SECTION 5

Mitigation Monitoring, Reporting and Compliance Program

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PUBLIC UTILITIES COMMISSION
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MITIGATION MONITORING, REPORTING AND COMPLIANCE PROGRAM

Pacific Gas and Electric's Missouri Flat-Gold Hill 115 kV Power Line Reconductoring Project

(APPLICATION NO. A.13-08-014)

Introduction

This document describes the mitigation monitoring, reporting, and compliance program (MMRCP) for ensuring the effective implementation of the mitigation measures required for the California Public Utilities Commission (CPUC) approval of the Pacific Gas and Electric's (PG&E) application to construct, operate and maintain the Project. All mitigation measures are presented in Table 5-1 provided at the end of this MMRCP.

If the Project is approved, this MMRCP would serve as a self-contained general reference for the Mitigation Monitoring, Reporting and Compliance Program adopted by the Commission 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.

California Public Utilities Commission – MMRCP 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.

This Project is subject to the California Environmental Quality Act (CEQA). CEQA requires a lead agency, here, the CPUC, to prepare an Initial Study (IS) to determine if the project may have

a significant effect on the environment. (CEQA Guidelines §15063(a)) If the agency determines there is substantial evidence that the project may cause a significant effect on the environment, it shall prepare an Environmental Impact Report (EIR). The lead agency shall prepare a negative declaration if there is no substantial evidence that the project may cause a significant effect on the environment. (CEQA Guidelines § 15063(b)) If the IS identifies potentially significant effects of the Project but the applicant agrees to revisions that would avoid or mitigate the effects to a point where clearly no significant effects would occur, then a Mitigated Negative Declaration (MND) shall be prepared (Pub. Res. Code §§21064.5, 21080(c); 14 Cal. Code §§15064(f)(2), 15070(b)).

The purpose of a MMRCP is to ensure that measures adopted to mitigate or avoid significant impacts of a project are implemented. The CPUC views the MMRCP 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 will also adopt a MMRCP that includes the mitigation measures ultimately made a condition 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 for authority to reinforce the electric transmission and distribution system, PG&E would be responsible for implementation of any mitigation measures governing both construction and future operation of the Project. Though other federal, State, and local agencies would have permit and approval authority over some aspects of construction of the power line, 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 for mitigation compliance 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 replacing existing conductor (reconductoring), replacing existing poles, and modifying existing lattice steel towers on the Missouri Flat-Gold Hill 115 kilovolt (kV) Power Line (Missouri Flat-Gold Hill Line); modifying and upgrading existing substations, and temporarily converting the Gold Hill No. 1 60 kV Power Line (Gold Hill No. 1 Line), an existing 60 kV power line, to 115 kV to provide power to customers during construction of the Project.

The CPUC review concluded that implementation of the Proposed 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 Proposed Project. The CPUC has included the

stipulated mitigation measures as conditions of approval of the application and has circulated an IS/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 reconductored power line and substation modifications, 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:

- Agriculture and Forestry Resources
- Energy Conservation
- Cultural Resources
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Utilities and Service Systems

The IS/MND indicates that approval of the application would result in potentially significant impacts in the areas of:

- Aesthetics
- Air Quality
- Biological Resources
- Geology, Soils, and Seismicity
- Noise

Roles and Responsibilities

As the lead agency under CEQA, the CPUC is required to monitor this project to ensure that the required mitigation measures and any Applicant Proposed Measures are implemented. The CPUC will be responsible for ensuring full compliance with the provisions of this MMRCP and has primary responsibility for implementation of the monitoring program. The purpose of the monitoring program is to document that the mitigation measures required by the CPUC are implemented and that mitigated environmental impacts are reduced to the level identified in the Program. The CPUC has the authority to halt any activity associated with the proposed project if the activity is determined to be a deviation from the approved project or the adopted 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 variance process, which will be designed specifically for the Proposed Project, or deviation from the procedures identified under the monitoring program is consistent with CEQA requirements; no project variance will be approved by the CPUC if it creates new significant environmental impacts. As defined in this MMRCP, a variance 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 Proposed 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, a variance may also require approval by a CEQA responsible agency.

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 mitigation measures. The CPUC may assign its authority to its environmental monitor.

Mitigation Compliance Responsibility

PG&E is responsible for successfully implementing all the adopted mitigation measures in this MMRCP. The MMRCP 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.

Dispute Resolution Process

This MMRCP is expected to reduce or eliminate many of the potential disputes concerning the implementation of the adopted measures. However, in the event that a dispute occurs, the following procedure will be observed:

- **Step 1.** Disputes and complaints (including those of the public) should be directed first to the CPUC's designated Project Manager for resolution. The Project Manager will attempt to resolve the dispute.

- **Step 2.** Should this informal process fail, the CPUC Project Manager may initiate enforcement or compliance action to address deviations from the Proposed Project or adopted Mitigation Monitoring, Reporting and Compliance Program.

- **Step 3**. If a dispute or complaint regarding the implementation or evaluation of the MMRCP or the mitigation measures cannot be resolved informally or through enforcement or compliance action by the CPUC, any affected participant in the dispute or complaint may file a written "notice of dispute" with the CPUC's Executive Director. This notice should be filed in order to resolve the dispute in a timely manner, with copies concurrently served on other affected participants. Within 10 days of receipt, the Executive Director or designee(s) shall meet or confer with the filer and other affected participants for purposes of resolving the dispute. The Executive Director shall issue an Executive Resolution describing his/her decision, and serve it on the filer and other affected participants.

- **Step 4.** If one or more of the affected parties is not satisfied with the decision as described in the Resolution, such party(ies) may appeal it to the Commission via a procedure to be specified by the Commission.

Parties may also seek review by the Commission through existing procedures specified in the Commission's Rules of Practice and Procedure for formal and expedited relief.

General Monitoring Procedures

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 the monitoring and reporting program are followed.

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 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 the MMRCP, will be taken:

- PG&E shall require all contractors to comply with the conditions of project approval, including all applicable mitigation measures.

- One or more pre-construction meetings will be held to inform all and train construction personnel about the requirements of the MMRCP.

- A written summary of mitigation monitoring procedures will be provided to construction supervisors for all mitigation measures requiring their attention.

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.

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.

Condition Effectiveness Review

In order to fulfill its statutory mandates to mitigate or avoid significant effects on the environment and to design a MMRCP to ensure compliance during project implementation (CEQA 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.

Mitigation Monitoring, Reporting and Compliance Program

The table attached to this program presents a compilation of the mitigation measures in the IS/MND. The purpose of the table is to provide a single comprehensive list of impacts, mitigation measures, monitoring and reporting requirements, and timing.

PG&E proposed the following Applicant Proposed Measures (APMs) to minimize impacts to the environment from implementation of the Proposed Project. The impact analysis in this IS/MND assumed that these APMs would be implemented as part of the Proposed Project.

APM AE-1: Include Non-Reflective Finish

Non-specular conductor and a non-reflective finish for the poles will be used to reduce the potential for new sources of glare.

APM AE-2: Minimize Effects of Temporary Nighttime Construction Lighting on Sensitive Receptors

If temporary lighting is required for nighttime construction, it will be focused on work areas and directed on-site to minimize potential effects with respect to nearby sensitive receptors, particularly residences.

APM AQ-1: Minimize Fugitive Dust

PG&E will minimize fugitive dust during construction by implementing the following measures, which comply with EDCAQMD and SMAQMD requirements:

- Reduce the amount of the disturbed area where possible.
- Use water trucks or sprinkler systems in sufficient quantity to prevent airborne dust from leaving the site. Increase watering frequency whenever wind speeds exceed 15 miles per hour (mph). Use reclaimed non potable water whenever possible. Do not use non-potable water in or around crops intended for human consumption.
- Implement permanent dust control measures as soon as possible following completion of any soil-disturbing activities.
- Enforce a policy that vehicle speed for all construction vehicles is not to exceed 15 mph on any unpaved surface.
- Water all active construction areas as needed to suppress dust. Base the frequency on the type of operation and the soil and wind exposure.
- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site.
- Cover inactive storage piles.
- Sweep public roads if visible soil material is carried out from a work site.
- Post a publicly visible sign with the phone number for the EDCAQMD for compliance in reporting any Rule 205 (Nuisance) violations, as well as the telephone number and person to contact regarding dust complaints. Instruct this person to respond to complaints and take corrective action within 48 hours.
- Limit the area of earth-disturbing activities at any one time.

APM AQ-2: Minimize Vehicle and Equipment Emissions

PG&E will minimize vehicle emissions during project construction by implementing the following measures:

- Maintain construction equipment in proper working conditions in accordance with PG&E standards.
- 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.

- 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.

APM AQ-3: Minimize Potential Naturally Occurring Asbestos Emissions

The project will develop a preemptive Asbestos Dust Mitigation Plan to identify all necessary best management practices that will be implemented if NOA is encountered at any time during construction. The Asbestos Dust Mitigation Plan will be compliant with the requirements of CARB's Asbestos ATCM, EDCAQMD's Rule 223-2 (Fugitive Dust – Asbestos Hazard Mitigation), and SMAQMD's Rule 902 (Asbestos).

Before beginning any earth-disturbing activities in areas identified in Section 3.6, Geology and Soils (i.e., "areas more likely to contain asbestos," "areas where the presence of asbestos is possible but unlikely," "areas moderately likely to contain NOA," or "areas least likely to contain naturally occurring asbestos"), a geological evaluation will be performed by a registered geologist to determine whether NOA is present. In addition, before beginning any earth-disturbing activities that will occur within 50 feet of residences and 500 feet of schools, a geological evaluation also will be performed by a registered geologist, to test for the presence of NOA. If NOA is detected during any geological evaluation or during subsequent construction activities, PG&E will minimize NOA emissions by implementing the Asbestos Dust Mitigation Plan, which will comply with the requirements of CARB's Asbestos ATCM, EDCAQMD's Rule 223-2 (Fugitive Dust – Asbestos Hazard Mitigation), and SMAQMD's Rule 902 (Asbestos).

CARB's Asbestos ATCM includes asbestos management requirements that range from creating and implementing an Asbestos Dust Mitigation Plan, observing pre-notifications of construction activities, maintaining construction best management practices, meeting post-construction stabilization requirements, and performing administrative recordkeeping. Construction best management practices include monitoring all potential NOA emission sources: road dust (e.g., limiting vehicle speeds); earth-disturbing activities (e.g., watering before, during, and after disturbance); track-out from work sites (e.g., washing equipment and vehicle tires); material export (e.g., haul truck material handling requirements); and post-construction stabilization (e.g., covering, chemical stabilizers, or vegetation). In addition, prior to construction, PG&E will consult with the local air district or air pollution control officer, to determine if air monitoring for asbestos will be required. The project will comply with EDCAQMD's Rule 223-2, which provides a list of best management practices to minimize the generation of asbestos dust from construction activities. The Asbestos Dust Mitigation Plan will include, but will not be limited to measures from EDCAQMD's Rule 223-2, as applicable. Implementation of the following asbestos best management practices

for the project would be required where applicable, to ensure adequate performance of the Asbestos Dust Mitigation Plan:

Backfilling

- Mix backfill soil with water before moving the soil.
- Have a dedicate water truck or a high-capacity hose connected to backfilling equipment.
- Empty the loader bucket slowly to prevent dust plumes from being generated.
- Minimize the drop height from the loader bucket.

Clearing and Grubbing

- Maintain live perennial vegetation where possible.
- Apply water in sufficient quantity to prevent generation of visible dust.

Cut and Fill

- Pre-water with sprinklers or water trucks and allow time for penetration.
- Use water as necessary to minimize dust.
- Install upwind fencing to prevent material movement on site.
- Suspend operations when winds generate visible dust emissions despite control measures.
- Use tarps or other suitable enclosures on haul trucks.
- Provide water while loading and unloading to reduce visible dust plumes.
- If excavated material is classified as a hazardous waste material, verify that off-site transport complies with state and federal rules and regulations.

Disturbed Soil

- Limit vehicular traffic and disturbances on soils where possible.
- Limit vehicle speeds to 15 miles per hour.
- Apply water or a stabilizing agent in sufficient quantities to prevent generation of visible dust plumes.

General Site Management

- Wash mud and soil from equipment and vehicles after completing earth-disturbing activities to prevent them from crusting and drying.
- Prohibit the use of blower devices, dry rotary brushes, or dry brooms.
- Restrict vehicular access to established, unpaved travel paths and parking lots, to meet stabilization requirements.
- Document all locations and quantities of cut and fill, and off-site soil transport.
- Provide signage at work sites that meet Occupational Safety and Health Administration requirements.

APM BIO-1: General Biological Resources Measures

APM BIO-1.1: Worker Environmental Awareness Training Program. A qualified biologist will develop an environmental awareness training program that is specific for the project. All on-site construction personnel will attend the training before they begin work on the project. Training will include a discussion of the avoidance and minimization measures that are being implemented to protect biological resources as well as the terms and conditions of project permits. Training will include information about the FESA and CESA, special-status species as defined in the Regulatory Setting (Section 3.4.2) and the Special-Status Species section, and the consequences of noncompliance with these acts. Under this program, workers will be informed about the presence, life history, and habitat requirements of all special-status species that may be affected in the project area. Training also will include information on State and federal laws protecting nesting birds, wetlands, and other water resources.

An educational brochure will be produced for construction crews working on the project. The brochure will include color photos of sensitive species as well as a discussion of relevant APMs.

APM BIO-1.2: Identification and Marking of Sensitive Resource Areas. Sensitive resource areas identified during pre-construction surveys in the project area will be clearly marked in the field or on project maps. Sensitive resource areas will include active bird nests within specified buffer zones (see APM BIO-3), special-status plants adjacent to work sites, special-status vegetation types adjacent to work sites, and vernal pool and wetland boundaries in and adjacent to work sites. Such areas will be avoided during construction to the extent practicable.

APM BIO-1.3: Construction Monitoring. A qualified biologist will monitor construction activities in sensitive habitats previously identified by a qualified biologist. The monitor will ensure implementation of and compliance with all avoidance and mitigation measures. The monitor will have the authority to stop or redirect work if construction activities are likely to affect sensitive biological resources.

If a listed wildlife species is encountered during construction, project activities will cease in the area where the animal is found until the biologist determines the animal has moved out of harm's way, or with prior authorization from the USFWS and/or CDFW if necessary, relocates the animal out of harm's way, and/or takes other appropriate steps to protect the animal. Work may resume once the biologist has determined that construction activities will not harm any listed wildlife species. If recommended by the biologist, a temporary silt-fence barrier will be installed to prevent wildlife species from entering the work area(s) during project activities. The biological monitor will be responsible for any necessary reporting to USFWS and/or CDFW of any capture and relocation, or inadvertent harm, entrapment or death of a listed species.

APM BIO-1.4: Tree Removal and Mitigation. Trees being felled in the vicinity of a sensitive resource area exclusion zone will be directionally felled away from the zone, where possible. Trees and other vegetation that are removed from the project area will be removed using equipment and access routes that avoid sensitive resource areas.

Oak tree removal will be minimized to what is required to implement the project. Oak trees greater than 6 inches diameter at breast height (dbh), or having multiple trunks with an aggregate over 10 inches dbh, that are removed will be documented and replaced based on a 1:1 ratio or other measure derived through coordination with El Dorado County that provides an equal level of compensation.

APM BIO-2: Special-Status Species Pre-construction Surveys. Before project construction begins, a qualified biologist will perform a pre-construction survey for work areas within 100 feet of suitable habitat for special-status species. If any special-status species are found nearby but outside the proposed work area, they will not be disturbed. If recommended by the biologist, a temporary silt-fence barrier will be installed to prevent special-status species from entering the work area(s) during project activities. If a special-status species is found in a work area prior to construction, the biologist will relocate the species out of harm's way (if prior authorization from USFWS and CDFW is not required for the species), or with prior authorization from USFWS and/or CDFW if necessary, and/or take other appropriate steps to protect the animal.

APM BIO-3: Special-Status Bird Measures

Before project activities in proximity to nesting birds begins, PG&E will obtain the applicable permit or follow relevant protocol that is authorized by Section 3503 and/or Section 3503.5 of the California Fish and Game Code, or by any regulation adopted pursuant thereto, pertaining to nesting birds. If no such permit or protocol is available under the above authorities before project construction begins, PG&E will comply with the following measure:

APM BIO-3.1: Pre-construction Survey and Avoidance of Active Nests. For any tree trimming or other potential nest-disturbing activities to be conducted between February 1 and August 31, a qualified biologist will conduct a pre-construction survey for nesting birds. The survey will be conducted no more than one week prior to the start of work activities and will cover all affected areas where substantial ground disturbance or vegetation clearing is required. If any active nests containing eggs or young are found, an appropriate nest exclusion zone will be established by the biologist. The standard buffers included in PG&E's Avian Conservation Strategy (e.g., 50 to 400 feet from non-special-status bird nests, 75 to 350 feet from non-raptor special-status bird nests, and 300 to 1,320 feet from raptor nests, depending on species) will serve as a guideline for exclusion zones, but may be modified on a site-specific basis as determined by the biologist. To the extent practicable, no project vehicles, chain saws, or heavy equipment will be operated in this exclusion zone until the biologist has determined that the nest is no longer active and or the young have fledged. If it is not practicable to avoid work in an exclusion zone around an active nest (e.g., a bird is sitting on eggs or bird activity is such that the nest could be interpreted as active, per USFWS [2003] *Migratory Bird Permit Memorandum*), work activities will be modified to minimize disturbance of nesting birds but may proceed in these zones at the discretion of the biologist. The biologist will monitor all work activities in these zones daily when construction is occurring and assess their effect on the nesting birds. If the biologist determines that particular activities pose a high risk of disturbing an active nest, the biologist will recommend additional, feasible measures to minimize the risk of nest disturbance, potentially including temporary cessation of work activities near active nests.

APM BIO-4: Valley Elderberry Longhorn Beetle Habitat Avoidance and Mitigation

PG&E's Valley Elderberry Longhorn Beetle Conservation Program allows PG&E to perform routine operations and maintenance activities and new construction, subject to certain terms and conditions as specified in the USFWS Biological Opinion (File 1-1-01-F-0114). The Biological Opinion provides for thirty years of incidental take coverage and was initiated on June 27, 2003. It defines reasonable and prudent measures required to avoid and minimize impacts to habitat for the federally listed valley elderberry longhorn beetle (VELB). PG&E will implement the surveying, avoidance, and any necessary compensation measures required for the Conservation Program as authorized by USFWS. These measures

may include, for example: (1) surveying for and flagging all elderberry plants with one or more stems measuring 1 inch or more in diameter at ground level that are within 20 feet of work sites; (2) avoiding all such elderberry plants to the extent feasible; and (3) reporting unavoidable impacts to elderberry shrubs to USFWS for coverage under the Conservation Program's funding of VELB habitat acquisition, development, and protection.

APM BIO-5: Special-Status Plant Avoidance and Impact Minimization Measures

In addition to APM BIO-1 and APM BIO-2, the following measures will be implemented in gabbroic chaparral habitat in and immediately east of the BLM Pine Hill Preserve, and south of U.S. 50, where the highway borders the BLM Pine Hill Preserve, to avoid and minimize impacts on special-status plants.

APM BIO-5.1: Seasonal Timing Restrictions. If a special-status annual plant species is present, any work that may impact the plant will occur after plant senescence and prior to the first significant rain, to the extent practicable.

APM BIO-5.2: Noxious Weed Assessment and Control Plan. Prior to the commencement of construction activities in the BLM Pine Hill Preserve, a Noxious Weed Assessment and Control Plan will be developed and implemented for work in the BLM Pine Hill Preserve. The plan will assess the areas at risk for noxious weed introduction and/or spread and will identify measures for equipment and vehicle inspection.

APM BIO-5.3: Plant Salvage Requirements. Prior to the commencement of construction activities in the BLM Pine Hill Preserve or other areas within the Project footprint known to support rare plant populations, PG&E will refine its Rare Plant Strategy that specifies salvage and propagation methods for listed plants, as well as pre- and post-Project monitoring methods. The Rare Plant Strategy will be submitted to USFWS for review and approval as may be required in the biological opinion from USFWS. At a minimum, the Strategy will include information such as: methods of collection of reproductive structures from affected plants, restoration techniques for temporarily disturbed occurrences, assessments of potential transplant and enhancement sites, success and performance criteria (e.g., documented germination of collected seed within an equal or larger area than affected by the project), and monitoring programs (e.g., 3 to 5 years), as well as measures to ensure long-term site sustainability, as required by USFWS during the Section 7 consultation process. Prior to construction, the location of special-status plants that will be affected by grading and excavation will be surveyed and documented, and the seeds and/or rhizomes of special-status plants that may be destroyed during construction will be collected in accordance with the Rare Plant Strategy. Following construction, which plants were permanently or temporarily impacted by the project will be determined. Collected seeds and/or rhizomes will be planted per planting guidelines described in the Rare Plant Strategy in coordination with BLM and USFWS. Post-project monitoring methods will be applied in accordance with the Rare Plant Strategy to determine if propagation activities met the success criteria described in the Rare Plant Strategy.

APM BIO-5.4: Topsoil Stockpiling Requirements. Where grading or excavation is required in gabbroic chaparral habitat, and where noxious weeds are absent, the upper 4 inches of topsoil will be stockpiled separately during grading or excavations, following any necessary plant salvage efforts. When this topsoil is replaced, compaction will be minimized to the extent consistent with utility standards.

APM BIO-5.5: Locking Gate Installation. Following project completion, and upon agreement of private landowners, locking gates will be installed at the two main roads

leading into the BLM Pine Hill Preserve to limit unauthorized vehicle access that may threaten special-status plant populations.

APM BIO-6: Special-Status Plant Impact Mitigation

To compensate for permanent impacts on special-status plants, PG&E will explore options with USFWS, and will implement the preferred option. The options may include: on-site planting of propagated seeds and cuttings in accordance with the USFWS-approved Rare Plant Strategy; and/or providing funding to the BLM Pine Hill Preserve for the purpose of habitat enhancement, management, and/or monitoring of gabbroic chaparral habitat.

APM BIO-7: Seasonal Wetland Protection

Seasonal wetlands that may provide habitat for special-status species will not be entered. Travel across seasonal wetlands that do not provide such habitat will be limited to the greatest extent feasible. Where travel across seasonal wetlands is necessary, it will occur during dry conditions to avoid soil compaction and mixing. If travel is required during wet conditions, matting and other protection measures will be implemented to avoid soil compaction or mixing. Matting and other protection measures will be approved by the biological monitor before work at that location begins. During construction monitoring, the biological monitor may temporarily stop construction work if matting and protection measures are inadequately applied; construction work may resume after matting and other protection measures are installed effectively to protect seasonal wetlands.

APM CUL-1: Develop and Implement Worker Environmental Awareness Program Prior to Construction

PG&E will design and implement a worker environmental awareness program that will be provided to all project personnel involved in earth-moving activities. No construction worker will be involved in field operations without having participated in the worker environmental awareness program.

The worker environmental awareness program will include a kick-off tailgate session to present site avoidance requirements and procedures to be followed if unanticipated cultural or paleontological resources are discovered during project implementation, and a discussion of actions that could be taken against persons violating historic preservation laws and PG&E policies. Key project workers involved with ground-disturbing activities will receive a pamphlet listing how to identify a cultural resource or fossil and what to do if an unanticipated discovery is made during construction. The worker environmental awareness training may be conducted in concert with other environmental or safety awareness and education training programs for the project, and may be recorded for use in subsequent training sessions.

APM CUL-2: Manage Unanticipated Cultural Resources Discoveries Properly

In the unlikely event that previously unidentified cultural resources are uncovered during project implementation, all work within 100 feet of the discovery will be halted and redirected to another location. The find will be secured, and a CPUC-approved, qualified cultural resources specialist/archaeologist will be contacted immediately. The specialist will inspect the discovery and determine whether further investigation is required. If the discovery can be avoided and no further impacts will occur, the resource shall be documented on California State Department of Parks and Recreation cultural resource record forms and no further effort shall be required.

If additional disturbance to the resource cannot be avoided, a CPUC-approved, qualified cultural resources specialist/archaeologist will evaluate the resource's significance and CRHR eligibility and determine whether it is (1) eligible for the CRHR (and thus a historical resource for purposes of CEQA); or (2) a unique archaeological resource as defined by CEQA. If the resource is determined to be neither a unique archaeological nor an historical resource, work may commence in the area. If the resource meets the criteria for either an historical or unique archaeological resource, or both, work shall remain halted, and the cultural resources specialist/archaeologist shall consult with CPUC staff regarding methods to ensure that no substantial adverse change would occur to the significance of the resource pursuant to CEQA Guidelines Section 15064.5(b). Preservation in place, i.e. avoidance, is the preferred method of mitigation for impacts to cultural resources. Other methods to be considered shall include evaluation, collection, recordation, and analysis of any significant cultural materials in accordance with a Cultural Resources Management Plan prepared by the CPUC approved qualified cultural resource specialist/archaeologist. The methods and results of evaluation or data recovery work at an archaeological find will be documented in a professional-level technical report to be filed with the NCIC.

If previously unidentified cultural resources are uncovered during project implementation on BLM land, procedures will be similar to those described above; however, if additional disturbance to a cultural resource cannot be avoided, PG&E will evaluate the significance and NRHP eligibility per Section 106 of the NHPA in consultation with BLM. Any cultural resource or paleontological work conducted on BLM lands will be conducted under a valid cultural resource and paleontological use permit issued by the BLM California State office, and may require a fieldwork authorization by the local field office. Cultural materials and paleontological resources collected under a BLM-use permit will be curated in an accredited museum repository.

APM CUL-3: Follow Statutory Requirements for Treatment of Human Remains

In the unlikely event that human remains or suspected human remains are uncovered during pre-construction testing or during construction, all work within 100 feet of the discovery will be halted and redirected to another location. The find will be secured, and a CPUC-approved, qualified cultural resources specialist will be contacted immediately to inspect the find and determine whether the remains are human. If the remains are not human, the cultural resources specialist will determine whether the find is an archaeological deposit and whether APM CUL-2 applies. If the remains are human, the cultural resources specialist will immediately implement the provisions in PRC Sections 5097.9 through 5097.996, beginning with the immediate notification to the affected county coroner. The coroner has 2 working days to examine human remains after being notified. If the coroner determines that the remains are Native American, California Health and Safety Code 7050.5 and PRC Section 5097.98 require that the cultural resources specialist contact the NAHC within 24 hours. The NAHC, as required by PRC Section 5097.98, determines and notifies the Most Likely Descendant.

If potential human remains are discovered during any project activity on lands administered by BLM, the procedures identified in NAGPRA will be closely adhered to and the following steps will be taken:

1. All activities that may further disturb the potential human remains will cease immediately in the vicinity of the discovery.
2. PG&E will take appropriate steps to secure and protect human remains and any funerary objects from further disturbance.

3. PG&E's cultural resources specialist will notify BLM's archaeologist by telephone within 24 hours of discovery, followed within 3 days by written confirmation. Human remains or associated funerary objects will not be excavated or otherwise removed unless a permit is issued under ARPA and after consultation between the appropriate Native American representative(s), BLM, and PG&E.
4. The activity that resulted in the inadvertent discovery will not resume until clearance is provided by BLM.

APM CUL-4: Flag and Avoid Cultural Resources

The boundaries of all known cultural resources that lie within 100 feet of a designated work area will be marked with flagging tape, safety fencing, and/or a sign designating it as an "environmentally sensitive area" to ensure that PG&E construction crews and heavy equipment will not intrude on these resources during construction. For those eligible or potentially eligible sites that contain an existing access road within their site boundary, the road will be used as-is (i.e., no grading, widening, or other substantial improvements), and signs or safety fencing will be established on either side of the road within the site's boundary to avoid impacts caused by construction vehicles. If it is infeasible or impractical to use an access road as-is, and grading, widening or other substantial improvement is necessary, PG&E will implement mitigation or treatment measures specific to the resource potentially affected by the work. Examples of such measures would include preservation in place, and evaluation, collection, recordation, and analysis of any significant cultural materials.

APM CUL-5: Avoid Paleontologically Sensitive Locations

No direct impacts on fossil-bearing deposits (ground disturbance) will occur within the approximately 0.29-acre project area containing Quaternary alluvium just west of Empire Ranch Road and the El Dorado-Sacramento County boundary. However, should project development result in the disturbance of this geologic unit at a depth of 10 feet or greater, a qualified paleontologist will be retained as needed to ensure that impacts on any potential paleontological resources are avoided.

If fossil remains are uncovered during project implementation, all work within 50 feet of the discovery will be halted and the construction crew immediately will notify PG&E. A paleontologist will be retained by PG&E and approved by the CPUC to evaluate the resource. If the discovery can be avoided and no further impacts will occur, no further effort shall be required. If the resource cannot be avoided and may be subject to further impact, the CPUC-approved paleontologist shall evaluate the resource and determine whether it is "unique" under CEQA, Appendix G, part V. If the resource is determined to not be unique, work may commence in the area. If the resource is determined to be a unique paleontological resource, work shall remain halted, and the paleontologist shall consult with CPUC staff regarding methods to ensure that no substantial adverse change would occur to the significance of the resource pursuant to CEQA. Preservation in place, i.e. avoidance, is the preferred method of mitigation for impacts to paleontological resources. Other methods include ensuring that the fossils are recovered, prepared, identified, catalogued, and analyzed according to current professional standards under the direction of a qualified paleontologist. All recovered fossils shall be curated at an accredited and permanent scientific institution according to Society of Vertebrate Paleontology standard guidelines (SVP [2010]) standards; typically the Natural History Museum of Los Angeles County and UC Berkeley accept paleontological collections at no cost to the donor. Work may commence upon completion of treatment, as approved by the CPUC. Components of the treatment plan related to "unique" fossil specimens that are encountered during

construction may include a field survey, additional construction monitoring, specific sampling and data recovery procedures, museum storage coordination for any specimen recovered, and a report of findings.

APM GEO-1: Minimization of Construction in Soft or Loose Soils

Where soft or loose soils are encountered during project construction, appropriate measures will be implemented to avoid, accommodate, replace, or improve such soils. Depending on site-specific conditions and permit requirements, these measures may include:

- locating construction facilities and operations away from areas of soft and loose soil;
- over-excavating soft or loose soils and replacing them with engineered backfill materials;
- increasing the density and strength of soft or loose soils through mechanical vibration and/or compaction;
- installing material over access roads such as aggregate rock, steel plates, or timber mats; and
- treating soft or loose soils in place with binding or cementing agents.

APM GEO-2: Reduction of Slope Instability during Construction

Existing natural or temporarily constructed slopes affected by construction or operations will be evaluated for stability by qualified construction staff at the beginning of each construction day that employees may be exposed to the areas immediately upslope or downslope from the area of concern can be reasonably anticipated. In developing grading and construction procedures for access roads, the stability of both temporary and permanent cut, fill, and otherwise affected slopes will be analyzed. Construction slopes and grading will be designed to limit the potential for slope instability and minimize the potential for erosion and flooding during construction. During construction, slopes affected by construction activities will be monitored by qualified construction staff and maintained in a stable condition. Construction activities likely to result in slope instability will be suspended, as necessary, during and immediately following periods of heavy precipitation when unstable slopes are more susceptible to failure.

APM GHG-1: Minimize GHG Emissions

- Maintain construction equipment in proper working conditions in accordance with PG&E standards.
- 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.

- 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.

APM GHG-2: Minimize SF_6 Emissions

- Incorporate the new breakers at Gold Hill Substation into PG&E's system-wide SF_6 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 SF_6 emission rate not exceed 1 percent by 2020. Since 1998, PG&E has implemented a programmatic plan to inventory, track, and recycle SF_6 inputs, and inventory and monitor system-wide SF_6 leakage rates to facilitate timely replacement of leaking breakers. PG&E has improved its leak detection procedures and increased awareness of SF_6 issues within the company. X-ray technology is now used to inspect internal circuit breaker components to eliminate dismantling of breakers, reducing SF_6 handling and accidental releases. As an active member of EPA's SF_6 Emission Reduction Partnership for Electrical Power Systems, PG&E has focused on reducing SF_6 emissions from its transmission and distribution operations and has reduced the SF_6 leak rate by 89 percent and absolute SF_6 emissions by 83 percent.
- Require that breakers to be replaced at Gold Hill Substation have a manufacturer's guaranteed maximum leakage rate of 0.5 percent per year or less for SF_6.
- Maintain substation breakers in accordance with PG&E's maintenance standards.
- Comply with CARB Early Action Measures as these policies become effective.

APM HAZ-1: Hazardous-Substance Control and Emergency Response

PG&E will implement a Hazardous Substance Control and Emergency Response Plan, which will identify methods and techniques to minimize exposure of the public and construction workers to potentially hazardous materials during all phases of project implementation. The Hazardous Substance Control and Emergency Response Plan shall be submitted to the CPUC prior to the start of construction activities. The procedures require PG&E to provide worker training in hazardous-substance control and emergency response that is appropriate to the workers' roles. The procedures also require implementation of appropriate control methods and approved containment and spill-control practices for construction and materials stored in the project area. If it is necessary to store chemicals, the chemicals will be managed in accordance with all applicable regulations. Material safety data sheets will be maintained and kept available in the project area, as applicable.

Project construction may require blading/leveling of the soil surface and excavation or auguring to a depth of approximately 24 feet. However, if soils suspected of contamination (based on visual, olfactory, or other evidence) are removed during grading or excavation/auguring activities, the excavated soil will be tested. If they are contaminated above hazardous-waste levels, those soils will be contained and disposed of at a licensed waste facility. Any known or suspected contaminated soil will undergo testing and

investigation procedures, supervised by a qualified person as appropriate, to meet the requirements of State and federal regulations.

All hazardous materials and hazardous wastes will be handled, stored, and disposed of in accordance with all applicable regulations, by personnel qualified to handle hazardous materials. The hazardous-substance-control and emergency-response procedures will include but will not be limited to the following measures:

- proper disposal of potentially contaminated soils;
- establishment of project area–specific buffers for construction vehicles and equipment located near sensitive resources; and
- implementation of emergency-response and reporting procedures to address spills of hazardous materials.

APM HAZ-2: Smoking and Fire Rules

Smoking will be permitted only in designated smoking areas or within the cabs of vehicles or equipment.

APM HAZ-3: Fire Risk Management

Project personnel will be directed to park away from dry vegetation. During fire season in designated SRAs, all motorized equipment driving off paved or maintained gravel/dirt roads will have federally approved or State-approved spark arrestors. All off-road vehicles will be equipped with a backpack pump (filled with water) and a shovel. Fire-resistant mats and/or windscreens will be used when welding. In addition, during fire "red flag" conditions (as determined by CAL FIRE), welding will be curtailed. Every fuel truck will carry a large fire extinguisher with a minimum rating of 40 B:C, and all flammable materials will be removed from equipment parking and storage areas.

APM HYDRO-1: Stormwater Pollution Prevention Plan

PG&E will file a Notice of Intent with the SWRCB for coverage under the General Construction Storm Water Permit and will prepare and implement an SWPPP in accordance with General Order No. 2009-0009-DWQ, as amended, which typically includes measures such as placement of straw wattles or silt fencing, flagging, mulching, seeding and other means to help stabilize disturbed areas and reduce erosion and sedimentation.

APM HYDRO-2: Water Feature Protection Requirements

Where access through hydrologic resources are required, PG&E shall install temporary bridges or plates over drainages (spanning the ordinary high water mark) and install fiberglass or wood matting in wetland features to reduce water quality impacts to these features.

APM NO-1: Minimize Noise-Related Disruption by Notifying Residents

Should nighttime project construction be necessary because of planned clearance restrictions, affected residents will be notified at least 7 days in advance by mail, personal visit, or door hanger and informed of the expected work schedule.

APM NO-2: Minimize Noise with Portable Barriers

Compressors and other small stationary equipment used during project construction will be shielded with portable barriers if the equipment is located near noise-sensitive receptors.

APM REC-1: Coordination with Park and Open Space Management and Signage

PG&E will coordinate closely with park and open space management for temporary public land closures during project construction activities. If traditional access is temporarily unavailable, signs advising recreational facility users of construction activities, including directions to alternative trails and/or bikeways, will be posted at entrance gates to park and open space areas. Signage will be posted at least 1 week in advance of construction, near parks and open space areas.

APM TRA-1: Air Transit and Neighborhood Coordination

PG&E will implement the following protocols that pertain to helicopter use during construction and air traffic:

- PG&E will comply with all applicable FAA regulations regarding air traffic within 2 miles of the project alignment.
- PG&E's helicopter operator will coordinate all project helicopter operations with the local airport before and during project construction.
- PG&E does not anticipate that residents will be required to temporarily vacate their homes or businesses. In the unlikely event that final construction plans require otherwise, PG&E will coordinate with potentially affected residents or businesses to minimize the duration of the necessary work and any resultant inconvenience.

APM TRA-2: Temporary Traffic Controls. PG&E will obtain any necessary transportation and/or encroachment permits, including those for the U.S. 50 crossings and transport of oversized loads and certain materials, and will comply with permit requirements designed to prevent excessive congestion or traffic hazards during lane closures. PG&E will develop lane closure/width reduction or traffic diversion plans as required by the encroachment permits. Construction activities that are in, along, or cross local roadways will follow best management practices and/or local jurisdictional encroachment permit requirements, to minimize impacts to traffic and transportation in the project area.

TABLE 5-1
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E MISSOURI FLAT-GOLD HILL 115 KV POWER LINE RECONDUCTORING PROJECT

Environmental Impact	Mitigation Measures Proposed in this IS/MND	Implementing Actions	Monitoring/Reporting Requirements	Timing
Aesthetics				
Light and Glare	**Mitigation Measure 3.1-1: Reduce construction night lighting impacts.** PG&E shall design and install all lighting at construction and storage yards and staging areas such that light bulbs and reflectors are not visible from public viewing areas; lighting does not cause reflected glare; and illumination of the Project facilities, vicinity, and nighttime sky is minimized. • Lighting shall be designed so exterior lighting is hooded, with lights directed downward or toward the area to be illuminated so that light trespass to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light sources are shielded to minimize light trespass outside the Project boundary. • All lighting shall be of minimum necessary brightness consistent with worker safety. • Per APM NO-1, residents affected by nighttime project construction due to planned clearance restrictions will be notified.	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During all phases of construction activities.
Agriculture and Forestry Resources				
No mitigation required.				
Air Quality and Greenhouse Gas Emissions				
Air Quality Standards and Net Increase of Any Criteria Pollutant	**Mitigation Measure 3.3-1:** The following SCAQMD Rule 403 Best Available Fugitive Dust Control Measures shall be implemented during construction, where applicable, within El Dorado County: • For inactive disturbed surfaces, either: apply water to at least 80 percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust (excluding any areas which are inaccessible due to excessive slope or other safety conditions); or apply dust suppressants to inactive disturbed surface areas in sufficient quantity and frequency to maintain a stabilized surface; or establish a vegetative ground cover within 21 days after active operations have ceased; (ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting); or	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During all phases of construction activities.

TABLE 5-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E MISSOURI FLAT-GOLD HILL 115 KV POWER LINE RECONDUCTORING PROJECT

Environmental Impact	Mitigation Measures Proposed in this IS/MND	Implementing Actions	Monitoring/Reporting Requirements	Timing
Air Quality and Greenhouse Gas Emissions (cont.)				
Air Quality Standards and Net Increase of Any Criteria Pollutant (cont.)	utilize any combination of these controls together to control fugitive dust on all inactive disturbed surface areas. • Water all unpaved roads used for any vehicular traffic once daily, during dry weather conditions. • To control track-out, pave or apply chemical stabilization at sufficient concentration and frequency to maintain a stabilized surface starting from the point of intersection with the public paved surface, and extending for a centerline distance of at least 100 feet and a width of at least 20 feet; or pave from the point of intersection with the public paved road surface, and extending for a centerline distance of at least 25 feet and a width of at least 20 feet, and install a track-out control device immediately adjacent to the paved surface such that exiting vehicles do not travel on any unpaved road surface after passing through the track-out control device. • When wind gusts exceed 25 mph, implement the applicable Best Available Fugitive Dust Control Measures for High Wind Conditions identified in Appendix C-1, Table C.5 of the EDCAQMD Guide to Air Quality Assessment Determining Significance of Air Quality Impact Under the California Environmental Quality Act (EDCAQMD, 2002).			
	Mitigation Measure 3.3-2: The following SMAQMD Basic Construction Emission Control Practices shall be implemented during construction, where applicable, within Sacramento County: • Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads; • Any haul trucks that would be traveling along freeways or major roadways should be covered; and • Use wet power vacuum street sweepers to remove any visible track-out mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During all phases of construction activities.

TABLE 5-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E MISSOURI FLAT-GOLD HILL 115 KV POWER LINE RECONDUCTORING PROJECT

Environmental Impact	Mitigation Measures Proposed in this IS/MND	Implementing Actions	Monitoring/Reporting Requirements	Timing
Biological Resources				
Special-Status Species: Vernal Pool Invertebrates	**Mitigation Measure 3.4-1:** In areas where construction vehicles require crossing over seasonal wetlands and vernal pools that have the potential to support vernal pool invertebrates (crustacean habitat), the following protective measures would be implemented to reduce the effects of surface disturbance and compaction: a) No equipment or materials shall be stored in or adjacent to seasonal wetlands or vernal pools. b) Prior to allowing any vehicles or heavy equipment to cross a seasonal wetland, the Project proponent or its contractor shall employ geotextile fabric, wooden mats, or similar protective materials to protect the ground surface in areas where vehicles would encroach upon vernal pool crustacean habitat. Such materials would distribute the weight of vehicles and equipment over a greater area and prevent significant disturbance of soil in these areas. The project proponent or its contractor shall ensure that adequate calculations have been conducted prior to implementation of this measure to ensure the wooden mats can adequately distribute the weight of vehicles and heavy equipment to prevent compaction. c) Materials shall only remain in the wetland areas as long as necessary for the completion of work	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During all phases of construction activities.
Active Nests	**Mitigation Measure 3.4-2:** The following measure supplements APM BIO-3.1, (i.e. using the nest buffer areas described in APM BIO 3.1 as guidance). The PG&E biologist shall coordinate with CDFW to determine whether work, as modified to minimize disturbance of nesting birds may proceed in an exclusion zone around an active nest (if avoidance is not practicable). If any nests that are fully formed and have the potential to support eggs are found, the biologist shall monitor the nest for potential nesting activities. Project activities are only allowed to commence after it is determined that the nest is not actively being used by nesting birds, unless approved in coordination with CDFW per previous sentence. The biologist will monitor all work occurring within exclusion zones daily when construction is occurring and assess their effect on the nesting birds. If the biologist determines that particular activities pose a high risk of disturbing an active nest, the biologist will recommend additional feasible measures to minimize the risk of nest disturbance, potentially including temporary cessation of work activities within exclusion zones near active nests.	PG&E and its contractors to implement measure as defined.	PG&E biologist to coordinate with CDFW regarding construction activities within a nesting bird exclusion zone. CPUC mitigation monitor to inspect compliance.	During all phases of construction activities.

TABLE 5-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E MISSOURI FLAT-GOLD HILL 115 KV POWER LINE RECONDUCTORING PROJECT

Environmental Impact	Mitigation Measures Proposed in this IS/MND	Implementing Actions	Monitoring/Reporting Requirements	Timing
Biological Resources (cont.)				
Rare Plants	**Mitigation Measure 3.4-3:** In addition to the areas within the BLM Pine Hill Preserve, PG&E will apply the measures identified in APM BIO-5.3 to other areas within the project footprint known to support rare plant populations.	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	Prior to commencement of construction activities. Post-project propagation in accordance with Rare Plant Strategy.
	Mitigation Measure 3.4-4: In addition to the measures described in APM BIO-6, PG&E will provide notification to CDFW at least 10 days prior to affecting special-status plants to allow for the salvage of special-status plants (CDFG Section 10913(c)).	PG&E and its contractors to implement measure as defined.	PG&E to provide notification to CDFW.	At least 10 days prior to affecting special-status plants.
Native Trees	**Mitigation Measure 3.4-5:** Retained oak trees over 6" diameter at breast height (dbh) or having multiple trunks with an aggregate over 10" dbh, or sensitive natural community trees, located adjacent to ground-disturbing construction activities that could damage tree roots, shall be protected through the implementation of the following protective measures: a) A Tree Protection Zone (TPZ) shall be established between any such retained tree or group of trees and the ground-disturbing construction activities. The TPZ shall be 1.5 times the radius of the dripline (canopy edge). However, a smaller TPZ may be approved by the CPUC monitor in coordination with the qualified biologist and construction personnel if necessary due to topography or other reasons, if the CPUC monitor concludes that the smaller TPZ is adequate to protect the tree(s) from significant impacts. b) The TPZ of any protected trees shall be marked with high visibility fencing, which shall remain in place for the duration of ground-disturbing construction activities in the area. c) Construction-related activities, including grading, trenching, or drilling shall be prohibited within the TPZ. No construction-related vehicles, personal vehicles, or machinery shall be operated or parked within the TPZ. No construction materials, equipment, machinery, or other supplies shall be stored within a TPZ. No wires or signs shall be attached to any tree. d) Where the TPZ cannot be fully implemented as described in Mitigation Measure 3.4-5a through c, and construction-related activities are determined by the CPUC monitor to have a	PG&E and its contractors to implement measure as defined.	A Tree Protection Zone (TPZ) shall be established around any tree or group of trees to be retained. CPUC mitigation monitor to inspect compliance.	Prior to commencement of construction activities. During all phases of construction activities.

TABLE 5-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E MISSOURI FLAT-GOLD HILL 115 KV POWER LINE RECONDUCTORING PROJECT

Environmental Impact	Mitigation Measures Proposed in this IS/MND	Implementing Actions	Monitoring/Reporting Requirements	Timing
Biological Resources (cont.)				
Native Trees (cont.)	significant impact to a retained oak tree such that tree health may decline over time and result in tree mortality at a rate faster than normally expected, the CPUC monitor will determine whether the tree shall be removed or retained. Mitigation for the removed or retained tree is defined in Mitigation Measure 3.4-6, below.			
	Mitigation Measure 3.4-6: Removed native oak trees and retained native oak trees (as defined in Policy 7.4.5.2) that are significantly impacted by construction-related activities and determined by the CPUC monitor to potentially decline and result in tree mortality at a rate faster than expected, shall be mitigated through replacement at a 1:1 ratio. The number of trees planted may be greater than the 1:1 ratio to achieve at least 100 percent replacement of impacted trees at the end of the monitoring period. As part of this mitigation, PG&E shall prepare an Oak Mitigation Plan when tree planting locations have been determined. The plan shall include, but is not limited to, details of the number of oak trees to be planted, based on the final total of trees removed or significantly impacted (Mitigation Measure 3.4-5d) by the Project, specific planting locations, maintenance and irrigation needs, monitoring requirements (i.e., at least 5 years monitoring plant vigor and growth), reporting requirements (e.g., annual reporting to the CPUC), and success criteria to be met before monitoring is concluded (e.g., 100 percent survival at a 1:1 replacement ratio; an independent assessment of "good" overall tree vigor; and tree viability without irrigation). The Oak Mitigation Plan shall be submitted to the CPUC for review and approval prior to implementation.	PG&E and its contractors to implement measure as defined.	PG&E shall prepare an Oak Mitigation Plan. CPUC mitigation monitor to inspect compliance.	Subsequent to selection of tree planting locations.
Cultural Resources				
No mitigation required.				
Geology, Soils, and Seismicity				
Soil Instability	**Mitigation Measure 3.6-1:** If grading plans are required, designs will be signed by a professional engineer and submitted to CPUC for approval within a reasonable timeframe prior to construction initiation.	PG&E and its contractors to implement measure as defined.	PG&E to submit grading plans to CPUC.	Prior to commencement of grading activities.

TABLE 5-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E MISSOURI FLAT-GOLD HILL 115 KV POWER LINE RECONDUCTORING PROJECT

Environmental Impact	Mitigation Measures Proposed in this IS/MND	Implementing Actions	Monitoring/Reporting Requirements	Timing
Greenhouse Gas Emissions				
No mitigation required.				
Hazards and Hazardous Materials				
No mitigation required.				
Hydrology and Water Quality				
No mitigation required.				
Land Use and Planning				
No mitigation required.				
Mineral Resources				
No mitigation required.				
Noise				
Construction Noise	**Mitigation Measure 3.12-1:** Construction activity shall be limited to between the hours of 7:00 a.m. and 6:00 p.m., Monday through Friday, and 8:00 a.m. and 5:00 p.m. on weekends, and on federally-recognized holidays, except with CPUC approval to conduct certain work during electrical line clearances pursuant to Mitigation Measure 3.12-2, or where necessary to ensure worker safety.	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During all phases of construction activities.
	Mitigation Measure 3.12-2: In the event that limited nighttime (i.e., between 6:00 p.m. and 7:00 a.m.) construction activity is determined to be necessary for safety reasons or for line clearance reasons within 500 feet of an occupied residential dwelling unit, a nighttime noise reduction plan shall be developed by PG&E and submitted to the CPUC for review and approval at least 30 days prior to commencement of construction activities. The noise reduction plan shall include a set of site-specific noise attenuation measures that apply state of the art noise reduction technology to ensure that nighttime construction noise levels and associated nuisance are reduced. The measures shall include, but not be limited to, the control strategies and methods for implementation that are listed below.	PG&E and its contractors to implement measure as defined.	If necessary, a nighttime noise reduction plan shall be developed by PG&E and submitted to the CPUC for review and approval. CPUC mitigation monitor to inspect compliance.	Prior to the start of nighttime construction activities. During all phases of construction activities.

TABLE 5-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E MISSOURI FLAT-GOLD HILL 115 KV POWER LINE RECONDUCTORING PROJECT

Environmental Impact	Mitigation Measures Proposed in this IS/MND	Implementing Actions	Monitoring/Reporting Requirements	Timing
Noise (cont.)				
Construction Noise (cont.)	• Plan construction activities to minimize the amount of nighttime construction. • Provide notice to all residences within 500 feet of planned nighttime construction activities that includes the specific night(s) and approximate timeframe when construction activities would occur. • Offer temporary relocation of residents within 200 feet of nighttime construction activities that would occur after 10:00 p.m. • Temporary noise barriers, such as acoustical shields and/or blankets, shall be installed immediately adjacent to all nighttime stationary noise sources (e.g., generators, pumps) that block the line of sound between nighttime activities and the closest residences.			
	Mitigation Measure 3.12-3: PG&E and/or the construction contractor shall employ noise-reducing practices during construction of the Project, including, but not necessarily limited to: locating equipment as far a practical from noise sensitive uses; requiring that all construction equipment powered by gasoline or diesel engines have sound-control devices that are at least as effective as those originally provided by the manufacturer; ensuring that all equipment be operated and maintained to minimize noise generation; and prohibiting gasoline or diesel engines from having unmuffled exhaust.	PG&E and its contractors to implement measure as defined.	CPUC mitigation monitor to inspect compliance.	During all phases of construction activities.
	Mitigation Measure 3.12-4: At least 30 days prior to the start of construction, PG&E or the construction contractor shall notify residences (and other noise-sensitive receptors) within 200 feet of the construction areas of the construction schedule and the associated potential nuisance in writing.	PG&E and its contractors to implement measure as defined.	PG&E to notify residences and noise-sensitive receptors within 200 feet of construction area of the construction schedule and potential nuisance.	At least 30 days prior to commencement of construction activities.
	Mitigation Measure 3.12-5: At least 30 days prior to the start of helicopter-related construction activities, written notifications shall be provided to residences and other noise-sensitive receptors within 500 feet of the helicopter landing zone, tower modification site, and flight path that include the specific dates and time of day that the helicopter-related activities are expected to occur.	PG&E and its contractors to implement measure as defined.	PG&E to notify residences and noise-sensitive receptors within 500 feet of helicopter landing zone, tower modification site, and flight path of helicopter-related construction activities.	At least 30 days prior to commencement of helicopter-related construction activities.

TABLE 5-1 (Continued)
MITIGATION MONITORING, REPORTING, AND COMPLIANCE PROGRAM FOR THE PG&E MISSOURI FLAT-GOLD HILL 115 KV POWER LINE RECONDUCTORING PROJECT

Environmental Impact	Mitigation Measures Proposed in this IS/MND	Implementing Actions	Monitoring/Reporting Requirements	Timing
Population and Housing				
No mitigation required.				
Public Services				
No mitigation required.				
Recreation				
No mitigation required.				
Transportation and Traffic				
No mitigation required.				
Utilities and Service Systems				
No mitigation required.				