
Mitigation Monitoring, Compliance, and Reporting Program

Sanger Substation Expansion Project

**Final
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**Prepared by Ecology and Environment, Inc. for:
State of California
Public Utilities Commission**

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Acronyms and Abbreviations

APM	applicant proposed measures
CEQA	California Environmental Quality Act
CM	Compliance Monitor
CPUC	California Public Utilities Commission
E & E	Ecology and Environment, Inc.
ECL	Environmental Compliance Lead
ECS	Environmental Compliance Supervisor
EI	Environmental Inspector
kV	kilovolt
LST	lattice steel tower
MM	Mitigation Measure
MMRP	Mitigation Monitoring and Reporting Plan
MMCRP	Mitigation Monitoring, Compliance, and Reporting Program
MND	Mitigated Negative Declaration
MPR	Minor Project Refinement
NTP	Notice to Proceed
PFM	Petition for Modification
PG&E	Pacific Gas and Electric
PM	Project Manager
PRC	Public Resources Code
project	Sanger Substation Expansion Project
TEWS	Temporary Extra Work Space
TSP	tubular steel pole

1 Introduction

The California Public Utilities Commission (CPUC) approved a Permit to Construct for the Sanger Substation Expansion Project (the project) on July 19, 2017. As part of this action, the CPUC certified the Final Mitigated Negative Declaration (MND) for the project and adopted the Mitigation Monitoring and Reporting Plan (MMRP) presented in Chapter 6 of the Final MND, which includes procedures for preparing and implementing the Mitigation Monitoring, Compliance, and Reporting Program (MMCRP). This document, referred to as the MMCRP, serves as a working guide to maintaining environmental compliance for the project and includes specific protocols, guidelines, and standard procedures for environmental compliance to be followed prior to and during project construction and operation and maintenance.

1.1 Project Overview

The project would be located southeast of the City of Fresno, in unincorporated Fresno County, at the northwest corner of the intersection of East Jensen Avenue and South McCall Avenue (see Attachment A). The project would include:

- **Substation Expansion:** Pacific Gas and Electric (PG&E) would install equipment, including circuit breakers, switches/disconnects, steel support structures for disconnect switches, bus supports and Capacitor Coupling Voltage Transformer equipment, two Modular Protection Automation Control buildings, and a microwave tower for communications. PG&E would also elevate the existing transfer bus and make alterations to interconnect reconfigured power lines.
- **Substation Equipment Removal:** PG&E would remove obsolete circuit breakers, switches, steel support structures, and the concrete control building at the existing substation.
- **Power Line Reconfiguration:** PG&E would rearrange existing power lines leading to the substation by removing existing lattice steel towers (LSTs) and wood poles and installing 27 tubular steel poles (TSPs) and two wood poles in a different alignment. Existing power lines would be relocated to change their angle.
- **Existing Substation Changes:** On transformer bank 1, PG&E would remove wood poles that support a temporary line from the dead-end structure and would replace them with a new TSP to terminate the new 115-kilovolt (kV) line for bank 1. On transformer bank 3, PG&E would relocate the existing dead-end structure to terminate at the new 115 kV line for bank 3 using new TSPs.
- **Telecommunications Receiver:** PG&E would install two antenna dishes on an existing microwave tower at the Fence Meadow Repeater Station.

PG&E is proposing the project to accommodate a new breaker-and-a-half bus configuration. The project is integral to the Central Valley 115 kV transmission system because it serves as a strategic hub for routing Fresno's hydroelectric and natural gas-generated electricity to the Manchester, Barton, Airways, California, Malaga, McCall, and Reedley substations. Sanger Substation's twelve 115 kV power lines have the capacity to carry approximately 200 megawatts of generation annually, providing a critical energy path between Fresno metropolitan north and south areas. The new breaker-and-a-half bus configuration would provide maximum reliability for power lines coming into and out of the substation.

1.2 Monitoring Program

1.2.1 Authority

Pursuant to Public Resources Code section 21002.1(b), one of CPUC's functions as Lead Agency is to mitigate and/or avoid the significant effects on the environment of projects it approves. This includes ensuring the mitigation measures it adopts are effective, enforceable, and are being implemented. Under California Environmental Quality Act (CEQA) Guidelines Section 15097, the CPUC as Lead Agency is responsible for ensuring that implementation of the mitigation measures and PG&E's applicant proposed measures (APMs) occurs in accordance with the MMRP that the CPUC adopted in its Final Decision on July 13, 2017, which was included as Chapter 6 of the Final MND. The MMRP includes procedures for preparing and implementing the MMCRP, to serve as a working guide to maintaining environmental compliance for the project, and includes specific protocols, guidelines, and standard procedures for environmental compliance to be followed prior to and during project construction and operation and maintenance. To fulfill its obligations, the CPUC is responsible for interpreting the mitigation measures and APMs to determine whether they are being implemented effectively.

The CPUC may conduct a comprehensive review to determine whether there are conditions that are not effectively mitigating impacts at any time it deems appropriate, including as a result of the Dispute Resolution procedure outlined in Section 4.1.6, Dispute Resolution. If the CPUC determines that, based on the review, any conditions are not adequately mitigating significant environmental impacts caused by the project, the CPUC may specify appropriate means and methods to ensure the mitigation is being effectively implemented. These reviews will be conducted in a manner consistent with the CPUC's rules and practices.

The CPUC has additional authority under the Public Utilities Code. Consistent with the CPUC's rules and practices, including Public Utilities Code section 768, the CPUC may require the performance of any other act which the health or safety of its employees, passengers, customers, or the public may demand. Pursuant to Public Utilities Code sections 314 and 582, the CPUC may require documentation or copies of permits issued by other agencies.

1.2.2 Purpose

This MMCRP includes provisions for monitoring and reporting. Monitoring refers to the ongoing or periodic process by which project construction and operation are overseen by the Lead Agency; in the case of the project, monitoring will ensure that PG&E's compliance with project conditions is checked on a regular basis. Reporting, which comprises written reviews of PG&E's compliance with APMs and mitigation measures presented to the decision-making body or a designated staff person, ensures that the Lead Agency is informed of PG&E's compliance with APMs and mitigation measures. The CEQA Guidelines encourage lead and responsible agencies to cooperate in mitigation monitoring and reporting, where possible.

The MMCRP was prepared consistent with the framework in Chapter 6 of the Final MND, Public Resources Code (PRC) section 21081.6, and CEQA Guidelines Section 15097. The MMCRP will be implemented until the final monitoring and reporting procedures identified in the following sections have been completed to the CPUC's satisfaction.

The purpose of the MMCRP is to:

- Summarize the APMs and mitigation measures and their monitoring and reporting requirements, as identified in the Final MND;
- Organize the requirements by category and implementation phase;
- Provide methods to help ensure effective implementation of the APMs and mitigation measures required by the CPUC;
- Describe procedures for PG&E, CPUC, and the construction contractors to follow;
- Establish lines of communication related to mitigation monitoring;
- Provide a method of effectively documenting and reporting compliance with all APMs and mitigation measures; and
- Ensure impacts to the environment addressed in the Final MND are adequately mitigated as required by CEQA.

The MMCRP was developed to provide guidelines and standardize procedures for environmental compliance on the project. These procedures have been developed by the CPUC, in coordination with PG&E and other responsible agencies, to help define reporting relationships, provide detailed information about the roles and responsibilities of the project's environmental compliance team members, define compliance reporting procedures, and establish communication protocol. Throughout the course of project construction, the protocols, guidelines, procedures, communication lists, and schedules presented in the MMCRP may be revised as needed to address specific day-to-day realities of project construction.

1.2.3 MMCRP Implementation

Implementation of the MMCRP will begin during the pre-construction phase and will continue through post-construction restoration monitoring. Implementation of the MMCRP will cease when the CPUC concludes there is no further need for CPUC monitoring of the project. PG&E must perform post-construction monitoring for the project to comply with the APM and mitigation measure requirements, which for this project focus on avoidance and mitigation of impacts on agricultural lands (see Table 6.1-1 and Attachment C, Table C-1). It is expected that post-construction monitoring and implementation of the MMCRP will continue for an appropriate amount of time (estimated six months) to verify that requirements have been met.

1.3 Construction Schedule

The preliminary project construction schedule is provided in Table 1.3-1. Construction is anticipated to begin as early as fall of 2018. Construction would last over a period of up to approximately 35 months. The upgraded Sanger Substation would be in service in April of 2021, and the project would be completed by August 2021 under the anticipated schedule (see Table 1.3-1).

Table 1.3-1 Conceptual Construction Schedule

Construction Activity	Work Duration ¹ (months)	Maximum Period Over Which Work Will Occur (months)	Estimated Schedule
Phase 1: Substation Site Grading, Access, and Security Fencing	5–6	6	October 2018 – March 2019
Phase 2: Substation Foundation and Footing	3–4	3–4	February 2019 – April 2019
Phase 3: Substation Equipment and Footing	12–15	24	May 2019 – April 2021
Phase 4: Power Line Reconfiguration	6 ²	24	
Phase 5: Existing Substation Equipment Removal and Post-Construction Cleanup	4–5	4–5	May 2021 – August 2021
Total	30 months	35	October 2018 – August 2021

Notes:

¹ Work duration does not include potential periods of inactivity during construction phases.

² Phase 4 would occur at the same time as Phase 3, and would take approximately 6 months.

2 Program Scope

2.1 CEQA Mitigation

The project is subject to the APMs and mitigation measures of the Final MND, which are collectively referred to as “CEQA mitigation.” These are described in full in Attachment C, Table C-1, of this MDCRP. To the extent CEQA mitigation expressly relies on, includes, or references permits or approvals from other federal, state, and local agencies, all terms and conditions of such permits or approvals are considered incorporated into the scope of the CEQA mitigation, which includes:

- Full title and text of the APMs and mitigation measures.
- PG&E’s and CPUC’s implementation requirements.
- Implementation timing and location for each APM and mitigation measure.
- CPUC’s verification and enforcement of responsibilities and effectiveness criteria for determining the success of APM and mitigation measure implementation.

2.2 Other Permits and Authorizations

In addition to the CPUC, other federal, state, and local agencies have jurisdiction over resources in the project area. Potentially applicable permits for the project were addressed in the Final MND’s Project Description and are listed in Table 2.2-1. PG&E must obtain permits and/or agency authorizations from various federal, state, and local agencies. Table 2.2-2 lists contact information for permitting agencies associated with the project.

Table 2.2-1 Potential Consultation and Permitting Requirements

Agency/Group	Permit/Authorization	Reason for Requirement
Federal		
United States Forest Service	Informal Notification	PG&E would install an antenna system at the Fence Meadow Repeater Station.
State		
California Public Utilities Commission	California Environmental Quality Act review and overall approval of the project	Overall project approval and CEQA review.
State Water Resources Control Board	NPDES Construction General Permit and Implementation of a project-specific SWPPP	PG&E would disturb more than 1 acre of land during project construction.
Regional and Local		
Regional Water Quality Control Board	NPDES permit and SWPPP coordination, regional Waste Discharge Requirements	PG&E would disturb more than 1 acre of land during project construction.
San Joaquin Valley Air Pollution Control District	Fugitive Dust Plan (Regulation VIII compliance)	PG&E would disturb more than 5 acres during project construction.
Fresno County	Roadway Encroachment Permit	PG&E would conduct work within Fresno County roadways (East Jensen Avenue and South McCall Avenue) and construct two new driveways off South McCall Avenue for substation access.

Key:
 CEQA = California Environmental Quality Act
 NPDES = National Pollution Discharge Elimination System
 PG&E = Pacific Gas and Electric
 SWPPP = Stormwater Pollution and Prevention Plan

Table 2.2-2 Contact Information for Jurisdictional Agencies Associated with the Project

Agency	Address	Contact Person	Phone	Email Address
Lead Agency				
California Public Utilities Commission	505 Van Ness Avenue San Francisco, CA 94102	Billie Blanchard, Project Manager	(415) 703-2068	Billie.Blanchard@cpuc.ca.gov
Federal Agencies				
United States Forest Service	29688 Auberry Road PO Box 559 Prather, CA 93651	Annette Lambert	(559) 855-5355 ext. 3338	alambert@fs.fed.us
United States Fish and Wildlife Service	2800 Cottage Way, Sacramento, CA 95825	Jennifer Norris	(916) 414-6700	jennifer_norris@usfws.gov
State Agencies				
California Department of Fish and Wildlife, Central Region 4	1234 E. Shaw Avenue, Fresno CA 93710	Laura Peterson-Diaz	(559) 243-4014 ext. 225	Laura.Peterson-Diaz@wildlife.ca.gov
State Water Resources Control Board	1001 I Street, 15 th Floor, Sacramento, CA 95814	File online via Storm Water Multiple Application and Report Tracking System	(866) 563-3107	stormwater@waterboards.ca.gov

Table 2.2-2 Contact Information for Jurisdictional Agencies Associated with the Project

Agency	Address	Contact Person	Phone	Email Address
Regional and Local				
Central Valley Regional Water Quality Control Board	1685 E Street Fresno, CA 93706-2007	Matt Scroggins	(559) 445-6042	Matt.Scroggins@waterboards.ca.gov
County of Fresno Road Maintenance and Operations Division	2220 Tulare Street 6 th Floor Fresno CA 93721	Darren Findley	(559) 600-4240	EncroachmentPermits@co.fresno.ca.us
San Joaquin Valley Air Pollution Control District (SJVAPCD), Central Regional Office	1990 East Gettysburg Avenue Fresno, CA 93726	TBD (to be assigned by SJVAPCD)	(559) 230-6000	TBD: Use sjvapcd@valleyair.org , until staff assigned by SJVAPCD

3 Roles and Responsibilities

This section describes specific PG&E and CPUC roles and responsibilities for the project. PG&E is responsible for ensuring that the environmental impacts addressed in the Final MND are adequately mitigated. PG&E, as the project applicant, has the primary responsibility to ensure compliance with the MMCRP and any other relevant local, state, or federal regulations or authorizations. PG&E must obtain and comply with all other required permits and approvals. The CPUC is responsible for monitoring PG&E's compliance by verifying that PG&E and its contractors have adequately implemented all APMs and mitigation measures. A project contact list is included as Attachment B. The contact information shall be updated as needed throughout implementation of the MMCRP to reflect personnel changes.

3.1 PG&E Roles and Responsibilities

PG&E personnel and contractors are responsible for implementing all applicable APMs, mitigation measures, permit conditions, and the MMCRP. PG&E must comply with project requirements, plan construction activities in a way that meets project requirements, document compliance activities and mitigation results, and implement the MMCRP.

3.1.1 PG&E Project Manager

PG&E's Project Manager (PM) will provide the overall direction, management, leadership, and corporate coordination for the project. The PG&E PM will be responsible for the project construction schedule and for ensuring that the project is completed as required by project contract documents and conditions, including adopted APMs, mitigation measures, and agency permitting requirements. The PG&E PM will lead environmental compliance throughout the duration of construction for the project.

The PG&E PM's responsibilities will include:

- Leading coordination among engineering, construction management, and environmental staff for PG&E;
- Ensuring any applicable coordination between PG&E staff and regulatory agencies occurs, so that all agency requirements are met;
- Ensuring the integration of environmental responsibilities into all levels of project construction activities;
- Ensuring compliance with project APMs and mitigation measures, as well as any other project environmental policies, guidelines, and procedures;
- Ensuring that data, including work schedule, location, and critical issue information, are provided to members of the project construction team as needed; and
- Communicating project activities, schedules, and environmental and public relations issues to the project team as needed.

The PG&E PM gives direction to the PG&E Environmental Compliance Lead (ECL), whose role is described below.

The PG&E PM typically communicates with the resource agencies, the PG&E ECL, CPUC, the construction management team.

3.1.2 PG&E Environmental Compliance Lead

PG&E's ECL will be responsible for overseeing the overall environmental compliance effort for the project, including providing the appropriate level of resources for successful compliance. The PG&E ECL will communicate directly with the Environmental Compliance Supervisor (ECS), staff at the resource agencies, and the CPUC. The PG&E ECL's responsibilities will include:

- Directing development and implementation of pre-construction environmental planning, permitting, and compliance activities; the environmental inspection and pre-construction survey program; and the Worker Environmental Awareness Training Program;
- Ensuring compliance with requirements for project permits, APMs, and mitigation measures;
- Ensuring that PG&E construction crews maintain compliance with all project permits, APMs, and mitigation measures;
- Primary compliance point of contact for PG&E; and
- Overseeing all communication with PG&E contractors and team members.

The PG&E ECL reports to the PG&E PM and, along with the ECS, directs the work of PG&E specialty monitors and the PG&E Environmental Inspector (EI).

The PG&E ECL typically communicates with the resource agencies, all members of the PG&E's environmental compliance team, and the CPUC. The PG&E ECL also oversees all communication with PG&E contractors and team members.

3.1.3 Environmental Compliance Supervisor

The PG&E ECS supports the PG&E ECL with overall management of the environmental compliance effort, and assists the ECL with directly coordinating the activities of the PG&EEI, specialty monitors, and other field personnel. The ECS will be CPUC's alternate point of contact for compliance-related issues when the ECL is unavailable. The ECS shall communicate with project management and construction personnel to ensure environmental compliance occurs as indicated in the MMCRP. The PG&E ECS's responsibilities consist of those that are delegated by the PG&E PM and ECL, and will include:

- Communicating as needed with the PG&E PM, ECL, Construction Lead, and other project staff regarding significant environmental issues and noncompliance events;
- Assigning inspection staff for the various construction segments, and providing direction on mitigation and permit requirements;
- Communicating environmental responsibilities and requirements, safe work practices, and teamwork to the EI and specialty monitor teams;
- Ensuring that EIs and specialty monitors have proper tools, documents, equipment, and training to be effective;
- Reviewing Environmental Inspection Reports, Specialty Monitoring Reports, Compliance Level Incident Reports (also known as Non-compliance Reports), and Noncompliance Resolution Reports for quality and consistency, and maintaining all project files with thorough documentation of construction compliance and variance requests;
- Ensuring that public notification requirements are fulfilled during construction;
- Participating in regular project meetings with construction management, agency representatives, and contractor management personnel to ensure the integration of environmental issues into the construction process; and
- Conducting regular environmental compliance quality assurance field reviews.

The PG&E ECS reports to the PG&E ECL and directs the work of the PG&E EI(s) and PG&E specialty monitors.

The PG&E ECL typically communicates with the resource agencies, all members of the PG&E's environmental compliance team, and the CPUC. The PG&E ECL also oversees all communication with PG&E contractors and team members.

3.1.4 PG&E Environmental Inspector

PG&E's EI will be regularly present (at least weekly) at the project site to oversee and verify the compliance effort. The PG&E EI will work closely with construction personnel and shall be the primary field employee responsible for verifying and documenting environmental compliance on behalf of PG&E.

The PG&E EI's responsibilities will include:

- Understanding environmental project requirements and construction needs;
- Taking direction from the PG&E PM, ECL, and ECS;
- Communicating construction needs and possible conflicts with environmental requirements to the PG&E PM, ECL, and ECS;
- Supporting construction staff to promote work being conducted in compliance with environmental requirements;
- Overseeing specialty monitoring activities, or performing such duties when appropriate and approved to do so;
- Implementing communication procedures described in the MMCRP;
- Providing direction to help avoid and/or minimize impacts to resources as specified by all project requirements; and
- Determining the effectiveness of mitigation and reporting whether adjustments need to be made to the PG&E PM, ECL, and ECS.

The PG&E EI reports to the PG&E ECS and may help coordinate the work of PG&E specialty monitors.

The PG&E EI typically communicates with any on-site representatives of resource agencies, all members of the PG&E's environmental compliance team, PG&E Construction Supervisor, the contractor, and the CPUC Compliance Monitor (CM).

3.1.5 PG&E Specialty Monitors

PG&E's specialty monitors will be the primary field staff responsible for evaluating, documenting, and verifying compliance of construction activities with all applicable APMs and mitigation requirements. Specialty monitors include general biological monitors, avian biological monitors, cultural resource monitors, and paleontological monitors. PG&E will designate one lead specialty monitor to oversee the field monitoring effort on a day-to-day basis and they will report directly to the PG&E ECL. The lead specialty monitor will coordinate the activities of the field monitoring team, including biological, avian, paleontological, and archaeological monitors, to comply with the APMs and mitigation measures. The lead specialty monitor (and the PG&E ECL and EI) will work closely with construction personnel to ensure that pre-construction surveys are completed and APMs and mitigation measures are effectively implemented. Specialty monitors will be assigned by PG&E as needed and as required to protect sensitive biological, paleontological, and archaeological resources.

In addition to ensuring compliance during construction, PG&E is required to provide weekly compliance reports to the CPUC PM and Monitoring Team. These will be in the form of Weekly Compliance Checklist and Summary Form (see Attachment D and Section 4.4, Monitoring and Compliance Reporting during Construction) that provide a summary of the past week's construction activities and any applicable environmental issues. The form's summary section will include construction schedules for the upcoming week. The CPUC CM will provide drafts of the status updates to the ECL, who will review and approve them before they are submitted to the CPUC Monitoring Team.

3.1.6 PG&E Construction Lead/Foreman

PG&E will identify a construction lead, who may also be the onsite construction foreman, prior to the start of construction. The construction lead will provide daily construction work schedules to on-site construction personnel and monitors and will describe the nature and extent of scheduled construction activities to ensure that adequate monitoring resources are provided. The construction lead will also ensure that construction schedules are provided to PG&E's ECS so they in turn can provide those on a timely basis to the CPUC Monitoring Team (i.e., weekly on Friday afternoons). The construction lead will also report any spills (e.g., fuel or water) or deviations from compliance to the PG&E ECS and ECL.

Key environmental responsibilities for the construction lead include, but are not limited to:

- In conjunction with the ECL and ECS, verifying that all construction workers attend the project environmental training program prior to beginning work;
- Reviewing and understanding the environmental requirements; and
- In conjunction with the ECL and ECS, implementing environmental protection requirements and conditions during construction and maintaining compliance with project requirements, including adopted APMs and mitigation measures.

The PG&E construction lead will coordinate with PG&E's ECL, ECS, and EI regarding the construction schedule, planned activities, and the status of APM and mitigation measure implementation.

The PG&E construction lead typically communicates with all members of PG&E's environmental compliance team.

3.2 CPUC Roles and Responsibilities

PG&E's ECL, ECS, and EI will have the primary responsibility for ensuring compliance with applicable APMs and mitigation measures. The CPUC team will verify and document project compliance. Compliance will be documented through reviewing weekly compliance reports submitted by PG&E, and APM and mitigation measure tracking tables submitted by PG&E to the CPUC PM on a weekly basis. In addition, CPUC's monitor(s) will conduct on-site compliance inspections (see Section 4.4.2, CPUC Monitoring and Compliance Reports). The CPUC's third-party contractor, E & E, will manage and conduct on-site CPUC monitoring and reporting duties.

3.2.1 CPUC Project Manager

The CPUC PM has overall responsibility for determining the effectiveness of compliance with environmental requirements based on the success criteria included for each APM and mitigation measure. The CPUC PM assigns monitoring and reporting responsibilities to a third-party contractor (in this case, E & E), and will oversee the work of the third-party contractor through review of CPUC compliance reports (see Section 3.2.3, CPUC Monitoring Supervisor, and Section 3.2.4, CPUC Compliance Monitor[s]). The CPUC PM will be notified of non-compliance situations and will be involved in the resolution of any applicable issue(s). All requests for Minor Project Refinements (MPRs) and Notices to Proceed (NTPs) will be submitted to the CPUC PM for review and approval. The CPUC PM will issue NTPs for construction of each phase of the project, as identified by PG&E

3.2.2 CPUC Monitoring Manager

The CPUC Monitoring Manager oversees the CPUC Monitoring Team and will report to the CPUC PM.

The responsibilities of the CPUC Monitoring Manager will include:

- Review CPUC monitoring reports and discuss non-compliance issues with the CPUC PM;
- Review reports and other documentation provided by PG&E for APM and mitigation measure compliance;
- Review NTPs, MPR requests (including Temporary Extra Work Space [TEWS]) requests and submit these to the CPUC PM for approval and sign off;
- Act as a project liaison on the CPUC's behalf to work with PG&E public affairs staff and address community issues and concerns when they arise;
- Work with the PG&E compliance personnel to resolve any issues and incidents; and
- Coordinate with other jurisdictional agencies, as needed.

3.2.3 CPUC Monitoring Supervisor

The CPUC Monitoring Supervisor will oversee monitoring activities of the CPUC CMs and will be the designated point of contact for in-field agency staff regarding compliance, minor deviations, and MPRs. The Monitoring Supervisor will work with the CPUC PM, CPUC Monitoring Manager, and CPUC CM to determine the appropriate level of inspection frequency, and will also oversee CMs. The Monitoring Supervisor coordinates with CPUC CM to prepare monitoring reports for the CPUC. The Monitoring Supervisor will also have the most direct communication with the CPUC regarding monitoring and will serve as the point of contact for noncompliance events. The Monitoring Supervisor will stay apprised of construction activities, schedule changes, and construction progress.

The responsibilities of the CPUC Monitoring Supervisor will include:

- Provide oversight of the CPUC Monitoring Team and conduct routine monitoring activities described in the MMCRP on behalf of the CPUC;
- Implement CPUC's responsibilities for MMCRP procedures and verify PG&E fulfills their responsibilities;
- Review all pre-construction mitigation plans and prepare draft review memoranda for the CPUC PM, and keep a record of MMCRP procedures;
- Coordinate field personnel for the CPUC Monitoring Team to inspect the project site(s);
- Determine the appropriate frequency of site visits for the CPUC CM (once every two weeks is anticipated);
- Conduct regular site visits at the beginning of construction, with frequency adjusted as appropriate;
- Verify and document PG&E's compliance with all project requirements prior to, during, and following construction, and create an independent record of project compliance;

- Document any incidents with compliance, report them to the CPUC PM, and track the project compliance record;
- Review all CPUC and PG&E daily and weekly monitoring reports;
- Prepare MMCRP weekly compliance reports and submit to the CPUC PM;
- Prepare NTPs for Monitoring Manager's review and CPUC's review and sign off;
- Review and process MPRs and TEWS requests;
- Review PG&E's compliance reports for consistency with field observations and identify and reconcile any inconsistencies;
- Coordinate all aspects of the project with the PG&E Compliance Personnel;
- Communicate directly with PG&E compliance management personnel regarding notification of CPUC site visits, schedule updates, MMCRP procedures, and any compliance incidents observed during site inspections; and
- Work with the CPUC Monitoring Team and PG&E Compliance Personnel to resolve any compliance incidents.

3.2.4 CPUC Compliance Monitor(s)

The CPUC CM(s) shall be identified for the project. CPUC CM(s) shall be the primary field personnel for the CPUC and responsible for verifying compliance with project requirements at the project site as directed by the CPUC Monitoring Team. The number of CMs and frequency of site inspections will depend on the number of concurrent construction activities and their locations. If more than one CM is on duty, CPUC will designate a lead CM. CPUC anticipates the need for one CPUC CM who will visit the project on a regular basis (see Section 4.4.2, CPUC Monitoring and Compliance Reports) to monitor and report on project compliance.

The responsibilities of the CPUC CM will include:

- Inspecting the project site, documenting construction and compliance activities, and reporting any potential compliance incidents; and
- Preparing and submitting site monitoring reports to the CPUC Monitoring Supervisor, and relaying any important information about the project delivered in the field.

3.3 Organizational Chart

Figure 3.3-1 illustrates lines of communication among CPUC and PG&E personnel. The CPUC and PG&E are responsible for informing others about changes in staff. The project contact list—which will be updated as the project progresses to reflect any changes—is included as Attachment B.

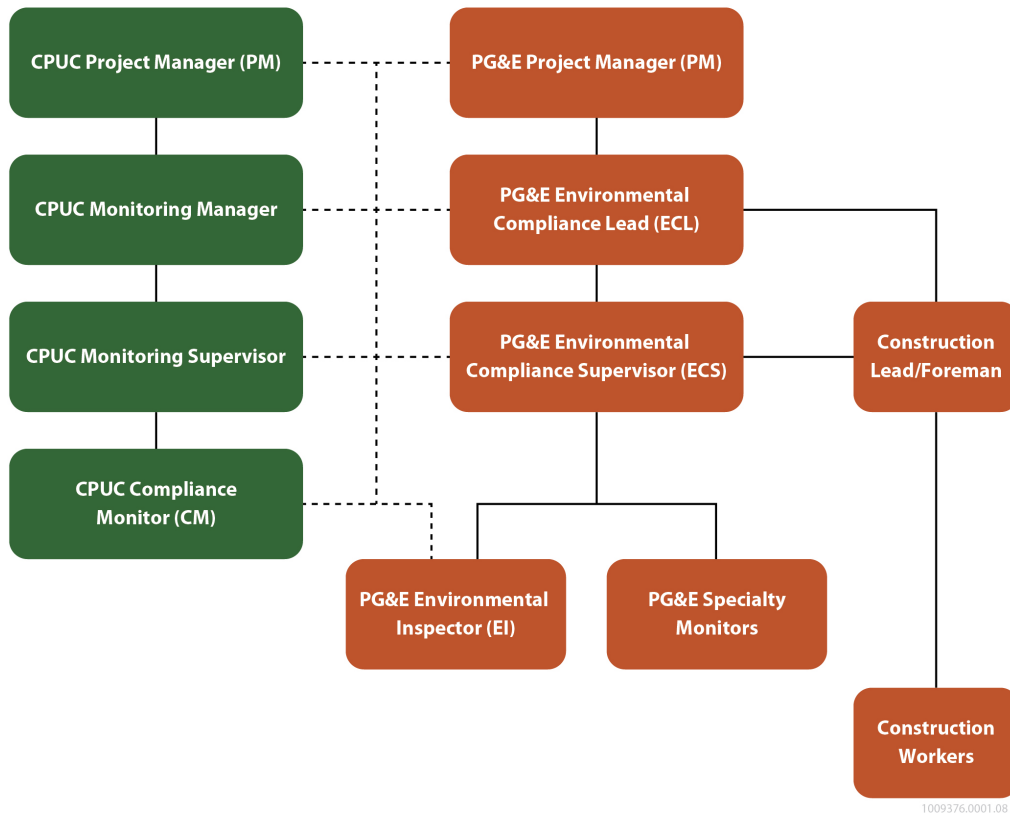


Figure 3.3-1 Organizational Chart

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3.4 Jurisdictional Agencies

Personnel from permitting agencies identified in Table 2.2-2 may periodically visit the project site to verify compliance with, or request information from, PG&E regarding compliance with, laws, regulations, and project permits identified in Table 2.2-1 and Attachment C, Table C-1. PG&E is responsible for responding to requests from permitting agencies and submitting the permits and authorizations to the CPUC according to project requirements such as APMs, mitigation measures, and Project Plans. PG&E shall provide CPUC with documentation (i.e., email correspondence, letters, and/or memoranda) relating to final agency approvals for the project if CPUC is not directly involved with the coordination effort and the agency approval is tied to APMs, mitigation measures, and Project Plans. PG&E shall promptly provide CPUC with any copies of permit amendments or modifications, or of proposed changes to any proposed conditions.

The CPUC may contact permitting agencies at any time regarding the project and to clarify agency requirements, permit conditions, or approvals related to the agency's jurisdiction. Prior to these agency communications, the CPUC will notify the PG&E ECL or the ECS of the CPUC's questions regarding the agency's requirements, permits, or approvals, and the intention to contact the agency, when appropriate. The CPUC may also ask that PG&E obtain input from the jurisdictional agency or that PG&E participate in discussions with the CPUC. The CPUC retains the authority to coordinate directly with other agencies regarding the project and all permit conditions or plan review comments.

4 Procedures

This section contains MMCRP procedures for the personnel identified in Section 3, Roles and Responsibilities. These procedures will be implemented prior to, during, and after construction to facilitate successful implementation and documentation of project requirements.

4.1 Communication Protocol

Communication is a critical component of any successful environmental compliance program, including the MMCRP. To help avoid potential compliance violations and project delays, the CPUC CM, PG&E Compliance Personnel, and construction representatives will interact regularly (i.e., daily during construction); maintain professional, responsive communications at all times; and coordinate closely to address and resolve issues or misunderstandings in a timely manner. Close coordination is necessary to answer questions regarding implementation of the MMCRP before issues occur, and to clarify expectations regarding compliance documentation. This section presents a communication protocol to accurately and efficiently disseminate information regarding ongoing resource surveys, APMs, mitigation measures, construction activities, construction contractor oversight, and planned or upcoming work prior to the commencement of construction. These communication protocols may be refined and revised in future versions of this MMCRP, as needed, to address the specific day-to-day realities of project construction.

4.1.1 Pre-Construction Coordination

PG&E is required by the terms of the mitigation measures and the permitting requirements of various other regulating agencies to prepare plans and obtain approval of these documents, in addition to performing various surveys and studies prior to construction. During this pre-construction process, PG&E will conduct meetings, conference calls, and site visits with technical representatives of the CPUC and other agencies, and PG&E's environmental representatives, as appropriate. The purpose of the pre-construction coordination process is to discuss document submittal status, document the findings of data reviews and jurisdictional agency approvals, review PG&E submittals, and document

the status of APMs and mitigation measures as they apply to the project or phased project segment (see Section 5, Documentation Submittal and Records Management). The goal of the pre-construction coordination process is to ensure that all required actions are completed so the CPUC can issue NTP authorizations.

4.1.2 Communication Protocol during Construction

This section outlines communication protocols and processes.

4.1.2.1 Daily Communication during Construction

Regular communication between CPUC CMs, PG&E, and construction contractors can resolve many issues that arise during construction in the field. All field staff will be equipped with cell phones or two-way radios (or immediate access to a cell phone or radio) and should be available to receive calls at all times during construction hours. Offsite staff will be available during normal business hours via email or phone. If CPUC CMs change or rotate on a regular basis, the use of a single point of contact cell phone number is highly recommended (i.e., a single cell phone should be assigned to whichever CPUC CM is on duty each day) to facilitate communication continuity. Changes to key CPUC, PG&E, or construction contractor staff will be reported to the PG&E ECL and Construction Supervisor, and to the CPUC PM and Monitoring Team as soon as possible, and the project contact list will be updated accordingly. The project contact list is included as Attachment B.

CPUC CMs

The CPUC CM's primary point of contact in the field is PG&E's EI. The CPUC CMs will contact PG&E's EI and ECS if an activity is observed that conflicts with one or more of the APMs, mitigation measures, or Project Plans (see Table 4.2-1 and Attachment C, Table C-1). The CPUC CM will also contact PG&E's ECS regarding daily, weekly, or upcoming construction crew work locations; implementation status of APMs, mitigation measures, and Project Plans; and the overall construction schedule. Much of this information can be obtained through participation in tailboard meetings prior to the start of construction each day. The CPUC CM may discuss construction procedures directly with the construction supervisor, but such discussions should be limited to basic questions pertaining to clarification of daily project activities and mitigation measure compliance. All other questions, guidance, or project-related discussions by the CPUC CMs, especially those concerning construction means and methods, should be directed to PG&E's ECS. The CPUC CM will not direct the contractor or PG&E's environmental monitors and will avoid directing questions or providing direct guidance to the construction crews.

PG&E Staff

PG&E will provide the CPUC PM and Monitoring Team with a contact list for PG&E staff and construction contractor supervisory staff so the CPUC PM and Monitoring Team knows who contact regarding compliance incidents. The contact list will include each person's title, responsibility, and contact information. The contact list will be updated as new project personnel are assigned to the project and redistributed as necessary. PG&E will prepare and distribute a Weekly Compliance Checklist and Summary Report to key project members, including CPUC (see Section 4.4.1, PG&E Monitoring and Weekly Compliance Reports). The CPUC Monitoring Supervisor and CM will review the weekly report to ensure the implementation status of APMs and mitigation measures is consistent with observations made in the field by the CPUC CM. Any question regarding the status of APMs or mitigation measures will be directed to PG&E. PG&E's Weekly Compliance Report will also be a tool to keep all parties informed of construction progress.

Note that a Site Compliance Report will be prepared by the CPUC CM(s) after each site inspection, which will be reviewed by the CPUC Monitoring Manager and CPUC Monitoring Supervisor before being submitted to the CPUC PM, as described in Section 4.4.2, CPUC Monitoring and Compliance Reports.

4.1.2.2 Weekly Progress Meetings and Communication during Construction

Conference calls may be held weekly or on an otherwise agreed upon schedule (e.g., monthly, or twice monthly), with additional calls on an as-needed basis, throughout construction. The dates, times, and frequency of conference calls, whether on a regular schedule or as needed, should be determined in the early stages of construction. Participants may include the CPUC PM, Monitoring Manager, Monitoring Supervisor, and CM; PG&E PM, ECL, ECS, Construction Lead, and EI; and other representatives from PG&E who are knowledgeable about project engineering and schedule, as needed. Specialty monitors, technical experts, and/or construction contractor management will be invited to attend, as needed. Call timing, duration, and participants may vary according to the topics discussed. Topics discussed during progress conference calls will include, but are not limited to, overall project schedule, weekly construction schedules, pertinent environmental compliance issues and the implementation status of APMs and mitigation measures, the status of any pending NTP or TEWS requests, any anticipated project changes, and any relevant compliance patterns and trends.

PG&E will provide weekly compliance reports (see Attachment D) to the CPUC, which will include construction schedules for the upcoming week. PG&E's ECS will submit the reports to the CPUC Monitoring Team.

4.1.2.3 Site Visit Coordination

Field personnel from both PG&E and CPUC shall coordinate site visits with a designated PG&E EI or other project staff member who is familiar with all authorized construction activities associated with the project, project requirements, and restricted areas. In case of sudden changes in field conditions, all field personnel must be informed of communication procedures and site-specific safety risks on an ongoing basis.

4.1.3 Questions and Clarifications

Questions and the need to clarify project requirements will periodically arise throughout the implementation process. Both PG&E and the CPUC shall submit important questions and clarifications in writing via email (e.g., full compliance with APMs and mitigation measures, procedures, and project changes). Resolutions and any CPUC determinations shall be documented in compliance and monitoring reports, and/or in email correspondence. Questions and clarifications that take an extended period of time to resolve shall be tracked by the CPUC Monitoring Team until a resolution has been reached.

4.1.4 Requests for Documentation

The CPUC Monitoring Team may periodically request written documentation and confirmations from the PG&E Compliance Personnel. These requests will be entered into the project record. Requests for documentation and confirmations shall be submitted via email. If the information will take an extended period of time to gather, both PG&E and the CPUC shall agree upon a timeframe to submit the response, and the request shall be tracked by the CPUC.

4.1.5 Delays and Changes to the Construction Schedule

PG&E shall keep the CPUC team informed of delays in the construction schedule as described in the MMCRP. In particular, PG&E shall inform the CPUC of any schedule changes that may affect implementation of the APMs and mitigation measures described in the MMCRP. A conceptual construction schedule is provided in Table 1.3-1.

4.1.6 Dispute Resolution

Disputes or complaints may develop between PG&E and the CPUC if there are conflicting interpretations of project requirements and procedures. It is expected that that MMCRP will reduce or eliminate the potential for disputes; however, disputes may occur even with the best preparation.

Any disputes or complaints shall first be addressed informally at the field level between the CPUC CM and the PG&E EI, or during project progress meetings. Questions may be directed to other members of the PG&E Compliance Personnel team, and the CPUC Monitoring Team as needed. The following procedure(s) will be observed for resolution of disputes of complaints, if they cannot be resolved in the field:

- **Step 1: Informal Notification.** An unresolved dispute, including those of the public, shall be directed first to the CPUC PM or Monitoring Manager for resolution. The CPUC PM, in coordination with the CPUC Monitoring Manager, shall attempt to resolve the dispute informally. If the informal process fails, the CPUC PM shall inform PG&E prior to initiating Step 2.
- **Step 2: Formal Letter.** Should the informal notification process (Step 1) fail, the CPUC PM may issue a formal letter requiring corrective actions.
- **Step 3: Notice of Dispute.** If a dispute cannot be resolved through Steps 1 or 2, any affected participant may file a written Notice of Dispute with the CPUC's Executive Director. This notice shall be filed in order to resolve the dispute in a timely manner, with copies concurrently served to other affected participants. The Executive Director or their designee(s) shall meet or confer within 10 days of receiving the letter with the filer and other affected participants to resolve the dispute. The Executive Director shall issue an Executive Resolution describing his/her decision, and serve it to the filer and other affected participants.
- **Step 4: Executive Resolution.** If one or more of the affected parties is not satisfied with the decision as described in the Executive Resolution, the affected parties may appeal it to the CPUC via a procedure to be specified by the CPUC.

Affected parties may also seek review by the CPUC through existing procedures specified in the CPUC Rules of Practice and Procedure for formal and expedited dispute resolution, although a good faith effort should first be made to use the foregoing procedure.

4.2 Pre-Construction Compliance Verification

PG&E is required by the terms of the APMs, mitigation measures, and permitting requirements of other agencies to prepare various plans, and to obtain CPUC and applicable agency approval of these plans. The CPUC will verify compliance with pre-construction APMs and mitigation measures prior to construction. A complete list of the APMs and mitigation measures that require enforcement and compliance tracking is provided in Attachment C, Table C-1. PG&E must perform various surveys and

studies before construction begins, as described in the Table C-1. In addition, Table 4.2-1 outlines the various plans, reports, and other documentation required for pre-construction compliance verification, and Table 6.1-1 describes the implementation phases applicable to each APM and mitigation measure included in Table C-1.

Prior to construction, PG&E must coordinate and meet with representatives of the CPUC Monitoring Team, and other applicable permitting agencies. The purpose of this coordination is to discuss APM and mitigation compliance status, review PG&E’s plan and survey report submittals, and begin documenting compliance activities.

The CPUC CM and technical experts will review plans and reports submitted by PG&E and will provide comments and request revisions, if necessary. Other agencies may also review plans and reports prior to or concurrent with the CPUC, if required by mitigation measures or permits, and provide comments. PG&E will provide the CPUC with the other agencies’ comments on these documents to ensure that the plans and reports adequately achieve the goals, performance standards, and any other requirements of the mitigation measures or APMs.

The purpose of the pre-construction compliance verification is to ensure that all required actions are completed so that the CPUC can issue NTP authorizations for the project. The CPUC will only issue an NTP for the project if it is satisfied that resource-specific plans and reports comply with the goals, performance standards, and any other requirements of the applicable mitigation measure(s) or APM(s). Based on PG&E’s construction plans, the CPUC may authorize construction on a phased or conditional basis, and CPUC’s PM and Monitoring Team will handle pre-construction compliance review accordingly. In the case that construction authorization is issued in phases or conditionally, CPUC will issue separate NTPs accordingly, as soon as pre-construction compliance is satisfactorily accomplished for that phase. Compliance with pre-construction APMs and mitigation measures will be verified prior to all construction activities.

Table 4.2-1 Sanger Substation Expansion Project: Plans, Reports, and Other Documentation Required for Pre-Construction Compliance Verification

Plan, Report, or Documentation Type	Required per APM or Mitigation Measure	Responsible Action Entity or Agency
Documentation of PG&E’s property damage settlement information specific to the project landowner	APM AGR-1	CPUC
Dust Control Plan	APM AIR-1	CPUC, SJVAPCD
Worker Training Programs: <ul style="list-style-type: none"> • Biological resources worker environmental awareness program; • Cultural resources worker education program; • Paleontological resources training; • Vehicle idling/greenhouse gas emissions training; • Electric shock hazard training, hazardous materials training; and • Fire control training. 	MM BIO-1, MM CUL-2, APM CUL-1 APM PAL-1 APM GHG-1, APM HAZ-3, APM HAZ-4, MM HAZ-1, MM HAZ-2	CPUC

Table 4.2-1 Sanger Substation Expansion Project: Plans, Reports, and Other Documentation Required for Pre-Construction Compliance Verification

Plan, Report, or Documentation Type	Required per APM or Mitigation Measure	Responsible Action Entity or Agency
Biologist, archeologist, and paleontologist qualifications	MM BIO-2, MM BIO-3 MM BIO-4, MM BIO-6, MM BIO-7, MM CUL-1, MM CUL-3, MM CUL-4	CPUC
Nesting Bird Survey Requirements	MM BIO-4	CPUC, CDFW, USFWS
Cultural Resources Evaluation Plan	MM CUL-1	CPUC
Cultural Resources Data Recovery Plan, Memorandum, and Report	MM CUL-1	CPUC
Paleontological Resources Monitoring and Mitigation Plan	MM CUL-4	CPUC
Sulfur Hexafluoride Emission Reduction Program Documentation	APM GHG-2	CPUC
Hazardous Materials Management Plan	MM HAZ-1	CPUC
Spill Prevention, Control, and Countermeasures Plan	APM HAZ-1	CPUC
Stormwater Pollution Prevention Plan	APM GEO-2, APM WQ-1	CPUC, SWRCB, RWQCB
Traffic Management Plan	MM TRAN-1	CPUC

Key:

APM = Applicant Proposed Measure
CDFW = California Department of Fish and Wildlife
CPUC = California Public Utilities Commission
MM = Mitigation Measure
PG&E = Pacific Gas and Electric

RWQCB = Regional Water Quality Control Board
SJVAPCD = San Joaquin Valley Air Pollution Control District
SWRCB = State Water Resources Control Board
USFWS = U.S. Fish and Wildlife Service

4.3 Notice to Proceed Process

Prior to beginning construction of the project components or phases, PG&E is required to obtain approval through the NTP process. The NTP process involves PG&E submitting an NTP request package to CPUC, a review by CPUC and other applicable agencies, followed by the CPUC PM issuing an NTP Authorization Letter. The CPUC will not authorize construction activities until PG&E completes all relevant pre-construction requirements, as appropriate, for the relevant stage of the project. Before granting approval of an NTP, the CPUC will confirm that the applicant has complied with all pre-construction APMs and mitigation measures, including any required surveys, and has obtained all appropriate approvals from other regulatory agencies. Construction may not start on any project component or stage before PG&E receives a written NTP from the CPUC PM. The CPUC PM may issue NTPs for construction of each component or phase of the project separately as pre-construction compliance is satisfactorily accomplished for that component or phase, dependent on PG&E’s construction plans and schedules.

Each NTP request will document that relevant pre-construction requirements have been met for that phase of the project, including any required surveys and permit requirements.

Each NTP Authorization Letter may include CPUC or other agency conditions or requirements that must be satisfied prior to the start of work or during construction. Construction is defined as any mobilization activity that would move construction-related equipment and/or materials onto a site.

An NTP request must include the following:

- The NTP request number, date submitted to CPUC, and requested approval date;
- A description of all work to be performed, including all ancillary activities required for the project component or components (e.g., electrical, plumbing, excavation, paving, landscaping, or site restoration) and identification of any staging areas that would be used during construction;
- The expected start date and duration of proposed construction activities;
- A detailed description of the location of the project component or components covered in the NTP, including maps, photographs, and other supporting documents;
- The estimated area of total new land disturbance associated with the project component or components;
- The anticipated number of construction workers, including total workers and peak number;
- The anticipated equipment required for construction;
- Verification that all relevant pre-construction APMs and mitigation measures for the work covered by the NTP request have been completed or implemented;
- Verification that all applicable jurisdictional permits or agency approvals have been obtained for the work covered by the NTP request (if required);
- For pre-construction compliance items that cannot be completed prior to issuance of the NTP, PG&E will identify and describe outstanding submittals, as well as how these will be completed and approved in a timely manner prior to construction;
- Up-to-date biological and cultural resource surveys;
- A summary list of any known actions that have not been proposed or authorized that must be included with future NTP requests;
- A summary list of any outstanding requirements and documentation not included with the NTP package and the anticipated dates they will be provided; and
- Any known MPRs or TEWS related to the proposed actions (discussed in Section 4.6.1, Minor Project Refinements, and in Attachment F and Attachment G).

In conjunction with the CPUC Compliance Team, the CPUC PM will review each NTP request in accordance with the steps outlined below:

1. PG&E submits an NTP request;
2. The CPUC PM or CM distributes the NTP request to the appropriate resource specialists and reviewers to determine the completeness of the request, as applicable;

3. The CPUC PM and/or CM also review the NTP request and, if needed, prepare a list of outstanding requirements, identifying where additional information or clarification is needed;
4. The CPUC PM or CM submits any questions and comments, including requests for required additional information or clarification, to PG&E via email;
5. As needed, PG&E submits clarifications and/or additional information to be added to the NTP request in a memo, email, or letter format, along with responses addressing all comments and questions forwarded by the CPUC PM and/or CM;
6. The CPUC PM and/or CM update the Project Implementation Tracker documenting compliance and any outstanding requirements that need to be included as conditions of the NTP. If comments or conditions are provided by permitting agencies, these are also considered for incorporation into the NTP Authorization Letter, and a list of conditions is provided therein;
7. The CPUC CM prepares the draft NTP Authorization Letter, which documents the approved scope of work, documents project compliance with all requirements, and lists additional conditions, and provides it to the CPUC PM for review and comment; and
8. The CPUC PM reviews and approves the NTP Authorization Letter and provides this to PG&E as approval to begin construction of that project phase.

4.4 Monitoring and Compliance Reporting during Construction

As the Lead Agency, the CPUC is required to monitor the project to ensure that the APMs and mitigation measures are implemented. The CPUC has primary responsibility for ensuring full compliance with the provisions of this monitoring program. The CPUC CMs, under the supervision of the CPUC Monitoring Manager and CPUC Monitoring Supervisor will monitor construction activities in the project areas on a regular basis, particularly when construction activities have the potential to affect a sensitive resource.

4.4.1 PG&E Monitoring and Weekly Compliance Reports

PG&E may elect to have one or more full-time or part-time EIs onsite to assist the construction contractor with interpreting APMs and mitigation measures, to coordinate with the CPUC CM, and to help correct compliance problems in a proactive and timely manner. The EI and PG&E's ECS will prepare a weekly compliance report (see Attachment D) for the project and submit this to the CPUC CM and PM in a timely manner (e.g., the Monday following a week's work) for review. PG&E may also elect to have one or more full-time or part-time environmental monitors onsite to supervise and coordinate specialty monitors (such as biologists and archeologists). The EIs and the environmental monitors will also provide environmental training through the Worker Environmental Awareness Training Program.

A number of APMs and mitigation measures require PG&E to supply specialty monitors for specific areas or situation. These monitors and the related APMs and mitigation measures are identified in Table 4.4-1.

Table 4.4-1 Specialty Monitors Required during Construction

Specialty Monitor	Related APM or Mitigation Measure
Biologist: general	MM BIO-2, MM BIO-3
Biologist: avian	MM BIO-3, MM BIO-4
Archaeologist/Cultural Resource Specialist	MM CUL-1, MM CUL-3
Paleontologist	MM CUL-4

Key:
 APM = Applicant-Proposed Measure
 MM = Mitigation Measure

Pre-construction (or “pre-activity”) surveys for biological, archaeological/cultural, and paleontological resources are required where appropriate according to the APMs and mitigation measures. PG&E’s approach to conducting the pre-construction surveys should be to fulfill the intended requirements of each applicable APM and mitigation measure listed in the Final MND (see Attachment C, Table C-1). The CPUC-approved qualified biologist must conduct a pre-construction survey for all activities occurring near where sensitive resources may be found within 7 days prior to work commencing. If there is no work in an area for 7 days, it shall be considered a new work area if construction begins again. In addition, for all areas that may provide nesting habitat for birds, additional “clearance sweeps” will be conducted no more than 24 hours ahead of construction activities. The PG&E environmental monitoring team must ensure that all required pre-construction surveys and clearance sweeps are conducted before any project activities commence in a project area or component. Other survey timing or actions may be required for San Joaquin Valley Kit Fox, Burrowing Owl, and nesting raptors. Refer to Mitigation Measure (MM) BIO-2, MM BIO-3, MM BIO-4, MM BIO-6, and MM BIO-7 for the exact details of requirements regarding pre-construction survey and “clearance sweep” requirements (see Attachment C, Table C-1).

The results of each survey will be summarized in the daily environmental or specialty monitoring report and should be discussed in greater detail in either an individual component pre-construction survey report or the next weekly Environmental Compliance Reports, depending on the timing of the survey. Information gathered from the pre-construction surveys and clearance sweeps will be forwarded to both the CPUC CM and PM on a daily basis for review and concurrence that the surveys were adequate and support the intent of the applicable measures from the MMCRP. In addition, the results of the surveys will be shared at either pre-construction kick-off meetings or routine tailgate meetings with the construction contractors to ensure they know what areas, if any, are off limits for construction activities or where activities are restricted. PG&E’s environmental monitoring team must be available at all times to answer questions or clarify the status of approved and not approved project areas.

4.4.2 CPUC Monitoring and Compliance Reports

The CPUC CM(s) will conduct routine site visits at a reasonable frequency (generally once per week, but this may vary, depending on the phase of the project) to determine the project’s compliance with all applicable APMs, mitigation measures, plans, permits, and conditions of approval from CPUC and other agencies. Site visits will be coordinated with PG&E. During each site visit, the CPUC CM(s) will document observations within the project work areas through field notes (field logs) and digital photographs. The field notes and photographs will be incorporated into a site visit compliance report and submitted to the CPUC Monitoring Supervisor. The CM(s) will fill out a site inspection form to document the compliance of specific crews, construction activities, or protection measures. This form

acts as a standardized checklist to facilitate inspections and record APMs and mitigation measures that were checked during visits.

The CPUC Monitoring Supervisor will use these reports and supplemental information provided by PG&E, including pre-construction plan submittals, survey result reports, weekly compliance checklist and summary reports, meeting notes, and agency correspondence, to verify compliance. This information will be compiled into weekly reports that will be reviewed and amended by the CPUC Monitoring Manager as needed, before being submitted to the CPUC PM.

4.4.3 Incident Reports

Incident Reports (see Attachment E) for Level 1 through 3 Incidents shall be prepared by the observing party (either PG&E or CPUC) and submitted to the other party within one business day of the observation. Monitors will fill out an Incident Report Form (see Attachment E) to document compliance incidents. Level 1 Incidents will be reported through a brief email from the observing party. Level 2 Incidents will be reported through a Project Memorandum that is distributed to all parties via email. Level 3 Incident Reports (also known as Non-compliance Reports) will be submitted via email and must be discussed in a teleconference or in-person meeting with CPUC, PG&E, and the contractor, as applicable. See Section 4.5, Incidents and Stop Work Orders, for a description of compliance incident levels. At a minimum, each Incident Report must include the following information:

- Incident Category;
- Compliance Level (if applicable);
- Incident Start Date (i.e., date event began, if known, or initial observation date);
- Summary of Incident (i.e., description of the event or observation, personnel involved or present, and actions taken to resolve the issue);
- Photographs of incident or site, if applicable;
- Scope of the deviation or violation from the requirements;
- Risk of impact to sensitive resources;
- Actual impact to sensitive resources;
- Resolution Date (if known);
- Whether the incident was accidental or due to negligence;
- How the incident could have been prevented; and
- What steps will be taken to prevent similar future non-compliances.

All incidents (Levels 1 through 3) shall briefly be described in MMCRP reports prepared by both PG&E and CPUC (e.g., Daily, Weekly, and Post-Construction Reports), and Incident Reports shall be attached to the MMCRP reports for the applicable period.

4.5 Incidents and Stop Work Orders

The goal of this MMCRP is to plan for and avoid any non-compliance incidents that might occur during implementation of the various phases of the project; nonetheless, there is a potential for compliance incidents to arise due to a variety of factors. Compliance incident levels are described in Table 4.5-1. This section describes potential compliance incidents and the procedures that shall be followed to document them.

The CPUC determines if any construction activity that does not comply with the APMs, mitigation measures, or permit conditions, particularly when the activity puts a sensitive resource at risk, will be considered a compliance incident. This includes all terms and conditions in permits or approvals from other federal, state, and local agencies that are relied upon in the mitigation measures and APMs. The severity of the incident—including consideration for impacts on sensitive resources—will help determine the assigned incident level. Any APM, mitigation measure, or permit condition not implemented according to the construction phase timing listed in Table 6.1-1 and Attachment C, Table C-1, will be considered a non-compliance incident.

Examples of non-compliance incidents include, but are not limited to, the following:

- Use of new access roads, staging areas, or TEWS not identified on the project drawings or approved for use during construction;
- Encroachment into an exclusion zone or sensitive resource area designated for avoidance;
- Brush clearing or ground disturbance outside the approved work limits;
- Grading, foundation, line work, or other construction activities without required biological, cultural/archaeological, or paleontological pre-construction surveys, or without a required specialty monitor onsite;
- Improper installation of erosion or sediment control structures if this puts a sensitive resource at risk;
- Discharge of water from a sediment-laden trench or other excavation into a wetland, water body, or storm drain; and
- Personnel in project areas without having undergone required health and safety and environmental training.

4.5.1 Incident Categories

Incident categories for the project include compliance level incidents, Occupational Safety and Health Administration-recordable health and safety incidents, vehicle accidents that are related to project traffic closures, and public complaints.

4.5.1.1 Compliance Level Incidents

PG&E and CPUC are jointly responsible for evaluating project compliance and addressing any implementation inadequacies throughout implementation of the MMCRP. Compliance incidents will be documented by assigning one of three severity levels and associated terms levels: Level 1: Minor Problem; Level 2: Compliance Deviation; and, Level 3: Non-Compliance. In addition, if all project requirements are observed being followed adequately, then the project (or site, crew, or activity) will

be at an acceptable compliance level (Level 0: Non-incident, in compliance) and no further actions are required. A description of compliance levels that will be used for the project and additional examples of compliance level incidents are listed in Table 4.5-1.

When documenting compliance level incidents, the reporting party shall assign an initial compliance level that appropriately represents the severity of the incident based on factors including, but not limited to, the following:

- Scope of the deviation or violation;
- Risk of impact to resources;
- Actual impact to resources;
- Number of repeated incidents;
- Number of previous warnings by PG&E or CPUC compliance personnel; and
- Whether the incident could have been prevented.

The need to change initially reported compliance levels may arise if the incident level was over- or under-reported. The CPUC PM shall make final determinations regarding the appropriate compliance level for each incident as needed, and the CPUC Monitoring Team shall maintain a record of all incidents for the project that will be analyzed in the CPUC Post-Construction and Final Monitoring Reports. In addition to the levels of compliance described in Table 4.5-1, the CPUC may note events or observations that, if left unaddressed, could have the potential to affect compliance and become a compliance incident. The CPUC will typically inform PG&E Compliance Personnel of such observations in the field. If such events or observations continue to occur following CPUC's field notification to the PG&E Compliance Personnel, and corrective action is not taken within the stated period, a Project Memorandum (written warning) may be issued by the CPUC. For example, if CPUC observes construction personnel stepping away from their vehicles while idling, but not for more than five minutes, the CPUC may note that if this practice continues, a Compliance Deviation or Non-Compliance (Level 2 or Level 3, respectively) Incident could result.

Table 4.5-1 Compliance Levels

Incident Level, Reporting Term, and Severity	Examples	Action	Follow-Up
Non-Incident			
Level 0: Acceptable (In compliance)	All project requirements were followed adequately.	None	None
Definition: An event or observation where the project was compliant with all project requirements.	No issues were observed.		
Incident			
Level 1: Minor Problem (Out of compliance, low to moderate severity)	Project personnel used an unauthorized turnaround area or access road, but the site was previously disturbed and the action did not put a sensitive resource at risk.	An oral warning shall be provided by the CPUC Monitoring Supervisor to PG&E's ECS and ECL (or assigned designee). Corrective action shall begin by the next construction day. The CPUC Monitoring Supervisor will also briefly document the incident in a follow-up email. A Minor Problem will be documented in the daily report and included in the Weekly Compliance Report.	If corrective action is not begun by the next construction day, the CPUC Monitoring Supervisor will elevate the incident to the CPUC Monitoring Manager who will review courses of action available and will notify the CPUC PM if necessary. If allowed to continue, this non-compliance could result in a significant impact over time.
Definition: An event or observation that slightly deviates from project requirements, but does not put a resource at unpermitted risk.	Soil or construction material was placed outside of an approved work area in a non-sensitive area, but the material was removed at the end of the day.		
Level 2: Compliance Deviation (Out of compliance, moderate to high severity)	A fuel tank was stored overnight within specified limits of a water body without secondary containment, but did not result in the release of hazardous materials.	A verbal notice shall be given to the PG&E EI, followed immediately by written documentation of the incident in a Project Memorandum sent by the CPUC Monitoring Supervisor to PG&E's ECS and ECL (or assigned designee). Corrective action shall begin immediately if feasible.	If corrective action is not taken immediately or the corrective action is insufficient, the CPUC CM shall notify the CPUC PM, Monitoring Manager, and Monitoring Supervisor, who will review courses of action available, potentially including issuance of an NCR, a project stop work order, and/or action under the CPUC's CEQA Citation Program.
Definition: An event or observation that deviates from project requirements and puts a resource at risk, but is corrected without affecting the resource.	Mobilization of equipment or materials to a previously disturbed work site prior to receiving NTP authorization from CPUC. Project personnel used an unauthorized overland travel route and previously undisturbed turnaround area or access road, but the action did not affect a sensitive resource. A diesel-powered vehicle not in use was observed idling for more than 5 minutes.		

Table 4.5-1 Compliance Levels

Incident Level, Reporting Term, and Severity	Examples	Action	Follow-Up
<p>Level 3: Non-Compliance (Out of compliance, high severity)</p> <hr/> <p>Definition: An event or observation that violates project requirements and affects a resource. Repeated Compliance Deviations left unaddressed may also rise to a Level 3 Incident.</p>	<p>Vegetation clearing and grading of a work site prior to receiving NTP authorization from CPUC.</p> <p>Soil or construction material was placed outside of an approved work area in an environmentally sensitive area.</p> <p>Erosion control Best Management Practices failed during a storm and sediment was discharged into a sensitive area.</p> <p>Project vehicles entered a sensitive resource exclusion area and damaged a resource.</p>	<p>A verbal notice shall be given to the PG&E EI, followed immediately by a written NCR from the CPUC Monitoring Manager to PG&E's ECS and ECL (or assigned designee). Corrective action shall begin immediately. Based on the severity of a given infraction or pattern of non-compliant activity, the CPUC may direct that all or some portion of the work be stopped. The CPUC may also exercise the CEQA Citation Program.</p>	<p>If a shutdown of construction or an activity is ordered, the construction or activity shall not resume until authorized by the CPUC PM in writing. If corrective action is not taken immediately or the corrective action is insufficient, the CPUC CM shall notify the CPUC PM, Monitoring Manager, and Monitoring Supervisor, who will review courses of action available, potentially including a project stop work order and/or action under the CPUC's CEQA Citation Program.</p>

Key:

CEQA = California Environmental Quality Act
 CM = Compliance Monitor
 CPUC = California Public Utilities Commission
 ECL = Environmental Compliance Lead
 ECS = Environmental Compliance Supervisor

EI = Environmental Inspector
 NCR = Non-compliance Report
 NTP = Notice to Proceed
 PG&E = Pacific Gas and Electric
 PM = Project Manager

4.5.1.2 Health and Safety Incidents

PG&E and CPUC's most important responsibility is maintaining safe working conditions and protecting the public, including workers from exposure to hazards related to the project. Accordingly, health and safety incident reporting by PG&E will be conducted consistent with the "self-identified potential violation" requirements of the CPUC's Safety Citation Program¹ and the Accident Reporting Requirements.² Specific types of health and safety incidents to be reported under these programs are described below:

- A potential violation that poses a significant safety threat to the public and/or utility staff, contractors, or subcontractors (see D.16-09-055, Appendix A at p. 8, Section G.3.b. criteria 1³);

¹ See D.16-09-055, Appendix A at p. 8, Section G.3.b. criteria 1 and 3, <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M167/K781/167781364.PDF>

² See http://docs.cpuc.ca.gov/PUBLISHED/FINAL_DECISION/55906-05.htm#TopOfpage

³ The intention of this criterion is to include any self-identified potential violation that presents such an obvious, immediate, and significant threat to life or limb of the public or utility workers that industry best practice dictates that any responsible utility would correct the condition immediately or as soon as possible. (This footnote is included in the SED Report.)” (Decision, footnote 29 on page 53). This would not include near misses. (Decision, page 84 under Findings of Fact, no. 19).

- Any instances of fraud, sabotage, falsification of records and/or any other instances of deception by PG&E's personnel, contractors, or subcontractors that caused or could have caused a potential violation, regardless of the outcome (see Appendix A at p. 8, Section G.3.b. criteria 3); and
- Incidents that (a) result in fatality or personal injury rising to the level of in-patient hospitalization and are attributable or allegedly attributable to utility owned facilities; (b) are the subject of significant public attention or media coverage and are attributable or allegedly attributable to utility facilities; or (c) involve damage to property of the utility or others estimated to exceed \$20,000 that are attributable or allegedly attributable to utility owned facilities.

PG&E will notify the CPUC PM of these types of health and safety incidents within one business day of learning about the incident and provide an incident report with the Weekly Compliance Report for the project unless additional time is needed and the CPUC agrees to an extension for submitting the final incident report. PG&E will also notify the CPUC about traffic accidents within construction areas. In addition to the incidents describe above, the CPUC may request that PG&E report on other health and safety incidents that do not fall into one of the above-listed categories if the CPUC determines that such reporting is necessary to ensure construction is completed in a safe manner.

Health and safety incidents will not reflect negatively on PG&E's environmental compliance record unless a specific project requirement, permit, or plan requirement was violated

4.5.1.3 Public Complaints

The public may take issue with one or more aspects of the project. All public complaints shall be documented and reported to the CPUC. PG&E will maintain a Project Information Line during construction and will assign a dedicated Public Affairs Representative to the project that will be responsible for tracking and handling public complaints. Public complaints may be submitted formally to PG&E or CPUC through email or the Project Information Line. Members of the public that have questions, concerns, or complaints on the project will be directed to the PG&E Public Affairs Manager and Project Information Line, and contact information will be supplied as requested. Complainants who approach field personnel at the project site will be referred to the Project Information Line or, if available, the PG&E EI will record the complaint and direct the complainant to the Project Information Line to formally submit their complaint. PG&E shall work with the CPUC on best practices for handling public complaints that are received. PG&E will maintain an electronic complaint log and will allow the CPUC to have real-time access to this electronic complaint log, so CPUC can track public complaints received by PG&E. PG&E will respond to public complaints within 24 hours upon receipt. CPUC shall notify PG&E of public complaints received by the CPUC to facilitate PG&E's timely response to these complaints and PG&E will add these to the electronic complaint log. PG&E shall make every reasonable effort to work with members of the public and correct actions leading to complaints, as feasible.

PG&E shall also provide weekly summaries of the public complaints and how each complaint was addressed within the Weekly Compliance Report. The CPUC PM will coordinate with the PG&E Public Affairs Manager on the adequacy of corrective actions or additional measures to be implemented, as needed.

One common complaint from the public is noise impacts from construction activities. APM NOI-6 includes requirements for PG&E to notify residents in areas of heavy construction noise prior to

commencing construction activities. Notification must include written notice and the posting of signs in appropriate locations with a contact number that residents can call with questions and concerns. PG&E shall document and report all complaints to CPUC.

Public complaints will not reflect negatively on PG&E's environmental compliance record unless a specific project requirement, permit, or plan requirement was violated.

4.5.2 Identifying Incidents

The PG&E EI and CPUC CM are primarily responsible for identifying and initially reporting incidents during inspection of the project site; however, compliance incidents may also be observed by other personnel in the field or during review of project reports. The CPUC Monitoring Team may also identify compliance incidents through review of PG&E's compliance reporting.

PG&E shall make every attempt to self-report any compliance incidents that occur. Self-reporting compliance incidents and preventing them from repeating demonstrates a commitment to compliance and will foster a relationship of trust between PG&E and CPUC.

4.5.3 Incident Notification and Communication Process

PG&E and CPUC shall notify one another of compliance incidents within one business day of the initial observation so compliance can be adequately addressed. Response procedures do not need to be finalized when initial notification is provided.

Jurisdictional agencies may also require notification if incidents are documented that relate to their jurisdiction over the project. PG&E shall make all such notifications to each jurisdictional agency and will provide copies to the CPUC of official notifications and submittals provided to other agencies or advise CPUC of notifications that were made to other agencies, as necessary. If CPUC believes additional notifications are required, the CPUC may direct PG&E to provide those notifications or make those notifications in coordination with PG&E Compliance Personnel.

4.5.4 Stop Work Orders

When it is safe to do so, any PG&E Compliance Personnel or the CPUC PM or Monitoring Team has the authority to issue Stop Work Orders to temporarily halt or redirect project activities if a sensitive resource is put in undue risk beyond previously authorized or permitted levels. In addition, the CPUC PM or Monitoring Team may also stop or redirect work if unauthorized project activities are observed, such as use of work area that has not been approved or if significant compliance risks remain unresolved. The CPUC PM will make any final determinations regarding Stop Work Orders for the project.

4.5.5 CEQA Citation Program

CPUC may exercise the CEQA Citation Program⁴ adopted in Resolution E-4550. The program delegates authority to CPUC staff to draft and issue citations and levy fines for non-compliance with a Permit to Construct or Certificate of Public Convenience and Necessity. The Resolution allows CPUC staff to efficiently issue fines when needed to quickly address non-compliance incidents that are occurring in the field. Examples of non-compliance that may result in fines being issued by CPUC staff are listed in Table 4.5-1.

⁴ See <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M065/K136/65136746.PDF>

4.6 Project Changes

4.6.1 Minor Project Refinements

This section describes the CPUC's process for staff approval of project refinements (i.e., small changes) that may be necessary due to changes resulting after the applicant's final engineering of project elements, or if circumstances arise during the course of construction that require deviations from the project as approved. The CPUC PM and Monitoring Team would evaluate any proposed deviations from the approved project to determine if they are consistent with approved CEQA requirements. Depending on its nature, a requested deviation would be processed as a MPR or be the subject of a Petition for Modification (PFM) submitted by the applicant.

Proposed MPRs would be strictly limited to minor changes in the approved project and they will not be authorized by the CPUC PM through the MPR process if they meet one or more of the following criteria:

- Trigger additional permit requirements that are not defined in the Final IS/MND or in the MMCRP;
- Increase the severity of an impact or create a new impact;
- Conflict with any APM or mitigation measure or result in a new conflict with any applicable guideline, ordinance, code, rule, regulation, order decision, statute, or policy not already identified within the final IS/MND;
- Require new conditions for approval, without which the modifications would result in a new significant impact or substantially increase the severity of a previously identified significant impact; and
- Are not within the geographic scope of the MND.

An MPR request form is included as Attachment F.

If a project change would create or have the potential to create a new significant impact, increase the severity of an impact, or occur outside the geographic area evaluated in the MND, the applicant would be required to submit a PFM. The CPUC would evaluate the PFM under CEQA, as appropriate, to determine what form of supplemental environmental review would be required.

Requests for CPUC PM approval of a change must be made in writing and should include the following:

- MPR request number, date submitted to CPUC, and requested approval date;
- Requested start and end date for the proposed actions associated with the refinements;
- A detailed description of each proposed change, including an explanation of why the deviation is necessary;
- Identification of the APMs, mitigation measures, project parameter, or other project stipulation for which the change is being requested, and citations for the associated approved documents;

- Photographs, maps, and other supporting documentation illustrating the difference between the existing conditions in the project area, the approved project, and the proposed change;
- The dimensions and area of any additional work areas and land disturbance associated with the proposed refinements;
- A detailed description of potential impacts of the proposed change, including a discussion of each environmental issue area that could be affected by the changes, with accompanying verification that there would be no increase in significant impacts on resources affected by the project and no new significant impacts, after application of previously adopted APM(s) and/or mitigation measure(s);
- Whether the change would conflict with any APMs or mitigation measures;
- Whether the change would conflict with any applicable guideline, ordinance, code, rule, regulation, order, decision, statute, or policy;
- Evidence of PG&E's consultation with other governmental or nation states, to the extent applicable; and
- The date of expected construction at the change site area.

The CPUC PM and Monitoring Team shall review MPR requests to ensure the proposed refinements are consistent with the Final IS/MND and final CPUC decision. The CPUC PM or ECL may request additional information, agency consultations, or a site visit in order to process the request. If it is determined that the MPR request includes sufficient evidence that the proposed refinements are necessary, and the refinements will not meet one or more exclusionary triggers, then the CPUC PM will authorize the refinements by issuing a MPR Authorization Letter at their discretion. MPR Authorization Letters will address any conditions of approval, and include applicable documentation as necessary.

Examples of potential MPRs depending on their location that may be approved by the CPUC PM after final engineering include, but are not limited to:

- Substituting or replacing a previously authorized work area with an alternate work area that is in a previously disturbed area with no impacts to adjacent sensitive resources or land uses.
- Adjusting the alignment of a project to avoid unanticipated impacts related to cultural artifacts, buried utility infrastructure, hazardous and toxic substances, and other land use impacts, including effects on homeowners, so long as the adjustment does not create a new significant impact or a substantial increase in the severity of a previously identified significant impact.
- Adjusting the alignment of a project to avoid or adapt to conditions on the ground that vary from the conditions that existed at the time of the original environmental analysis, so long as the adjustment does not create a new significant impact or a substantial increase in the severity of a previously identified significant impact.

4.6.2 Temporary Extra Work Space

For the purposes of this MMCRP, TEWS is defined as a preexisting developed space (i.e., no site preparation is required) that would be used by PG&E during construction for a period of up to 60 days, and that was not specifically identified and evaluated during the CEQA process. Anything required to be utilized for a period longer than 60 days will require an MPR approval (see Section 4.6.1, Minor Project Refinements). If PG&E determines a need for a construction TEWS, it must submit such a request to the CPUC, consistent with the communication protocol. PG&E will not be permitted to use a TEWS prior to receiving written authorization from the CPUC. If appropriate, PG&E will also send a copy of the TEWS to affected jurisdictional agencies.

PG&E must demonstrate that:

1. The TEWS is located in a disturbed area with no sensitive resources or land uses onsite or within proximity of the proposed work space such that they may be significantly impacted by the work;
2. PG&E has the permission of the applicable landowner (e.g., municipality or private) to use the work space; and
3. Use of the TEWS will not result in any new significant environmental impacts.

Following is a list of the specific information that PG&E will be required to submit with its TEWS request (see Attachment G):

- Date of request;
- Location of the TEWS (detailed description, including maps if required);
- Property owner of TEWS;
- An explanation of the need for the TEWS;
- An analysis that demonstrates no new significant impacts will result from use of the TEWS, including compaction contributing to runoff rates or other stormwater/watershed effects; observed existing impacts to the site, such as the presence of potentially hazardous or polluting substances that could pose a risk to project personnel or the public; abandoned vehicles, equipment, or other materials; or other sensitive resources;
- Biological and botanical surveys if appropriate;
- Cultural resource surveys if appropriate;
- Duration and dates of expected use of the TEWS; and
- Details of the expected condition of the site after use.

4.7 Compliance Tracking

The CPUC will track compliance with mitigation requirements. The CPUC will also track important project procedures (e.g., formal requests and approvals) and incidents throughout the project. The CPUC will track other information as part of the CPUC-authored Monthly Monitoring Summary Report, including NTP and MPR requests and approvals, resolutions to compliance risks, and documented incidents.

5 Documentation Submittal and Records Management

All required documentation from PG&E, including plans, permits, reports, and staff qualifications as required by APMs and mitigation measures, will be maintained by PG&E on an internal website or database. Through the CPUC's public website for the project, members of the public may request copies of records and reports used to track the monitoring program, and the CPUC PM or Monitoring Manager will send copies of publicly available records and reports to members of the public as requested. The CPUC Monitoring Manager and Supervisor and other members of the E & E team will compile all required documentation submitted by PG&E into the project's Administrative Record during construction and will confirm that the record is complete after completion of all activities required by the adopted APMs and mitigation measures. The CPUC Monitoring Manager and Supervisor will also use this documentation to create a final environmental compliance report for the CPUC PM at the end of the project that will discuss APM and mitigation measure implementation and success, with the goal of identifying lessons learned that can be applied to future projects.

Through the CPUC's public website for the project, members of the public may request copies of records and reports used to track the monitoring program, and the CPUC PM or Monitoring Manager will send copies of publicly available records and reports to members of the public as requested. Certain mitigation monitoring-related documents will be made available on the project website: <http://www.cpuc.ca.gov/environment/info/ene/sanger/sanger.html>.

PG&E shall provide the CPUC with records (i.e., emails, letters, and/or memoranda) related to final agency approvals for the project if the CPUC is not directly involved with the coordination effort. PG&E must also provide the CPUC with copies of permit amendments and modifications, in addition to notifying the CPUC of proposed permit changes.

6 Mitigation Monitoring Program Tables

6.1 Applicant-Proposed Measures and Mitigation Measures Tracking Tables

Table 6.1-1 lists the applicable phases for each APM, mitigation measure, and permit condition. However, full descriptions of each APM and mitigation measure are provided in Attachment C, Table C-1. In addition, Table C-1 provides information that will be relevant to both the PG&E and CPUC compliance teams, including a summary of the monitoring and reporting action, any applicable effectiveness criteria, the location within the project, and the responsible agencies or entities.

The CPUC will use expanded versions of Table C-1 to track the implementation status of APMs and mitigations measures during the pre-construction planning, construction monitoring, post-construction monitoring phases of the project. During construction, PG&E's environmental compliance team will maintain a copy of Table C-1 on the construction site, and all supervisory staff working on the project should be familiar with its contents. In addition, copies of all applicable plans and permits (e.g., Stormwater Pollution Prevention Plan) will be kept on-site (PG&E construction trailer) and all supervisory staff working on the project should be familiar with their contents.

Table 6.1-1 Implementation Phases Applicable to Each APM and Mitigation Measure

Measure Title	Pre-Construction	Construction	Post-Construction	Operations and Maintenance
Aesthetics				
APM AES-2: New source of substantial light or glare avoidance.			✓	
APM AES-3: Non-reflective finish and neutral gray color.			✓	
MM AES-1: Shield night-time lighting (supplements APM AES-2).		✓		
MM AES-2: Non-specular conductors (supplements APM AES-3).		✓		
Agriculture				
APM AGR-1: Agriculture impacts avoidance and compensation.	✓	✓	✓	
MM AGR-1: Farmland Construction Impact Mitigation (supplements APM AGR-1).	✓		✓	
Air Quality				
APM AIR-1: Fugitive dust emissions minimization.		✓		
Biological Resources				
APM BIO-9: Pets and firearms.		✓		
APM BIO-11: Entrapment of animals, trench inspections.		✓		
MM BIO-1: Biological Resources Worker Environmental Awareness Program.	✓	✓		
MM BIO-2: Pre-activity surveys for sensitive species.	✓	✓		
MM BIO-3: Biological Monitoring.		✓		
MM BIO-4: Mitigation for nesting birds (supersedes APM BIO-14).	✓	✓		
MM BIO-5: Wildlife Protection (supersedes APMs BIO-4, -5, and -10).	✓	✓		
MM BIO-6: Specific Requirements for Burrowing Owl (supersedes APM BIO-13).	✓	✓		
MM BIO-7: Specific Requirements for Special Status Raptors (supersedes APM BIO-12).	✓	✓		
Cultural and Paleontological Resources				
APM CUL-4: Unanticipated discovery of human remains management.		✓		

Table 6.1-1 Implementation Phases Applicable to Each APM and Mitigation Measure

Measure Title	Pre-Construction	Construction	Post-Construction	Operations and Maintenance
APM PAL-1: Worker's environmental resources training.	✓	✓		
MM CUL-1: Cultural Resources Monitoring and Treatment (supersedes APM CUL-3).	✓	✓		
MM CUL-2: Worker Education Program (supersedes APM CUL-1, supplements APM CUL-4).	✓	✓		
MM CUL-3: Unanticipated paleontological resource discovery protocol (supersedes APM PAL-2).		✓		
MM CUL-4: Paleontological Resources Monitoring and Mitigation Plan (supersedes APM PAL-3).	✓	✓		
MM CUL-5: Undiscovered potential Tribal Cultural Resources.		✓		
Geology and Soils				
APM GEO-2/APM WQ-1: Development and implementation of a Stormwater Pollution Prevention Plan (SWPPP).	✓	✓		
Greenhouse Gases				
APM GHG-1: Minimize GHG emissions.	✓	✓		
APM GHG-2: Minimize sulfur hexafluoride (SF6) emissions.				✓
Hazards and Hazardous Materials				
APM HAZ-1: Spill Prevention, Control, and Countermeasures (SPCC) Plan.	✓			✓
APM HAZ-3: Shock hazard.	✓			✓
MM HAZ-1: Hazardous Materials Management Plan (supersedes APM HAZ-2 and APM HAZ-4).	✓	✓		
MM HAZ-2: Fire Control Measures.	✓	✓		
Hydrology and Water Quality				
APM GEO-2/APM WQ-1: Development and implementation of a Stormwater Pollution Prevention Plan (SWPPP).	✓	✓		
Noise				
APM NOI-2: Construction equipment noise reduction devices and low noise equipment.		✓		
APM NOI-3: Placement of stationary construction equipment.		✓		

Table 6.1-1 Implementation Phases Applicable to Each APM and Mitigation Measure

Measure Title	Pre-Construction	Construction	Post-Construction	Operations and Maintenance
APM NOI-4: Minimization of unnecessary engine idling.		✓		
APM NOI-6: Noise disruption minimization through residential notification.		✓		
Traffic and Transportation				
MM TRAN-1: Traffic Management Plan (supersedes APM TRAN-1).	✓	✓	✓	

Key:
 APM = Applicant-Proposed Measure
 MM = Mitigation Measure

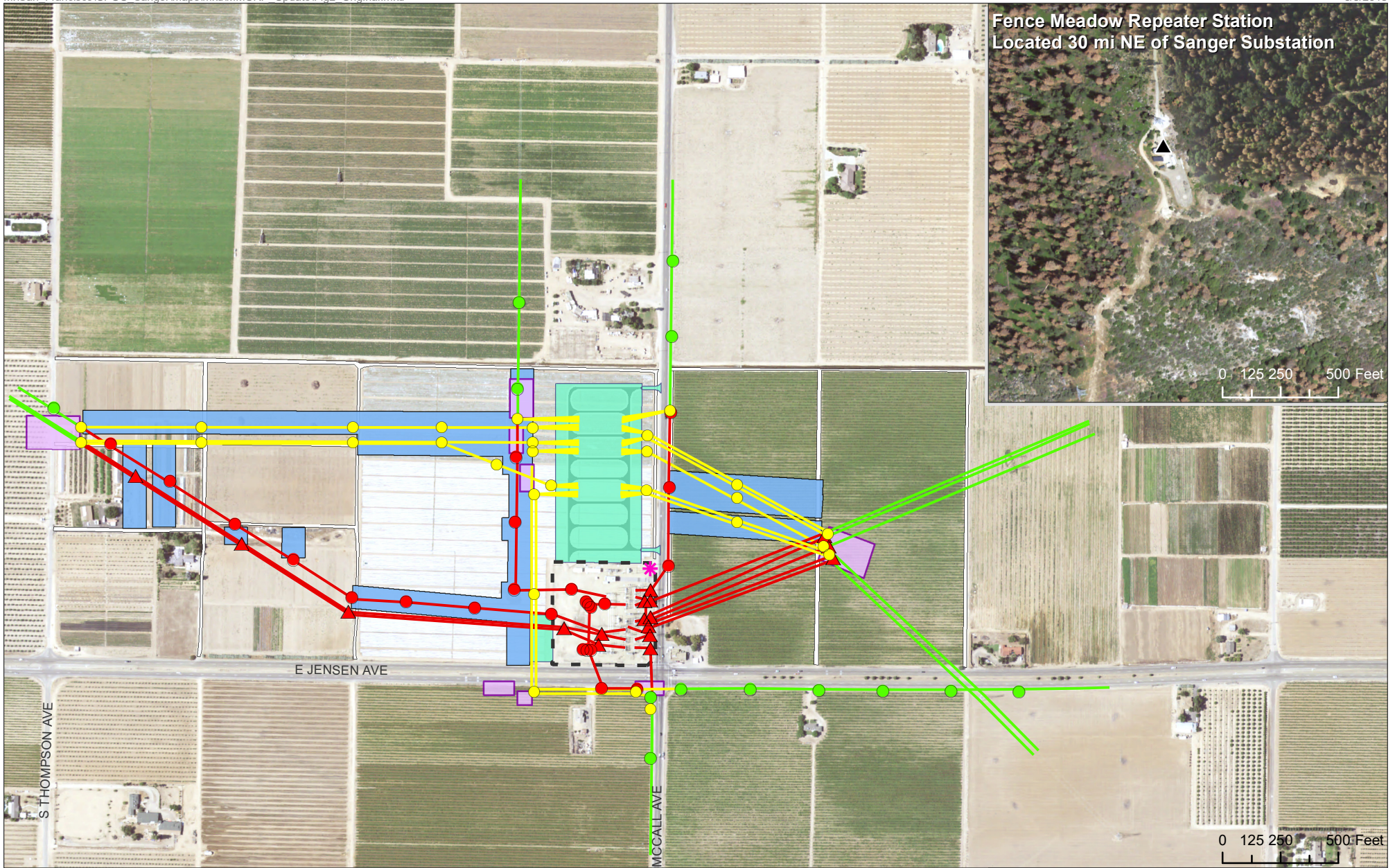
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Attachment A

Project Maps

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Fence Meadow Repeater Station
Located 30 mi NE of Sanger Substation

0 125 250 500 Feet

0 125 250 500 Feet

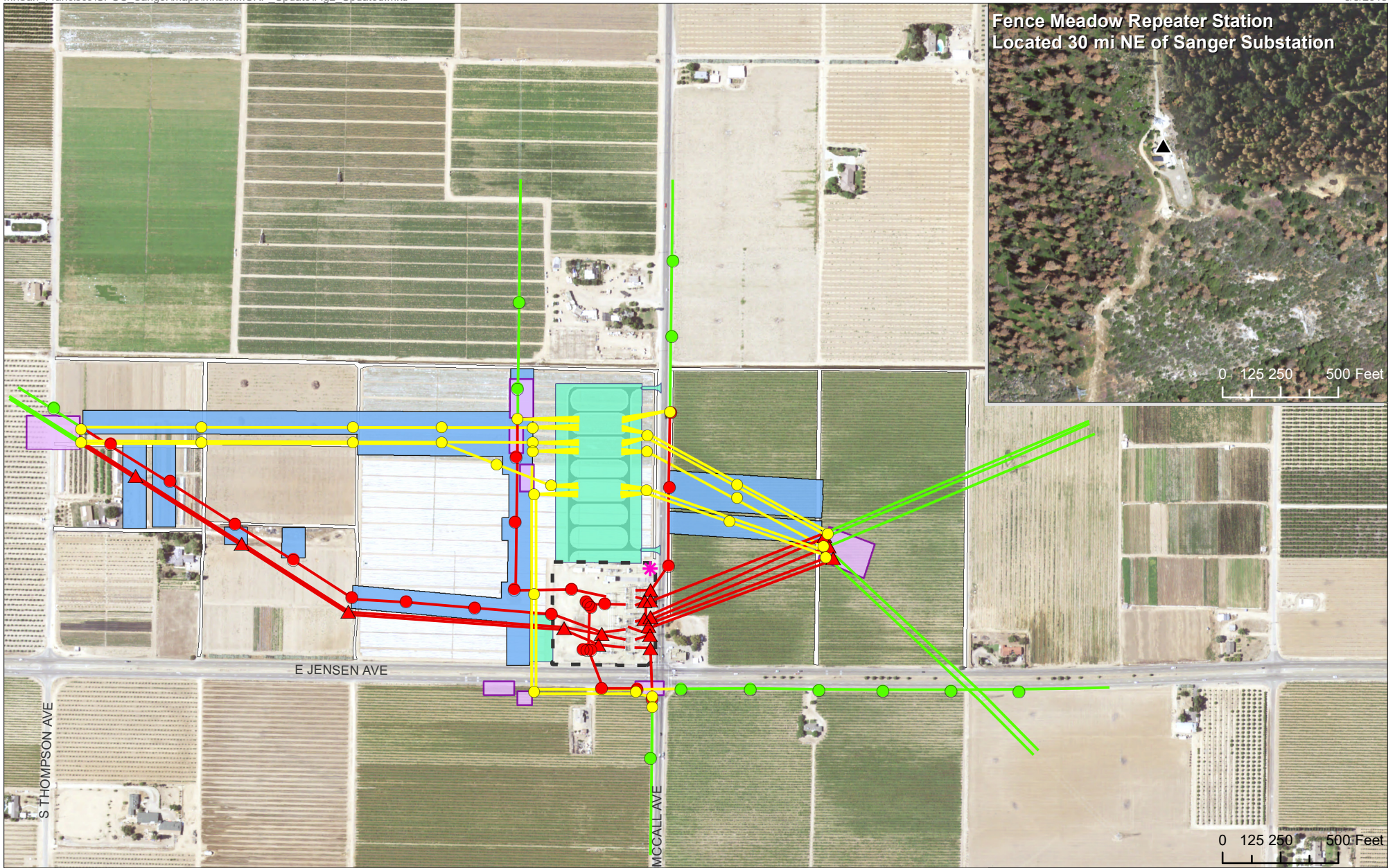
- * Existing Gate on South McCall Ave
- ▲ Fence Meadow Repeater Station (Inset only)
- Existing Pole to Remain
- New Pole to be Installed
- Existing Pole to be Removed
- ▲ Existing Tower to be Removed
- Existing Line to Remain
- Existing Lines to be Removed
- New Line Installed
- Pull and Tension Sites
- Proposed Substation Expansion Footprint
- Existing Substation Footprint
- Temporary Access Road
- Construction Access Road
- Existing Farm Road

Source: PG&E 2015, 2016
Basemap: NAIP 2016



Figure 2
Existing and Proposed Infrastructure
Approved by CPUC for the IS/MND
Sanger Substation
Fresno County, CA

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- * Existing Gate on South McCall Ave
- Existing Pole to Remain
- New Pole to be Installed
- Existing Pole to be Removed
- ▲ Existing Tower to be Removed
- Existing Line to Remain
- Existing Lines to be Removed
- New Line Installed
- Pull and Tension Sites
- Proposed Substation Expansion Footprint
- Existing Substation Footprint
- Temporary Access Road
- Construction Access Road
- Existing Farm Road

Source: PG&E 2015, 2016, 2018
 Basemap: NAIP 2016



Figure 3
Existing and Proposed Infrastructure
Approved by CPUC for MPR 1
 Sanger Substation
 Fresno County, CA

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Attachment B

Project Contact List

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Sanger Substation Expansion Project Project Contact List

Name	Position	Email	Phone (Work)	Phone (Mobile)
Primary/Emergency Contacts:				
PG&E:				
Patty Healy	PG&E Project Manager	PMH9@pge.com	(559) 263-5049	(559) 977-1865
Michael Calvillo	PG&E Environmental Compliance Lead	M6CL@pge.com	(559) 263-5780	(559) 417-3337
CPUC / E & E:				
Billie Blanchard	CPUC Project Manager	Billie.Blanchard@cpuc.ca.gov	(415) 703-2068	(510) 685-1634
Silvia Yanez	CPUC Monitoring Manager (E & E)	SYanez@ene.com	(415) 398-5326 Ext. 4715	(415) 310-4129
Ilja Nieuwenhuizen	CPUC Monitoring Supervisor (E & E)	INieuwenhuizen@ene.com	(503) 248-5600 Ext. 4630	(503) 709-3004
Secondary Contacts:				
PG&E:				
Lincoln Allen	PG&E Environmental Compliance Supervisor	LAllen@swca.com	(650) 440-4160 Ext. 6411	(415) 500-5605
Warren Frank	PG&E Construction Lead	WXF8@pge.com	(559) 263-5232	(707) 291-1232
Roselynn Kenny	PG&E Environmental Inspector	RKenny@swca.com		(650) 759-9313
CPUC / E & E:				
<i>To be determined</i>	E & E Compliance Monitor			
Other Contacts:				
PG&E:				
Zachary Parker	PG&E Terrestrial Biologist	ZXP5@pge.com	(559) 263-5723	(559) 417-7735
Matthew Armstrong	PG&E Cultural Resource Specialist	MDAF@pge.com	(559) 263-5334	(559) 396-5704
CPUC / E & E:				
<i>To be determined</i>				
<i>To be determined</i>				

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Attachment C

Mitigation Measures and APMs

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Table C-1 Mitigation Measures and APMs

Measure Title and Text	Monitoring/Reporting Action/Effectiveness Criteria	Timing	Location	Status
Aesthetics				
APM AES-2: New source of substantial light or glare avoidance. Security lighting at the substation will be directed on-site and will be hooded to reduce potential visibility from off-site locations.	CPUC verifies that PG&E installs new light sources that PG&E installs are directed on-site.	Post construction	Expanded substation	
APM AES-3: Structures and equipment at the expanded substation will be a non-reflective finish and neutral gray color.	CPUC verifies that PG&E installs non-reflective and neutral gray structures and equipment.	Post construction	Expanded substation	
MM AES-1 (supplements APM AES-2): Lighting utilized for night-time construction and for security during construction shall be shielded and oriented away from sensitive receptors.	CPUC verifies that PG&E's night-time light sources are shielded and are directed away from sensitive receptors.	During construction	Entire project area; not applicable to Fence Meadow Repeater Station.	
MM AES-2 (supplements APM AES-3): All conductor used for the proposed project shall be non-specular.	CPUC verifies that PG&E installs non-specular conductors.	During construction	All conductors	
Agriculture and Forestry Resources				
APM AGR-1: Agriculture impacts avoidance and compensation. To avoid potential impacts on agriculture, PG&E will work with farmers to conduct its work between their harvest and planting periods where and whenever possible. In areas containing permanent crops that must be removed and replaced to gain access to pole sites for construction purposes, PG&E will provide compensation to farmers and/or landowners in accordance with PG&E's Property Damage Settlement Guidelines. Within 6 months of completion of project construction, PG&E shall also repair, replace or provide compensation for damage to fences, irrigation facilities and other such agricultural infrastructure. Access across active crop areas will be negotiated with the farmers and/ or owners in advance of any construction activities.	CPUC verifies that PG&E schedules work between harvest and planting periods where and whenever possible. CPUC verifies that PG&E compensates farmers and/or landowners when permanent crops must be removed or replaced in accordance with PG&E's Property Damage Settlement Guidelines. CPUC verifies that PG&E repairs, replaces, or compensates for any agricultural infrastructure damaged by construction activities	Prior to construction – negotiate with farmers During construction – minimize disturbance to agricultural operations Within 6 months post construction – repair, replace, or compensate for damaged infrastructure	All areas where crops would be impacted, including access roads.	
MM AGR-1: Farmland Construction Impact Mitigation (supplements APM AGR-1). PG&E shall implement the following measures for temporarily disturbed Farmland: <ul style="list-style-type: none"> The applicant shall survey agricultural fields prior to construction and return all temporary disturbance areas to pre-construction conditions (i.e, meeting the definition of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency) after the completion of construction, except that crops will not be replanted. If topsoil is removed from an area to accommodate temporary construction activities, it shall be restored to preconstruction conditions within two months of the completion of construction, except that crops will not be replanted by PG&E. 	CPUC verifies that PG&E completes pre-construction surveys of Farmland and restores topsoil within two months of construction completion.	Prior to construction – conduct surveys Post construction – restoration	All areas where crops would be impacted, including access roads.	
Air Quality				
APM AIR-1: Fugitive dust emissions minimization. Pursuant to SJVAPCD Regulation VIII, a Dust Control Plan will be prepared and submitted to SJVAPCD for approval within the required timeframe prior to commencing construction activities. Based on the SJVAPCD Guidance for Assessing and Mitigating Air Quality Impacts (SJVAPCD 2015b), the following are examples of fugitive dust control measures that may be included in the Dust Control Plan to minimize dust emissions: <ul style="list-style-type: none"> Apply water to unpaved surfaces and areas. Use non-toxic chemical or organic dust suppressants on unpaved roads and traffic areas. Limit or reduce vehicle speed on unpaved roads and traffic areas. Maintain areas in a stabilized condition by restricting vehicle access. Install wind barriers. During high winds, cease outdoor activities that disturb the soil. Keep bulk materials sufficiently wet when handling. Store and handle loose materials that could create dust in a three-sided structure. When storing bulk materials, apply water to the surface or cover the storage pile with a tarp. Don't overload haul trucks. Overloaded trucks are likely to spill bulk materials. Cover haul trucks with a tarp or other suitable cover. Or, wet the top of the load enough to limit visible dust emissions. Clean the interior of cargo compartments on emptied haul trucks prior to leaving a site. Prevent trackout by installing a trackout control device. Clean up trackout at least once a day. If along a busy road or highway, clean up trackout immediately. Monitor dust-generating activities and implement appropriate measures for maximum dust control. 	CPUC verifies that PG&E controls fugitive dust inside the project area and on unpaved access roads, and meets SJVAPCD Regulation VIII requirements and follows the example dust control measures described in the SJVAPCD Guidance for Assessing and Mitigating Air Quality Impacts.	During construction	Applies to all unpaved construction areas, stockpiles of earthen materials, and all areas where earth-moving or excavations activities occur.	

Table C-1 Mitigation Measures and APMs

Measure Title and Text	Monitoring/Reporting Action/Effectiveness Criteria	Timing	Location	Status
Biological Resources				
APM BIO-9: Pets and firearms. No pets or firearms are permitted within the project area.	CPUC verifies that PG&E prohibits pets and firearms within the project area.	During construction	Entire project area	PG&E, CPUC
APM BIO-11: Backfilling. Prior to backfilling or placement of structures, all excavation sites (e.g., holes excavated for pole butts, trenches, etc.) will be inspected to ensure no small vertebrates have been entrapped. All excavations with a potential for entrapment of wildlife will be backfilled or fully covered at the end of the work day. Alternatively, holes or trenches will include one or more escape ramps constructed of earth fill or wooden planks no less than 10 inches wide and reaching to bottom of trench at the close of each working day.	CPUC verifies that PG&E implements measures to minimize wildlife entrapment at the close of each day.	During construction	All project areas containing excavation sites	PG&E, CPUC
MM BIO-1: Biological Resources Worker Environmental Awareness Program. The applicant shall develop a Worker Environmental Awareness Program (WEAP). Prior to the start of construction, all construction crew members and contractors shall be required to attend the WEAP training presented by a CPUC-approved, qualified biologist. All construction crew members and contractors who attend the training shall sign a form indicating that they attended the training and understood the information. Follow-up training shall be conducted as needed; new workers shall attend WEAP training prior to beginning at the work site. A record of all trained personnel shall be kept on site, and a sticker indicating training completion shall be worn on all worker hard hats. The WEAP training shall include a review of the special status species and other sensitive resources (e.g., nesting birds) that could exist in the project area, the locations where sensitive biological resources do or may occur, the limits of the work area, applicable laws and regulations, penalties for non-compliance, and APMs and mitigation measures to be implemented for avoidance of these sensitive resources. Additionally, personnel shall be trained for situations where it is necessary to contact a qualified biologist (e.g., should any sensitive biological resources such as an active nest be found during construction). If sensitive resources are found, the qualified biologist shall provide guidelines for the personnel to avoid impacts on them. All WEAP participants shall receive a brochure that outlines all this information including contact information for the appropriate environmental personnel.	CPUC verifies that PG&E provides environmental training to all construction personnel. CPUC reviews the training logs and sign-in sheets provided by PG&E and verifies that stickers indicating training completion are worn on worker hard hats	Prior to construction – submit training program to CPUC for review and conduct training During construction – monitor continued training	Entire project area; not applicable to Fence Meadow Repeater Station.	PG&E, CPUC
MM BIO-2: Pre-activity surveys for sensitive species. A CPUC-approved qualified biologist shall conduct a pre-activity survey for all activities occurring near where sensitive resources may be found within 7 days prior to work commencing. If there is no work in an area for 7 days, it shall be considered a new work area if construction begins again. The biologist shall survey all suitable habitat for sensitive species within 100 feet of the activities (see MM BIO-4, MM BIO-6, or MM BIO-7 for additional nesting bird procedures). If any species listed by the state or federal endangered species acts or protected by other statutes, or their signs, are found, the CPUC and the appropriate wildlife agencies shall be notified within 48 hours to confirm appropriate avoidance measures. If it is determined that construction activity cannot avoid areas where sensitive biological resources are present, the qualified biologist shall coordinate with the CPUC, CDFW, and/or USFWS, as necessary. If a potential San Joaquin kit fox den is found then a minimum buffer of 50 feet shall be implemented. For a known den, the buffer shall be 100 feet and for a natal den the avoidance buffer shall be determined on a case-by-case basis in coordination with CDFW and USFWS. If dens cannot be avoided by these distances, a CPUC-qualified biologist shall determine occupation following the procedures outlined in USFWS Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to and During Ground Disturbance (USFWS 2011) and consult and coordinate with CDFW and USFWS.	CPUC (and as appropriate CDFW, USFWS, and other jurisdictional agencies) reviews PG&E's pre-activity survey report summarizing the results of field studies before start of construction; CPUC verifies that all project work areas where sensitive resources may be found are surveyed prior to construction activities. CPUC verifies that PG&E implements any avoidance measures recommended by CPUC, CDFW, USFWS, or other jurisdictional agencies.	Prior to construction	Entire project area; not applicable to Fence Meadow Repeater Station.	PG&E, CPUC, CDFW, USFWS

Table C-1 Mitigation Measures and APMs

Measure Title and Text	Monitoring/Reporting Action/Effectiveness Criteria	Timing	Location	Status
<p>MM BIO-3: Biological Monitoring. A CPUC-approved qualified biological monitor shall develop an appropriate schedule of monitoring to ensure that disturbance is minimized to sensitive resources to the greatest extent possible during project activities. The schedule shall ensure that a CPUC-approved qualified biological monitor (1.) visits the project area regularly (at a minimum of every 7 days); (2.) is present to monitor all ground disturbing activities, such as grading and trenching; and (3.) is present to monitor any observed special status species (observed sign or individual) that may be disturbed by project activities. Biological monitors shall be familiar with San Joaquin kit fox and burrowing owl. Avian biologists present during nesting bird season may act as the biological monitor if qualified.</p> <p>The biological monitor shall be responsible for ensuring that impacts on special status species, their associated habitat, and/or sensitive resources are avoided to the fullest extent possible, and the monitor shall have full authority to halt construction if the monitor observes actual or potential disturbances to sensitive resources. At a minimum of once per 7 days, the monitor shall survey all project components near where construction activities may occur in the next 7 days, as well as the irrigation ditch area. Where appropriate, monitors shall flag the boundaries of areas where activities need to be restricted to protect special status species. If a special status species is present in the project area while construction activities are occurring, the restricted areas shall be monitored to ensure their protection during construction.</p>	<p>CPUC verifies that a CPUC-approved biological monitor is present at least once every 7 day during ground disturbing activities, has conducted periodic surveys, and has flagged sensitive areas.</p>	<p>During construction</p>	<p>Entire project area; not applicable to Fence Meadow Repeater Station.</p>	<p>PG&E, CPUC</p>
<p>MM BIO-4: Mitigation for nesting birds (Supersedes APM BIO-14). The applicant shall implement the measures below in all work areas where any construction-related activities are conducted during the nesting bird season (February 1 to September 15) for all species except Swainson’s hawk and white-tailed kite (see MM BIO-7), and burrowing owl (see MM BIO-6).</p> <p>Nesting Bird Survey Requirements. If work is scheduled to occur during nesting bird season, then the following provisions shall be employed:</p> <ul style="list-style-type: none"> • A CPUC-approved qualified avian biologist shall conduct surveys for nesting birds within 7 days prior to the start of any construction-related activities. Areas shall be re-surveyed every 7 days while construction activities are occurring. If there is no work in an area for 7 days, it shall be considered a new work area if construction resumes. In addition, a CPUC-approved qualified monitor shall conduct pre-construction clearance sweeps for nesting birds at all access, staging and, work areas where suitable habitat is present within approximately 24 hours of construction activities each day during the nesting season. • Surveys shall be conducted with the appropriate buffer, duration, level of effort, and timing based on level of construction disturbance, time of day, and environmental factors. Surveys shall be conducted within a 500 foot buffer of active work areas for raptors and a 250 foot buffer for non-raptors, at a minimum. • Surveys shall be conducted at a minimum between February 1 and September 15; however, the survey season may need to begin earlier or end later depending on species and weather conditions. • Survey results shall be provided to the CPUC each week. <p>Avoid Impacts on Nesting Birds.</p> <ul style="list-style-type: none"> • When a nest of any avian or raptor species is located within 500 feet of a construction site, a CPUC-approved qualified avian biologist shall determine whether the nest is active. A nest shall be defined as active once a bird begins nest construction or when a raptor begins “nest decoration.” An inactive nest is defined as a nest that has been abandoned by the adult bird or once fledglings are no longer dependent on the nest site or parental care. • If the nest is active, then the qualified biologist shall implement an exclusionary buffer to prevent construction activities from occurring within a specified distance from the active nest. For active raptor nests located more than 500 feet from the nearest work site, and non-raptor active nests located more than 250 feet from the nearest work site, no additional measures shall be implemented. A minimum standard buffer of 500 feet for an active raptor nest or 250 feet for an active non-raptor nest, as recommended by CDFW (Bahm pers. comm. 2016), shall be implemented when construction activities are occurring. Buffers shall not apply to construction-related traffic using existing roads that are not limited to project-specific use (i.e., county roads, highways, etc.). • If any active nest of a species listed by the state or federal endangered species acts or fully protected species (other than those specified MM BIO-7) is found, then the minimum standard buffer shall be implemented and the CPUC and the appropriate wildlife agencies shall be notified immediately (within 48 hours). • As appropriate, nest deterrent strategies may be used to prevent birds from nesting in construction equipment or staged materials. This includes covering equipment with tarps or covering small holes. Bird netting may not be used due to risk of entanglement. 	<p>Nesting bird surveys and nest monitoring are performed by PG&E and results are reviewed by CPUC weekly and provided to CDFW and USFWS monthly. CPUC verifies that PG&E establishes proper buffers around nesting birds, follows the specified process for buffer reductions, and implements collision-reducing techniques for transmission line. CPUC approves buffer reduction requests from PG&E for special status species after review by USFWS and CDFW.</p>	<p>Prior to construction – conduct surveys</p> <p>During construction – conduct monitoring</p>	<p>Entire project area; not applicable to Fence Meadow Repeater Station.</p>	<p>PG&E, CPUC, CDFW, USFWS</p>

Table C-1 Mitigation Measures and APMs

Measure Title and Text	Monitoring/Reporting Action/Effectiveness Criteria	Timing	Location	Status
<ul style="list-style-type: none"> • If construction requires removal of a structure or tree that contains a known or historic nest, then removal of that structure must occur when the nest is determined to be inactive and, if feasible, outside of nesting season. • PG&E shall adhere to recommendations published by APLIC's Reducing Avian Collisions with Power Lines: The State of the Art in 2012 (APLIC 2012), as feasible. <p>Monitoring and Reporting. Nest locations and exclusion buffers shall be mapped (using a geographic information system [GIS]) for all identified nests. The information shall be maintained in a database; shall be provided to the CPUC weekly and to USFWS and CDFW monthly; and shall include the following information:</p> <ul style="list-style-type: none"> • Date, time, and length of observation period • Status (active or inactive) • Species • Nest location, including nest height • Behavioral observations • Site conditions, including construction activities • Nest exposure • Estimated date of nest establishment • Estimated fledge date • Number of eggs or hatchlings, if observed • Buffer size implemented <p>Nests protected by a standard buffer shall be observed by a CPUC-approved qualified avian biologist at a frequency and length of time the avian biologist deems necessary to ensure activities are not causing disturbance to the nest (minimum of once a week during construction) until the biologist has determined that the nest is inactive or until after construction ends in the work area (whichever occurs first). If the biologist observes the birds becoming agitated or the incubating adult leaves the nest as a result of construction activities, he or she shall have the authority to halt work and expand the buffer. No avian reporting shall be required for construction outside of the nesting season unless species are observed nesting outside of the normal season or special status bird species are observed in the project area.</p> <p>Buffer Reductions. The specified buffer sizes for nests may be reduced on a case-by-case basis based on compelling biological and ecological reasoning (e.g., the biology of the bird species, concealment of the nest by topography, land use type, vegetation, and the level of project activity), and if a CPUC-approved qualified avian biologist determines that a reduced buffer size would not result in the abandonment of the nest or failure. Buffer reduction requests shall be submitted to the independent avian biologist (a qualified avian biologist approved by the CPUC and who reports directly to the CPUC) to be reviewed and approved. The independent avian biologist shall respond to PG&E's request for a buffer reduction within 48 hours. Buffer reduction requests for special status species (other than those specified in MM BIO-6 and MM BIO-7) shall be submitted to the appropriate wildlife agencies and to the CPUC for approval. The request must include the following:</p> <ul style="list-style-type: none"> • Species • Location • Pre-existing conditions present on site • Description of the work to be conducted within the reduced buffer, including equipment type and start date • Size and expected duration of proposed buffer reduction • Reason for buffer reduction • Name and contact information of the CPUC-approved qualified avian biologist who requested the buffer reduction and who shall conduct subsequent monitoring • Proposed frequency and methods of monitoring necessary for the nest given the type of bird and surrounding conditions as recommended by the CPUC-approved qualified avian biologist 				

Table C-1 Mitigation Measures and APMs

Measure Title and Text	Monitoring/Reporting Action/Effectiveness Criteria	Timing	Location	Status
<p>Nests shall be monitored until the avian biologist has determined that the nest is inactive; or construction ends within the standard buffer (whichever occurs first). The biologist shall halt construction and increase the reduced buffer size if it is determined that the nesting bird(s) are agitated or the incubating adult leaves the nest as a result of construction activities.</p> <p>Nesting in Active Work Areas. Non-special status species found building nests within the standard buffer zone after specific project activities begin and the activities are not expected to increase in duration, intensity, or distance from the nest, shall be assumed tolerant of that specific project activity and such nests shall be protected by the immediate implementation of the maximum buffer practicable (as determined by the CPUC-approved avian biologist). Notification, which includes the same data in the above reduction request, shall then be sent to the CPUC's independent avian biologist within 24 hours and the independent avian biologist shall have the authority to increase the buffer distance. These nests shall be monitored on a schedule determined by the qualified CPUC-approved avian biologist during construction activities until the avian biologist has determined that the nest is inactive; or construction ends within the standard buffer zone (whichever occurs first). If the CPUC-approved avian biologist determines that the nesting bird(s) are not tolerant of project activities, the buffer shall be expanded, and may be expanded beyond the standard buffer distance.</p>				
<p>MM BIO-5: Wildlife Protection (Supersedes APMs BIO-4, -5, and -10). The applicant shall implement the following measures to ensure protection of all wildlife species.</p> <ul style="list-style-type: none"> • Vehicle speed limits on existing unpaved access routes shall not exceed 15 miles per hour and shall not exceed 10 miles per hour on overland access roads. County speed limits shall be followed on existing paved roads. Construction personnel shall avoid collision with wildlife. • If night work is required, all lighting shall be shielded and point downward and away from any identified sensitive biological resources. • All trash and debris shall be secured in animal-proof containers before the end of each workday. Containers shall be emptied at least once per week and disposed of at an appropriate off-site location. • All construction personnel shall not harass any wildlife and shall allow wildlife to leave the work area on their own volition. <p>Disturbance limits shall be visibly flagged to ensure construction personnel minimize the construction footprint.</p>	<p>CPUC verifies that PG&E implements measures to protect wildlife.</p>	<p>Prior to and during construction</p>	<p>Entire project area; not applicable to Fence Meadow Repeater Station.</p>	<p>PG&E, CPUC</p>

Table C-1 Mitigation Measures and APMs

Measure Title and Text	Monitoring/Reporting Action/Effectiveness Criteria	Timing	Location	Status
<p>MM BIO-6: Specific Requirements for Burrowing Owl (Supersedes APM BIO-13). A CPUC-approved qualified avian biologist familiar with burrowing owl biology and survey methods shall conduct a pre-construction survey for this species no more than 30 days prior to construction activities during the non-breeding season and no more than 14 days prior to construction during the breeding season (February 1 to August 31 with some variance by geographic location and climatic conditions; CDFW 2012). The biologist shall confirm whether the owls are occupying the site and whether they are actively nesting. If any burrowing owl or sign of an occupied burrow is observed, the CPUC shall be informed as soon as possible (and within 48 hours). Surveys shall include the irrigation ditch and any area with suitable habitat within 656 feet (200 meters) of the project activities. If access to areas with suitable habitat is restricted, the biologist shall visually survey with a spotting scope, binoculars, or other visual techniques.</p> <p>If an occupied burrow is identified, the CPUC-approved qualified biologist shall immediately implement a minimum 200 meter (656 foot) buffer. Then an appropriate burrow-specific buffer shall be recommended by the CPUC-approved qualified biologist based on the circumstances (e.g., owl tolerance and construction activity level) and as explained by the Staff Report on Burrowing Owl Mitigation (CDFW 2012 or more recent), which shall be approved by the CPUC and then implemented.</p> <p>In areas where owl presence or owl sign is not found, weekly surveys for burrowing owl and its sign shall be conducted for the remainder of the first breeding season and all following breeding seasons. Survey areas shall include work areas where construction-related activities are occurring, and surveys shall adhere to the following procedures:</p> <ul style="list-style-type: none"> • A CPUC-approved qualified avian biologist shall conduct surveys for nesting birds within 7 days prior to the start of any construction-related activities. Areas shall be re-surveyed every 7 days while construction activities are occurring. If there is no work in an area for 7 days, it shall be considered a new work area if construction resumes. In addition, a CPUC-approved qualified monitor shall conduct pre-construction clearance sweeps for nesting birds at all work areas where suitable habitat is present within approximately 24 hours of construction activities each day during the nesting season. • Surveys shall be conducted with the appropriate duration, level of effort, and timing based on level of construction disturbance, time of day, and environmental factors. Surveys shall be conducted in the irrigation ditch, and any area with suitable habitat within 656 feet (200 meters) of project activities, at a minimum. If access to areas with suitable habitat is restricted, the biologist shall visually survey with a spotting scope, binoculars, or other visual techniques. • Surveys shall be conducted at a minimum between February 1 and September 15; however, the survey season may need to begin earlier or end later depending on species and weather conditions. <p>Survey results shall be provided to the CPUC each week.</p>	<p>CPUC verifies that PG&E conducts pre-construction surveys for burrowing owl according to the specification in this mitigation measure and implements avoidance measures recommended by CDFW in <i>Staff Report on Burrowing Owl</i>.</p>	<p>Prior to and during construction</p>	<p>Entire project area; not applicable to Fence Meadow Repeater Station.</p>	<p>PG&E, CPUC, CDFW</p>

Table C-1 Mitigation Measures and APMs

Measure Title and Text	Monitoring/Reporting Action/Effectiveness Criteria	Timing	Location	Status
<p>MM BIO-7: Specific Requirements for Special Status Raptors (Supersedes APM BIO-12). A CPUC-approved qualified avian biologist shall conduct pre-construction surveys for Swainson's hawk and white-tailed kite in appropriate habitat within 0.5 miles of project construction activities prior to the start of construction during breeding season (i.e., the "first" breeding season). The avian biologist shall be familiar with the survey methods and biology of these species. Surveys for Swainson's hawk shall follow the protocols outlined in the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (CDFW 2000a or more recent).</p> <p>If an active nest (i.e., when nest decoration begins) is identified within 0.5 miles of construction activities, then a CPUC-approved qualified avian biologist shall implement a 0.5 miles buffer around the nest. The CPUC and CDFW shall be informed of the nest as soon as possible (and within 48 hours). Requests to reduce standard buffers must be sent to the CPUC to be reviewed in coordination with CDFW.</p> <p>If no indication of Swainson's hawk or white-tailed hawk nesting (indications include vocalizations or observations of nesting activities, nests, perched adults, displaying adults, eggs, chicks) is found during protocol-level surveys, weekly surveys for nesting Swainson's hawk and white-tailed kite shall be conducted for the remainder of the breeding season in all work areas where any construction-related activities are occurring, according to the following procedures:</p> <ul style="list-style-type: none"> • A CPUC-approved qualified avian biologist shall conduct surveys for nesting birds within 7 days prior to the start of any construction-related activities. Areas shall be re-surveyed every 7 days while construction activities are occurring. If there is no work in an area for 7 days, it shall be considered a new work area if construction resumes. In addition, a CPUC-approved qualified monitor shall conduct pre-construction clearance sweeps for nesting birds at all work areas where suitable habitat is present within approximately 24 hours of construction activities each day during the nesting season. • Surveys shall be conducted with the appropriate duration, level of effort, and timing based on level of construction disturbance, time of day, and environmental factors. Survey areas shall include work areas and a 500-foot buffer, at a minimum. • Surveys shall be conducted at a minimum between February 1 and September 15; however, the survey season may need to begin earlier or end later depending on species and weather conditions. • Survey results shall be provided to the CPUC each week. <p>During subsequent breeding seasons following the first season, reconnaissance surveys for Swainson's hawk and white-tailed kite shall be performed in appropriate habitat and at the appropriate time within 0.5 miles of project construction activities in order to detect any new nesting activity. If no indication of nesting is found during reconnaissance surveys, weekly surveys for nesting Swainson's hawk and white-tailed kite shall be conducted for the remainder of the breeding season in all work areas where any construction-related activities are occurring (following procedures in the bullet points above).</p>	<p>CPUC verifies that PG&E conducts pre-construction surveys for special status raptors according to the specifications in the mitigation measure and implements avoidance measure recommended by CDFW.</p>	<p>Prior to and during construction</p>	<p>Within 0.5 miles of construction activities; not applicable to Fence Meadow Repeater Station.</p>	<p>PG&E, CPUC, CDFW</p>
<p>Cultural and Paleontological Resources</p>				
<p>APM CUL-4: Unanticipated discovery of human remains management. If human remains are discovered, work in the immediate vicinity will stop immediately and a PG&E Cultural Resources Specialist will be contacted. The location of the discovery will be secured to prevent further impacts and the location will be kept confidential. The Cultural Resources Specialist will evaluate the discovery and will contact the Fresno County Coroner upon verifying that the remains are human. If the coroner determines the remains are Native American, the Native American Heritage Commission will be contacted and the remains will be left in situ and protected until a decision is made on their final disposition.</p>	<p>CPUC verifies that PG&E implements protocols for unanticipated human remains discovery, including halting work in the event of an unanticipated discovery.</p>	<p>During construction</p>	<p>Entire project area; not applicable to Fence Meadow Repeater Station.</p>	<p>PG&E, CPUC</p>
<p>APM PAL-1: Worker's environmental resources training. All construction crew members must receive a paleontologically focused worker's environmental awareness training module prior to ground disturbance activities for the project. The module will be developed by the lead Paleontologist for the project and can be presented in person, through a safety tailboard, or in some other format, such as a brochure or videotape. The training module will cover the following topics: fossil/paleontological resource identification, discovery guidance, and the contact information of both the paleontological field monitor and the project paleontological resource specialist.</p>	<p>The training program is prepared by PG&E, approved by CPUC, and implemented by PG&E; CPUC verifies that new employees are trained by reviewing training records kept by PG&E.</p>	<p>Prior to construction – submit training program to CPUC for review and conduct training</p> <p>During construction – monitor continued training</p>	<p>Entire project area; not applicable to Fence Meadow Repeater Station.</p>	<p>PG&E, CPUC</p>

Table C-1 Mitigation Measures and APMs

Measure Title and Text	Monitoring/Reporting Action/Effectiveness Criteria	Timing	Location	Status
<p>MM CUL-1: Cultural Resources Monitoring and Treatment (supersedes APM CUL-3). A CPUC-approved archaeologist that meets the Secretary of Interior’s Professional Qualifications Standards for archaeology shall implement the following procedures if an unanticipated cultural resource is discovered during construction.</p> <p>Work shall be halted and excluded from within 100 feet of the resource. Protective barriers shall be installed with signage identifying the area as an “environmentally sensitive area.” The CPUC shall be notified of the find. <u>The CPUC will notify parties who have requested notification of the find to the extent allowed, in consideration of confidentiality requirements.</u> Total avoidance of the resource is preferred, and no additional mitigation is necessary if it is avoided. The resource shall be recorded on California Department of Parks and Recreation 523 forms and filed at the South San Joaquin Valley Information Center.</p> <p>If the resource cannot be avoided, the CPUC-approved archaeologist shall determine in consultation with the CPUC if there is a potential for the resource to be historical (CEQA Guidelines section 15064.5(a)) or a unique archaeological resource (Public Resources Code 21083.2(g)). <u>The CPUC must provide a response to the CPUC-approved archaeologist within seven days regarding a resource that the CPUC-approved archaeologist has found not to be potentially historical or a unique archaeological resource.</u> If the resource is not potentially a historical or unique archaeological resource, work can resume after the CPUC’s concurrence. If the resource is potentially a historical or unique archaeological resource, the CPUC-approved archaeologist shall prepare an Evaluation Plan that details the procedures to be used to determine whether the resource is a historical or unique archaeological resource. The Evaluation Plan shall be submitted to the CPUC for review. The CPUC will approve or request changes to the Evaluation Plan within 7 days of submittal by PG&E. Once approved, the Evaluation Plan shall be implemented, and a report shall be prepared that indicates whether the resource is a historical resource or unique archaeological resource. If the discovery is not historical or a unique archaeological resource and the CPUC concurs with that determination, work may proceed in the area of the discovery. If the discovery is historical or a unique archaeological resource, PG&E shall prepare a Data Recovery Plan that would reduce impacts to less than significant.</p> <p>The Data Recovery Plan shall be prepared in accordance with CEQA Guidelines section 15126.4(b)(3)(C) and PRC section 21083.2 and shall describe methods that will yield relevant information. The Data Recovery Plan shall be submitted to the CPUC for review and approval. The CPUC will approve or request changes to the Data Recovery Plan within 7 days of submittal by PG&E. Once approved, the applicant shall implement the plan. When the field work is completed, a Data Recovery Field Memo shall be prepared that briefly describes the data and materials recovery. The Data Recovery Field Memo shall be submitted to the CPUC for review and approval. The CPUC will approve or request changes to the Data Recovery Field Memo within 7 days of submittal by PG&E. Once the Data Recovery Field Memo has been approved, construction may proceed in the area of the discovery. A more detailed Data Recovery Report shall be prepared within 90 days of the Data Recovery Field Memo. The Data Recovery Report shall present thorough results of the data recovery efforts, conclusions drawn from the work, and where materials will be curated and shall also contain completed California Department of Parks and Recreation 523 forms. The Data Recovery Report shall be submitted to the CPUC for review and approval. Once approved, the Data Recovery Report and 523 forms shall be filed with the South San Joaquin Valley Information Center.</p>	<p>The CRMTP is prepared by PG&E, approved by CPUC prior to the start of construction, and implemented by PG&E. CPUC verifies that PG&E implements monitoring as described in the plan, including halting work in the event of an unanticipated discovery.</p>	<p>Prior to construction – prepare, submit, and obtain approval of CRMTP</p> <p>During construction – follow CRMTP in case of resource discovery</p>	<p>Entire project area; not applicable to Fence Meadow Repeater Station.</p>	<p>PG&E, CPUC</p>

Table C-1 Mitigation Measures and APMs

Measure Title and Text	Monitoring/Reporting Action/Effectiveness Criteria	Timing	Location	Status
<p>MM CUL-2: Worker Education Program (supersedes APM CUL-1, supplements APM CUL-4). PG&E shall design and implement a Worker Education Program that shall be provided to all project personnel who may encounter and/or alter historical resources or unique archaeological resources, including construction supervisors and field personnel. No construction worker will be involved in field operations without having participated in the Worker Education Program. The Worker Education Program shall include, at a minimum:</p> <ul style="list-style-type: none"> • A review of archaeology, history, prehistory and Native American cultures associated with historical resources in the project vicinity; • A review of the types of resources that could be uncovered in the area, including historical artifacts associated with the nonextant historical complex at the Sanger Substation site; • A review of applicable local, state, and federal ordinances, laws, and regulations pertaining to historic preservation and Native American resources; • A discussion of procedures to be followed in the event that unanticipated cultural resources or human remains are discovered during implementation of the project; • A discussion of disciplinary and other actions that could be taken against persons violating historic preservation laws and PG&E policies; and <p>A statement by the construction company or applicable employer agreeing to abide by the Worker Education Program, PG&E policies and procedures, and other applicable laws and regulations.</p>	<p>The training program is prepared by PG&E, approved by CPUC, and implemented by PG&E; CPUC verifies that new personnel are trained by reviewing training records.</p>	<p>Prior to construction – submit training program to CPUC for review and conduct training</p> <p>During construction – monitor continued training</p>	<p>Entire project area; not applicable to Fence Meadow Repeater Station.</p>	<p>PG&E, CPUC</p>
<p>MM CUL-3 (supersedes APM PAL-2): Unanticipated paleontological resource discovery protocol. If a previously unidentified paleontological resource is discovered during construction, PG&E shall immediately require that work be halted within 100 feet of the resource; measures be put in place to prevent further impacts to the resources, such as protective barriers and/or signs, and/or coverings; that PG&E's CPUC-approved Cultural Resources Specialist (CRS) and paleontological resource specialist be notified; and that the CRS notify the CPUC. PG&E's CPUC-approved paleontological resource specialist shall examine the find and determine whether it is unique under Part V of CEQA Guidelines Appendix G. The CPUC-approved paleontologist may develop significance criteria for the fossils likely to be yielded by the Riverbank Formation, subject to CPUC approval (such criteria will be documented in the PRMMP discussed in MM CUL-4). In the absence of other agreed-upon criteria, a paleontological resource shall be considered unique if it meets the definition of a significant paleontological resource under the 2010 Society of Vertebrate Paleontology <i>Standard Procedures for the Assessment of Adverse Impacts to Paleontological Resources</i> definition:</p> <p>Significant paleontological resources are fossils and fossiliferous deposits, here defined as consisting of identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information. Paleontological resources are considered to be older than recorded human history and/or older than middle Holocene (i.e., older than about 5,000 radiocarbon years).</p> <p>The results of the evaluation will be submitted to the CPUC, and the CPUC must determine whether or not the resource is unique. <u>The CPUC must respond in writing within seven days stating whether the resource is unique and provide reasoning if it disagrees with the conclusion.</u> If the resource is determined not to be unique, work may commence in the area. If the resource is significant and can be avoided and thus not impacted, PG&E shall document the resource in accordance with professional standards, continue to flag the area for avoidance during construction, and take no further action. Preservation in place, i.e., avoidance, is the preferred method of mitigation for impacts to unique paleontological resources. However, if the resource is unique and cannot feasibly be avoided, PG&E shall consult with the CPUC to determine appropriate mitigation measures. Mitigation methods may include ensuring that fossils are recovered, prepared, identified, catalogued, and analyzed according to current professional standards under the direction of a qualified paleontologist. Methods of recovery, testing, and evaluation shall adhere to current professional standards for recovery, preparation, identification, analysis, and curation, such as the 2010 Society of Vertebrate Paleontology <i>Standard Procedures for the Assessment of Adverse Impacts to Paleontological Resources</i>. Work may commence after data recovery (if undertaken) and upon approval by the CPUC.</p>	<p>CPUC verifies that PG&E implements protocols for unanticipated paleontological resource discovery, including halting work in the event on an unanticipated discovery.</p>	<p>During construction</p>	<p>Entire project area; not applicable to Fence Meadow Repeater Station.</p>	<p>PG&E, CPUC</p>

Table C-1 Mitigation Measures and APMs

Measure Title and Text	Monitoring/Reporting Action/Effectiveness Criteria	Timing	Location	Status
<p>MM CUL-4 (supersedes APM PAL-3): Paleontological Resources Monitoring and Mitigation Plan. A qualified professional paleontologist shall prepare a Paleontological Resources Monitoring and Mitigation Plan (PRMMP) for the project before the onset of ground disturbing activities. The PRMMP shall be submitted to the CPUC for review and approval at least 30 days prior to the start of any excavation to 5 feet below ground surface. PG&E's CPUC-approved paleontological resource specialist shall direct implementation of the PRMMP.</p> <p>The PRMMP shall include full-time monitoring of excavations extending more than 5 feet deep and auguring/boring extending to more than 5 feet deep and more than 3 feet in diameter, or in lieu of full-time monitoring, the PRMMP shall include the following requirements:</p> <p><u>Initial Monitoring:</u></p> <ol style="list-style-type: none"> 1. Prior to the start of construction, PG&E's CPUC-approved paleontological resource specialist shall identify a minimum number and array of excavation types (i.e. TSP foundation drilling, grading, retention pond) extending more than 5 feet deep and auguring/boring extending to more than 5 feet deep and more than 3 feet in diameter sufficient to obtain data to determine whether the project area is likely to yield significant paleontological resources. The placement of the locations requiring monitor will be developed by the paleontologist in consultation with PG&E's construction team, and will focus on volume of soil to be disturbed to produce a representative sample. The PRMMP shall identify the methods used (e.g., microscopic examination of matrix samples, visual examination of excavated material) to make the determination. 2. At all sites identified by PG&E's CPUC-approved paleontological resource specialist, a CPUC-approved paleontological field monitor shall monitor the excavation and auguring during the initial stages of construction (i.e., from the beginning of construction until a determination is made after initial monitoring as described in this item) to determine whether the project area is likely to yield significant paleontological resources. <p><u>Subsequent Monitoring:</u> The results of initial monitoring shall be described in a memo, to be submitted to CPUC for review and approval. CPUC will review and either request revisions or approve the memo within 2 business days of submittal by PG&E. PG&E shall not reduce or stop monitoring until CPUC approves the memo. Based on the results of initial monitoring, the following measures shall be required and described in the PRMMP:</p> <ul style="list-style-type: none"> • If PG&E's CPUC-approved paleontological resource specialist determines that no part of the project area is likely to yield significant paleontological resources, further monitoring shall not be required. PG&E must still make available the paleontological resource specialist and paleontological field monitor (available to go to the work site as needed). Training provided pursuant to APM PAL-1 will enable work crews to identify likely fossils, and inform the appropriate parties if such deposits are identified. • If PG&E's CPUC-approved paleontological resource specialist discovers significant paleontological resources or determines the project area is likely to yield significant paleontological resources, then continued monitoring shall be required as deemed appropriate by the paleontological resource specialist, in consultation with the CPUC and PG&E's construction team, based on the nature, location, and geologic context of the fossil(s), as well as the potential for further disturbance. <p>If a paleontological resource is discovered at any time during initial monitoring, continued monitoring, or unmonitored construction, PG&E shall notify the CPUC immediately and the paleontological resource specialist will inspect the matrix for fossils. If a paleontological resource is discovered, MM CUL-3 shall be implemented.</p>	<p>The PRMMP is prepared by PG&E, reviewed by CPUC, and implemented by PG&E; CPUC verifies that PG&E implements monitoring as described in the plan, including having a monitor present when applicable.</p>	<p>Prior to construction – prepare, submit, and obtain approval of PRMMP</p> <p>During construction – monitoring is conducted as set forth in the PRMMP</p>	<p>Entire project area; not applicable to Fence Meadow Repeater Station.</p>	<p>PG&E, CPUC</p>

Table C-1 Mitigation Measures and APMs

Measure Title and Text	Monitoring/Reporting Action/Effectiveness Criteria	Timing	Location	Status
<p>MM CUL-5: Undiscovered potential Tribal Cultural Resources. The following procedure shall be employed (after stopping work and following the procedure for determining eligibility in MM CUL-1) if a resource is encountered and determined by the project's qualified archaeologist to be eligible for the CRHR or a local register of historic resources and is associated with a California Native American Tribe(s) with a traditional and cultural affiliation with the geographic area of the proposed project:</p> <ul style="list-style-type: none"> The project's qualified archaeologist shall notify the CPUC for appropriate action. PG&E will assist the CPUC if needed to identify the lead contact person for the California Native American Tribe(s) potentially associated with the cultural resource and with a traditional and cultural affiliation with the geographic area of the proposed project. The CPUC will contact the lead contact person to set up a meeting with PG&E and the CPUC. The project's qualified archaeologist shall participate with the CPUC in discussions with the California Native American Tribe(s) whether the resource is a "tribal cultural resource" as defined by PRC section 21084.3(b) and the tribe(s)' preferred method of mitigation, if the resource is determined to be a TCR. <p>If no agreement can be reached for mitigation after discussions with the California Native American Tribe(s) or it is determined that the tribe(s)' preferred mitigation is not feasible, PG&E will implement one of the example mitigation measures listed in PRC section 21080.3(b), or other feasible mitigation.</p>	<p>CPUC verifies that PG&E properly analyzes and processes all potential Tribal Cultural Resources.</p>	<p>During construction</p>	<p>Entire project area; not applicable to Fence Meadow Repeater Station.</p>	<p>PG&E, CPUC</p>
Geology and Soils				
<p>APM GEO-2/APM WQ-1: Development and implementation of a Stormwater Pollution Prevention Plan (SWPPP). Because the project involves more than an acre of soil disturbance, a SWPPP will be prepared for the project as required by the state National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Stormwater Associated with Construction Activity. This plan will be prepared in accordance with the Water Board guidelines and other applicable erosion and sediment control Best Management Practices (BMPs). Implementation of the plan will help stabilize disturbed areas and will reduce erosion and sedimentation. The SWPPP will designate BMPs that will be followed during and after construction of the project. Examples of erosion-minimizing measures that may be identified in the SWPPP include:</p> <ul style="list-style-type: none"> 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. Revegetating disturbed areas, where applicable, following construction. <p>In areas where soils are to be temporarily stockpiled, soils will be placed in a controlled area and will 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 will be placed at least 100 feet from the waterbody or will be properly contained (such as berming or covering to minimize risk of sediment transport to the drainage). Mulching or other suitable stabilization measures will be used to protect exposed areas during and after construction activities. Erosion-control measures will 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, will remain in place until disturbed areas have stabilized.</p> <p>The SWPPP will be designed specifically for the hydrologic setting of the project.</p>	<p>PG&E prepares and submits SWPPP to RWQCB; CPUC verifies that PG&E submits SWPPP and implements proper BMPs.</p>	<p>Prior to construction – obtain NPDES General Permit and prepare SWPPP</p> <p>During construction – implement BMPs</p>	<p>Entire project area</p>	<p>PG&E, CPUC, RWQCB</p>

Table C-1 Mitigation Measures and APMs

Measure Title and Text	Monitoring/Reporting Action/Effectiveness Criteria	Timing	Location	Status
Greenhouse Gases				
<p>APM GHG-1: Minimize GHG emissions.</p> <ul style="list-style-type: none"> Minimize unnecessary construction vehicle idling time. The ability to limit construction vehicle idling time will depend on the sequence of construction activities and when and where vehicles are needed or staged. Certain vehicles, such as large diesel-powered vehicles, have extended warm-up times following start-up that limit their availability for use following start-up. Where such diesel-powered vehicles are required for repetitive construction tasks, these vehicles may require more idling time. The project will apply a "common sense" approach to vehicle use, so that idling is reduced as far as possible below the maximum of 5 consecutive minutes allowed by California law; if a vehicle is not required for use immediately or continuously for construction activities, its engine will be shut off. Construction foremen will include briefings to crews on vehicle use as part of pre-construction conferences. Those briefings will include discussion of a "common sense" approach to vehicle use. Maintain construction equipment in proper working conditions in accordance with PG&E standards. Minimize construction equipment exhaust by using low-emission or electric construction equipment where feasible. Portable diesel fueled construction equipment with engines 50 hp or larger and manufactured in 2000 or later will be registered under the CARB Statewide Portable Equipment Registration Program. Minimize welding and cutting by using compression of mechanical applications where practical and within standards. Encourage use of natural gas powered vehicles for passenger cars and light-duty trucks where feasible and available. Encourage the recycling of construction waste where feasible. 	<p>CPUC-designated environmental monitor verifies that PG&E minimizes vehicle idling time, construction equipment is kept in proper working condition, and low-emission or electrical equipment is used where feasible. CPUC verifies that PG&E trains workers on vehicle use.</p>	<p>Prior to construction – verify training of workers</p> <p>During construction</p>	<p>Entire project area</p>	<p>PG&E, CPUC</p>
<p>APM GHG-2: Minimize sulfur hexafluoride (SF₆) emissions. To avoid and minimize fugitive (leakage) SF₆ emissions, PG&E will incorporate the following measures:</p> <ul style="list-style-type: none"> Incorporate Sanger Substation into PG&E's system-wide SF₆ emission reduction program. CARB has adopted the Regulation for Reducing Sulfur Hexafluoride Emissions from Gas Insulated Switchgear sections 95350 to 95359, title 17, California Code of Regulations, which requires that company-wide SF₆ emission rate not exceed 1 percent by 2020. Since 1998, PG&E has implemented a programmatic plan to inventory, track, and recycle SF₆ inputs, and inventory and monitor system-wide SF₆ leakage rates to facilitate timely replacement of leaking breakers. PG&E has improved its leak detection procedures and increased awareness of SF₆ issues within the company. X-ray technology is now used to inspect internal circuit breaker components to eliminate dismantling of breakers, reducing SF₆ handling and accidental releases. As an active member of USEPA SF₆ Emission Reduction Partnership for Electrical Power Systems, PG&E has focused on reducing SF₆ emissions from its transmission and distribution operations and has reduced the SF₆ leak rate by 89 percent and absolute SF₆ emissions by 83 percent. Require that the breakers at Sanger Substation have a manufacturer's guaranteed maximum leakage rate of 0.5 percent per year or less for SF₆. Maintain substation breakers in accordance with PG&E's maintenance standards. Comply with California Air Resources Board Early Action Measures as these policies become effective. 	<p>PG&E provides documentation to CPUC to show implementation of SF₆ emission reduction program.</p>	<p>During operation and maintenance</p>	<p>Expanded substation</p>	<p>PG&E, CPUC</p>
Hazards and Hazardous Materials				
<p>APM HAZ-1: Spill Prevention, Control, and Countermeasures (SPCC). In the event of an accidental spill, the substation is equipped with a retention basin that meets SPCC Guidelines (40 CFR 112). The retention basin will be sufficiently sized to accommodate the accidental spill of all mineral oil from the largest transformer located at the substation. The substation will 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. Containment will be constructed around and under the battery racks, and the SPCC will address containment from a battery leak.</p> <p>A site-specific SPCC Plan will be prepared prior to the initiation of construction.</p>	<p>The site-specific SPCC Plan will be prepared by PG&E, approved by CPUC, and implemented by PG&E. CPUC will verify that PG&E implements the SPCC, including inspection of required measures by CPUC-designated environmental monitor.</p>	<p>Prior to construction – prepare SPCC Plan and submit to CPUC for review and approval</p> <p>During operation – implement SPCC Plan</p>	<p>Entire project area; not applicable to Fence Meadow Repeater Station.</p>	<p>PG&E, CPUC</p>
<p>APM HAZ-3: Shock hazard. All authorized personnel working on site, during either construction or maintenance and operation, will be trained according to PG&E standards. To minimize potential exposure of the public to electric shock hazards, an 8-foot-tall chain link fence topped with 1 foot of barbed wire will extend around the perimeter of the expanded substation for a total of approximately 9 feet, thus restricting site access. Warning signs will be posted to alert persons of potential electrical hazards. All electric power lines will be designed in accordance with CPUC General Order 95 Guidelines for safe ground clearances established to protect the public from electric shock.</p>	<p>CPUC verifies that PG&E installs fences and signs, and that PG&E designs electrical power lines in accordance with CPUC General Order 95 Guidelines.</p>	<p>Prior to construction – verify training of workers</p> <p>During operation and maintenance – verify implementation of design elements</p>	<p>Substation and all power lines</p>	<p>PG&E, CPUC</p>

Table C-1 Mitigation Measures and APMs

Measure Title and Text	Monitoring/Reporting Action/Effectiveness Criteria	Timing	Location	Status
<p>MM HAZ-1: Hazardous Materials Management Plan (supersedes APM HAZ-2 and APM HAZ-4). Prior to construction, the applicant shall prepare a Hazardous Materials Management Plan, which shall be implemented during construction to prevent the release of hazardous materials and hazardous waste. The plan shall include the following requirements and procedures:</p> <ol style="list-style-type: none"> 1. Training requirements for construction workers in appropriate work practices, including spill prevention and response measures. Additional training requirements for those performing excavation activities shall be required and shall include training on types of contamination and contaminants (e.g., petroleum hydrocarbons, asbestos, and hazardous materials [as defined by the California HSC]) and identifying potentially hazardous contamination (e.g., stained or discolored soil and odor). 2. Contain all hazardous materials at work sites and properly dispose of all such materials. <ol style="list-style-type: none"> a. Hazardous materials shall be stored on pallets within fenced and secured areas and protected from exposure to weather and further contamination. b. Fuels and lubricants shall be stored only at designated staging areas. 3. Maintain hazardous material spill kits for small spills at all active work sites and staging areas. Thoroughly clean up all spills as soon as they occur. 4. Store sorbent and barrier materials at all construction staging areas, including staging areas used during activities for decommissioning. Sorbent and barrier materials will be used to contain runoff from contaminated areas and from accidental releases of oil or other potentially hazardous materials. 5. Perform all routine equipment maintenance at a shop or at the staging area and recover and dispose of wastes in an appropriate manner. 6. Monitor and remove vehicles used for construction-related activities with chronic or continuous leaks from use and complete repairs before returning them to operation. 7. Store shovels and drums at the staging areas. If small quantities of soil become contaminated, use shovels to collect the soil and store in drums before proper offsite disposal. Large quantities of contaminated soil may be collected using heavy equipment and stored in drums or other suitable containers prior to disposal. Should contamination occur adjacent to staging areas because of runoff, shovels and/or heavy equipment shall be used to collect the contaminated material. Only trained construction workers shall handle hazardous, and potentially hazardous, materials. 8. Transporting, shipping, and disposal procedures for hazardous waste. 9. Procedures for notifying applicant and agency personnel in the event of the discovery of contaminated soil and/or groundwater. Contact information for federal, regional, and local agencies, the applicant's environmental coordinator(s) responsible for the cleanup of contaminated soil or groundwater, and licensed disposal facilities and haulers. <p>This plan will be submitted to the CPUC for review and approval <u>at least</u> 30 days prior to the start of construction of the proposed project.</p>	<p>HMMP is prepared by PG&E and submitted to CPUC for review and approval; CPUC verifies that PG&E trains workers by reviewing training logs. CPUC-designated environmental verifies that PG&E implements HMMP by inspecting construction sites for presence of spill kits and other required materials, inspection of construction vehicles for leaks, and proper handling of any hazardous materials</p>	<p>Prior to construction – prepare, submit, and obtain approval of HMMP and conduct training</p> <p>During construction – implement HMMP</p>	<p>Entire project area; not applicable to Fence Meadow Repeater Station.</p>	<p>PG&E, CPUC</p>
<p>MM HAZ-2: Fire Control Measures. PG&E shall implement the following measures prior to and during work at the Fence Meadow Repeater Station:</p> <ol style="list-style-type: none"> 1. As part of the Worker Training Program, workers will be trained in fire prevention and response practices to be implemented to minimize the risk of fire, and in the event of fire, trained to provide immediate response. At minimum, construction personnel shall be trained in fire reporting and incipient-stage fire prevention, control, and extinguishing (i.e., the fire can be controlled or extinguished by portable fire extinguishers, small hose systems, or portable water supplies without the need for protective clothing or breathing apparatus.) 2. Prohibit smoking at the worksites other than in designated areas chosen that are free of ignitable material. Require disposal of cigarette butts in a way that will not ignite vegetation or other materials. 3. Ensuring an appropriate fire extinguisher is present before initiating and during each hot-work activity (e/g/, welding, brazing, soldering, grinding, and arc cutting). 4. Preventing vehicles with hot exhaust manifolds from idling on roads with combustible vegetation under the vehicles. 5. Do not park vehicles in areas with vegetation prone to ignition. 6. Equip all vehicles with a fire extinguisher. 	<p>CPUC-designated environmental monitor verifies that PG&E prohibits smoking outside an appropriate designated area and provides required fire extinguishers. CPUC verifies that PG&E trains workers on fire prevention and response by reviewing training logs.</p>	<p>Prior to construction – verify training of workers</p> <p>During construction – implement measures</p>	<p>Fence Meadow Repeater Station</p>	<p>PG&E, CPUC</p>
Hydrology and Water Quality				
<p>APM GEO-2/APM WQ-1: Development and implementation of a Stormwater Pollution Prevention Plan (SWPPP). See Geology and Soils.</p>	<p>See Geology and Soils</p>	<p>See Geology and Soils.</p>	<p>See Geology and Soils.</p>	<p>See Geology and Soils.</p>

Table C-1 Mitigation Measures and APMs

Measure Title and Text	Monitoring/Reporting Action/Effectiveness Criteria	Timing	Location	Status
Noise				
APM NOI-2: Construction equipment noise reduction devices and low noise equipment. PG&E shall include noise control requirements in specifications provided to construction contractors. Such contract specifications would include, but not be limited to, performing all work in a manner that minimizes noise; use of equipment with effective mufflers; use of "quiet" equipment (i.e., equipment that incorporates noise control elements into the design—compressors have "quiet" models) whenever possible; using equipment that is specifically designed for low noise emissions and equipment powered by electric or natural gas as opposed to diesel or gasoline; and undertaking the most noisy activities during the daytime to minimize disturbance to surrounding residents.	CPUC verifies that PG&E uses noise reduction devices and low noise equipment.	During construction.	Entire project area.	PG&E, CPUC
APM NOI-3: Placement of stationary construction equipment. Stationary equipment used during construction will be located at a minimum distance of 200 feet from sensitive noise receptors.	CPUC verifies that stationary equipment used during construction is located 200 feet from sensitive noise receptors.	During construction.	Entire project area.	PG&E, CPUC
APM NOI-4: Minimization of unnecessary engine idling. Unnecessary engine idling will be limited. (See APM GHG-1.)	CPUC verifies engine idling is limited.	During construction.	Entire project area.	PG&E, CPUC
APM NOI-6: Noise disruption minimization through residential notification. Residents in areas of heavy construction noise will be notified prior to commencing construction activities. Notification will include written notice and the posting of signs in appropriate locations with a contact number that residents can call with questions and concerns.	CPUC verifies residents in area will be notified prior to heavy construction noise activities begin.	During construction.	Entire project area.	PG&E, CPUC
Traffic and Transportation				
<p>MM TRAN-1: Traffic Management Plan (supersedes APM TRAN-1). A Traffic Management Plan shall be prepared upon determination of the final construction schedule and precise locations and durations of lane closures and other project details. Measures to be included in the plan that would allow for:</p> <ul style="list-style-type: none"> • Safe vehicle passage shall adhere to the California Manual on Uniform Traffic Control Devices. • Avoidance of truck queuing on South McCall Avenue of trucks waiting to enter the substation construction site. <p>Potential measures include:</p> <ul style="list-style-type: none"> • Flaggers and/or signage to halt traffic and direct traffic at lane closures and to allow traffic to pass when construction is halted. • Scheduling lane closures at off-peak times. • Notification of emergency services providers of the timing, location, and duration of lane closures. • Requirement that emergency vehicle access is maintained at all times. • Scheduling construction deliveries and employee arrival to be spread out throughout the day. • Implementing traffic control within the substation site to move vehicles to allow arriving vehicles to enter the site. <p>The Traffic Management Plan shall also include the following measures:</p> <ul style="list-style-type: none"> • Limit Vehicle Speeds: Vehicle speeds shall be limited to 15 miles per hour on unpaved roadways used to access the site during construction. PG&E shall notify owners of property on which internal access roads are located at least one week in advance that the internal access road will be used for construction traffic. • Slow Truck Warning: During truck delivery and exit hours, PG&E shall post signage at appropriate locations (e.g., along South McCall and East Jensen Avenues) warning drivers when there is a possibility for slow trucks to exit the substation site onto South McCall Avenue. Signage shall adhere to the California Manual on Uniform Traffic Control Devices. • Road Damage Repair: PG&E shall repair to pre-project conditions any roads damaged by project vehicle traffic. PG&E shall document roadway conditions with photographs prior to project activities along East Jensen Avenue and South McCall Avenue adjacent to the project area and extending 0.25 miles from the project area. PG&E shall also take photographs after the project is completed and after any repairs that document restoration of pre-project pavement conditions. • Emergency Service Provider Notification: PG&E shall notify the provider of the location, date, time, and duration of the lane closure. PG&E shall make provisions to maintain emergency vehicle access at all times in coordination with local emergency service providers, such as allowing for bypass of slow vehicle traffic during lane closures. <p>To the extent that compliance with applicable permit requirements, e.g., obtaining the required encroachment permit from Fresno County, would reduce identified significant traffic impact(s) consistent with the performance standards set forth in MM TRAN-1, PG&E may submit such permit(s) in lieu of addressing that impact, subject to review and approval by CPUC prior to the start of construction.</p>	<p>CPUC verifies that PG&E posts signage along South McCall Avenue and East Jensen Avenue when there is the possibility of slow trucks exiting the site. Signage shall adhere to the California Manual on Uniform Traffic Control Devices.</p> <p>CPUC verifies that PG&E repairs any roads damaged by project vehicle traffic to pre-project conditions; and verifies that PG&E documents roadway conditions before and after construction along East Jensen Avenue and South McCall Avenue.</p>	<p>Prior to construction – prepare a Traffic Management Plan and document pre-project road conditions.</p> <p>During construction – implement Traffic Management Plan</p> <p>Post construction – document road conditions and repair damaged roadways</p>	Substation site and South McCall Avenue	PG&E, CPUC

Table C-1 Mitigation Measures and APMs

Measure Title and Text		Monitoring/Reporting Action/Effectiveness Criteria	Timing	Location	Status
Key:					
APLIC	Aviation Power Line Interaction Committee	mph	miles per hour		
APM	applicant-proposed measure	NCP	National Oil and Hazardous Substances Pollution Contingency Plan		
BMP	Best Management Practice	NPDES	National Pollutant Discharge Elimination System		
CARB	California Air Resources Board	PG&E	Pacific Gas and Electric Company		
CDFW	California Department of Fish and Wildlife	PRMMP	Paleontological Resources Monitoring and Mitigation Plan		
CPUC	California Public Utilities Commission	RWQCB	Regional Water Quality Control Board		
CFR	Code of Federal Regulations	SF ₆	sulfur hexafluoride		
CRMTP	Cultural Resources Monitoring and Treatment Plan	SJVAPCD	San Joaquin Valley Air Pollution Control District		
HMMP	Hazardous Materials Management Plan	SPCC	Spill Prevention, Control, and Countermeasures		
hp	horsepower	SWPPP	Stormwater Pollution Prevention Plan		
IS/MNP	Initial Study/Mitigated Negative Declaration	USEPA	U.S. Environmental Protection Agency		
MM	mitigation measure	USFWS	U.S. Fish and Wildlife Service		

Note: Refer to the Final Mitigated Negative Declaration for citations.

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Attachment D
Weekly Compliance Checklist & Summary Form

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Sanger Substation Expansion Project
 PG&E Weekly Compliance Checklist and Summary
 for the Construction Phase (submit to CPUC weekly)

Report #: PG&E-WC- (format: PG&E-WC-mmddyy)
 Completed by:
 Position:
 Organization:

Day of Week	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Date (mm/dd/yy)							
A. Daily Work Hours and Workforce							
Start Time (hh:mm am/pm)							
Stop Time (hh:mm am/pm)							
Active Construction (# of crews/# personnel)							
Resource Monitors (# onsite)							
B. Daily Construction Activities – Check only if applicable							
1. Mobilized materials/equipment or prepared work areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Cleared or trimmed vegetation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Conducted earthwork (grading, trenching, or other ground disturbance)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Developed Site Surfaces (work areas or access roads, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Installed underground lines or vaults	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Installed electrical equipment, buildings, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Installed distribution/transmission poles or towers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Installed overhead lines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Helicopter Activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Site cleanup or restoration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Demobilization activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. Daily Compliance Activities – Check only if applicable and implemented adequately without incident							
General Avoidance and Minimization Measures							
1. All onsite personnel have attended Worker Environmental Awareness Training (MM BIO-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Project activities limited to approved work areas and access roads (APM BIO-1, APM BIO-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Agricultural impacts minimized, topsoil restored, property damage repaired (APM AGR-1, MM AGR-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Fugitive dust emissions are minimized (APM AIR-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Greenhouse gas emissions are minimized (APM GHG-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Special status wildlife avoided (MM BIO-2, MM BIO-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Trenches/excavations checked for wildlife (APM BIO 11)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Day of Week	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Date (mm/dd/yy)							
8. Active bird nests/burrows impacts are avoided (MM BIO-4, MM BIO-6, MM BIO-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Erosion or sediment control measures (APM GEO-2, APM WQ-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Invasive weed measures implemented (APM BIO-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Hazardous materials, refueling, and waste management requirements followed (APM BIO-6, MM HAZ-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Fire prevention measures implemented (MM HAZ-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Cultural, paleontological, and tribal resource measures implemented (APM CUL-4, APM PAL-1, MM CUL-1, MM CUL-2, MM CUL-3, MM CUL-4, MM CUL-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Construction noise reduction measures (APM NOI-2, APM NOI-3, APM NOI-4, APM NOI-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Glare and nighttime lighting directed away from sensitive receptors (MM AES-1, MM BIO-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Traffic control measures implemented (MM TRAN-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. All other applicable MMCRP measures implemented	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PG&E Specialty Monitoring Provided							
1. Special status wildlife (MM BIO-2, MM BIO-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Nesting birds/burrowing owls (MM BIO-3, MM BIO-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Cultural Resources (MM CUL-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Paleontological resources (MM CUL-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. PG&E Tally of Weekly Incidents - enter numbers							
Compliance Level 1 Minor Problem:							
Compliance Level 2 Compliance Deviation:							
Compliance Level 3 Non-compliance:							
Total Compliance Level Incidents							
Health and Safety Incidents							
Public Complaints							
Total Incidents							

Comments on Construction Compliance and Status/Progress:

Summary of Compliance Incidents this Week (for each incident provide date, corresponding incident report number, name of reporter, brief summary of incident, corrective actions taken, and if any follow-up actions are still required as of this weekly report date):

Date	Compliance Level Issue, Resolution, and Follow-up Required	Relevant APM or MM	Incident Report Number

Previous Compliance Level Incidents that Requiring Follow-up this Week:

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Attachment E
Compliance Level Incident Report Form

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Sanger Substation Expansion Project
 PG&E Compliance Level Incident Report Form

Report #: PG&E-IR- - (format: PG&E-IR-#-mmddyy)
 Completed by:
 Organization/Role:
 Incident Date: (format: mm/dd/yyyy)

Date Reported to CPUC:		Location on Project:	
Level (1, 2, or 3)*:		Relevant Plan/Measure:	
Current Land Use at Location of Incident:		Sensitive Resources Affected, if any:	

* Level 1 = Minor Problem; Level 2 = Compliance Deviation; Level 3 = Non-Compliance

Description of Incident:

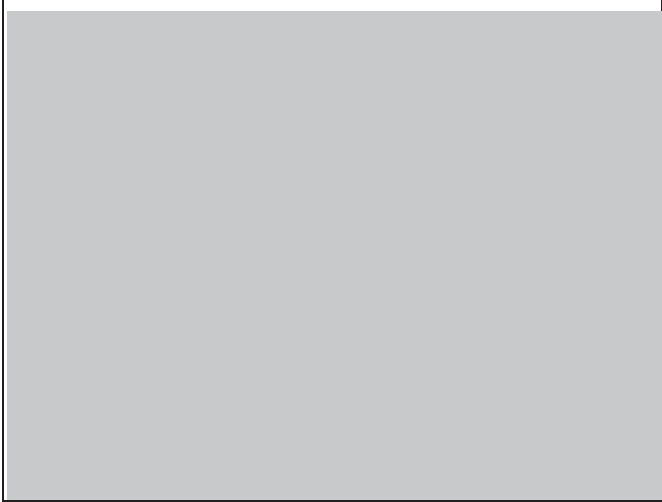
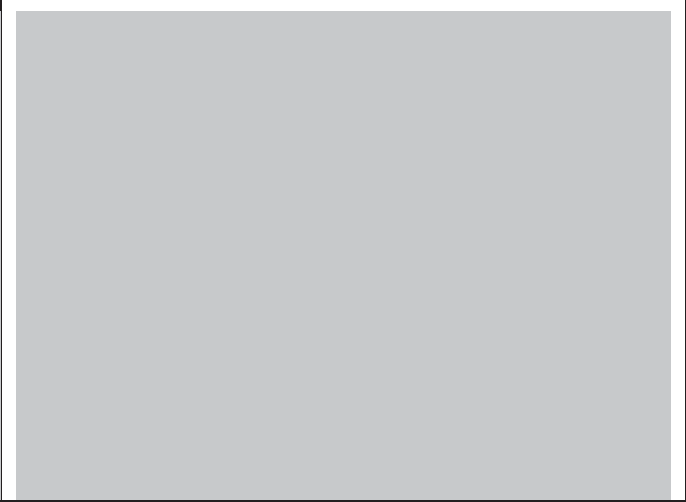


Sensitive Resources Affected:

Pertinent Plans/Permits/Mitigation Measures:

Corrective Actions Taken or Proposed:

Recommended follow-up, including timeline:

Photographs

Date:	Direction:	Date:	Direction:
Description:		Description:	
			
Date:	Direction:	Date:	Direction:
Description:		Description:	
			

CPUC and PG&E Approvals/Acknowledgments of Incident Description and Resolution			
Role	Date	Name (print)	Signature
PG&E Environmental Project Manager (if applicable)			
CPUC Compliance Manager			
CPUC Compliance Monitor (if applicable)			
CPUC Project Manager (if applicable)			

Preparer's
Signature: _____ Date: _____

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Attachment F
Minor Project Refinement (MPR) Request Form

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**SANGER SUBSTATION EXPANSION PROJECT
MINOR PROJECT REFINEMENT REQUEST FORM**

Proposed Minor Project Change Type:	Request #	Determination

Comments and Conditions of Approval (CPUC to complete)

Part A: Proposed Minor Project Change Summary

Date Submitted:	Requested Approval Date:	Start Date:	Expected End Date:
Submitted by:	Organization and Title:	Duration and Work Hours:	

Location(s): (Describe applicable location(s), address, and/or dimensions)

Proposed Action(s): (List and describe each proposed action)

Purpose(s): (Explain why the proposed action(s) are necessary)

Part B: Existing Conditions			
Current and Adjacent Land Use(s):			
Has landowner approval been granted? <i>(Describe below)</i>	Landowner:	Date of Approval:	Approval Verified by:
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			

<i>Surveys (List any new survey reports under Part D, attach a copy, and describe relevant survey details under the applicable resource category listed in the Part E)</i>		
Biological Resources. Were all sites associated with the proposed action(s) surveyed for biological resources with the potential to occur in the area? If so, were survey results positive or negative? Were surveys completed during the appropriate timing and season to detect resources? <i>(If not, describe under the applicable resource category in Part E)</i>	<input type="checkbox"/> Previously Surveyed <input type="checkbox"/> Survey Attached <input type="checkbox"/> N/A	<input type="checkbox"/> Positive <input type="checkbox"/> Negative
Cultural Resources. Were all sites associated with the proposed action(s) surveyed for cultural resources (records search and pedestrian survey)? If so, were survey results positive or negative?	<input type="checkbox"/> Previously Surveyed <input type="checkbox"/> Survey Attached <input type="checkbox"/> N/A	<input type="checkbox"/> Positive <input type="checkbox"/> Negative
Hydrology. Were all sites associated with the proposed action(s) surveyed for hydrologic resources? If so, were survey results positive or negative?	<input type="checkbox"/> Previously Surveyed <input type="checkbox"/> Survey Attached <input type="checkbox"/> N/A	<input type="checkbox"/> Positive <input type="checkbox"/> Negative

Part C: Permits, Agency Approvals, and impacts avoidance measures (E.g., APMs and MMs)
 (List any new permits or agency approvals under Part D, attach a copy, and describe relevant details under the applicable resource category listed in Part E)

Have all required permits, permit amendments/authorizations, or agency approvals been issued by resource agencies with applicable jurisdiction?	<input type="checkbox"/> Previously Provided
	<input type="checkbox"/> Authorization Attached
	<input type="checkbox"/> N/A
Would the proposed action(s) conflict with permit conditions or agency approvals?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Would the proposed action(s) conflict with project applicant proposed measures, avoidance and minimization measures, or mitigation measures listed in Final EIR?	<input type="checkbox"/> Yes <input type="checkbox"/> No

Part D: List of Previous Survey Reports and List of Attached Materials: (e.g., surveys, maps, photos, memos, agency authorizations, etc.)
 Provide a list of materials here that will be included as attachments to this request form; name these Attachment 1, Attachment 2, etc.

Complete the Final IS/MND Consistency Checklist below (Part E) and answer the consistency questions for each resource category. Include a description and justification below each resource category, as necessary. The consistency questions were developed using the CEQA Checklist provided in the Final IS/MND. Refer to the Final IS/MND for the details on the project impact evaluation.

Part E: Final EIR Consistency Checklist			
Would the proposed action(s) result in a new impact, or increase the severity of a previously analyzed impact to:	No Change	Potentially Significant Change	N/A
Aesthetics (e.g., damage scenic resources or vistas, degrade the existing visual character of the site and its surroundings, or create sources of light or glare)? <i>Final IS/MND:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Agriculture and Forestry Resources (e.g., convert Farmland to nonagricultural use, or create a conflict with existing agricultural zoning or a Williamson Act)? <i>Final IS/MND:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Quality (e.g. produce additional emissions, or expose sensitive receptors to additional pollutants)? <i>Final IS/MND:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Biological Resources (e.g., cause an adverse effect to sensitive or special-status species, or impact riparian, wetland, or any other sensitive habitat, or conflict with local policies or ordinances protecting biological resources)? <i>Final IS/MND:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cultural and Paleontological Resources (e.g., cause adverse change to a historical, archeological, or paleontological resource)? <i>Final IS/MND:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Geology and Soils (e.g., cause or expose people or structures to geologic or soil hazards, including erosion or loss of topsoil)? <i>Final IS/MND:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Greenhouse Gases (e.g., generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment)? <i>Final IS/MND:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Part E: Final EIR Consistency Checklist			
Would the proposed action(s) result in a new impact, or increase the severity of a previously analyzed impact to:	No Change	Potentially Significant Change	N/A
<p>Hazards and Hazardous Materials (e.g., create or increase the exposure of people or structures to hazardous materials or wildland fires, involve the use of additional hazardous materials or equipment, or interfere with an adopted emergency plan)? <i>Final IS/MND:</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Hydrology and Water Quality (e.g., degrade water quality, discharge waste or sediment, deplete groundwater, alter the existing drainage pattern, create additional runoff water or polluted runoff, place structures in a 100-year flood hazard area, or expose people or structures to a significant risk involving flooding)? <i>Final IS/MND:</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Land Use (e.g., conflict with a land use plan, policy, or regulation of an agency with jurisdiction over the project, or conflict with a habitat conservation plan)? <i>Final IS/MND:</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Noise (e.g., expose sensitive receptors to additional noise or vibration)? <i>Final IS/MND:</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Public Services (e.g., result in adverse impacts to government facilities that provide public service, such as fire protection, police protection, schools, and parks)? <i>Final IS/MND:</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Recreation (e.g., increases the use of, or cause adverse effects to, parks or other recreational facilities)? <i>Final IS/MND:</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Transportation and Traffic (e.g., increase traffic congestion or degrade performance of the circulation system, taking into account all modes of transportation, or increase hazards due to a design feature)? <i>Final IS/MND:</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Part E: Final EIR Consistency Checklist			
Would the proposed action(s) result in a new impact, or increase the severity of a previously analyzed impact to:	No Change	Potentially Significant Change	N/A
<p>Utilities and Service Systems (e.g., result in construction of new, or expansion of existing, water facilities, stormwater drainage facilities, require additional water entitlements, or creation of new solid waste disposal needs)?</p> <p><i>Final IS/MND:</i></p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Attachment G
Temporary Extra Work Space (TEWS) Requests

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Sanger Substation Expansion Project

Temporary Extra Work Space (TEWS) Request Form

Request #:	Determination:	Date Approved/Denied:

Date Submitted:	Requested Approval Date	Start Date:	Expected End Date:
Submitted By:	Organization and Title:	Duration and Work Hours:	

Location(s): Describe applicable location(s), addresses, and/or dimensions

Proposed Use of Site:

Current and Adjacent Land Uses:

Expected Condition of the Site After Use:

Complete the Checklist below. Note: "No" answers to numbers 1 and 2, and/or "Yes" answers to numbers 3 and 4 are cause for denial.

Checklist	Yes	No
1. Does PG&E have permission of the applicable land owner?	<input type="checkbox"/>	<input type="checkbox"/>
2. Is the TEWS located in a previously disturbed area?	<input type="checkbox"/>	<input type="checkbox"/>
3. Are there sensitive resources or land uses onsite, or within proximity of the proposed work space that would be impacted by the work?	<input type="checkbox"/>	<input type="checkbox"/>
4. Will use of the TEWS result in any significant environmental impacts?	<input type="checkbox"/>	<input type="checkbox"/>

Standard Conditions of Approval

- *The CPUC, via its designated Monitoring Supervisor, will review and approve/deny the TEWS request within four business days of receiving this completed form.*
- *Use of the TEWS is limited to 60 days.*
- *Use of the TEWS shall be in compliance with local ordinances (including traffic/noise) and mitigation measures.*
- *If any signs of cultural resources are identified, work shall cease immediately and the site shall be reevaluated.*
- *The proposed site shall not be used for storage of fuel or hazardous materials.*
- *All drips, leaks, and/or spills from vehicles and/or equipment shall be cleaned-up immediately and disposed of in appropriate, labeled containers.*
- *Adjacent streets shall be swept or cleaned with water at the end of each workday if visible soil material is carried on them.*
- *No parking or storage of vehicles (including personnel vehicles), equipment, pipe, or any other project-related item shall be allowed on adjacent roadways.*
- *If a complaint is received, it shall be forwarded to the PG&E Compliance Manager and the CPUC for review.*

The following signatures indicate that the proposed site is approved for TEWS. On a random basis, a CPUC Compliance Monitor will verify that use of the proposed site is in accordance with the conditions noted. This approval may be revoked at any time by any one of the approval team. Failure to comply with all conditions will result in immediate revocation of this TEWS approval.

	Signature	Date
Property Owner		
PG&E Construction		
PG&E Permit Coordinator		
The above TEWS request and attached documentation have been reviewed and this request is (check one): Yes <input type="checkbox"/> or No <input type="checkbox"/>		
CPUC Monitoring Supervisor		
Additional CPUC Conditions of Approval:		
Reason(s) for Denial:		

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