state of California is the geographic scope for cumulative impacts relating to statewide plans.

**Geology, Soils, and Paleontology**. The geographic scope for cumulative impacts on geology, soils, and paleontology depends on the geologic issue. The geographic scope with respect to seismicity includes the Proposed Project area and those projects within a 2-mile radius because an earthquake capable of creating substantial damage or injury at the Proposed Project area could cause similar damage throughout this area. The geographic scope for other geologic issues is considered at a more localized level because impacts are generally site-specific and not additive across a landscape.

**Greenhouse Gases (GHG)**. The geographic scope of cumulative analysis for GHGs is the state of California because GHG reduction regulations are at the state level, and the impacts of global climate change affect the entire state.

**Hazards, Hazardous Materials, and Public Safety**. The hazards and hazardous materials geographic scope consists of the areas that could be affected by Proposed Project activities, as well as areas affected by other projects whose activities could directly or indirectly affect the proposed activities within the Proposed Project area. Therefore, a two-mile radius was considered in this analysis.

**Hydrology and Water Quality**. The geographic scope of analysis for cumulative impacts on hydrology and water quality typically includes the hydrologic region and groundwater basin because water sources throughout the region are interconnected. However, there are no waterbodies within or near the Proposed Project area and the depth to groundwater is beyond 51.5 feet below ground surface. Therefore, the geographic scope for the purposes of this cumulative analysis includes the Proposed Project area and adjacent parcels.

**Noise**. The geographic scope of analysis for cumulative noise impacts includes the Proposed Project area and adjacent parcels because noise attenuates rapidly with distance, equaling an approximate reduction of 6dB for every doubling of distance from the noise source. Noise generated from a farther distance would not be cumulative with noise generated on the Proposed Project site. Therefore, only projects within the 2-mile radius included in **Table 5-1**, *Cumulative Projects* above would have the potential for cumulative impacts.

**Public Services**. The geographic scope of analysis for cumulative public service impacts includes the service areas of the service providers discussed in **Section 4.15,** *Public Services* because substantial changes to a provided service would influence the entire service area for each specific service.

**Transportation**. A typical geographic scope for cumulative transportation impacts includes all roadways that are affected by a proposed project. As discussed in **Section 4.17,** *Transportation*, construction vehicles for the Proposed Project would primarily utilize West Jayne Avenue and South Trinity Avenue. Therefore, the geographic scope of analysis for cumulative transportation impacts includes the roadways that are adjacent to the Proposed Project area.

**Utilities and Service Systems**. A significant cumulative impact would result if the Proposed Project were to contribute to impacts that exceeded the planned use and capacity of the wastewater, water, solid waste, and/or energy service providers. Therefore, the geographic scope of analysis for this resource includes the utility providers service areas identified in **Section 4.19.1,** *Environmental Setting*.

### 5.1.3 CUMULATIVE IMPACT ANALYSIS

The discussion below evaluates the potential for the Proposed Project to contribute to a cumulatively considerable impact on the environment. As shown in **Chapter 4.0,** *Environmental Analysis*, implementation of the Proposed Project would result in no impacts or negligible impacts on land use, mineral resources, population and housing, recreation, and wildfire. Consequently, the Proposed Project would not have a potential to contribute to cumulative impacts related to these resource areas, and they are not discussed in the cumulative impact analysis below.

The cumulative analysis that follows addresses the incremental contribution of the Proposed Project to cumulative impacts associated with aesthetics; agricultural and forestry; air quality and greenhouse gases and energy; biological resources; cultural and tribal resources; geology, soils and paleontology; hazards, hazardous materials, and public safety; hydrology and water quality; noise; public services; transportation; and utilities and service systems.

**Aesthetics:** A cumulatively considerable impact on aesthetics could result if the Proposed Project would: contribute to a significant cumulative impact related to a substantial and adverse change in the overall character of the area; include structures that substantially differ from the character

of the vicinity; or result in the addition of a substantial cumulative amount of light and/or glare. At the project level, there were determined to be no impacts related to scenic vistas and scenic resources; as such, cumulative impacts for these issues are not evaluated.

The Proposed Project area is surrounded by relatively flat terrain dominated by vineyards, orchards, and row crops. As discussed in **Section 4.1,** *Aesthetics*, the existing PG&E Gates Substation and an existing solar field are prominent visual features adjacent to and south of the Proposed Project area, along with numerous extra-high voltage transmission lines. The surrounding visual landscape also includes trucks and other equipment to support mechanized agricultural production activities. As detailed in **Section 4.1.4,** *Impact Analysis*, structures associated with the Proposed Project are relatively low profile compared to the existing PG&E Gates Substation and would consist of little to no visual change from the existing landscape. In addition, light and glare impacts associated with the Proposed Project would be minimal. **Applicant Proposed Measure (APM) AES-1** and **AES-2** would be implemented to further reduce project-level impacts to less-than-significant levels.

The cumulative projects listed in **Table 5-1**, *Cumulative Projects* would be visible from the Proposed Project area. These cumulative projects would also each introduce several changes to the visual landscape, including additional gen-tie transmission lines, new double-circuit 500 kV lines, and solar panels. Although permanent removal of farmland and installation of high voltage transmission lines and structures would result from the Proposed Project, these incremental impacts are not cumulatively considerable. As detailed in **Section 4.1.4,** *Impact Analysis*, the Proposed Project would consist of little to no visual change from the existing landscape. In addition, the Proposed Project area is approximately 20 acres, while the Fifth Standard Solar complex projects encompass approximately 1,600 acres, and no cumulatively considerable impacts to visual resources were identified in the Fifth Standard Solar Project Complex EIR (Stantec, 2020).

Therefore, the Proposed Project would not contribute to a significant cumulative impact, include structures that are substantially different from the surrounding visual character, or result in a substantial amount of light or glare. As a result, the Proposed Project's incremental contribution to cumulative aesthetic impacts would not be cumulatively considerable and would be less than significant.

**Agricultural and Forestry Resources:** A cumulatively considerable impact on agriculture and forestry resources could result if the Proposed Project would contribute to a significant cumulative impact related to a conversion of farmland or forestry resources to non-agricultural or forestry uses.

The Proposed Project is located within a predominantly agricultural area within Fresno County. As discussed in **Section 4.2,** *Agriculture and Forestry Resources*, the Proposed Project would require the permanent conversion of less than 10 acres of Prime Farmland to non-agricultural use to accommodate the STATCOM Substation, switchyard and associated facilities, and ancillary facilities such as a stormwater detention basin, access roads, and parking. The Proposed Project site is located on agricultural land subject to an active Williamson Act contract, and all adjacent lands (within one mile) are also under active Williamson Act contracts, excluding the two PG&E-owned parcels located to the south. **APM AGR-1** would be implemented to ensure that the Proposed Project would not conflict with the Williamson Act and reduce project-level impacts to less-than-significant levels.

However, the Fifth Standard Solar complex projects would have significant and unavoidable impacts to agricultural resources due to the conversion of 1,600 acres of Prime Farmland to non-agricultural use and conflicts with Williamson Act contracts (Stantec, 2020). While the Proposed Project would convert almost 10-acres of Prime Farmland to non-agricultural use, the conversion is not cumulatively considerable in connection with the other cumulative projects and would not preclude the surrounding area from future agricultural use.

Therefore, the Proposed Project and the cumulative projects are not anticipated to result in cumulatively significant impacts to agriculture and forestry. The Proposed Project's incremental contribution to cumulative agriculture and forestry impacts would not be cumulatively considerable and would be less than significant.

**Air Quality:** The Proposed Project is located within the San Joaquin Valley Air Basin (SJVAB), which covers multiple counties within the Central Valley. The SJVAB has a federal nonattainment/extreme status for ozone (8-hour) and a nonattainment status for particulate matter (2.5 microns and smaller – $PM_{2.5}$). The SJVAB has a state nonattainment status for ozone (1-hour and 8-hour) and for particulate matter ($PM_{10}$ and $PM_{2.5}$). The Proposed Project vicinity is dominated by agricultural operations and the PG&E Gates Substation. The nearest sensitive residential receptor is approximately 1.8 miles from the Proposed Project site. Fresno County is designated as endemic for San Joaquin Valley fever by the state of California and by the federal Center for Disease Control (CDC).

Potential cumulative impacts relating to air quality could occur for localized impacts (such as odor, dust, and some health impacts) if cumulative projects are located within the vicinity of the Proposed Project. As described above, there are a number of anticipated projects that would occur within the vicinity of the Proposed Project, including a solar generation project as well as projects associated with the PG&E Gates Substation. With respect to dust, all applicable construction and demolition projects within the SJVAB must comply with San Joaquin Valley Air Pollution Control District (SJVAPCD) Regulation VII, and Rule 8021 (refer to **APM AQ-2**). Rule 8021 requires the preparation of a Dust Control Plan, which reduces the adverse effects of dust from construction and similar activities. While projects occurring adjacent to the Proposed Project site, such as projects at the PG&E Gates Substation, could combine with the Proposed Project to create cumulatively greater dust, each project would independently comply with Rule 8021, and total generation and transmission of dust would be mitigated for all work, regardless of any potential overlap. That is to say, Rule 8021 is assumed to effectively mitigate potential impacts from dust regardless of potential overlap of project-related construction and earth-moving activities. When applied to a construction site (i.e., project site in terms of this cumulative analysis), Rule 8021 would ensure that emissions of dust are limited in the extent they are allowed to leave the site. Regardless if two or more projects are adjacent, the emission of dust leaving any given site would the same, and not cumulative. Therefore, potential cumulative impacts from dust would be less than significant.

Like impacts associated with dust, impacts from Valley fever could be cumulative if multiple projects created an increased risk of exposure to airborne fungal spores. However, as described above, each construction project is required to control dust emissions from the site through preparation and implementation of a Dust Control Plan. Therefore, workers and personnel on each project site would not be anticipated to be exposed to dust from any adjacent work that may occur simultaneously. Cumulative impacts to workers on any given project would be less than significant. With respect to the public and especially sensitive receptors, the Proposed Project site is not located within an area where soil disturbance or dust would be expected to impact any

vulnerable populations because the Proposed Project site is surrounded by agricultural operations and the PG&E Gates Substation. The closest sensitive receptor to the Proposed Project site is approximately 1.8 miles distant, which is too far for the Proposed Project to affect. The Proposed Project would not be cumulatively considerable for impacts to sensitive receptors because of the Proposed Project's distance from any such receptors. Cumulative impacts relating to Valley fever would be less than significant.

The Proposed Project is not anticipated to result in cumulatively considerable health impacts associated with emissions of diesel particulate matter (DPM) because DPM concentrations in ambient air associated with the Proposed Project will be very low in relation to the distance to the nearest sensitive receptors. As explained in **Section 4.3**, *Air Quality* and **Appendix 4.3-A**, *Air Quality Assessment*, the Proposed Project is located approximately 1.8 miles from the nearest sensitive receptors and the potential health impacts from DPM emissions are well below established thresholds of significance. Given the relatively low amount of DPM emissions and the distance to the nearest receptor, the Proposed Project's addition to any potentially significant impact to sensitive receptors would not be cumulatively considerable.

Potential cumulative impacts from emission of Criteria Pollutants are also anticipated to be less than significant, as further explained in **Section 4.3**, *Air Quality*. Impact thresholds for Criteria Pollutants are developed with respect to the fact that impacts from these pollutants are inherently cumulative. This is true of the SJVAPCD thresholds used to assess the Proposed Project's impacts associated with emission of Criteria Pollutants. Therefore, projects with emissions below the established thresholds are understood to have less-than-significant project-level and cumulative impacts. Therefore, cumulative impacts from emission of Criteria Pollutants would be less than significant for the Proposed Project because the project's emissions are below the thresholds developed by SJVAPCD.

**Biological Resources:** A significant cumulative impact on biological resources could result if the Proposed Project would contribute to cumulative impacts related to sensitive habitat or species, sensitive habitat/natural communities, or wildlife movement corridors. At the project level, there were determined to be no impacts related to riparian habitat, wetlands, or local policies, ordinances, and plans; as such, cumulative impacts for these issues are not evaluated.

As discussed in **Section 4.4,** *Biological Resources*, due to the low quantity of observations of special-status animals at the Proposed Project during surveys, the limited number of special-status species, habitat, or other sensitive natural communities that could occur, the small footprint of the Proposed Project in relation to local and global ranges and populations of these species, the highly disturbed agricultural and industrial landscape, and the high level of human activity and disturbance already occurring in region, project-level impacts were found to be less than significant. **APMs BIO-1** through **APM BIO-8** were identified to further reduce impacts.

All present and future projects would be required to mitigate for impacts to biological resources, and it is anticipated that other projects would be subject to similar protection measures, as well as the applicable federal, state, and local laws and regulations that protect biological resources. Therefore, the Proposed Project's incremental contribution to cumulative biological resources impacts would not be cumulatively considerable and would be less than significant.

**Cultural Resources:** A significant cumulative impact on cultural resources could result if the Proposed Project would contribute to cumulative direct or indirect impacts on significant historical or archaeological resources, and/or inadvertently discovered human remains.

As shown in **Section 4.5,** *Cultural Resources*, there are no known historical or archaeological resources or graves within the Proposed Project area or cumulative geographic scope. While the possibility exists that subsurface resources or remains could be unearthed during construction, the Proposed Project included **APM CUL-1** through **APM CUL-5** to reduce impacts to less-than-significant levels.

While present and reasonably foreseeable future projects could also encounter subsurface resources or remains, the existing regulations and plans, as well as standard mitigation measures, would reduce potentially significant impacts to less-than-significant levels. In addition, impacts to cultural resources are site-specific, and as such are not expected to combine with the development of other projects to cumulatively increase the risk of impacting subsurface resources or remains. Potential impacts are evaluated on a case-by-case basis. The Proposed Project is designed to avoid known cultural resources and includes APMs to ensure impacts to any cultural resources within the Proposed Project area are less than significant.

Therefore, the Proposed Project's incremental contribution to cumulative cultural resources impacts would not be cumulatively considerable and would be less than significant.

**Energy:** As explained in **Section 4.6**, *Energy*, the Proposed Project would have no impact with respect to conflicts with state or local plans for renewable energy or with respect to adding capacity for the purpose of serving a non-renewable energy source (significance criteria b and c respectively). Therefore, the Proposed Project cannot contribute to a cumulatively significant impact for either of these criteria.

With respect to adverse environmental impacts resulting from wasteful, inefficient, or unnecessary consumption of energy resources, the Proposed Project was found to have a less-than-significant impact because the construction and operation would utilize a relatively small amount of energy and fossil fuels, while increasing the electrical system efficiency for future uses of renewable energy within the region. While other projects and activities within the Proposed Project vicinity and beyond would also utilize fossil fuels and electrical energy from the PG&E electrical grid, the Proposed Project's contribution to any potentially significant effect would not be considerable. The Proposed Project's usage of diesel fuel represents less than 0.15 percent of the total usage in Fresno County. The Proposed Project's proportional usage of gasoline fuel is even less. Even if, as a worst case, a cumulatively significant impact was to occur regarding fossil fuel usage in the Proposed Project vicinity, in Fresno County, or in California as a whole, the Proposed Project's contribution to such an impact would be insignificant. The Proposed Project's incremental contribution to energy impacts is, therefore, not cumulatively considerable, and the Proposed Project's impacts to cumulative energy resources is less than significant.

**Geology, Soils and Paleontological Resources:** A significant cumulative impact on geology and soils could result if the Proposed Project would contribute to cumulative impacts related to exacerbating the potential of a seismic activity, unstable soils, or lateral spreading. A significant cumulative impact on paleontological resources would result if the Proposed Project would contribute to cumulative impacts on significant resources, sites, or unique geologic features. At the project level, there were determined to be no impacts related to liquefaction, landslides, expansive soil, and soils incapable of supporting septic tanks; as such, cumulative impacts for these issues are not evaluated because the project has no impacts in this category of analysis.

As shown in **Section 4.7,** *Geology, Soils, and Paleontological Resources*, the Proposed Project is located within a seismically active area, though no known active faults are located on or near

the site. **APM GEO-1** and **APM GEO-2** would reduce impacts related to unstable soils to less-than-significant levels. In addition, encountering paleontological resources is unlikely; however, **APM PALEO-1** is included to reduce potential impacts to less-than-significant levels.

While present and reasonably foreseeable future projects within the geographic scope for cumulative impacts could also result in soil erosion or loss of topsoil, or other impacts related to geologic hazards or unstable soils, none of these projects would be capable of exacerbating the potential for a geologic hazard given their limited impact on the area's geologic setting and the requirement to grade and compact soils in accordance with local and state standards designed to prevent soil hazards from occurring. Moreover, specific regulations that address worker safety would be in place if a seismic event were to occur, helping to avoid any harm to people or extensive damage to structures. In addition, the existing regulations and plans, as well as standard mitigation measures, in place to protect paleontological resources would reduce potentially significant impacts to less-than-significant levels.

Therefore, the Proposed Project's incremental contribution to cumulative geology, soils, and paleontological resources impacts would not be cumulatively considerable and would be less than significant.

**Greenhouse Gas Emissions:** GHG emissions directly generated during construction, operation, and decommissioning would result in a less-than-significant, short-term impact to climate change (refer to **Section 4.8**, *Greenhouse Gases*). GHG impacts within the SJVAB are assessed based on a reduction from business as usual (BAU). The basis of this threshold is that if all projects show a reduction from BAU, overall GHG impacts within the SJVAB would be less than significant. As shown in **Table 4.8-5**, *Operational Emissions Summary MT/Year (Project)*, the Proposed Project would have less-than-significant impacts from emission of GHGs based on reduction from BAU. In addition, the Proposed Project would ultimately increase the efficiency of integrating existing and future renewable energy projects. As a result, the Proposed Project would not contribute considerably to the emissions associated with the construction or operation of other projects planned in the Proposed Project vicinity or within the basin as a whole. Thus, the Proposed Project's impacts from GHG emissions would not be cumulatively considerable.

**Hazards, Hazardous Materials, and Public Safety:** A significant cumulative impact on hazards, hazardous materials, and public safety could result if the Proposed Project were to contribute to impacts related to the release, transport, use, or disposal of hazardous materials, substances, or waste. At the project level, there were determined to be no impacts related to noise, wildland fires, and air traffic and transportation; as such, cumulative impacts for these issues are not evaluated.

As discussed in **Section 4.9,** *Hazards, Hazardous Materials, and Public Safety*, the Proposed Project would not result in any significant impacts to this issue area. **APM HAZ-1** through **APM HAZ-4** would be implemented to ensure potential impacts would remain less than significant. Other present and reasonably foreseeable future projects within the geographic scope, including the projects listed in **Table 5-1,** *Cumulative Projects* could involve hazards and hazardous materials similar to those identified for the Proposed Project; however, it is anticipated that these projects would be required to follow applicable regulations for characterization, handling, and disposing of any hazards or hazardous materials. Therefore, potentially cumulative impacts from routine use, handling, and disposal of hazardous materials would be less than significant. The likelihood of upset, emergency, or other abnormal conditions occurring on multiple projects simultaneously is very low.

Therefore, the Proposed Project's incremental contribution to cumulative hazards, hazardous materials, and public safety impacts would not be cumulatively considerable and would be less than significant.

**Hydrology and Water Quality:** A significant cumulative impact on hydrology and water quality could result if the Proposed Project were to contribute to impacts related to water quality, depletion of groundwater supplies or interference with recharge, or alterations to drainage patterns. At the project level, there were determined to be no impacts related to floods or conflicts with applicable plans; as such, cumulative impacts for these issues are not evaluated.

As shown in **Section 4.10,** *Hydrology and Water Quality*, the Proposed Project would not violate any water quality standards or waste discharge requirements, it is not anticipated that recycled or reclaimed water or groundwater would be used by the Proposed Project, and no substantial changes to the existing drainage pattern would occur. Implementation of **APM WQ-1** and **APM WQ-2** would further reduce project-level impacts to less-than-significant levels. The cumulative projects listed in **Table 5-1**, *Cumulative Projects* would involve at least one acre of soil disturbance and, therefore, a Stormwater Pollution Prevention Plan (SWPPP) would be prepared as required by the state National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Stormwater Associated with Construction Activity. These projects would also be subject to regulations that require compliance with water quality standards, including state and local water quality regulations. Compliance with existing laws, ordinances, regulations, and standards in place for the protection of water quality are designed to address potential effects at a regional level and, therefore, are designed and intended to mitigate potential adverse effects resulting from multiple discrete projects or locations (i.e., cumulative impacts).

Therefore, the Proposed Project's incremental contribution to cumulative hydrology and water quality impacts would not be cumulatively considerable and would be less than significant.

**Noise:** For the Proposed Project, both construction and operational noise and vibration levels were analyzed in **Section 4.13,** *Noise*. Construction of the Proposed Project would temporarily increase noise levels in the area; however, there are no sensitive receptors near the Proposed Project area, and no mitigation measures were proposed. The Proposed Project was found to not exceed the noise levels limit at any property boundary during operations and maintenance activities. In addition, construction and operations-related vibration was determined to not be noticeable to the nearest sensitive receptor.

A significant cumulative impact on noise and vibration would result if the Proposed Project were to contribute to impacts related to exceedances of noise standards or ground-borne vibration when evaluated within the context of past, present, and reasonably foreseeable future projects. At the project level, there were determined to be no impacts related to private air strips; as such, cumulative impacts for this issue are not evaluated.

Construction of the Proposed Project would partially overlap with construction of the cumulative projects listed in **Table 5-1**, *Cumulative Projects*, which could further increase noise levels in the surrounding area. However, the Fresno County Noise Control Ordinance (Section 40.80.060) exempts construction noise, provided that construction activities occur within the allowable days and times. Therefore, the cumulative construction noise levels would not exceed applicable noise standards. In addition, the potential for cumulatively considerable noise impacts is low given the size of the potentially cumulative projects and their geographic orientation to one another. For example, the Proposed Project site is located on a large parcel which, given the attenuative nature

of noise, results in low levels of noise where the boundary of other projects begin. This would be true of the other projects located within the geographic scope for noise impacts. This special arrangement dictates that two or more projects would not result in cumulative considerable effect on any given receptor or location. As such, the Proposed Project's incremental contribution to potential cumulative noise impacts would be less than significant.

**Public Services:** Cumulative impacts on public services—including fire and police protection—could result when past, present, and reasonably foreseeable future projects combine to increase demand on public services facilities such that additional facilities must be constructed to maintain acceptable levels of service, and the construction of such facilities would result in a physical impact on the environment. At the project level, there were determined to be no impacts related to schools, parks, and other facilities; as such, cumulative impacts for these issues are not evaluated.

As discussed in **Section 4.15,** *Public Services*, the Proposed Project would not permanently affect service ratios, response times, or other objectives for fire and police protection services in the area. Implementation of **APM PS-1** would ensure that emergency service providers would be notified of the timing, location, and duration of construction activities in the event that temporary lane closures are required during construction.

The cumulative projects listed in **Table 5-1**, *Cumulative Projects* would have a similarly low demand for public services, as none of the related projects are residential or commercial uses. During construction phases of the related projects, construction workers would be on-site and the increase in people present could incrementally increase the potential need for fire or medical resource services if an emergency were to occur. However, the likelihood of an emergency is low, and the likelihood of simultaneous emergencies at multiple construction sites would be even lower. Additionally, because the increased need would be temporary, no new or physically altered public service facilities would be required to meet demand. During operation, the Proposed Project would not require regular oversight, service, or management. The facility would operate in an unmanned nature. This minimizes the number of public services that would be required during operation.

Therefore, the Proposed Project's incremental contribution to cumulative public services impacts would not be cumulatively considerable and would be less than significant.

**Transportation:** The cumulative assessment of transportation impacts includes existing traffic volumes, project-generated construction traffic, and traffic from future projects on roads and highways in the project vicinity. At the project level, there were determined to be no impacts related to operational transportation impacts; as such, cumulative impacts related to Proposed Project operations and maintenance are not evaluated. As shown in **Section 4.17,** *Transportation,* construction traffic associated with the Proposed Project would represent less than two percent of the estimated roadway capacity of West Jayne Avenue and would have a less-than-significant impact on regional vehicle miles traveled (VMT). The implementation of **APM TRA-1** would further reduce impacts to less-than-significant levels. Cumulative traffic impacts could occur during construction from related projects having overlapping construction timeframes, particularly if the related projects generated traffic on the same roads at the same time as the Proposed Project. Most of the projects listed in **Table 5-1**, *Cumulative Projects* would partially overlap with construction of the Proposed Project and would utilize West Jayne Avenue. Cumulative traffic impacts would be less than significant given the temporary, short duration of the anticipated construction overlap with other projects, and the Proposed Project's contribution to construction

traffic would be minimal, and all projects would be required to implement similar traffic control measures required by the county of Fresno.

Any projects in Fresno County that add access (driveways, streets) are required to provide access for emergency vehicles (including adequate turning radius). Similarly, construction zones must provide emergency vehicle access to and, if applicable, through the construction zone at all times. Thus, there would be no adverse effects on emergency access at a particular site. Emergency access along the road network may be slightly affected by cumulative construction traffic if vehicles are not able to move off the road quickly to allow emergency vehicles to pass by. However, the Proposed Project's contribution to construction traffic is minimal, and all projects would be required to implement a traffic control plan that would address emergency vehicle access. In addition, construction traffic would be temporary and would not permanently affect transportation issues such that a conflict with a program, plan, or other regulations would occur.

Therefore, the Proposed Project's incremental contribution to cumulative transportation impacts would not be cumulatively considerable and would be less than significant.

**Tribal Cultural Resources (TCRs):** A cumulatively considerable impact on tribal cultural resources could result if the Proposed Project's incremental contribution to significant cumulative tribal cultural resource impacts would be considerable.

As discussed in **Section 4.18,** *Tribal Cultural Resources*, there are no recorded TCRs within the geographic scope; however, confidential tribal knowledge indicates that there is a high likelihood of unrecorded subsurface TCRs. Therefore, **APM CUL-1** through **APM CUL-5** would be implemented to reduce potential impacts to less-than-significant levels.

The cumulative projects identified in **Table 5-1**, *Cumulative Projects* are located within a similar area as the Proposed Project and have the potential to uncover TCRs during ground disturbing activities. However, all projects are required to comply with state regulations that protect TCRs. In addition, impacts to tribal cultural resources are site-specific, and as such are not expected to combine with the development of other projects to cumulatively increase the risk of impacting tribal cultural resources. Potential impacts are evaluated on a case-by-case basis. The Proposed Project includes APMs to ensure impacts to any tribal cultural resources within the Proposed Project area are less than significant. Therefore, the Proposed Project's incremental contribution to cumulative tribal cultural resource impacts would not be cumulatively considerable and would be less than significant.

**Utilities and Service Systems:** Cumulative impacts to utilities or service systems have the potential to occur within the utility service areas if multiple projects have a combined impact on local utility services or infrastructure. At the project level, there were determined to be no impacts related to water supplies, wastewater treatment, or solid waste; as such, cumulative impacts for these issues are not evaluated.

As discussed in **Section 4.19,** *Utilities and Service Systems*, the Proposed Project would require the temporary use of utilities such as water, wastewater facilities, and electric power during construction, and runoff would be managed by a stormwater detention basin. In addition, construction would generate solid waste that would be disposed of in a local landfill or another approved facility in accordance with applicable federal, state, and local laws. To further reduce impacts, **APM UTIL-1** would be implemented.

The cumulative projects listed in **Table 5-1**, *Cumulative Projects* would also require water and electric power during construction and would generate wastewater. The Fifth Standard Solar Project Complex EIR estimates that the total water volume used during construction could be approximately 300 acre-feet (Stantec, 2020), compared to approximately 2.2 acre-feet estimated for the Proposed Project. Water demand for the Fifth Standard Solar project complex is not expected to result in adverse water supply reliability impacts because the estimated demand is lower than the existing demand for agricultural production, and a sufficient water supply is available, as is the case for the Proposed Project, which will require roughly 150 times less water for construction. The use of electric power during construction of the Proposed Project and cumulative projects would not be a substantial increase in usage from existing levels and would be temporary. Operational electrical power requirements of the Proposed Project and cumulative projects would be minor and would be served via existing local PG&E distribution lines that have the capacity to serve all projects in the area.

Based on the anticipated landfill capacity described in **Section 4.16.2,** *Environmental Setting*, sufficient capacity would be available to handle disposal of waste generated by the Proposed Project during construction. The cumulative projects listed in **Table 5-1**, *Cumulative Projects*, and within the local landfill service areas would be required to comply with all applicable federal, state, and local laws regarding solid and hazardous waste including, but not limited to, the California Integrated Waste Management Act of 1989 which has set reduction rates for the amount of solid waste sent to landfills. Therefore, the total volume of waste that would be landfilled under the cumulative scenario is not expected to exceed the permitted capacity of available landfills.

Therefore, the Proposed Project's incremental contribution to cumulative utilities and service systems impacts would not be cumulatively considerable and would be less than significant.

## 5.2 GROWTH-INDUCING IMPACTS

### 5.2.1 GROWTH-INDUCING IMPACTS

Growth-inducing impacts per the California Public Utilities Commission (CPUC) CEQA Guidelines (CPUC, 2019) consider ways in which a project could induce growth. The analysis considers if the Proposed Project fosters any economic or population growth either directly or indirectly in the surrounding environment, would increase population that would tax existing community services, remove obstacles to population growth and/or encourage and facilitate other activities that would cause population growth and that could significantly affect the environment, either individually or cumulatively.

The peak construction employment is anticipated to be 20 workers, but on average, the workforce on site would be less. Most of the workers would likely commute from the greater Fresno area, and the short construction duration is not likely to induce any non-local workers to move to the area. Highly specialized construction workers for certain aspects of installing the Static Synchronous Compensator (STATCOM) and associated facilities may be non-local. However, such non-local specialty workers are likely to travel from job to job and stay in the area only for the construction phase in which they are involved.

The number of construction workers who would visit the area would be too small to have a substantial probability of causing new employees to be hired in service businesses or affect obstacles to population growth. During operation, the Proposed Project would not have any permanent employees. Therefore, the Proposed Project would not cause a population increase

and would not induce growth by direct or indirect employment and would not tax the existing community services or encourage activities that would cause population growth.

The Proposed Project would be implemented to increase the efficiency and reliability of transmission system following retirement of the Diablo Canyon Nuclear Generation Station. The Proposed Project is not being implemented in advance of, or in response to, planned growth or other increases in the system capacity. The Proposed Project involves the installation and operation of two STATCOM units that would serve to stabilize the regional transmission system and increase reliability within the Central Valley. The capacity (i.e., rating) of the existing transmission system would not increase or expand as a result of the Proposed Project. The Proposed Project would accommodate existing and independently planned transmission and generation projects but would not induce or require any expansion or upgrade of the transmission system. Although it is possible that the Proposed Project could remove an obstacle to growth (e.g., lack of reliable electric transmission) and contribute to secondary effects of growth, it would be speculative to estimate the extent to which the Proposed Project could result in growth inducement in the Central Valley. Even if the Proposed Project did induce growth indirectly or directly, any growth would be negligible. Finally, the Proposed Project would not provide any new or increased capacity to serve end users of electrical power. Therefore, the Proposed Project would not directly or indirectly foster growth or remove obstacles to economic or population growth in the area.

For all these reasons, the Proposed Project would not be growth-inducing.

# 6.0 LIST OF PREPARERS

## 6.1 LIST OF PREPARERS

| Team Member | Project Role/Sections Prepared |
|---|---|
| ***LS Power Grid California, LLC*** | |
| Mark Milburn | Vice President |
| Eric Hayes | Senior Project Engineer |
| David Wilson | Environmental Permitting Director |
| Nicolas Moser | Project Engineer |
| Andrew Bell | Counsel for LSPGC |
| Zachary Kearns | Counsel for LSPGC |
| ***Heritage Environmental Consultants, LLC*** | |
| Pat Golden | QA/QC<br>4.4 Biological Resources<br>4.10 Hydrology and Water Quality<br>Appendix 4.4-A Biological Resources Technical Report |
| Scott Albrecht | 4.4 Biological Resources<br>Appendix 4.4-A Biological Resources Technical Report |
| Jeudyel Perez | 4.10 Hydrology and Water Quality |
| Matt Schweich | 4.4 Biological Resources<br>Appendix 4.4-A Biological Resources Technical Report |
| ***KP Environmental Inc.*** | |
| Dustin Joseph | Project Manager<br>2.0 Introduction<br>3.0 Project Description |
| Kenda Pollio | QA/QC<br>4.1 Aesthetics<br>4.21 Mandatory Findings<br>5.0 Cumulative and CEQA Considerations |
| Josh Taylor | QA/QC<br>4.3 Air Quality<br>4.6 Energy<br>4.8 Greenhouse Gas Emissions<br>4.13 Noise<br>4.20 Wildfire<br>5.0 Cumulative and CEQA Considerations<br>Appendix 4.6-A Fuels Use Calculations |
| Aydee Zielke | 4.12 Mineral Resources<br>4.15 Public Services<br>4.19 Utilities and Service Systems |
| Derrick Berg | 4.2 Agriculture and Forestry Resources<br>4.11 Land Use and Planning |

| | |
|---|---|
| | 4.14 Population and Housing<br>4.16 Recreation |
| Elyssa Figari | 4.17 Transportation<br>5.0 Cumulative and CEQA Considerations |
| Hayley Mayne | 4.1 Aesthetics |
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| Margo Eason | Technical Editor |
| Mark Button | 4.1 Aesthetics<br>7.0 References |
| Megan Good | 1.0 Executive Summary |
| Nick Mathis | 4.7 Geology, Soils, and Paleontological Resources<br>4.9 Hazards, Hazardous Materials, and Public Safety<br>Appendix 4.9-A Phase I Environmental Site Assessment |
| Samantha Stotts | Technical Editor |
| Susan Westhouse | GIS<br>Appendix 1-A Figures |
| ***PanGIS*** | |
| Doug Mengers | 4.5 Cultural Resources<br>4.18 Tribal Cultural Resources<br>Appendix 4.5-A Cultural Resources Technical Report<br>Appendix 4.18-A Sacred Lands File Search Results<br>Appendix 4.18-B NAHC Contacts List<br>Appendix 4.18-C Tribal Communication |
| ***San Diego Natural History Museum*** | |
| Thomas Demere | 4.7 Geology, Soils, and Paleontological Resources<br>Appendix 4-7-B Paleontological Resources Technical Report |
| Katie McComas | 4.7 Geology, Soils, and Paleontological Resources<br>Appendix 4-7-B Paleontological Resources Technical Report |
| ***Ldn Consulting Inc.*** | |
| Jeremy Louden | 4.3 Air Quality<br>4.13 Noise<br>Appendix 4.3-A Air Quality Assessment<br>Appendix 4.8-A Greenhouse Gas Screening Letter |
| ***Terracon Consultants, Inc.*** | |
| Nicholas Novotny | Appendix 4.7-A Preliminary Geotechnical Engineering Report |
| Patrick Dell | Appendix 4.7-A Preliminary Geotechnical Engineering Report |

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## 7.1 REFERENCE LIST

The following section is organized to include all references cited in the PEA by section. In addition, Section 4 references are organized by subheading for each resource area section.

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## 7.2 ELECTRONIC REFERENCES

All electronic references that are not available will be provided under a separate cover. Internet addresses and URLs that can be accessed have been provided in **Section 7.1**.