PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE SAN FRANCISCO, CA 94102-3298



DRAFT

Mitigated Negative Declaration

PACIFIC GAS AND ELECTRIC COMPANY FULTON-FITCH MOUNTAIN RECONDUCTORING PROJECT APPLICATION NO. A.15-12-005

PROJECT INFORMATION

Title: Fulton-Fitch Mountain Reconductoring Project

Location: Sonoma County, California

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Agency California Bullia Hillian Commi

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Energy Division

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INTRODUCTION

Pursuant to California Public Utilities Commission (CPUC) General Order 131-D, Pacific Gas and Electric Company (PG&E) filed an application (A.15-12-005) with the CPUC on December 3, 2015, for a Permit to Construct the Fulton-Fitch Mountain Reconductoring Project (proposed project). The application included the Proponent's Environmental Assessment (PEA), prepared by PG&E pursuant to CPUC's Rules of Practice and Procedure Rule 2.4 (compliance with the California Environmental Quality Act [CEQA]). The CPUC prepared this Mitigated Negative Declaration (MND) and supporting Initial Study (IS) as a result of PG&E's application for the proposed project.

Pursuant to CEQA, California Public Resources Code § 21000 et seq., the CPUC must prepare an IS for the proposed project to determine if any significant adverse effects on the environment would result from project implementation. The IS uses the significance criteria outlined in Appendix G of the State CEQA Guidelines, 14 CCR § 15000 et seq. If the IS for the project indicates that a significant adverse impact could occur, the CPUC would be required to prepare an Environmental Impact Report.

According to Article 6 (Negative Declaration Process) and Section 15070 (Decision to Prepare a Negative Declaration or Mitigated Negative Declaration) of the CEQA Guidelines, a public agency shall prepare, or have prepared a proposed negative declaration or mitigated negative declaration (MND) for a project subject to CEQA when:

- (a) The Initial Study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or
- (b) The Initial Study identifies potentially significant effects, but:
 - (1) Revisions in the project plans or proposals made by, or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review, would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and
 - (2) There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.

Based on the analysis in the IS, it has been determined that all project-related environmental impacts could be reduced to a less-than-significant level with the incorporation of minor revisions to the proposed project and feasible mitigation measures (MMs), which PG&E has agreed to implement should CPUC approve the project. Therefore, adoption of an MND will satisfy the requirements of CEQA. Applicant proposed measures (APMs) identified in PG&E's PEA, as revised in coordination with CPUC, and MMs included in this MND are designed to reduce or eliminate the potentially significant environmental impacts described in the IS. The analysis in the IS explains when a measure described in this document has been incorporated into the project, either as a specific project design feature, APM, or MM. MMs are structured in accordance with the criteria in Section 15370 of the CEQA Guidelines.

PROJECT DESCRIPTION

The proposed project would reinforce the electric transmission system in central Sonoma County by replacing the conductor on a 9.8-mile-long section of the Fulton-Hopland 60-kV Power Line (Fulton-Hopland line) between Fulton Substation and Fitch Mountain Substation. The proposed project would also include replacing poles along 8 miles of the Fulton-Hopland line, replacing conductor on 1.4 miles of the Geysers #12-Fulton 230-kV Transmission Line (Geysers #12 or 230-kV line), and making modifications to Fitch Mountain Substation. PG&E's stated objectives of the proposed project are to alleviate a potential overload condition identified by the California Independent System Operator, and to increase the capacity of the

Fulton-Hopland line to help meet increasing demand in the region. Construction of the proposed project is preliminarily scheduled to begin in July 2018. The construction start date would depend on CPUC approval, and would last approximately 18 months.

ALTERNATIVES

The purpose of an alternatives analysis pursuant to CEQA is to identify options that would feasibly attain the project's objectives while reducing the significant environmental impacts resulting from the proposed project. CEQA does not require the inclusion of an alternatives analysis in MNDs because the IS concludes that, with incorporation of MMs, all significant adverse impacts resulting from the proposed project could be mitigated to less-than-significant levels. Therefore, no alternatives analysis needs to be provided in the IS.

ENVIRONMENTAL DETERMINATION

The CPUC prepared this IS to determine if the proposed project would result in any significant adverse effects on the environment. The analysis presented in the IS is based on the significance criteria in Appendix G of the CEQA Guidelines. The IS relies on information in PG&E's PEA filed on December 3, 2015; PG&E's responses to deficiency reports and data requests; the CPUC's independent analysis; and other environmental analyses.

PG&E's PEA identified measures to address potentially significant impacts (APMs), which are considered to be part of the description of the proposed project. Based on the IS analysis, additional MMs are identified for adoption to ensure that impacts of the proposed project would be less than significant. The additional MMs either supplement or supersede (i.e., replace) the APMs. In some cases, the APMs identified in PG&E's PEA have been revised or excluded from the IS analysis. PG&E has agreed to implement all of the MMs as part of the proposed project. Implementation of the MMs below would avoid potentially significant impacts identified in the IS, or would reduce them to less-than-significant levels.

A Mitigation Monitoring and Reporting Program (MMRP), located in Section 4 of the IS/MND, has been prepared to ensure that the APMs and MMs are properly implemented. The plan describes specific actions required to implement each measure, including information on the timing of implementation and performance standards. Following project approval, CPUC would prepare and implement a Mitigation Monitoring, Compliance, and Reporting Program to ensure compliance with MMs and that the project is implemented as stated in the CPUC-approved project description and the adopted MMRP.

MITIGATION MEASURES

Agriculture and Forestry Resources

MM Agriculture-1: Minimize Impacts on Active Agricultural Areas

PG&E shall minimize disruptions to existing agriculture operations and avoid impacts on agricultural infrastructure (i.e., irrigation lines, wells, pumps, ditches, and drains). Work areas and overland access routes shall avoid active agricultural areas (i.e., farms, orchards, vineyards) and agriculture infrastructure where feasible. If necessary, and upon agreement with farmers, agricultural infrastructure shall be protected with temporary materials (i.e., steel plates, blankets, etc.) to prevent inadvertent damage during construction.

Crop removal shall be avoided to the greatest extent feasible. If crops cannot be avoided, impacts shall be limited to the minimum necessary to construct the project, and PG&E shall provide the owner with fair market compensation to replace the crops and any damaged infrastructure.

If grading occurs in active agricultural areas, topsoil shall be salvaged and replaced once construction is complete.

Biological Resources

MM Biology-1: General Biological Monitoring (Supersedes APM BIO-1b and APM BIO-1c)

Biologist Approval and Qualifications. CPUC-approved qualified biologists will conduct biological surveys and monitoring for the project. Qualified biologists are defined as individuals with a bachelor's degree or above in a biological science field and demonstrated field experience. Approved and qualified biologists shall conduct required surveys and monitoring for special-status species and active nests. Qualified avian biologists are defined as individuals with demonstrated field expertise in ornithology, in particular, nesting behavior and nest detection. Monitoring biologists conducting avian nest checks shall have demonstrated experience surveying or monitoring nesting birds. Qualified botanists are defined as individuals with demonstrated field expertise in botany. Qualified herpetologists are defined as individuals with demonstrated experience with California reptile and amphibian species. Biologists qualified for construction monitoring shall hold at minimum 1 to 2 years of construction-related biological monitoring experience. Biologists qualified as a lead field monitoring biologist shall have 5 or more years of related experience.

General Monitoring Procedures. The approved biologist shall conduct general biological monitoring during construction activities that may disturb sensitive biological resources. The general biological monitoring (as required by this measure) may be conducted concurrently with other required monitoring activities, as appropriate. The biological monitor shall be responsible for ensuring compliance with avoidance and minimization procedures, regularly attending morning tailboard meetings with workers, and administering the required biological training requirements.

Resource Delineation. Prior to construction or access in any area containing or potentially containing sensitive habitats, the biological monitor shall mark or otherwise delineate the limits of sensitive habitats and resources (i.e., wetlands and other water features, suitable aquatic habitat) for avoidance, and where necessary, post signs at access route entrances to inform workers of special access considerations (i.e., seasonal restrictions, biological monitor escort, etc.). Resource markings and signs shall be maintained and repaired as needed and as directed by the biological monitor.

A biological monitor shall be present during the initial construction access in all unpaved areas to identify and mark sensitive resources for avoidance. The biological monitor shall also be present during all grading and vegetation clearing (e.g., mowing, trimming, and removal) within 50 feet of sensitive habitats or resources unless otherwise agreed by the CPUC biologist, lead environmental monitor, and PG&E's lead biologist. The biological monitor shall have full authority to halt construction once safe to do so if a resource has or may be impacted.

The biological monitor shall also visit each active work site at least once a week to inspect the work area for the presence of biological resources, verify that all avoidance measures (e.g., flagging or fencing) are in place, and document any species relocation or impacts.

MM Biology-2: Special-status Plants (Supersedes APM BIO-4)

Focused Surveys. Qualified botanist(s) shall conduct protocol-level botanical surveys, employing the CNPS "Intuitive Controlled" survey method or other accepted botanical survey protocol. The surveys shall include a floristic inventory and focused search for special-status plants with potential to occur in project areas where suitable habitat is present. Special-status plant surveys shall be conducted during the appropriate blooming period for each species and prior to construction activities. Special-status plant survey(s) shall be conducted within 2 years of mobilization.

The survey results shall be summarized in a report and provided to the CPUC no less than 30 days prior to construction. The survey report shall identify the botanists' names and qualifications, and a description of the survey dates, methods, and a description of the survey efforts, including a list of the species that were searched for, results of the plant inventory evaluation, and suitable habitat that was encountered. The report shall include maps (1: 3,000 scale) that identify final project work areas and access routes, the locations of suitable habitat within the project study area as defined in the IS/MND, and the extent of focused plant surveys that cover project areas located in suitable habitat. If any special-status plant individuals or populations are encountered, the plants shall be enumerated and described in the report. Maps in the report shall identify point locations for individual plants and boundaries for plant populations. The report shall include recommendations for avoiding the plants, where feasible.

If special-status plants cannot be avoided, the plant impacts shall be enumerated and described in the survey report. PG&E shall consult with USFWS and CDFW should any state- or federally-listed plants be found that cannot be avoided, to determine if permit authorizations are required. PG&E shall provide the CPUC with any permits and authorizations obtained from USFWS and CDFW.

Special-status plants within and adjacent to work areas and access routes shall be marked and completely avoided, to the extent feasible, by a qualified botanist.

Salvage and Replanting Plan. If impacts on the special-status plant species cannot be avoided and if impacts would be substantial, as determined by the CPUC taking into consideration the rarity of the species in the project area and the extent of the impact, PG&E shall prepare and implement a Salvage and Replanting Plan. The plan would specify, at a minimum, the following:

- Location of the mitigation site(s) (extent of the plants within and adjacent to project areas).
- Procedures for procuring plants, such as transplanting or collecting seed from plants to be impacted, including storage locations and methods to preserve the plants.
- Procedures for propagating collected seed, including storage methods.
- Quantity and species of plants to be planted or transplanted.
- Planting procedures, including the use of soil preparation and irrigation.
- Schedule and action plan to maintain and monitor the mitigation site for a minimum 3-year period.
- Reporting procedures, including the contents of annual progress reports.
- List of criteria (e.g., growth, plant cover, survivorship) by which to measure success of the plantings.
- Contingency measures to implement if the plantings are not successful (i.e., weed removal, supplemental plantings, etc.).

PG&E shall submit the plan to the CPUC for review and approval no less than 30 days prior to impacting or collecting special-status plants. At a minimum, the transplanted/created population(s) shall have approximately the same characteristics as the impacted population (within 10-percent density, total population number, and non-native/invasive). Seasonal population changes may be taken into account by identifying and documenting the characteristics of an appropriate representative reference site prior to impacting a population. Reference sites that will be used must be identified and described in the Salvage and Replanting Plan.

If CPUC determines that the Salvage and Replanting Plan is not likely to be successful (due to the species' life form, habitat requirements, or other factors), then either (1) impacts on the special-status

plants in questions must be avoided, or (2) a financial contribution will be made to an organization that restores/protects special-status plant populations in the project region.

MM Biology-3: California Red-legged Frog (Supersedes APM BIO-1d, APM BIO-1m, and APM BIO-6)

Habitat Survey and Mapping. A qualified biologist shall identify potentially suitable aquatic habitat for CRLF (i.e., ponds, creeks, and perennial and seasonal streams) within 500 feet of all project disturbance areas and watercourse crossings. PG&E shall submit maps (1: 3,000 scale) to the CPUC identifying the locations of potentially suitable aquatic habitat features and upland habitat within 500 feet of the project features, no less than 30 days before construction. The maps shall identify access route segments, pole locations, and work area limits that would be surveyed and fenced, monitored, or otherwise avoided as specified below.

Substantial barriers or topography that would prevent CRLF dispersal should be identified on the maps. Potentially suitable habitat that is fragmented or disconnected by such barriers shall not be subject to the provisions set forth in this measure, as determined in coordination with the CPUC.

Permits and Agency Authorizations. PG&E shall consult with USFWS to obtain permit authorizations for any necessary take coverage prior to conducting work activities within aquatic or upland habitat for CRLF. PG&E shall provide the CPUC with any required permits and authorizations obtained from USFWS, including correspondence regarding habitat determinations or avoidance and minimizations procedures. CRLF may only be handled by a qualified biologist with approval and all appropriate permit authorizations from USFWS.

Avoidance, Minimization, and Monitoring. The following procedures shall be implemented during construction within CRLF habitat, unless conflicts arise between applicable USFWS permit conditions. In such cases, USFWS permit conditions shall supersede these procedures, and CPUC shall be provided with copies of the permits and all associated reports documenting compliance with permit conditions:

- The names and qualifications of biologists that would conduct the CRLF procedures described below shall be submitted to the CPUC for approval, unless USFWS has granted prior approval and a copy of the approval letter is submitted to CPUC.
- No more than 24 hours prior to initial ground disturbance in mapped CRLF habitat, an approved biologist shall conduct a pre-activity survey for CRLF within the mapped habitat, as defined above. The pre-activity survey shall consist of walking the work area limits and adjacent areas to determine if any CRLF are present. All areas within the survey area shall be inspected that could be used by CRLF for feeding, breeding, sheltering, and movement, including suitable mammal burrows.
- Construction activities within watercourse crossings may only occur when the feature is dry or if the crossing method fully spans the feature (refer to MM Hydrology-4).
- Aquatic habitat adjacent to work areas and along access routes shall be adequately flagged for avoidance, where necessary.
- Construction activities within 500 feet of mapped aquatic habitat shall be restricted to the dry season (April 15 through October 15), to the extent feasible, or when water is not present. If construction activities must occur in these areas during the wet season (October 16 through April 14), an approved biologist shall determine which of the following measures should be implemented at each work area based on the CRLF habitat characteristics and work activities that would occur:
 - Option 1 Install Exclusion Fencing. Temporary exclusion fencing shall be installed around the limits of work areas and access routes to ensure CRLF cannot enter the area. Installation of exclusion fencing shall occur under the supervision of an approved biologist and immediately following a clearance survey of the area. The fencing shall have a minimum aboveground height of 36 inches, and the bottom of the fence should be keyed in at least 4 inches deep and backfilled with soil, sand bags, gravel, or other means to prevent CRLF from passing under the fencing. The fencing shall be installed in a manner that reduces the potential for trapping migrating wildlife. Cover boards shall be installed along the perimeter of fencing to provide protection from the sun and predators, where necessary and appropriate. Gates shall be installed in the fencing that allow project access and adequately exclude wildlife. The exclusion fencing shall remain in place and maintained for the duration of construction activities at the location during the wet season.

Prior to entering and beginning work in fenced areas each day, designated personnel shall inspect the work area and both sides of the fence perimeter for CRLF and any trapped wildlife. The designated personnel must be trained by an approved biologist on CRLF identification, the laws protecting the species, and procedures to implement if the species is observed. If CRLF or trapped wildlife are observed, an approved biologist shall be notified immediately to determine the appropriate procedures to implement.

Option 2 – Monitor Construction Activities. In lieu of exclusion fencing, an approved biologist shall monitor the initial ground-disturbing construction activities in each work area. Following the initial activities, at a minimum, an approved biologist shall conduct morning sweeps of each work area prior the start of construction activities. An approved biologist would then conduct spot checkmonitoring at each location for the remainder of the work day.

Neither Options 1 or 2 would be required if a qualified CRLF biologist determines that non-ground-disturbing activities (i.e., access on established roads or overland routes) would have no potential effect on CRLF. Such exceptions shall be subject to CPUC approval and shall not apply to areas where grading or vegetation clearing would occur.

- If any CRLF adults, subadults, juveniles, tadpoles, or eggs are found during the pre-activity surveys, fence installation, daily checks of fencing, or monitoring, construction shall be halted (when safe to do so) in the vicinity of the observation that may pose a risk to the animal, as determined by an approved biologist, and USFWS shall be contacted to determine how to proceed. Alternatively, if a Biological Opinion has been obtained from USFWS for the project that addresses CRLF, then the associated measures and relocation protocols may be implemented. CPUC shall be notified by email within 24 hours of any CRLF observations.
- An approved biologist shall oversee the installation of erosion and sediment controls within mapped habitat to ensure the materials do not pose a risk to CRLF. Plastic monofilament or loosely woven erosion control netting, or any similar materials that may entangle special-status wildlife, shall not be used.
- Vehicle and equipment speeds shall not exceed 5 mph while on unpaved areas within 300 feet of suitable aquatic habitat.
- After a rain event (greater than 0.1 inch of rainfall), workers shall check underneath vehicles (i.e., tires, tracks, etc.) for the presence of wildlife. Any discovered wildlife shall be reported to an approved biologist for relocation assistance.

MM Biology-4: Foothill Yellow-legged Frog (Supersedes APM BIO-1b, APM BIO-1c, and APM BIO-1m)

Habitat Survey and Mapping. A qualified biologist shall identify potentially suitable aquatic habitat for FYLF (i.e., perennial streams with cobble or rock substrate, or seasonal streams with cobble or rock substrate and standing water, or visible moisture in the immediate vicinity) within 10 feet of all project disturbance areas and watercourse crossings. PG&E shall submit maps (1: 3,000 scale) to the CPUC identifying the locations of suitable FYLF aquatic habitat, and upland habitat within 10 feet of the feature, no less than 30 days before construction. The maps shall identify access route segments, pole locations, and work area limits that would be surveyed and monitored, as defined below.

Avoidance, Minimization, and Monitoring. No more than 24 hours prior to initial ground disturbance in mapped FYLF habitat, an approved biologist shall conduct pre-activity surveys for FYLF. The pre-activity survey shall consist of walking the work area limits and adjacent areas to determine if any FYLF are present. All areas within the survey area that could be used by FYLF for feeding, breeding, sheltering, and movement shall be inspected. The survey shall include an adequate examination of damp areas within or in proximity to creeks.

If FYLF are observed during the pre-activity surveys, an approved biologist shall conduct daily sweeps of work areas within the mapped habitat for FYLF prior to work activities to identify any FYLF that may have entered the adjacent work area. The daily sweeps shall consist of walking the limits of construction areas and access routes to identify any FYLF that may be present. If FYLF are found in work areas, the animal shall be provided with the opportunity to leave on its own accord. If necessary, and upon approval by the CDFW, the animal may be moved out of harm's way by an approved biologist in possession of all required permits and authorizations from the CDFW.

MM Biology-5: Special-status and Protected Migratory Birds (Supersedes APM BIO-2)

Nest Surveys. If work is scheduled during the nesting season (generally from February 1 through August 31, but may be earlier or later depending on species nesting patterns and weather conditions), nest detection surveys will occur within 7 days prior to the start of work activities at designated construction areas, staging areas, and landing zones to determine nesting status. Nest surveys will be accomplished by ground surveys within 500 feet of work areas, to the extent accessible, and/or by helicopter between 500 feet and 0.5 mile of work areas. Survey areas will generally correspond with the species-specific standard buffers set forth in Nesting Birds: Species-Specific Buffers for PG&E Activities located in Appendix D. Surveys will be conducted during the appropriate time of day and season for the species expected to be present. Access for ground surveys will be subject to PG&E's easement and property access permissions. Passerine survey areas will generally be 250 feet from all work areas. The non-special-status raptor survey area will generally be 500 feet from work areas where trees and other suitable nesting substrate are located. Helicopter surveys for special-status raptors will be conducted within 0.5 mile of all project work areas.

After construction begins in an area, avian biologists or approved avian monitors shall inspect suitable nesting habitat within 250 feet (passerines) and 500 feet (raptors) of active work areas on a weekly basis during the nesting season to identify and document any new active nests that may be present (see nest monitoring and reporting below – and considerations for nesting in active work areas). If special-status raptor nests cannot be observed from the ground, weekly checks for special-status raptors may occur by helicopter during periods when helicopters are in use. Helicopter flight restrictions for nest detection surveys may be in effect for densely populated residential areas, and will include observance of appropriate established buffers and avoidance of hovering in the vicinity of active nest sites.

A CPUC-approved and qualified avian biologist shall conduct surveys for nesting birds.

Active vs. Inactive Nests. When a nest of any bird species is located within the required survey/potential disturbance area, an approved avian biologist shall determine whether the nest is active. A nest shall be defined as active once it contains eggs or young, or potentially contains eggs or young if presence cannot be reasonably determined. An inactive nest is defined as a nest that has been abandoned by the adult bird or once fledglings are no longer dependent on the nest site or parental care.

Standard Nest Buffers. If active nests are found, the biologist will establish a species-specific standard nest buffer around each active nest, as listed in *Nesting Birds: Species-Specific Buffers for PG&E Activities*. For special-status raptor nests, a nest buffer shall be implemented once an approved avian biologist determines that the nest territory is occupied by adults. Construction activities would be restricted within the buffers depending on the nature and location of the activities and results of nest monitoring (see below).

Buffer Adjustments. Where feasible, standard buffers will apply, although the biologist may increase or decrease the standard buffers in accordance with the factors set forth in *Nesting Birds: Species-Specific Buffers for PG&E Activities*. For high-disturbance helicopter activities near work areas with active nests, standard buffer distances may be increased up to double the distance with agreement between the CPUC biologist, lead environmental monitor, and PG&E's lead biologist. Nest buffers shall not restrict construction-related traffic using existing roads. Nesting pair acclimation to disturbance in areas with regularly occurring human activities will be considered when establishing reduced nest buffers. Nest buffers shall be implemented until the approved avian biologist determines that the nest is no longer active. Active nests will not be impacted during tree or structure removal.

Buffer Reductions. The standard buffer distances for nests may be reduced on a case-by-case basis based on site-specific conditions set forth in *Nesting Birds: Species-Specific Buffers for PG&E Activities*, such as avian biology, nest concealment, existing conditions, habituation, environmental conditions, and level of project activity, upon agreement between the CPUC biologist, lead environmental monitor, and PG&E's lead project biologist. Buffer reduction will be included in the weekly monitoring report and will document:

- Species and listing status
- Location description
- Pre-existing conditions present on site

- Description of the work to be conducted within the reduced buffer, including equipment type, and start date
- Size and expected duration of proposed buffer reduction
- Reason for buffer reduction
- Name of the biologist(s) who observed the nest and approved the buffer reduction
- Proposed frequency of monitoring necessary for the nest given the type of bird and surrounding conditions as determined by the approved avian biologist

Nesting in Active Work Areas. If birds are found building nests within the standard buffer distance after specific project activities begin and the activities are not expected to increase in duration, intensity, or distance from the nest, it shall be assumed that the birds are tolerant of those specific project activities. If the specific project activities change within the standard buffer increase in duration, intensity, or distance, the avian monitor shall observe the nest until it can be determined the birds are tolerant of the new activities. If the avian monitor determines that the nesting birds are not tolerant of project activities, the buffer shall be expanded and may be expanded beyond the standard buffer distance if necessary.

Nest Monitoring. Active nests will be periodically monitored at a frequency and length of time necessary to ensure that nesting pairs continue to tend the nest, and until the monitoring biologist has determined that the young have fledged, or once construction ends. At minimum, nest monitoring will occur weekly. For reduced buffers, nest monitoring will initially occur daily to determine whether a larger buffer is necessary. Daily nest monitoring will occur during helicopter operations within standard buffer distances. Per the discretion of the monitoring biologist and CPUC biologist, vegetation removal by hand may be allowed within standard nest buffers or in areas of potential nesting activity. The monitoring biologist will have authority to order the cessation of nearby project activities, once safe to do so, if nesting pairs exhibit signs of disturbance.

Reporting. Survey results shall be submitted to the CPUC on a weekly basis. Nest locations and buffers shall be mapped using a Geographic Information System (GIS). Nest information and monitoring observations shall be documented and provided to the CPUC weekly, and include the following information:

- Date, time, and length of observation period
- Nest status (active or inactive)
- Species and listing status
- Nest location, including approximate nest height
- Behavioral observations
- Site conditions, including construction activities
- Estimated incubation start date, if possible
- Estimated fledge date
- Number of eggs or hatchlings, if observed
- Buffer size implemented

No avian reporting shall be required for construction activities outside of the nesting season unless species are observed nesting outside of the normal season or special-status bird species are observed in the project area.

Nesting Deterrents. As appropriate, nest deterrent strategies may be used to prevent birds from nesting in construction equipment or staged materials. Nest deterrent strategies may include exclusion netting, covering equipment with tarps, or covering small holes. The monitoring biologist shall review bird netting use daily due to risk of entanglement.

Design Guidelines. PG&E shall adhere to recommendations published by the Avian Power Line Interaction Committee, Reducing Avian Collisions with Power Lines: The State of the Art in 2012, as feasible.

MM Biology-6: Special-status and Protected Bats (Supersedes APM BIO-5)

Roosting Habitat Assessment. Prior to construction, a CPUC-approved qualified biologist with expertise in bats shall conduct a pre-construction assessment for suitable special-status or otherwise protected¹ bat roosting habitat that may be impacted within approximately 50 feet of project work areas and access routes where grading and vegetation removal may occur. The qualified biologist shall identify all suitable bat roosts that may be impacted, including man-made structures, snags, rotten stumps, mature trees with broken limbs, trees with exfoliating bark, bole cavities or hollows, and dense foliage. The qualified biologist shall document the results of the pre-construction assessment and record the location of suitable bat roosts. The potential use of these roosts (e.g., day roost, night roost, maternity roost, hibernation roost) shall also be described. The results shall be submitted to the CPUC at least 30 days prior to construction.

Avoidance and Minimization. Where suitable special-status or otherwise protected bat roosts are identified, the following procedures shall be implemented:

- Suitable bat roosts shall be marked and avoided to the extent practicable.
- When possible, removal of trees identified as providing suitable bat roosting habitat should be conducted during seasonal periods of bat activity, including:
 - (1) Between March 1 and April 15, or after evening temperatures rise above 45 degrees Fahrenheit and/or no more than ½ inch of rainfall within 24 hours occurs; or
 - (2) Between September 1 and about October 15, or before evening temperatures fall below 45 degrees Fahrenheit and/or more than ½ inch of rainfall within 24 hours occurs.
- If it is determined that a special-status or otherwise protected bat maternity roost is potentially present, the roosts shall not be removed during the breeding season (April 15 to August 31) to the extent practicable. If such a potential bat maternity roost must be removed during the breeding season, then the following shall be implemented:
 - (1) Acoustic emergence surveys or other appropriate methods shall be conducted/implemented to further evaluate if the roost is an active maternity roost; the methods and findings of this work would both be subject to CPUC approval;
 - (2) If it is determined that the roost is not an active maternity roost, then the roost may be removed in accordance with the other requirements of this measure;
 - (3) If it is found that an active maternity roost is present, the roost shall not be physically disturbed during the breeding season and an approved bat biologist shall determine if any buffers around the roost are needed.
- Potential suitable non-maternity roosts that cannot be avoided shall be removed on warm days in late morning to afternoon when any bats present are likely to be warm and able to fly.
- An approved bat biologist shall oversee removal of suitable roosts. The biologist shall first inspect all crevices and cavities and attempt to expose any bats that may be present by carefully peeling away bark or cover material and opening crevices, to the extent possible.
- Prior to trimming or removing suitable roosts, the approved bat biologist shall instruct workers to create noise and vibration disturbance on the roost (e.g., concussive hitting with tools and/or chainsaw cutting) for several minutes.
- If a cavity cannot be thoroughly inspected on a tree, snag, or stump, clearing crews shall remove smaller limbs and sections above the cavity and carefully expose it so bats may crawl out and fly away. Clearing crews shall wait up to 10 minutes in between each cut to determine if the cavity is empty. Sections of trees and branches that may contain bats shall be set aside and away from work areas so that any remaining bats may escape.

¹ For purposes of this measure, "otherwise protected" bats will include any significant local breeding population that could be adversely impacted by the project, as defined by a local bat expert, and approved by the CPUC.

MM Biology-7: Revegetation, Restoration, and Monitoring Plan (Supersedes APM BIO-11 and APM BIO-4)

PG&E shall prepare and implement a Revegetation, Restoration, and Monitoring Plan that addresses procedures for quantifying vegetation impacts from construction activities and revegetation and/or restoration requirements for applicable vegetation resources. The plan shall include appropriate revegetation and/or restoration performance standards, monitoring procedures, and reporting procedures for the following vegetation resources, as defined below, and the referenced measures:

- Special-status plant populations (refer to MM Biology-2).
- Suitable habitat for special-status plants and wildlife (specifically grassland, woodland, and forest).
- Sensitive natural plant communities (specifically riparian habitat and Oregon oak woodland) (refer to MM Biology-9).
- Large valley and small valley oaks of qualifying size (refer to APM BIO-10).

The plan shall be submitted to the CPUC for review and approval no less than 60 days before construction.

Performance Standards. All temporarily disturbed areas shall be restored to near pre-construction conditions to ensure potentially significant permanent impacts do not occur as a result of the project. Pre-construction conditions, including vegetation cover estimates and percentage of Cal-IPC list invasive weeds (plants rated as "High" and "Moderate"), shall be documented for each project work area as described below in the Pre-Construction Report. Annual performance standards and final success criteria shall be developed for each vegetation resource that demonstrates an adequate progression toward pre-construction conditions such that habitat functions and values and species composition of the restored vegetation are comparable to those of nearby comparable vegetation within 3 years.

The plan shall define annual quantitative thresholds for both vegetation resources and invasive plant species and identify corrective actions to implement if the annual thresholds are not achieved. Work sites that have been proven to meet the final success criteria shall not require further monitoring and reporting.

Monitoring Procedures. A qualified biologist or botanist shall monitor vegetation resources that are impacted. The plan shall identify appropriate post-construction monitoring procedures for each vegetation resource, including specific methods, frequencies, and timing for seasonal requirements.

Pre-Construction Report(s). Prior to construction, a qualified biologist or botanist shall survey all final work areas and overland access routes to identify the vegetation resources that may be impacted, including their location, composition, condition, and extent of planned project disturbance. Survey efforts may be conducted in conjunction with focused surveys required for special-status species, as described in applicable measures. Anticipated impacts on vegetation resources shall be quantified and documented in the report, such as special-status plant individuals or the characteristics of populations (i.e., estimated size and cover estimates); the types and numbers of tree and shrub individuals; and restoration acreages for grassland, woodland, and forest vegetation communities). The baseline conditions for adjacent and comparable vegetation resources shall also be documented in the report. Such areas may be used as a control for post-construction monitoring to determine relative restoration performance and account for seasonal fluctuations in invasive species composition, general growth rates, and overall coverage.

The report shall include maps (1: 3,000 scale) that identify the types and locations of the vegetation resources that may be impacted, the limits of the planned work areas, and project access routes. An initial report shall be submitted to the CPUC no less than 30 days before construction. Separate reports may be submitted for each project segment, if necessary. If new impacts or restoration procedures are identified, the plan shall be updated and submitted in track changes to the CPUC.

Post-Construction Reports. PG&E shall prepare and submit Post-Construction Reports to the CPUC on an annual basis until construction is complete. Post-Construction Reports shall include table summaries of actual project impacts, and maps of the areas that identify the limits of actual impacts. The summary table shall include the location name/ID for each impact area, anticipated impact acreage from the Pre-Construction Report, and actual impact acreage during construction. The report shall include a brief statement about revegetation, restoration, and monitoring procedures that would be implemented where impacts occurred, as defined in the approved plan.

Annual Monitoring Reports. Once revegetation and restoration begins, PG&E shall conduct surveys during the growing season and submit Annual Monitoring Reports to the CPUC. The reports shall summarize revegetation and restoration efforts for each applicable impact area, provide data on performance standards and success criteria, and detail any corrective actions necessary to close out sites. Monitoring results will be updated in the plan only when applicable (i.e., seasonally or annually). Once the success criteria have been achieved for each location, monitoring and reporting would no longer occur for the location.

PG&E shall provide written updates to CPUC upon request regarding seasonally dependent restoration and corrective actions prior to submission of the annual monitoring reports.

MM Biology-8: Minimize Noxious Weeds

Precautions shall be taken to minimize the introduction of any invasive weeds. Construction equipment shall be cleaned of caked-on dirt and plant materials before entering unpaved project areas. Erosion control materials and planting seed mixes shall not introduce invasive weed species. Only certified weed-free straw and mulch shall be used on the site.

MM Biology-9: Sensitive Natural Plant Communities

Prior to construction, a qualified biologist shall survey all final work areas and identify the extent of sensitive natural plant communities, specifically riparian habitat and Oregon oak woodland, as described in MM Biology-7 in the Pre-Construction Report.

If sensitive natural plant communities are found in work areas and overland access routes, work areas and overland access routes shall be repositioned where possible to avoid adverse impacts to the sensitive natural plant communities.

If tree impacts cannot be avoided in sensitive natural plant communities, PG&E shall attempt to trim native trees rather than removing them. Native trees over 6-inch diameter at breast height (dbh) trimmed over 25 percent will be assessed by an arborist. Should the arborist conclude that it is likely the trees will not survive the trimming, PG&E shall ensure the trees are replaced at a 1:1 ratio. Native trees over 6-inches dbh that are removed shall be replaced at a 1:1 ratio in the closest appropriate location, by planting seed and/or container stock. Sensitive natural plant communities shall be restored at a ratio of 1:1.

Sensitive natural plant communities that are impacted during construction, and any replanting sites, shall be addressed in the Annual Monitoring Reports, as described in MM Biology-7.

MM Biology-10: Sudden Oak Death Procedures

All workers shall be trained on requirements and BMPs for reducing the spread of the Sudden Oak Death pathogen prior to working on the site.

All equipment, vehicles, and tools shall be thoroughly cleaned of plant material and soil prior to entering unpaved project areas.

A qualified botanist, biologist, or arborist shall inspect all work areas and access routes for signs of vegetation infected with the Sudden Oak Death pathogen prior to construction. If any work areas are found that contain infected vegetation, PG&E shall implement the following BMPs for Sudden Oak Death recommended by California Oak Mortality Task Force, to the extent feasible:

- Cleaning stations shall be set up at staging yards and all wash water shall be contained within the cleaning area.
- Mud and debris shall be scraped, brushed, or hosed from vehicles, equipment, and tools within designated cleaning areas at project staging yards if working within infected areas.
- A power washer shall be used, where feasible.
- All personnel shall clean boots and clothing of mud and vegetation debris if working within infected areas.

Work in infected areas shall be performed during the dry season (May through October), to the extent feasible, to avoid tracking out infected mud.

MM Biology-11: Wetland Mitigation

Waters of the US and state shall be avoided by the project where possible, and impacts shall be minimized to the extent practicable using BMPs during construction. These practices shall include delineating wetlands and waters on project maps and flagging the extent of wetlands and waters within work areas to keep workers and equipment out of the area to be preserved, and using erosion control measures, such as straw wattles, hay bales, and drain inlet controls to keep sediment and debris from entering jurisdictional waters. Design and installation of temporary bridges, such as steel plates, shall be such that the water flow (velocity and low-flow channel width) is not impaired. During project construction, a biological monitor shall be on site to monitor the integrity of wetlands and other waters while major earth moving activities are underway.

For those wetland areas that are impacted as part of the proposed project, appropriate permits shall be acquired from USACE and RWQCB prior to any impacts occurring to regulated waters of the US and/or state. Copies of applicable permits from USACE and RWQCB shall be provided to the CPUC prior to grading, and any conditions in these permits shall become a condition of project approval. Any other conditions that are stipulated for wetland impacts by USACE and/or RWQCB shall also become conditions of project approval. Impacted wetland areas shall be compensated for at a 2:1 ratio via (1) purchase of mitigation credits from a USACE- and RWQCB-approved wetland conservation bank or (2) wetland creation/habitat enhancement.

- Option 1 Purchase of Wetland Mitigation Credits. Prior to purchasing mitigation credits from a qualified conservation bank, approval from USACE and RWQCB shall be required. Mitigation credits shall be purchased prior to breaking ground on the project site.
- Option 2 Wetland Creation/Enhancement. If PG&E elects to create/enhance wetlands on site in lieu of purchasing mitigation credits from an approved mitigation bank, compensation wetlands shall be created/enhanced on site and shall resemble those wetlands affected by the project (i.e., in-kind replacement). If wetlands cannot be created in-kind and on-site, wetland creation/enhancement shall be implemented offsite. Any wetland creation/enhancement plan shall be submitted to the CPUC, USACE and RWQCB for approval. Mitigation requirements shall include that all impacted wetlands are replaced at a minimum 2:1 ratio (for each square foot of impact, one square foot of wetland would be enhanced/created) or as otherwise specified in permitting conditions imposed by USACE and/or RWQCB. Any site where wetlands are created/enhanced must be preserved in perpetuity via recordation of a perpetual restrictive deed recorded on the Title of the property. In addition, a 5-year monitoring plan shall be implemented by a qualified biologist. At the end of the 5-year monitoring period, USACE and RWQCB shall render a conclusion if the created/enhanced wetlands are successful.

Cultural and Tribal Cultural Resources

MM Cultural-1: Archaeological Monitoring and Cultural Resource Discoveries (Supersedes APM CR-2)

Archaeological Monitoring for Previously Undiscovered Cultural Resources. A CPUC-approved cultural resources specialist/archaeologist shall be onsite to spot-check the initial 10 feet of pole hole augering greater than 3 feet in diameter (limited to TSPs) and grading in previously undisturbed areas greater than 6 inches in depth. If qualifying excavations occur simultaneously at multiple locations, the cultural resources specialist/archaeologist shall spot-check each location throughout the workday until ground-disturbing activities are complete at each location. If signs of a resource are encountered during spot-checking, monitoring shall become full time until ground-disturbing activities are complete in the work area. The cultural resources specialist/archaeologist must have experience with California/regional history and local Native American history, traditions, and customs and shall meet the US Secretary of Interior Professional Qualifications Standards as published in 36 CFR Part 61. The cultural resources specialist/archaeologist shall be responsible for evaluating any cultural resources discovered during construction for signs of prehistoric Native American culture and for coordinating outreach efforts with the NAHC and local Native American tribes if potential tribal cultural resources are found. If they request to participate, Native American tribes shall be given the opportunity to monitor construction activities

within 100 feet of identified prehistoric Native American resources or tribal cultural resources. Any tribal monitoring activities should be coordinated with the cultural resources specialist/archaeologist.

Cultural Resource Discoveries. If signs of a previously undiscovered cultural resource are encountered, all construction activities within 100 feet of the resource site shall halt, and the cultural resources specialist/archaeologist shall be contacted to implement required evaluation and treatment procedures, described below. Construction supervisors and workers shall be informed that the site is off-limits, and if necessary, the cultural resources specialist/archaeologist shall install flagging to designate the limits of the site.

If the resource is located within Caltrans right-of-way, PG&E shall also immediately notify the Caltrans Office of Cultural Resources Studies, District 4 of the discovery.

The cultural resources specialist/archaeologist shall evaluate the resource and determine whether it is (1) a historic resource as defined in CEQA Guidelines Section 15064.5 and thus eligible for listing in the CRHR, (2) a unique archaeological resource as defined in PRC §21083.2(g), or (3) a potential tribal cultural resource as defined in PRC §21074(a). If it is determined that the resource does not meet any of these criteria, work may resume in the area, and a summary of the discovery findings and evaluation conclusions shall be documented and provided to the CPUC with Weekly Compliance Reports. The methods and results of the evaluation shall also be documented in a professional-level technical report to be filed with the California Historical Resources Information System (CHRIS). If the resource meets any of the criteria listed above and is therefore considered a significant resource under CEQA, work shall remain halted at an appropriate distance from the find, and the cultural resources specialist/archaeologist shall consult with the CPUC 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).

If the cultural resources specialist/archaeologist determines that the resource could be a tribal cultural resource, he or she shall, within 48 hours of the discovery, notify each Native American tribe identified by the NAHC to be traditionally and culturally affiliated with the geographic area of the project site of the discovery. The responding tribes shall be given an opportunity to participate in determining the appropriate mitigation methods in consultation with the CPUC. The CPUC shall request that the tribes respond to the notifications within 3 days.

Preservation in place (i.e., avoidance) is the preferred method of mitigation for cultural and tribal cultural resources and shall be required to mitigate impacts on previously undiscovered resources. Other methods of mitigation shall only be used if the cultural resources specialist/archaeologist, in coordination with the CPUC, determines that the method would provide equivalent or superior mitigation of the impacts on the resource. The alternative methods of mitigation may include data recovery and documentation of the information contained in the site to answer questions about local history and prehistory (see MM Cultural-4). Work in the area may commence upon completion of treatment, as approved by the CPUC.

MM Cultural-2: Cultural Resource Training

All project personnel shall receive adequate cultural resource training prior to working on the project. The training shall address appropriate work practices necessary to effectively implement project requirements, including APMs and mitigation measures, for historical resources, archaeological resources, tribal cultural resources, and human remains. The training shall address the potential for exposing subsurface resources, basic signs of a potential resource, and required procedures if a potential resource is identified consistent with the procedures set forth in MM Cultural-1, MM Cultural-3, MM Cultural-4, and all procedures required under Health and Safety Code § 7050.5 and PRC §§ 5097.94, 5097.98, and 5097.99 for the discovery of human remains. The training shall also identify requirements for working near archaeological resource site CA-SON-1256, as defined in APM CR-1.

PG&E shall submit the cultural resource training material to the CPUC for approval no less than 30 days before construction, and it may be submitted in conjunction with the general Worker Environmental Training Program for the project.

MM Cultural-3: Pre-Construction Cultural and Tribal Cultural Resource Surveys

Prior to construction at any project area, PG&E shall compare areas of proposed ground disturbance with the project geographic information system (GIS) layers that show cultural resource survey areas. PG&E shall verify that proposed ground disturbance areas have been surveyed for cultural resources. If the areas of proposed ground disturbance have been surveyed (and no known resources are located in the area), then no additional measures are required and construction may commence.

If the areas have not been surveyed (such as due to minor relocation of a project feature or access road), no ground disturbance shall be permitted prior to completion of surveys by a CPUC-approved cultural resource specialist/archaeologist. If a resource is found, it shall be avoided. If it cannot be avoided, PG&E shall follow the procedures in MM Cultural-1.

MM Cultural-4: Data Recovery

If a CRHR-eligible, unique archaeological, or tribal cultural resource cannot be completely avoided or protected from direct project impacts, data recovery investigations shall be required to reduce adverse effects to the characteristics of each site that contribute to its significance or CRHR-eligibility. For sites eligible under Criterion (d), significant data shall be recovered through excavation and analysis. For sites eligible under Criteria (a), (b), or (c), data recovery may include historical documentation, photography, collection of oral histories, architectural or engineering documentation, preparation of a scholarly work, or some form of public awareness or interpretation. Data gathered during the evaluation-phase studies shall guide plans and data thresholds for data recovery. Treatment shall be based on the resource's research potential beyond that realized during resource recordation and evaluation studies.

If data recovery occurs, PG&E shall prepare a Research and Data Recovery Plan for each individual site where data recovery is necessary. The plans shall be submitted to the CPUC for approval, and data recovery procedures shall not occur at the sites until authorized by the CPUC. The plan shall describe the specific procedures that would be implemented during data recovery, as appropriate for the type of resource. Sampling for data recovery excavations shall follow standard statistical sampling methods, but sampling shall be confined to the direct impact area.

The methods and results of evaluation and data recovery work at an archaeological find shall be documented in a professional-level technical report to be filed with CHRIS, a copy of which shall be submitted to the CPUC. Artifacts collected during data recovery shall be cataloged and permanently curated with an appropriate institution.

Geology, Soils, and Mineral Resources

MM Geology-1: Geotechnical Investigation Report (Supersedes APM GS-2)

PG&E shall have a professional geotechnical engineer conduct a geotechnical investigation in areas that are suspected to have unstable soils or landslide susceptibility and shall add the analysis to the Geotechnical Investigation Report required by APM GS-3. The Geotechnical Investigation Report shall provide site-specific recommendations for poles, work areas, and access routes where there is an elevated risk of geologic hazards. PG&E shall submit the Geotechnical Investigation Report to the CPUC no less than 60 days prior to construction.

Where geotechnical hazards are found to occur, appropriate engineering design and construction measures from the Geotechnical Investigation Report shall be incorporated into the final project designs, as deemed appropriate by a California-licensed Geotechnical Engineer or Certified Engineering Geologist. Design measures that would mitigate seismic and landslide-related impacts shall include, but are not limited to, retaining walls, removal of unstable materials, and avoidance of highly unstable areas.

Disturbed and engineered slopes shall be monitored by qualified construction personnel on an occasional basis (bi-monthly or as needed) until the slope is fully stabilized and no longer poses an increased risk of failure or erosion as compared to similar undisturbed slopes in the immediate vicinity.

Hazards and Hazardous Materials

MM Hazards-1: Hazardous Materials Procedures and Worker Training (Supersedes APM HM-1, HM-2, and APM BIO-1i)

PG&E shall develop and implement specific hazardous material procedures as an element of the SWPPP (MM Hydrology-1) to ensure hazardous materials are properly handled, stored, and transported, and that any inadvertent leaks or spills are adequately cleaned and reported. At a minimum, the SWPPP shall address the following procedures related to the use of hazardous materials during construction and emergency response:

- Proper disposal of contaminated soils and materials (i.e., cleanup materials).
- Daily inspection of vehicles and equipment for leaks, particularly in parking areas near sensitive resource areas during construction and spill containment procedures.
- Emergency response and reporting procedures to address hazardous material releases.
- Fueling of any vehicles, equipment, and helicopters in staging yards or on streets paved with secondary containment and away from sensitive resource areas (e.g., preserves, designated open space areas, conserved habitat).
- Fuels and lubricating oils for vehicles and heavy equipment will not be stored or transferred within 100 feet of any waterbodies, unless otherwise isolated from waterbodies by secondary containment.
- Emergency spill supplies and equipment shall be available to respond in a timely manner if an incident should occur.
- Response materials such as oil-absorbent material, tarps, and storage drums shall be available at the project site at all times during construction and shall be used as needed to contain and control any minor releases.
- The absorbent material shall be removed promptly and disposed of properly.
- Placement of as needed, minor amounts of fuel, lubricants, and hydraulic fluid for equipment operation in appropriate storage tanks on the bed of fueling vehicles.
- Location of bulk lubricating oil, hydraulic fluids, and other materials used for vehicle and equipment maintenance shall be stored at the main construction yard.
- Use of secondary containment and spill rags when fueling.
- Discourage "topping-off" fuel tanks.
- Spill kits for all fuel trucks and fueling areas.

All workers shall be trained on the specific procedures for hazardous materials and emergency response as an element of the required worker environmental training prior to working on the project site.

MM Hazards-2: Construction Fire Prevention Plan

PG&E shall prepare a Construction Fire Prevention Plan that addresses procedures for fire prevention at active construction sites. The Construction Fire Prevention Plan shall include requirements for carrying emergency fire suppression equipment, conducting "tailgate meetings" that cover fire safety discussions, restricting smoking, idling vehicles, and restricting construction during red flag warnings. The Construction Fire Prevention Plan shall address the following fire risk reduction measures:

- Training and briefing all personnel working on the project in fire prevention and suppression methods.
- Conducting a fire prevention discussion at each morning's safety meeting.
- Storage of prescribed fire tools and backpack pumps with water within 50 feet of work activities.
- Water sources including water storage tanks or water trucks that would be used in case of a fire.
- Assigning personnel to conduct a "fire watch" or "fire patrol" to ensure that risk mitigation and fire preparedness measures are implemented, immediate detection of a fire, and to coordinate with emergency response personnel in the event of a fire.

The Construction Fire Prevention Plan shall be submitted to the CPUC for review and approval at least 30 days prior to construction within the Northern Segment.

Hydrology and Water Quality

MM Hydrology-1: SWPPP Development and Implementation (Supersedes APM WQ-1)

A Qualified Stormwater Pollution and Prevention Plan (SWPPP) Developer (QSD) shall prepare a SWPPP for the project in accordance with the State Water Resources Control Board (SWRCB) Construction General Permit (CAS-2012-006-DWQ). The SWPPP shall address adequate procedures and standards required for specific project activities including, but not limited to, BMPs for erosion and sedimentation control; dewatering; hazardous materials identification, handling, storage, and disposal; and emergency response and cleanup. The SWPPP shall include an inspection and monitoring program that conforms to the requirements included in MM Hydrology-2. A QSD shall oversee implementation of the SWPPP and monitoring program. PG&E shall submit the SWPPP to the CPUC for review and comment no less than 30 days prior to construction. PG&E shall submit all fillings, revisions, and Notices of Termination to the CPUC, as well as inspection reports, rain event action plans, and annual reports upon request.

BMP materials identified in the SWPPP shall be stored and available on site prior to initiating ground-disturbing activities.

All necessary erosion and sediment control BMPs shall be installed prior to conducting grading or vegetation clearing activities during the wet season and before the onset of any anticipated storm events. Temporary BMPs such as silt fences or wattles, which are intended to minimize sediment transport from temporarily disturbed areas, shall remain in place until disturbed areas have stabilized.

MM Hydrology-2: SWPPP Monitoring Program (Supersedes APM WQ-2)

SWPPP monitoring shall be completed by a Qualified SWPPP Practitioner (QSP) on a weekly basis during the construction period and at least once every 24 hours before, during, and after forecast rain events (any likely precipitation event forecast of 50 percent or greater probability). The purpose of the monitoring program shall be to ensure all BMPs described in the SWPPP are installed, maintained, and functioning adequately. Should any BMP failure be observed during monitoring, additional BMPs shall be implemented to prevent further erosion or sedimentation to downstream waters.

A checklist form identified in the SWPPP shall be completed for each inspection by the QSP. The checklist forms shall be submitted to the CPUC with weekly monitoring reports. Annual reports prepared in accordance with the Construction General Permit shall also be submitted to the CPUC. The CPUC shall be notified within 24 hours of any BMP failures or discharge violations and provided with a description of corrective actions that have or will be implemented to resolve the issue.

SWPPP monitoring shall occur until all project areas are sufficiently stabilized, as defined in the SWPPP. At a minimum, all disturbed areas must achieve 70 percent or greater vegetation cover and meet the Construction General Permit requirements for filing Notices of Termination to end SWPPP coverage and the associated BMP and monitoring requirements.

MM Hydrology-3: Dewatering Procedures (Supersedes APM WQ-3)

Groundwater extracted during construction dewatering shall not be discharged to any surface waters or storm drains. If dewatering is necessary, the water shall either be used (1) to irrigate upland areas, (2) for dust control, or (3) for other construction process (e.g., concrete production). Any groundwater that is suspected of contamination shall be tested at a state certified laboratory and shall be stored in a Baker Tank until water quality testing has been completed. Any contaminated groundwater encountered during dewatering shall be disposed of in accordance with all applicable laws and the procedures described in the SWPPP.

MM Hydrology-4: Watercourse Avoidance and Crossing Plan (Supersedes APM WQ-3 and APM BIO-3)

PG&E shall prepare a Seasonal Watercourse Avoidance and Crossing Plan that defines specific methods for (1) completely avoiding impacts on wetlands and streams, to the extent feasible, and (2) defining

specific water quality impact minimization measures that would be implemented at each crossing location that cannot be fully avoided by construction activities.

PG&E shall submit the plan to the CPUC no less than 60 days prior to use of construction of surface water crossings or work within 50 feet of surface water resources. At a minimum, the plan shall provide the following information for each location where a wetland or watercourse is crossed by an access route or is within 50 feet of a work area:

- Available methods for complete avoidance (i.e., fencing, flagging, or alternative routes) or an explanation why complete avoidance is not feasible, where applicable.
- Proposed crossing methods.
- Anticipated impacts that cannot be avoided and anticipated permitting requirements for those
 impacts with an explanation why alternate crossing methods are not feasible.
- Methods that would be implemented to reduce water quality impacts, avoid inadvertent impacts on aquatic resources, and avoid direct impacts on potentially suitable aquatic habitat for CRLF and FYLF (refer to MM Biology-3). Methods could include restricting crossing to dry periods; installing temporary bridges; or placing fiber-glass mats, steel plates, or wooden beams to protect the feature.

PG&E shall obtain all necessary state and federal permits for impacts on waters of the state and/or US and supply copies of all permits to the CPUC prior to construction. PG&E shall comply with all applicable Nationwide Permit regional and general conditions for any impacts on waters subject to federal jurisdiction under the Clean Water Act. PG&E shall submit agency permits or verification documents and proof of compliance to the CPUC no less than 30 days prior to impacting waters of the state or US.

MM Hydrology-5: Culvert Design

PG&E shall design any repaired or replaced culverts to meet the standards outlined in the Sonoma County Flood Control Design Criteria. At a minimum, all culverts shall be designed to avoid any increase in flooding or erosion on adjacent stream banks or slopes. Design features shall be avoided that decrease water flow or impede the movement of aquatic wildlife. The culvert design shall be provided to Sonoma County for review, and any approvals shall be obtained prior to construction. Any Sonoma County comments or approvals for the culvert design shall be submitted to the CPUC for record keeping.

Noise

MM Noise-1: General Construction Noise

PG&E shall implement the following procedures for all construction activities:

- **Public Notice.** Noise-sensitive receptors (e.g., residences and officials for schools, places of worship, and parks) within 500 feet of work areas shall be provided written notice at least 7 days prior to beginning construction to inform them of the scheduled construction activities and potential noise disruptions. The notice shall describe procedures for submitting any noise complaints during construction, including a phone number for submitting such complaints.
- **Mufflers and Maintenance.** Construction equipment shall be properly equipped with feasible noise control devices (e.g., mufflers) and properly maintained in good working order.
- Idling. Vehicles and equipment shall only idle when necessary.
- **Stationary Equipment.** Stationary equipment (i.e., compressors and generators) shall be positioned as far away from sensitive receptors as practicable, and equipped with engine-housing enclosures.
- Sensitive Periods. To the extent practicable, construction activities that have a high likelihood of resulting in a noise nuisance for residents in the vicinity shall not be scheduled during sensitive morning or evening periods (7:00 am to 9:00 am, and 7:00 pm to 10:00 pm), to limit the potential for noise nuisance. Nighttime work between the hours of 10:00 pm and 7:00 am shall not occur, with the exception of installing and removing guard structures at the US 101 crossing.

• Noise Complaints. A Construction Noise Coordinator shall be designated to be responsible for responding to any local complaints about construction noise. The Construction Noise Coordinator shall determine the likely cause of the complaint and ensure that reasonable adjustments in the work activities are made to address the problem, to the extent possible. The phone number for noise complaints shall be clearly posted at key work areas in public locations, such as at the entrances to staging areas. Noise complaints shall be addressed within 1 week. PG&E shall provide monthly reports to CPUC that include a record of any complaints received with a description of the likely cause and how the complaint was resolved.

MM Noise-2: Schools

PG&E shall coordinate with school administrators for Mark West Elementary School and San Miguel Elementary School prior to helicopter activities within 500 feet to determine the schedule for noise-sensitive periods, defined as but not limited to instructional periods when school is in session. PG&E shall schedule helicopter activities, within these distances, when school is not in session (i.e., before or after instructional periods). PG&E shall provide CPUC with a summary of coordination efforts, including the names and contact information for school administrators who were consulted, the locations of noise-sensitive facilities, and the schedules used to determine the least disruptive timing for construction to occur.

Helicopter activities within 500 feet of noise-sensitive school facilities shall not occur during the school day, unless school administrators agree to shorter distances in writing.

MM Noise-3: Helicopter Activities

PG&E shall implement the following procedures for helicopter activities:

- **Public Notice.** Residences and places of worship (e.g., The Cove) within 500 feet from any location where helicopter activities may occur, including flight paths if applicable, shall be provided written notice at least 30 days prior to beginning helicopter activities to inform them of the schedule for helicopter use and potential noise disruptions. Methods for receptors to reduce noise in structures shall be included in the notice (i.e., closing doors and windows facing the alignment). The notice shall describe procedures for submitting any noise complaints during construction and provide a phone number for submitting such complaints, as required by MM Noise-1.
- Flight Paths. Helicopter flight paths shall be planned along routes that would result in the least noise exposure possible to receptors. If helicopter noise complaints are received, work crews will attempt to adjust the flight paths to reduce noise exposure to the complainant, without substantially increasing noise exposure to other receptors.
- Helicopter Hovering. Light/medium lift helicopters shall not operate closer than 50 feet from any receptors. Heavy lift helicopters shall not operate closer than 400 feet from receptors, unless actively working at pole locations along the alignment. Helicopters may operate closer than these distances if all affected receptors agree in writing to a shorter distance. Prior to reducing the minimum distance from receptors, PG&E shall provide the CPUC with the names, contact information, and written agreements for all affected persons within the applicable distances. The written agreements shall clearly identify the anticipated helicopter noise levels, daily schedule, and duration of helicopter activities in the vicinity.
- Helicopter LZs. Helicopter LZs within staging areas shall be positioned as far as possible from receptors. Helicopter LZs shall not be positioned closer than 500 feet from any receptor. Helicopter LZs for heavy lift helicopters shall not be positioned closer than 4,000 feet from schools. Helicopters may land closer than these distances if all affected receptors agree in writing to allow a shorter distance.
- **Helicopter Touch Down.** Helicopter touch down shall not occur in the Southern Segment or within 500 feet of receptors in the Northern Segment. Helicopter touch down may occur closer than these distances if all affected receptors agree in writing to allow a shorter distance.

Paleontological Resources

MM Paleontology-1: Paleontological Monitoring (Supersedes APM PAL-3)

Paleontological monitoring shall be required for all construction that involves cutting of previously undisturbed soils within geologic units with moderate to high paleontological sensitivity, as identified in Table 3.12-1. Paleontological monitoring shall be conducted by qualified paleontological monitors under the direction of a CPUC-approved, qualified paleontologist. The qualified paleontologist shall have a Master's or PhD in geology or paleontology, have knowledge of the local paleontology, and be familiar with paleontological procedures and techniques. Paleontological monitors shall have experience in the collection and salvage of fossil remains. At a minimum, spot-check monitoring shall occur during pole hole augering more than 3 feet in diameter (limited to TSPs) within qualifying geologic units until the maximum depth has been reached. The tailings from such pole hole augering shall be temporarily preserved in place until the paleontological monitor can inspect them for presence of paleontological resources.

Full-time monitoring shall be required during grading activities that are greater than 6 inches in depth in previously undisturbed areas, and greater than 2 feet in depth in previously disturbed areas (i.e., historically disked areas, etc.), or beyond the known depth of disturbance, in qualifying geologic units. If no paleontological resources are found after at least 50 percent of qualifying grading is completed at a work site, then full-time monitoring shall be reduced to spot-check monitoring at the discretion of the paleontologist with notification to the proponent's specialists and the CPUC.

If a potential paleontological resource is identified when the monitor is not present, the monitor shall be contacted immediately and work shall temporarily stop in the immediate area until the potential resource can be evaluated by the monitor per provisions in MM Paleontology-2.

Monitoring activities shall be documented in monitoring logs and reports, which shall include the activities observed, geology encountered, description of any paleontological resources encountered, and measures taken to protect or salvage discovered resources. Photographs and other supplemental information shall be included as necessary.

MM Paleontology-2: Previously Undiscovered Paleontological Resources (Supersedes APM PAL-1 and APM PAL-4)

In the event that a previously undiscovered paleontological resource is uncovered during project implementation, all ground-disturbing work within 50 feet of the discovery shall be halted and the paleontological resource specialist shall be immediately notified. A CPUC-approved, qualified paleontologist shall inspect the discovery and determine whether further investigation is required. 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 qualified paleontologist shall evaluate the resource and determine whether it meets the definition of "unique" under CEQA, Appendix G, Part V. If the resource is determined to be unique, a determination and associated plan for protection of the resource shall be provided to CPUC for review and approval. If the resource is determined not to 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 qualified paleontologist shall consult with PG&E staff, CPUC staff, and the landowner 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 on paleontological resources and shall be required unless there are other equally effective methods. Other methods may be used but must ensure that the fossils are recovered, prepared, identified, catalogued, and analyzed according to current professional standards under the direction of the CPUC-approved, qualified paleontologist. All recovered fossils shall be curated at an accredited and permanent scientific institution according to the 2010 Society of Vertebrate Paleontology standard guidelines, or as relevant at the time of project implementation. Work may commence upon completion of treatment, as approved by CPUC.

If a unique paleontological resource is discovered, a final summary report shall be completed and submitted to the CPUC. This report shall include discussions of the methods used, stratigraphy exposed,

fossils collected, and significance of recovered fossils. The report shall also include an itemized inventory of all collected and catalogued fossil specimens.

Recreation

MM Recreation-1: Trail Conditions and Repairs

PG&E shall prepare a Pre-Project Trail Condition Report prior to construction that documents the condition of designated trails located within project work areas or access routes. The Pre-Project Trail Condition Report shall be submitted to the CPUC no less than 30 days before construction.

PG&E shall repair all damage to trails (e.g., rutting) caused by construction vehicles and equipment by the completion of construction. PG&E shall prepare a Post-Project Trail Condition Report documenting the final state of all trails within project work areas and access routes. The Post-Project Trail Condition Report shall be submitted to the CPUC within 30 days of completing construction in each project segment. PG&E shall complete all trail repairs to the approval of the CPUC.

MM Recreation-2: Trail Detours and Notifications

PG&E shall provide temporary trail detours in regional parks, where feasible. Trail detours must be located on existing trails or unvegetated areas, and shall not be located where they could impact a sensitive biological and cultural resources. Trail detours may be placed along the perimeter of active work areas or through inactive work areas when it is safe to do so. Proposed trail detours within regional parks shall be agreed upon by the Sonoma County Regional Parks Department prior to implementation.

Signs shall be posted at park and trail entrances to inform park users of construction activities that may be encountered, such as vehicles and equipment on trails, excavations, and helicopter activities. The signs shall include a map of trail closures, trail detours, and construction areas to avoid.

Transportation and Traffic

MM Traffic-1: Construction Traffic Management

Construction Traffic. Construction traffic shall be routed around roadways and intersections that are currently operating below LOS standards to the greatest extent possible, including the intersection at Faught Road and Old Redwood Highway. Construction traffic through the intersection at Faught Road and Old Redwood Highway shall be avoided by using Airport Boulevard and alternate local roads to access the project alignment. Construction traffic through the intersection shall be limited to an absolute minimum and shall not exceed 10 vehicle trips during weekday peak commute periods (7:00 am to 9:00 am, and 4:00 pm to 6:00 pm).

Lane Closures. Lane closures shall be limited to the minimum number necessary. Guard structures shall be installed to prevent lane closures where possible. At least one lane must remain open on all roadways. Full road closures shall not occur frequently or last for more than a few minutes at a time.

Lane closures in the Southern Segment shall not occur during weekday peak commute periods (7:00 am to 9:00 am, and 4:00 pm to 6:00 pm). In addition, lane closures shall not occur on Lavell Road and Faught Road during pickup times at San Miguel Elementary School and Mark West Elementary School (1:00 pm to 3:45 pm Monday, Tuesday, Thursday, and Friday, and 12:15 pm to 1:45 pm Wednesdays when school is in session).

Should a lane closure be unavoidable during peak commute hours or school commute hours, a traffic model shall be run to demonstrate that the lane closure and detour routes do not cause a significant impact to LOS, as defined in this traffic analysis. If modeling shows that significant impacts to LOS could occur, other measures shall be incorporated and remodeled to demonstrate less than significant impacts, or the closure shall be limited to off-peak and off-school-commute hours.

Access shall be maintained to driveways, residential communities, and parking lots. Guard structures shall be installed if overhead reconductoring activities would affect access for more than 15 minutes per day.

Detour Routes. Detour routes shall be selected in coordination with Caltrans and Sonoma County when encroachment permits are obtained. Traffic detours shall not divert existing traffic volume that would cause roadway or intersection LOS to drop below acceptable standards (LOS D for roadways and LOS F for intersections).

Safe detour routes shall be provided for pedestrians and cyclists along lane closures, and where traffic control occurs. Barriers shall be installed between the pathway and vehicle traffic, if necessary, to provide a safe clearance from traffic.

Encroachment Permits. PG&E shall obtain encroachment permits from Caltrans prior to working within the US 101 ROW and from Sonoma County prior to working within the Sonoma County ROW. PG&E shall provide the CPUC with all encroachment permits obtained from Caltrans and Sonoma County prior to work in the State or County ROW. Any modified or updated encroachment permits shall also be provided to the CPUC.

MM Traffic-2: Overhead Construction Safety

Guard structures shall be installed where necessary and feasible during reconductoring activities. Alternatively, flaggers may be positioned to maintain public access. If public access cannot safely continue during overhead activities, PG&E shall clearly mark the unsafe area with signs and flagging to keep the public from accessing the area. If access to properties must be closed during overhead activities or residences must be temporarily evacuated during helicopter activities in the Southern Segment, PG&E shall coordinate the timing of construction activities with the affected property owners and residents.

MM Traffic-3: Roadway Damage

PG&E shall conduct a Pre-Construction Road Condition Assessment along pubic roadways where construction would occur, heavy equipment would travel frequently, and at the entrances of all staging areas to document any existing roadway damage to the asphalt or concrete curbs. PG&E shall submit photos and coordinates of any existing roadway damage to the CPUC, Caltrans, and Sonoma County no less than 30 days prior to construction.

If roadways are damaged by construction activities, the damaged area(s) shall be documented and repaired no more than 60 days following construction activities. If the damage could cause a substantial traffic hazard, the location shall be marked appropriately and repaired within 48 hours. Any roadway damages shall be repaired to pre-project conditions and following applicable Caltrans and Sonoma County repair standards.

MM Traffic-4: Emergency Access

PG&E shall notify local emergency service providers (i.e., local fire districts, law enforcement offices, hospitals, and ambulance and paramedic services) no less than 1 week before construction activities and provide the locations of roadway segments where lane closures and detour routes may occur. The notice shall also identify the approximate timing and duration of lane closures and detour routes that may affect traffic and emergency access.

MM Traffic-5: Public Transit

PG&E shall notify Sonoma County Transit (SCT) no less than 30 days before construction in the Southern Segment and identify roadway segments where bus routes and bus stops are located that may be affected during construction. The notice shall identify the approximate timing and duration that each bus stop may be affected. If necessary, bus stops shall be temporarily relocated or buses shall be rerouted until construction affecting the bus stop is complete, as determined through coordination with SCT. PG&E shall ensure signs are posted at affected bus stop no less than 7 days before bus stop closures. The signs shall provide information on the closest alternate bus stop for the route and the scheduled duration of relocation.

FINDINGS

The IS was prepared to identify the potential impacts on the environment from construction and operation of the PG&E Fulton-Fitch Mountain Reconductoring Project, and to evaluate the significance of these impacts. Based on the IS and the Findings listed below, the Lead Agency (CPUC) has determined that the proposed project would not have a significant effect on the environment.

- With the implementation of the incorporated APMs and MMs, the proposed project would not significantly degrade the quality of the environment.
- With the implementation of the above MMs, both short-term and long-term environmental impacts associated with the proposed project would be less than significant.
- When potential impacts associated with implementing the proposed project are considered cumulatively, the incremental contribution of the project-related impacts is insignificant.
- Based on the IS, there is no evidence that implementing the proposed project would have significant impacts on people.

Signature pending final document		
Lisa Orsaba, Project Manager	Date	_
Energy Division		
California Public Utilities Commission		