

ATTACHMENT A
Mitigation Monitoring, Compliance, and
Reporting Program (MMCRP)

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



MITIGATION MONITORING, COMPLIANCE, AND REPORTING PROGRAM

Pacific Gas and Electric Company Plainfield Substation Upgrade Project (Application No. A.24-06-008)

5.1 Introduction

This document describes the mitigation monitoring, compliance, and reporting program (MMCRP) for ensuring the effective implementation of the mitigation measures required for the California Public Utilities Commission (CPUC) approval of the Pacific Gas and Electric Company's (PG&E's) application to construct, operate and maintain the Plainfield Substation Upgrade Project (Project). The MMCRP includes all measures proposed by PG&E also referred to as Applicant Proposed Measures (APMs), and all mitigation measures identified by the CPUC to reduce potentially significant impacts to less-than-significant levels. All APMs and mitigation measures are presented in **Table 5-1** provided at the end of this MMCRP.

If the Project is approved by the CPUC, this MMCRP would serve as a self-contained general reference for the Mitigation Monitoring, Compliance, and Reporting Program adopted by the CPUC for the Project. If and when the Project is approved by the Commission, the CPUC will compile the Final Plan from the Mitigation Monitoring Program in the Final Mitigated Negative Declaration (MND), as adopted.

5.2 Pacific Gas and Electric Company – MMCRP Authority

The California Public Utilities Code in numerous places confers authority upon the CPUC to regulate the terms of service and the safety, practices, and equipment of utilities subject to its jurisdiction. It is the standard practice of the CPUC, pursuant to its statutory responsibility to protect the environment, to require that mitigation measures stipulated as conditions of approval are implemented properly, monitored, and reported on. In 1989, this requirement was codified statewide as Section 21081.6 of the Public Resources Code. Section 21081.6 requires a public agency to adopt a reporting or monitoring program when it adopts a mitigated negative declaration for a project that could have potentially significant environmental effects. California Environmental Quality Act (CEQA) Guidelines Section 15097 was added in 1999 to further clarify agency requirements for mitigation monitoring and reporting.

The purpose of an MMCRP is to ensure that measures adopted to mitigate or avoid significant impacts of a project are implemented. The CPUC views the MMCRP as a working guide to facilitate not only the

implementation of mitigation measures by the project proponent, but also the monitoring, compliance, and reporting activities of the CPUC and any monitors it may designate.

The CPUC will address its responsibility under Public Resources Code Section 21081.6 when it takes action on PG&E's application. If the CPUC approves the application, it also will adopt an MMCRP that includes the mitigation measures ultimately made conditions of approval by the CPUC. Because the CPUC must decide whether or not to approve the PG&E application and because the application may cause either direct or reasonably foreseeable indirect effects on the environment, CEQA requires the CPUC to consider the potential environmental impacts that could occur as the result of its decision and to consider mitigation for any identified significant environmental impacts.

If the CPUC approves PG&E's application to construct and operate the Plainfield Substation Upgrade Project, PG&E would be responsible for the implementation of all the Applicant Proposed Measures (APM) and all mitigation measures governing the construction, operation, and maintenance of the Project. Though other federal, State, and local agencies would have permit and approval authority over some aspects of the Project, the CPUC would continue to act as the lead agency for monitoring compliance with all mitigation measures required by the adopted IS/MND. All approvals and permits obtained by PG&E would be submitted to the CPUC prior to commencing the activity for which the permits and approvals were obtained.

In accordance with CEQA, the CPUC reviewed the impacts that would result from approval of the application. The activities considered include the expansion of the Plainfield Substation which would consist of upgrades to the existing 60 kilovolt (kV) bus, installation of two new shunt capacitor banks, a new station battery enclosure, larger modular protection automation and control structure, replacement and installation of tubular steel poles and all-aluminum conductor power lines, a stormwater retention pond, and other upgrades. The CPUC review concluded that implementation of the Project would not result in any significant unmitigable impacts. All potential impacts would be mitigated to less-than-significant levels or would be less than significant. PG&E has agreed to incorporate all the CPUC-recommended mitigation measures into the Project. The CPUC has included the stipulated mitigation measures as conditions of approval of the application and has circulated an IS/proposed MND for public review.

Because the CPUC must decide whether or not to approve the PG&E application and because the application may cause either direct or reasonably foreseeable indirect effects on the environment, CEQA requires the CPUC to consider the potential environmental impacts that could occur as the result of its decisions and to consider mitigation for any identified significant environmental impacts.

The attached IS/MND presents and analyzes potential environmental impacts that would result from construction, operation, and maintenance of the Project, and recommends mitigation measures as appropriate. Based on the IS/MND, approval of the application would have no impact or less than significant impacts in the following areas:

- Aesthetics
- Agriculture and Forestry
- Air Quality
- Cultural Resources
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing

- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Public Services
- Recreation
- Transportation
- Tribal and Cultural Resources
- Wildfire

The IS/MND indicates that approval of the application would result in potentially significant impacts in the areas listed below, and so identifies APMs and mitigation measures that have been accepted by PG&E to reduce the significance below established thresholds.

- Biological Resources
- Utilities and Service Systems

5.3 Roles and Responsibilities

As the lead agency under the California Environmental Quality Act (CEQA), the CPUC is required to monitor the Project to ensure that the required mitigation measures and all Applicant-proposed Measures (APMs) are implemented, as described in the Initial Study/Mitigated Negative Declaration (IS/MND). The CPUC will be responsible for ensuring full compliance with the provisions of this MMCRP and has primary responsibility for implementation of the monitoring program. The purpose of the monitoring program is to document that the mitigation measures and APMs required and relied upon by the CPUC are implemented and that mitigated environmental impacts are reduced to a less-than-significant level. The CPUC has the authority to halt any activity associated with the Project if the activity is determined to be a deviation from the approved Project or the adopted APMs and mitigation measures.

The CPUC may delegate duties and responsibilities for monitoring to other mitigation monitors or consultants as deemed necessary. The CPUC will ensure that the person(s) delegated any duties or responsibilities are qualified to monitor compliance.

The CPUC, along with its mitigation monitor, will ensure that any minor project refinement (MPR) process, which will be designed specifically for the Project, or deviation from the procedures identified under the monitoring program is consistent with CEQA requirements; no Project MPR will be approved by the CPUC if it creates new significant environmental impacts. As defined in this MMCRP, an MPR should be strictly limited to minor Project changes that will not trigger other permit requirements, that does not increase the severity of an impact or create a new impact, and that clearly and strictly complies with the intent of the mitigation measure. A change to the Project that has the potential for creating significant environmental effects will be evaluated to determine whether supplemental CEQA review is required. Any proposed deviation from the approved Project and adopted mitigation measures, including correction of such deviation, shall be reported immediately to the CPUC and the mitigation monitor assigned to the construction for their review and CPUC approval. In some cases, an MPR also may require approval by a CEQA responsible agency.

5.4 Enforcement and Responsibility

The CPUC is responsible for enforcing the procedures for monitoring through the environmental monitor. The environmental monitor shall note problems with monitoring, notify appropriate agencies or individuals

about any problems, and report the problems to the CPUC. The CPUC has the authority to halt any construction, operation, or maintenance activity associated with the Project if the activity is determined to be a deviation from the approved Project or adopted APMs or mitigation measures. The CPUC may assign its authority to its environmental monitor.

5.5 Mitigation Compliance Responsibility

PG&E is responsible for successfully implementing all of the adopted APMs and mitigation measures in this MMCRP. The MMCRP contains criteria that define whether mitigation is successful. Standards for successful mitigation also are implicit in many mitigation measures that include such requirements as obtaining permits or avoiding a specific impact entirely. Additional mitigation success thresholds will be established by applicable agencies with jurisdiction through the permit process and through the review and approval of specific plans for the implementation of mitigation measures.

PG&E shall inform the CPUC and its mitigation monitor in writing of any mitigation measures that are not or cannot be successfully implemented. The CPUC in coordination with its mitigation monitor will assess whether alternative mitigation is appropriate and specify to PG&E the subsequent actions required.

5.5.1 Dispute Resolution Process

The MMCRP is expected to reduce or eliminate potential disputes between CPUC staff and the applicant concerning implementation of the adopted mitigation measures. Issues should first be addressed informally at the field level between the CPUC Environmental Monitoring Team and the PG&E Environmental Compliance Team with questions that may be raised to the PG&E Project Manager or Construction Manager, as necessary. Should the issue not be resolved at the field level, the following procedure will be observed for dispute resolution between CPUC staff and the applicant:

- Disputes and complaints should be directed first to the CPUC's designated Project Manager for resolution. The Project Manager will attempt to resolve the dispute.
- Should this informal process fail, the CPUC Project Manager may initiate enforcement or compliance action to address deviations from the approved Project or MMCRP.

5.6 General Monitoring Procedures

5.6.1 Mitigation Monitor

Many of the monitoring procedures will be conducted during the construction phase of the Project. The CPUC and the mitigation monitor are responsible for integrating the mitigation monitoring procedures into the construction process in coordination with PG&E. To oversee the monitoring procedures and to ensure success, the mitigation monitor assigned to the construction must be on site during that portion of construction that has the potential to create a significant environmental impact or other impact for which mitigation is required. The mitigation monitor is responsible for ensuring that all procedures specified in this MMCRP are followed.

5.6.2 Construction Personnel

A key feature contributing to the success of mitigation monitoring will be obtaining the full cooperation of construction personnel and supervisors. Many of the mitigation measures and APMs require action on the part of the construction supervisors or crews for successful implementation. To ensure success, the following actions, detailed in specific mitigation measures included in this MMCRP, will be taken:

- PG&E shall require all contractors to comply with the conditions of Project approval, including all applicable APMs and mitigation measures.
- One or more pre-construction meetings will be held to inform all and train construction personnel about the requirements of the MMCRP.
- A written summary of mitigation monitoring procedures will be provided to construction supervisors for all APMs and mitigation measures requiring their attention.

5.6.3 General Reporting Procedures

Site visits and specified monitoring procedures performed by other individuals will be reported to the mitigation monitor assigned to the construction. A monitoring record form will be submitted to the mitigation monitor by the individual conducting the visit or procedure so that details of the visit can be recorded and progress tracked by the mitigation monitor. A checklist will be developed and maintained by the mitigation monitor to track all procedures required for each mitigation measure and to ensure that the timing specified for the procedures is adhered to. The mitigation monitor will note any problems that may occur and take appropriate action to rectify the problems. PG&E shall provide the CPUC with written quarterly reports of the Project, which shall include progress of construction, resulting impacts, mitigation implemented, and all other noteworthy elements of the Project. Quarterly reports shall be required as long as mitigation measures are applicable.

5.6.4 Public Access to Records

The public is allowed access to records and reports used to track the monitoring program. Monitoring records and reports will be made available for public inspection by the CPUC on request. The CPUC and PG&E will develop a filing and tracking system

5.6.5 Condition Effectiveness Review

In order to fulfill its statutory mandates to mitigate or avoid significant effects on the environment and to design a MMCRP to ensure compliance during project implementation (Pub. Res. Code §21081.6):

- The CPUC may conduct a comprehensive review of conditions which are not effectively mitigating impacts at any time it deems appropriate, including as a result of the Dispute Resolution procedure outlined above; and
- If in either review, the CPUC determines that any conditions are not adequately mitigating significant environmental impacts caused by the project, or that recent proven technological advances could provide more effective mitigation, then the CPUC may impose additional reasonable conditions to effectively mitigate these impacts.

These reviews will be conducted in a manner consistent with the CPUC's rules and practices.

5.7 Mitigation Monitoring, Compliance, and Reporting Program

The table attached to this MMCRP presents a compilation of the adopted APMs and mitigation measures in the IS/MND. The purpose of the table is to provide a single comprehensive list of impacts, mitigation measures, adopted APMs, monitoring and reporting requirements, and timing. PG&E proposed APMs to minimize environmental impacts associated with implementation of the Project.

TABLE 5-1
TABLE OF MITIGATION MEASURES

Resource Area	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/Reporting Requirements	Timing
Applicant Proposed Measures				
<i>Aesthetics</i>	APM AES-1: Construction Site. Construction activities will be kept as clean and inconspicuous as practical. All Project sites will be maintained in a clean and orderly state. Construction staging areas will be sited away from public view where possible. Upon completion of Project construction, Project staging and temporary work areas will be returned to approximate pre-Project conditions, including regrading of the site and revegetation or repaving of disturbed areas similar to pre-existing contours and conditions.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
<i>Aesthetics</i>	APM AES-2: New Source of Substantial Light or Glare Avoidance. New security lighting at the substation will be directed on-site to reduce potential visibility from offsite locations. Nighttime lighting will be directed away from residential areas and have shields to prevent light spillover effects.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
<i>Aesthetics</i>	APM AES-3: Use of Galvanized Finish on Tubular Steel Poles. Structures and equipment at the expanded substation will generally have a non-reflective finish and neutral gray color.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	Prior to and implemented during construction.
<i>Aesthetics</i>	APM AES-4: Security Fence. Security fencing at the substation will be galvanized chain link fence with a non-reflective finish.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	Prior to and implemented during construction.
<i>Agriculture and Forestry Resources</i>	APM AGR-1: Landowner Coordination. PG&E will coordinate with the landowner in advance of construction activities to minimize impacts on agricultural operations.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	Prior to and implemented during construction.
<i>Air Quality</i>	APM AIR-1: Dust Control During Construction. - Water or cover all exposed surfaces with the potential of dust-generating with coarse rock to reduce the potential for airborne dust from leaving the site; - Limit the simultaneous occurrence of more than two ground disturbing construction phases on the same area at any one time. Phase activities to reduce the amount of disturbed surfaces at any one time; - Cover all haul trucks entering/leaving the site and trim their loads as necessary; - Use wet power vacuum street sweepers to sweep all paved access roads, parking areas, staging areas, and public roads adjacent to project sites on a daily basis (at minimum) during construction. The use of dry power sweeping is prohibited;	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	Prior to and implemented during construction.

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Resource Area	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/Reporting Requirements	Timing
	- Wash off all trucks and equipment, including their tires, prior to leaving project sites; - Apply gravel or non-toxic soil stabilizers on all unpaved access roads, parking areas, and staging areas at project sites; - Water and/or cover soil stockpiles daily; - Limit all vehicle speeds to fifteen (15) miles per hour (mph) or less on unpaved areas; - Implement dust monitoring in compliance with the standards of the local air district; and - Halt construction during any periods when wind speeds are in excess of 50 mph.			
Air Quality	APM AIR-2: Construction Equipment Engines. Equipment used during construction will abide by the CARB requirement that only Tier 4 Final or cleaner engines may be added to large and medium fleets starting January 1, 2024.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Biological Resources	APM BIO-1: Work area minimization: The number of access routes, staging areas, and total area of the work sites will be kept to the minimum necessary.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Biological Resources	APM BIO-2: Erosion and sediment control measures: A Stormwater Pollution Prevention Plan (SWPPP) will be implemented to ensure effective erosion and sediment control measures will be in place at all times during construction.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	Prior to and implemented during construction.
Biological Resources	APM BIO-3: Weed management: To prevent the spread of noxious weeds, only equipment which has been washed and is free of caked on mud, dirt, and other debris, which could house plant seeds, will be allowed in the project area.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Biological Resources	APM BIO-4: Avoidance of impacts to wildlife and natural habitats: All work will be done in a manner that minimizes disturbance to wildlife and habitat.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Biological Resources	APM BIO-5: Litter and trash management: All food waste and associated containers will be disposed of in closed lid containers.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.

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Biological Resources	APM BIO-6: Maintenance and refueling: No vehicle maintenance or refueling will occur within 100 feet of any agricultural or roadside ditches.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Biological Resources	APM BIO-7: Spill prevention and cleanup: Proper spill prevention and cleanup equipment will be readily available.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Biological Resources	APM BIO-8: Route limitations: Vehicles will remain on designated access roads and within designated worksites.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Biological Resources	APM BIO-9: Pets and firearms: No pets or firearms are permitted within the project area.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Biological Resources	APM BIO-10: Vehicle speed limits: Construction crews will abide by all county road speed limits.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Biological Resources	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 workday. 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.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Biological Resources	APM BIO-12: Nesting Bird Impact Avoidance and Protection: If construction work is scheduled during the nesting season (1 February through 31 August), nest detection surveys will correspond with a standard buffer for individual species in accordance with the species-specific buffers set forth in Appendix I of the PEA and will occur within 15 days prior to the start of construction to determine nesting status by a qualified biologist. Nest surveys will be accomplished by ground surveys and will support phased construction, with surveys scheduled to be repeated if construction lapses in a construction work area for 15 days between March and July. Access for ground surveys will be subject to property owner permission.	PG&E and its designated contractors to implement measure as described.	Applicant's qualified biologist to coordinate with wildlife agencies (as applicable) regarding construction buffer and inspect compliance. CPUC mitigation monitor to inspect compliance.	Up to 15 days prior to construction and during all phases of construction activities.

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Resource Area	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/Reporting Requirements	Timing
	If active nests containing eggs or young are found, the biologist will establish a species-specific nest buffer, as defined in Appendix I of the PEA. Where feasible, standard buffers will apply, although the biologist may increase or decrease the standard buffers in accordance with the factors set forth in Appendix I. The acclimation of nesting pairs to disturbance in areas with regularly occurring human activities will be considered when establishing nest buffers. The established buffers will remain in effect until the young have fledged or the nest is no longer active as confirmed by the biologist. Active nests will be periodically monitored until the biologist has determined that the young have fledged or once construction ends. At the discretion of the biologist, vegetation removal by hand may be allowed within nest buffers or in areas of potential nesting activity. Inactive nests may be removed in accordance with PG&E's approved avian permits. The biologist will have authority to order the cessation of nearby project activities if nesting pairs exhibit signs of disturbance.			
Biological Resources	APM BIO-13: Avoidance and minimization of potential impacts on Swainson's hawk and white-tailed kite: If construction activities are scheduled to occur during the nesting season (1 February to 31 August), a preconstruction survey for nesting Swainson's hawk and/or white-tailed kite will be conducted within 0.5 mile of the project area by a qualified biologist. If active nests are found, a qualified biologist will designate an appropriate buffer between construction activities and the nest to avoid disturbance to the nesting. A qualified biologist will monitor the active nest(s) to confirm that activities associated with the Project are not disturbing or disrupting nesting or breeding activities and adjust the buffer distance as necessary. Work within an established buffer will not proceed until the nestlings have fledged or the nest becomes inactive.	PG&E and its designated contractors to implement measure as described.	Applicant's qualified biologist to coordinate with wildlife agencies (as applicable) regarding construction buffer and inspect compliance. CPUC mitigation monitor to inspect compliance.	Up to 30 days prior to construction and during all phases of construction activities.
Biological Resources	APM BIO-14: Biological Resources Worker Environmental Awareness Program (WEAP): The applicant shall develop a WEAP. Prior to the start of construction, all construction crew members and contractors shall be required to attend the WEAP training presented by a 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. 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 any APMs 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	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	Immediately prior to construction. To be repeated for all new personnel.

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Resource Area	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/Reporting Requirements	Timing
	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.			
Biological Resources	APM BIO-15: Protection of Drainage Features (MRHCP Wetland-2): A buffer of 50 feet will be established around any drainage features, including ditches. If maintaining the buffer is not practicable because the work sites are within any part of the buffered area, the field crew will implement other measures as prescribed by the biologist to minimize impacts to potential habitat. These measures may include flagging access, requiring foot access, restricting work until the dry season, or requiring a biological monitor during the activity. Activities must maintain the hydrology necessary to support the drainage features (inclusive of downstream).	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	Prior to and implemented throughout construction.
Biological Resources	APM BIO-16: Multiple Region Habitat Conservation Plan (MRHCP) Measures. FP-01 Conduct annual training on habitat conservation plan requirements for employees and contractors performing covered activities in the Plan Area that are applicable to their job duties and work. Tailboard and site-specific training will also be conducted prior to commencing work. FP-02 Park vehicles and equipment on pavement, existing roads, or other disturbed or designated areas (barren, gravel, compacted dirt). FP-03 Use existing access and ROW roads. Minimize the development of new access and ROW roads, including clearing and blading for temporary vehicle access in areas of natural vegetation. FP-04 Route off-road access paths and site work sites to minimize impacts on plants, shrubs, and trees, small mammal burrows, and unique natural features (e.g., rock outcrops). FP-05 Notify conservation landowners at least 2 business days prior to conducting covered activities on protected lands (state- or federally owned wildlife areas, ecological reserves, or conservation areas); more notice will be provided if practicable or if required by other permits. If the work is an emergency, as defined in PG&E's Utility Procedure ENV-8003P-01, PG&E will notify the conservation landowner within 48 hours after initiating emergency work. Although this notification is intended only to inform conservation landowner, PG&E will attempt to work with the conservation landowner to address landowner concerns. FP-06 Minimize potential for covered species to become trapped, injured, or killed in pipes, culverts, or under materials or equipment. Inspect pipes and culverts wide enough to be entered by a covered species that could inhabit the area where pipes are stored for wildlife species prior to moving pipes and culverts. Contact a biologist if a covered species or other federally listed species is suspected or discovered.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	Prior to and implemented throughout construction.

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	FP-07 Vehicle speeds on unpaved roads will not exceed 15 miles per hour. FP-08 Prohibit trash dumping, firearms, open fires (such as barbecues), hunting, and pets (except for safety in remote locations) at work sites. FP-09 In designated State Responsibility Areas, equip all motorized equipment with federally or state-approved spark arrestors. Ensure a backpack pump filled with water and a shovel and fire-resistant mats and/or windscreens is onsite during welding. During fire "red flag" conditions as determined by the California Department of Forestry and Fire Protection, prohibit welding. Each fuel truck will carry a large fire extinguisher with a minimum rating of 40 B:C. Clear parking and storage areas of all flammable materials. FP-10 Minimize the covered activity footprint and minimize the amount of time spent at a work site to reduce the potential for take of species. FP-11 Utilize standard erosion and sediment control BMPs (pursuant to the most current version of PG&E's <i>Stormwater Field Manual for Construction Best Management Practices</i>) to prevent construction site runoff into waterways. FP-12 Stockpile soil within established work site boundaries and locate stockpiles so as not to enter water bodies, stormwater inlets, other standing bodies of water. Cover stockpiled soil prior to precipitation events. FP-13 Fit open trenches or steep-walled holes with escape ramps of plywood boards or sloped earthen ramps at each end if left open overnight. Field crews will search open trenches or steep-walled holes every morning prior to initiating daily activities to ensure wildlife is not trapped. Field crews will not handle covered species. If any covered wildlife species is found, work will stop and a biologist will be notified. A biologist with appropriate take permits will relocate the species to adjacent habitat or the species will be allowed to naturally disperse, as determined by a biologist. FP-14 If the covered activity disturbs 0.1 acre or more of habitat for a covered species in grasslands, the field crew will revegetate the area with a commercial "weed free" seed mix. FP-15 Prohibit vehicular and equipment refueling within 250 feet of the edge of wetlands, streams, or waterways. If refueling must be conducted closer to wetlands, construct a secondary containment area subject to review by an environmental field specialist and/or biologist. Maintain spill prevention and cleanup equipment in refueling areas. FP-16 Maintain a buffer of 250 feet from the edge of wetlands, ponds, or riparian areas. If maintaining the buffer is not practicable because the covered activity footprint is within the buffered area, other measures as prescribed by the biologist or the HCP administrator to minimize impacts such as			

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	flagging access routes or paths, requiring foot access, restricting work until the dry season, or requiring a biological monitor during the activity. FP-17 Directionally fall trees away from an exclusion zone if an exclusion zone has been defined. If this is not practicable, remove the tree in sections. Avoid damage to adjacent trees to the extent practicable. Avoid removal of snags and conifers with basal hollows, crown deformities, and/or limbs more than 6 inches in diameter. FP-18 Nests with eggs and/or chicks will be avoided: contact a biologist or the Avian Protection Program Manager for further guidance. Work will be stopped until the crew can obtain clarification from a biologist or the Avian Protection Program Manager on how to proceed. FP-19 Inspect and maintain exclusion fencing installed to exclude species from work areas.			
Cultural Resources	APM CUL-1: Inadvertent Discoveries: If cultural resources are encountered during construction activity, PG&E and/or its contractors shall halt work in the immediate vicinity of the find. The find shall be evaluated by a qualified archaeologist before construction activity may resume. If the qualified archaeologist determines that the find may be significant and if avoidance of the find is determined to be infeasible, the archaeologist shall notify the lead agencies and shall follow approved procedures established for the treatment and mitigation of unanticipated discoveries in consultation with the lead agency. PG&E shall be responsible for the resultant mitigation costs.	PG&E and its designated contractors to implement measure as described.	Applicant's qualified archaeologist to coordinate with appropriate agencies (as applicable) regarding sensitive cultural resources and inspect compliance. CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Cultural Resources	APM CUL-2: Human Remains: If human remains are discovered during construction or maintenance activities, all work shall be diverted from the area of the discovery and the CPUC [California Public Utilities Commission] shall be informed immediately. The Applicant shall contact the County Coroner to determine whether or not the remains are Native American. If the remains are determined to be Native American, the Coroner will contact the NAHC [Native American Heritage Commission]. The NAHC will then identify the person or persons it believes to be the most likely descendant of the deceased Native American, who in turn would make recommendations for the appropriate means of treating the human remains and any associated funerary objects.	PG&E and its designated contractors to implement measure as described.	Applicant's qualified archaeologist to coordinate with appropriate agencies (as applicable) regarding sensitive cultural resources and inspect compliance. CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Cultural Resources	APM CUL-3: Survey New or Modified Work Areas: PG&E will perform cultural resources surveys prior to construction for any Project areas not yet surveyed (e.g., new or modified staging areas, or other work areas). Resources discovered during the surveys would be subject to CUL-1.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.

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Cultural Resources	APM CUL-4: Worker Education Training: The following procedures will be implemented prior to the commencement of any Project-related construction activities in order to ensure that appropriate steps/actions are taken in the event that there is an inadvertent discovery of a tribal or cultural resource: - All PG&E, contractor, and subcontractor Project personnel will receive training regarding: - appropriate work practices necessary to effectively implement the APMs [Applicant-proposed measures] and to comply with the applicable environmental laws and regulations; - the potential for exposing subsurface cultural resources; - the potential for uncovering Tribal Cultural Resources; - how to recognize possible buried cultural resources; and, - actions to be taken in the event there is an inadvertent discovery as outlined in APM CUL-1 and CUL 2.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	Immediately prior to construction. To be repeated for all new personnel.
Geology and Soils	APM GS-1: Minimization of Construction above Liquefiable Soils or in Soft or Loose Soils. PG&E will conduct geotechnical investigations prior to construction to identify liquefiable, soft, or loose soils, and implement design and civil engineering standards in accordance with the CBC and the CPUC's General Order 95.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	Prior to construction.
Geology and Soils	APM GS-2: Unanticipated Discovery of Paleontological Resources. If paleontological resources are discovered during construction activities, the following procedures will be followed: - Work will be stopped immediately within 100 feet of the discovery. - The designated Project inspector, PG&E Cultural Resource Specialist (CRS), and the CPUC will be contacted immediately. - The site will be protected from further impacts, including looting, erosion, or other human or natural damage. - PG&E's CRS will arrange for a Principal Paleontologist to evaluate the discovery. If the discovery is determined to be significant, PG&E will consult with the CPUC and implement appropriate measures to protect and document the paleontological resource. Examples of such measures include establishing recovery standards, preparing specimens for identification and preservation, and securing a curation agreement from the appropriate agency. - Work will not resume within 100 feet of the find until approval by the paleontologist, PG&E CRS, and the CPUC.	PG&E's qualified paleontologist and paleontologist monitor to coordinate with appropriate agencies (as applicable) regarding paleontological resources and inspect compliance.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.

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Greenhouse Gas Emissions	APM GHG-1: Greenhouse Gas Emissions Reduction During Construction. • If suitable park-and-ride facilities are available near construction workers' residences, they shall be encouraged to carpool to the job site; • Maintain on-road and off-road vehicle tire pressures to manufacturer specifications. Tires will be checked and re-inflated at regular intervals; • Recycle demolition debris for reuse to the extent feasible; • Use line power instead of diesel generators at all construction sites where line power is available; and • Maintain construction equipment in properly working condition per PG&E standards.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Greenhouse Gas Emissions	APM GHG-2: Minimize GHG Emissions. • 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 supervisors will include briefings to crews on vehicle use as part of pre-construction conferences; these 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 [horsepower] or larger and manufactured in the year 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 the recycling of construction waste where feasible.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.

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Greenhouse Gas Emissions	APM GHG-3: Minimize Sulfur Hexafluoride Emissions. - Incorporate Plainfield Substation's new sulfur hexafluoride circuit breakers into PG&E's system-wide sulfur hexafluoride emission reduction program. Since 1998, PG&E has implemented a programmatic plan to inventory, track, and recycle sulfur hexafluoride inputs, and inventory and monitor system-wide sulfur hexafluoride leakage rates to facilitate timely replacement of leaking breakers. PG&E has also improved its leak detection procedures and increased awareness of sulfur hexafluoride issues within the company. X-ray technology is now used to inspect internal circuit breaker components to eliminate dismantling of breakers, reducing sulfur hexafluoride handling and accidental releases. As an active member of the [US]EPA's sulfur hexafluoride Emission Reduction Partnership for Electrical Power Systems, PG&E has remained focused on reducing sulfur hexafluoride emissions from its transmission and distribution operations. - Require that the new sulfur hexafluoride breakers at Plainfield Substation have a manufacturer's guaranteed maximum leakage rate of 0.5 percent per year or less for sulfur hexafluoride. - Maintain substation breakers in accordance with PG&E's maintenance standards. - Comply with CARB's Early Action Measures as these policies become effective.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Hazards and Hazardous Materials	APM HAZ-1: Emergency Spill Response Equipment and Training: Emergency spill response and cleanup kits will be available on site, as well as at the Davis PG&E Service Yard Headquarters, and readily available for the cleanup of an accidental spill. Construction crews will be trained in safe handling and cleanup responsibilities prior to the initiation of construction.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Hazards and Hazardous Materials	APM HAZ-2: Shock Hazard: All authorized personnel working on site will be trained according to PG&E standards during either construction or maintenance and operation. 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, thus restricting site access. Warning signs will be posted to alert people 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.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	Immediately prior to construction. To be repeated for all new personnel.
Hazards and Hazardous Materials	APM HAZ-3: Update Spill Prevention, Control, and Countermeasure (SPCC) Plan and Hazardous Materials Business Plan (HMBP): PG&E will update the existing SPCC Plan and HMBP for Plainfield Substation to include all new equipment and on-site hazardous materials associated with the substation expansion, so that the station would meet SPCC Guidelines (40 Code of Federal Regulations 112). The retention basin will be sufficiently sized to accommodate stormwater runoff from the substation yard. The substation will also be equipped with lead-acid batteries to provide backup power for monitoring, alarm, protective	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	Prior to and implemented throughout construction.

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Resource Area	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/Reporting Requirements	Timing
	relaying, instrumentation and control, and emergency lighting during power outages. Secondary containment will be constructed around and under the battery racks, and the SPCC will address containment from a battery leak.			
Hazards and Hazardous Materials	APM HAZ-4: Soil Testing and Disposal: In the event that soils suspected of being contaminated (on the basis of visual, olfactory, or other evidence) are removed during site grading activities or excavation activities, the excavated soil will be tested, and if contaminated above hazardous waste levels, contained and disposed of at a licensed waste facility. The presence of known or suspected contaminated soil will require testing and investigation procedures to be supervised by a qualified person, as appropriate, to meet state and federal regulations.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Hydrology and Water Quality	APM HYDRO-1: Stormwater Pollution Prevention Plan: Because the Project involves more than an acre of soil disturbance, PG&E will prepare and implement a SWPPP [storm water pollution prevention plan] in accordance with the NPDES [National Pollutant Discharge Elimination System] Construction General Permit (see Section 3.7, <i>Geology and Soils</i>). The Best Management Practices (BMPs) described in the SWPPP would stabilize disturbed areas and prevent erosion and the release of sediment and other pollutants to waterways. A monitoring program will also be established to confirm that the prescribed BMPs are followed during Project construction. A qualified SWPPP developer (QSD) will oversee the implementation of the SWPPP and associated BMPs. The following measures are generally drawn from the permit and will be included in the SWPPP prepared for the construction of the Project: • All BMPs will be on site and ready for installation before the start of construction activities; • BMPs will be developed to prevent the acceleration of natural erosion and sedimentation rates, such as the use of silt fence and straw wattles, and to limit track out of mud and sediment into roadways during construction; and • Prior to conducting clearing activities during the wet season and before the onset of winter rains or any anticipated storm events, erosion-control measures will be installed. Temporary measures such as silt fences or wattles, which are intended to minimize sediment transport from temporarily disturbed areas, will remain in place until disturbed areas have stabilized.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	Prior to and implemented throughout construction.
Transportation	APM TRANS-1: Traffic Management: PG&E will obtain necessary transportation and encroachment permits from Caltrans [California Department of Transportation] and the local jurisdiction, as required, including those related to the transport of oversized loads and certain materials, and will comply with permit requirements designed to prevent excessive congestion or traffic hazards during construction. Construction activities will follow best management practices and local jurisdictional encroachment permit requirements, which may include traffic controls such as	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	Prior to and implemented throughout construction.

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Resource Area	Applicant Proposed Measures (APMs) and Mitigation Measures (MMs) Identified in the IS/MND	Implementing Actions	Monitoring/Reporting Requirements	Timing
	signs, cones, and flaggers. At least 24 hours prior to implementing a lane or road closure of CR 27, PG&E will coordinate with applicable emergency service providers in the Project vicinity. PG&E will provide information regarding the anticipated date, time, and duration of the lane or road closure, and a contact number.			
Tribal Cultural Resources	APM TCR-1: Undiscovered Potential Tribal Cultural Resources: The following procedure shall be employed (after stopping work and following the procedure for determining eligibility in APM CUL-1) if a resource is encountered and determined by the project's qualified archaeologist to be potentially 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: - The PG&E Cultural Resource Specialist 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 PG&E Cultural Resource Specialist shall participate with the CPUC in discussions with the California Native American Tribe(s) to determine whether the resource is a "tribal cultural resource" as defined by PRC section 21074 and the tribe(s)' preferred method of mitigation, if the resource is determined to be a TCR.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.
Wildfire	APM FIRE-1: Construction Fire Prevention Plan: PG&E will implement the following fire prevention practices at active construction sites: - During Red Flag Warning events, as issued daily by the National Weather Service, all construction activities will cease, with an exception for transmission line testing, repairs, unfinished work, or other specific activities which may be allowed if the facility/equipment poses a greater fire risk if left in its current state. - All construction and maintenance crews and inspectors will be provided with radio and cellular telephone access that is operational in all work areas and access routes to allow for immediate reporting of fires. Communication pathways and equipment will be tested and confirmed operational each day prior to initiating construction activities at each work site. All fires will be reported to the fire agencies with jurisdiction in the area immediately upon discovery of the ignition. - Construction and maintenance personnel will be trained in fire-safe actions, initial attack firefighting, and fire reporting. Construction personnel will be trained and equipped to extinguish small fires in order to prevent them from growing into more serious threats.	PG&E and its designated contractors to implement measure as described.	CPUC mitigation monitor to inspect compliance.	During all phases of the project.

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	- All construction and maintenance personnel will carry a laminated card and be provided a hard hat sticker that lists pertinent telephone numbers for reporting fires and defining immediate steps to take if a fire starts. Information on laminated contact cards and hard hat stickers will be updated as needed and redistributed to all construction personnel prior to the day the information change goes into effect. - Construction and maintenance personnel will have fire suppression equipment on all construction vehicles and will be required to park vehicles away from dry vegetation. PG&E will coordinate with applicable local fire departments prior to construction activities to determine the appropriate amounts of fire equipment to be carried on vehicles and, should a fire occur, to coordinate fire suppression activities. - Water tanks and/or water trucks will be sited or available at active Project sites for fire protection during construction.			
CEQA Mitigation Measures				
Biological Resources	MM BIO-1: Wildlife-Friendly Design Features. The design of new overhead transmission and communications lines and structures will follow the most recent Avian Power Line Interaction Committee guidance (currently APLIC 2006) at the time of Project approval to reduce the potential for avian injury and mortality from collisions and electrocution.	Applicant and its contractor to implement measure as described.	None.	Prior to Project approval.
Utilities and Service Systems	MM US-1: Solid Waste Diversion Plan: The Applicant shall prepare and submit a diversion plan to the CPUC and Yolo County for review and approval before the start of construction. The solid waste diversion plan will outline how the Applicant will sort, measure, and record the disposal of solid waste to ensure that 50 percent of inert materials will be recycled, reused, or otherwise diverted from the landfill. The plan will detail reporting requirements to the CPUC and Yolo County. Measures in the plan will include but not be limited to the following: - Provision of space and/or bins for appropriate storage of recyclable materials on-site. - Establishment of a recyclable materials pick-up area. - Development of a recordation system that details and quantifies the amount of solid waste generated during construction, solid waste recycled, and solid waste delivered to the solid waste disposal facility. If it is determined, through consultation with Yolo County, that PG&E's proposed construction activities are exempt or otherwise not subject to the County's solid waste diversion requirements, documentation of the consultation shall be provided to CPUC in lieu of the mitigation measure's solid waste diversion plan and reporting requirements.	Applicant and its contractor to implement measure as described.	Applicant to track and maintain compliance.	During construction.