Pacific Gas and Electric

South of Palermo 115 kV Power Line Reinforcement Project

Response to Data Request No.1

Below are responses to Data Request No.1 submitted by the California Public Utilities Commission ("CPUC") dated May 18, 2016, regarding the Proponent's Environmental Assessment ("PEA") prepared for the South of Palermo 115 kV Power Line Reinforcement (the "project"). Each CPUC data request is organized by PEA Chapter, set forth in italics and followed by PG&E's response.

This document includes the following attachments, which are described in more detail in the text below under the applicable response.

Attachment A: Agency Contacts Table
Attachment B: Figures of Typical Guard or Crossing Structures
Attachment C: Air Quality/Green House Gas Assumptions Table
Attachment D: Estimated Project Phases Figure
Attachment E: Existing Character Photographs – JPEG Files (Sent by CD under separate cover)
Attachment F: Revised Helicopter Use Plan
Attachment G: Revised Table 3.12-5 Noise and Modeling Spreadsheet

Administrative

a. Provide all agency involvement contacts and correspondence to date, including names, addresses, phone numbers, and email addresses.

PG&E Response: A list of agency contacts is provided as Attachment A (email addresses are provided if available).

2.0 Project Description

2.5 Proposed Project

2.5.6 Substations

a. Would any of the proposed upgrades to substations affect the bulk and scale of existing components within the existing substations?

PG&E Response: No. As indicated in the PEA in Section 2.5.6, p. 2-6, only minor modifications will be made to substation equipment and facilities at Palermo, Pease, Bogue and Rio Oso substations to tie the new conductor to the existing substation configuration. The proposed upgrades will not affect the bulk and scale of existing components within the existing substations.

2.6 Project Components

2.6.2.1 New and Modified Structures

a. Please provide location and number of LSPs, and the number and location of angle TSPs with poured concrete bases.

PG&E Response: Under current plans, which are preliminary and subject to change, the project will install approximately four LSPs and approximately 38 TSPs. The table below lists unique identification numbers associated with each LSP and angle TSP, which can be used to identify locations within the GIS layers that were provided confidentially to CPUC pursuant to Public Utilities Code Section 583 on May 9, 2016.

South of Palermo 115 kV Power Line Reinforcement Project Unique ID's for TSPs and LSPs			
South of Palermo Line		Bogue Sub Line Segment	
Unique ID	Structure Type	Unique ID	Structure Type
1	TSP	279	TSP
11	TSP	294	TSP
20	TSP	308	TSP
21	TSP	315	TSP
37	TSP	316	TSP
51	TSP	332	TSP
71	TSP		
80	TSP		
94	TSP		
108	TSP		
109	TSP		
128	TSP		
135	TSP		
142	TSP		
146	TSP		
148	TSP		
151	TSP		
153	TSP		
155	TSP		
157	TSP		
159	TSP		
164	TSP		
173	LSP		
174	LSP		
175	LSP		
176	LSP		
188	TSP		
191	TSP		
211	TSP		
225	TSP		
226	TSP		
230	TSP		
232	TSP		
233	TSP		
249	TSP		
261	TSP		

2.6.3 Temporary Structures

a. Please provide figures showing typical structures including height.

PG&E Response: The type and design of guard structures is dependent on the location and use of the structure. In many cases, bucket trucks can be used as guard structures. In other cases, direct buried wood poles with cross structures are used. The type, height, and design of guard structures at each location will be dependent on the object being guarded (i.e. road, distribution line, and railroad), encroachment permit terms, site conditions, and construction team preference. The figures provided in Attachment B of this response show an example of a wood pole H-frame guard structure and a bucket truck, both of which may be used as guard structures. The guard structures would range up to 140 feet in height.

b. Please provide the expected locations of guard structures, snub pole structures and shoofly; the response should focus on locations where temporary structures may affect sensitive resources for example delineated wetlands, or vernal pools.

PG&E Response: Under current plans, which are preliminary and subject to change, the likely locations of guard structures and shoofly poles are included in the GIS map package that will be provided to the CPUC confidentially pursuant to Public Utilities Code Section 583 under separate cover on June 20, 2016. As discussed in Section 2.6.3.2 of the PEA, Snub Poles, p. 2-9, temporary snub poles are typically located within the footprint of each pull site. PG&E identified the location of potential sensitive biological resources as part of a GIS package provided to the CPUC confidentially on May 20, 2016. In addition, the location of wetlands and waters is included in the GIS map package that will be provided separately to the CPUC confidentially pursuant to Public Utilities Code Section 583 under separate cover on June 20, 2016. Combining these GIS layers provides an overall picture of the anticipated locations of guard structures, snub poles and shoofly poles in relation to potential sensitive resources in the project area.

2.8 Construction

General

a. Please provide construction related water usage and sources where water would be obtained.

PG&E Response: Construction related water usage and water sources are discussed in PEA Sections 3.9, Hydrology, 3.17, Utilities and Service Systems, and Section 2.8, Construction. As indicated in the PEA on pages 3.9-14 and 3.17-11, potable water will be supplied to construction workers for drinking and will be delivered to project work areas by construction vehicles and equipment. During construction, approximately 9.16 acre-feet (2,985,000 gallons) of water will be used for dust control and worker needs. Water trucks, typically with a capacity of approximately 4,000 gallons, will support project construction activities and dust suppression. Construction water may be obtained from local municipal sources, trucked in by a water supply vendor, or derived from local wells.

2.8.1.1 Pole and Tower Installation

a. Identify at which poles locations helicopters would be used, and at which pole locations the pole would be staged directly. For all poles, provide the location and footprint of work areas.

PG&E Response: Structure installation will typically be accomplished using a helicopter, with the exception of TSPs, which due to their weight, likely would be installed using cranes. Approximate pole locations and preliminary work areas associated with each pole are included in the GIS map package that will be provided to the CPUC confidentially pursuant to Public Utilities Code Section 583 under separate cover on June 20, 2016.

2.8.1.2 Hybrid Poles, Tubular Steel Poles, and Lattice Steel Poles

a. The CPUC understands that foundation laying and pole installation are likely to be undertaken in different seasons. Please provide a description of the expected timing for the installation of each component.

PG&E Response: Under current plans, which are preliminary and subject to change, hybrid pole butts and LSP/TSP foundations are anticipated to be installed during the dry season, when access is more convenient and the potential for environmental impacts is reduced.

Once the foundations have been installed, poles will be installed at these locations when line clearances are available. In this area, summer line clearances may not be available and pole installation and reconductoring is likely to occur in the fall, winter, and earlier spring. However, some TSPs being installed by crane may need to be installed in the dry season. The preliminary sequencing of the work may also be affected by weather, resource agency permit requirements, and landowner preferences.

b. Please clarify for which sections of the project conductor transfer would be required and for which sections new conductor will be installed.

PG&E Response: Under current plans, which are preliminary and subject to change, all conductor will be new, with the exception of four spans over the Bear River that were reconductored during the Palermo-East Nicolaus Project.

2.8.1.3 Tower and Pole Removal

a. Please clarify which towers are likely to be removed by helicopter and which are likely to be removed by crane.

PG&E Response: As discussed in Section 2.8.1.3, p. 2-12 of the PEA, Power Line Construction, structure removal is expected to be accomplished using a helicopter. If there are unforeseen circumstances that would prevent the use of a helicopter (i.e. nearby utility lines or encroachment permit terms), then a crane will be used at that particular location.

2.8.3 Work Areas

a. GIS information and Figure 2.8-1 provide locations of proposed helicopter landing sites and pull sites. Please provide the footprint for each helicopter landing zone and pull site. Further, please provide the GIS data for the locations, and footprints of staging areas.

PG&E Response: The approximate dimensions of pull sites and helicopter landing zone are discussed in Section 2.8.4 of the PEA, p. 2-17, Pull Sites and Section 2.8.5, p. 2-17 - 2-18, Helicopter Landing Zones. The approximate and preliminary footprints for work areas, pull sites and approximate helicopter landing zones are included in the GIS map package that will be provided to the CPUC confidentially under separate cover on June 20, 2016. All equipment and materials will be staged at the pull sites, landing zones and work areas identified in the GIS layers.

b. Please provide total temporary and permanent work area requirements for each segment broken down into 1) direct pole bury site, 2) work areas: staging areas, pull sites, helicopter landing zones etc. and 3) new temporary access.

PG&E Response: Sections 2.8.3, 2.8.4, and 2.8.5 of the PEA, p. 2-16 through 2-18 of the PEA, describe typical work area, pull site, and landing zone dimensions. All laydown and staging activities will take place in identified work areas, pull sites or landing zones. The approximate locations of work areas, pull sites, landing zones and temporary access roads have been identified in the GIS

layers that will be provided to the CPUC confidentially pursuant to Public Utilities Code Section 583 on June 20, 2016.

2.8.4 Pull Sites

a. The analysis should demonstrate that locations avoid resources, please provide footprints for pull sites, and temporary laydown yards.

PG&E Response: As indicated above, all laydown and staging activities will take place in identified work areas, pull sites, and landing zones. Pull sites are discussed in Section 2.8.4, Pull Sites, p. 2-17 of the PEA, work areas are discussed in Section 2.8.3, Work Areas, p. 2-16 of the PEA and landing zones are described in Section 2.8.5, Helicopter Landing Zones, p. 2-17. GIS layers for the preliminary locations of pull sites and work areas were provided confidentially to CPUC pursuant to Public Utilities Code Section 583 on May 9, 2016. The approximate footprint for these areas (pull sites, work areas and landing zones), under current plans and subject to change, along with the location of jurisdictional wetland and water features within the project area have been included in the GIS map package that will be provided to the CPUC confidentially pursuant to Public Utilities Code Section 583 under separate cover on June 20, 2016. In addition, the potential locations of other sensitive biological resources (sensitive species habitat and vegetation communities) were provided to the CPUC confidentially pursuant to Public Utilities Code Section 583 on May 20, 2016. As shown when combining the project footprint GIS layers with the biological resource GIS layers, pull sites, work areas and landing zones have been located in areas to avoid sensitive resources, whenever feasible.

b. Please identify locations where crop and orchard tree removal may be necessary, and the extent to which it may be required.

PG&E Response: The alignment passes through many rice fields and orchards. Rice fields will require temporary berming to allow access to install pole butts and foundations, as well as to establish pull sites and landing zones. Installation of pull butts and foundations at locations within orchards may require permanent removal of some trees where the new structure will be located and temporary removal of trees to provide access to the location. In addition, temporary removal of orchard trees may be required to establish several pull sites. The replacement of lattice steel towers with hybrid steel poles will reduce the structural footprint within orchard areas. PG&E will coordinate with landowners to minimize impacts to crops and orchards. As indicated above, GIS layers identifying the approximate footprints of project components (landing zones, pull sites, and work areas) for the project along with land cover in the project area have been included in the GIS map package that will be provided to the CPUC confidentially pursuant to Public Utilities Code Section 583 under separate cover on June 20, 2016. Combining the GIS layers will show all of the potential orchards that may be affected by the project footprint. PG&E is currently reviewing the extent of removal that may be necessary in those areas and can provide additional information to the CPUC as it becomes available.

c. Please identify temporary staging and landing zones or pull sites that would be used for greater that a single season.

PG&E Response: Under current plans, which are preliminary and subject to change, pull sites and landing zones will be used for a single phase of the project (which will last approximately 12 months including multiple seasons), with the exception of certain pull sites and landing zones at Pease Junction, which is the only area currently known to be required for two phases of construction. As described in the response in 2.8.10a below, work at each location would not be continuous over the phase.

a. Hours of daily helicopter use is given in the Helicopter Use Plan, please provide the expected number of days that helicopters would be used in the wet season work, and the number of days that helicopters would be used during the dry season work.

PG&E Response: Under current plans, which are preliminary and subject to change, helicopters will be used during the duration of the project for structural removal, installation, and reconductoring. The sequencing of the work may be affected by line clearances, weather, resource agency permits, and landowner preferences. Assumptions used in the air quality analysis related to the days and hours of helicopter use are presented in the table provided as Attachment C to this response. Note that the dates provided in the attachment are assumptions only and are subject to change based on a number of factors, including actual project construction dates, ground conditions, clearance requirements and landowner preferences, etc.

b. The analysis should demonstrate that helicopter landing zones avoid sensitive resources, please provide footprints for helicopter landing zones.

PG&E Response: Helicopter landing zone footprints are discussed in Section 2.8.5 of the PEA, Helicopter Landing Zones, p. 2-17 and 2-18. The approximate footprints of helicopter landing zones, based on current plants which are preliminary and subject to change, and the location of wetlands and waters in the project area have been included in the GIS layers that will be provided to the CPUC confidentially pursuant to Public Utilities Code Section 583 in a separate submittal on June 20, 2016. Potential locations of other sensitive biological resources (sensitive species habitats and vegetation communities) are identified in the GIS layers that were provided to the CPUC on May 20, 2016.

As evidenced by viewing the combined project footprint GIS layers with the potential biological resources and the wetland delineation GIS layers, helicopter landing zones have been sited in areas to avoid impacts to sensitive resources to the greatest extent possible.

2.8.6 Access Routes

a. The GIS layers provide a mapped route to each work area, please specify the anticipated improvements required for each route and where necessary the likely crossing of wetlands and creeks in each case.

PG&E Response: As described in Section 2.8.6 of the PEA, Access Routes, p. 2-18, and Table 2.8-4, Access Summary Table, also on p. 2-18, mowing typically will be the only improvement required to facilitate temporary overland access for project construction. At locations where wet season access is required, gravel or road base may be installed temporarily and removed upon completion of the work. Improvements of existing roads are anticipated to include minor repairs and maintenance such as leveling ruts and potholes, supplemental gravelling, mowing and removal or trimming of vegetation. Most creeks and wetlands will be crossed using existing roads and improvements in these areas are not anticipated at bridged or culverted crossing. Forded crossings be matted or plated. The table provided in the response to section 3.9a below includes a list of the anticipated creek, slough and river crossings that may involve some level of improvement. In addition, a wetland and waters GIS layer is included in the GIS map package that will be provided to the CPUC confidentially pursuant to Public Utilities Code Section 583 under separate cover on June 20, 2016.

b. *Quantify the area (length and overall acreage) of new temporary overland access routes and specify if these routes would be used for more than one season*

PG&E Response: Under current plans, which are preliminary and subject to change, a total of approximately 22 acres (approximately 11.4 miles in length) of temporary overland access routes will be established for project construction. Typically, temporary overland access routes will be used for a single phase of construction occurring over a period of approximately one year.

c. Please identify temporary wetland and creek crossings.

PG&E Response: The response to section 3.9a below provides a table of all creek, slough or river crossings associated with the project footprint that may require some level of improvement. GIS layers identifying the locations of all wetlands and creeks in the project area along with the anticipated project component footprints will be provided to the CPUC confidentially pursuant to Public Utilities Code Section 583 in a separate GIS Layer package submittal on June 20, 2016. These GIS layers combined identify the potential location of all anticipated wetland and creek crossings. As noted above, many of these crossings will involve existing culverts and bridge crossings that will not impacted the water feature.

d. *Quantify the area (length and overall acreage) of new temporary overland access routes and other temporary disturbance specify if any of these disturbance areas would be within recreational facilities or parks and how long they would be used or number of times if they would be used for more than a single season.*

PG&E Response: Of the approximately 22 acres of new temporary overland access routes required for the project, approximately 900-feet of a temporary overland access route will be located within the Peach Tree Golf and Country Club. Temporary overland access routes would be used for only one season and for no more than two seasons. In most cases, including at the Peach Tree Golf and Country Club, the temporary access route will be used for approximately five days over a period of one year. In addition, PG&E will work with the Club to minimize any potential impacts to golf course operations.

2.8.10 Schedule

a. Please provide typical durations of the following construction activities at each location:

- *Construction, staging areas and temporary roads;*
- *Existing tower removal;*
- *Pole base excavation, concrete base pouring, new pole installation;*
- *Staging area and temporary construction restoration.*

PG&E Response: Under current plans, which are preliminary and subject to change, the project is anticipated to be built out in three overlapping phases in approximately 36 calendar months that will likely fall within four calendar years. The three phases likely will be broken down into construction of: (1) Rio Oso Sub Loop Segment and South of Palermo to Pease Junction; (2) Pease Sub Segment, South of Palermo to Palermo Junction, and Palermo Substation Segment; and (3) Bogue Sub Segment. Each phase will last approximately 12 months. Attachment D to this response provides a figure that graphically presents the three phases anticipated under current design and planning. The final sequencing of these phases will depend on the timing of permitting approvals, line clearance approvals, weather, and landowner preferences. Portions of one phase (such as site restoration) may overlap slightly with another phase (such as site preparation).

The duration and scope of work at each location will vary depending on site conditions.

For locations requiring structure replacement, the following work will be required: site and access route preparation, equipment and material staging, pole butt and foundation installation, structure removal, structure and guard structure installation, conductor installation, foundation removal and site restoration (as required) and cleanup. Work at each location will not be continuous, but rather completed in steps over the duration of the phase. The total duration of construction at a particular

location will typically last only a few days; however, these days may be spread out over a period of months during the phase.

Site and access route preparation will be completed in segments during the dry season in advance of pole butt and foundation work at sites on the segment. Work at each location will typically last less than a day. Once the sites and routes have been prepared, equipment and materials will be staged, which typically takes less than a day. Pole butts and foundations typically are installed in one or two days, but some locations may require a slightly longer timeframe for completion, depending on location and ground constraints.

Once site preparation and foundation work is complete, there typically will not be any construction activity at these locations until clearances have been obtained, which likely will be during the wet season. With the exception of certain TSPs, structures typically will be installed in less than a day by helicopter, with conductor transferred and old structures removed in the same day. Guard structures will be installed in segments in advance of each reconductoring pull. Installation of each guard structure will typically be less than one day. Reconductoring will be accomplished in segments between pull sites, with the duration dependent on the length of the span being pulled. Work at each pull site will typically be one or two weeks. Guard structures will be removed following completion of the pull as allowed by weather and permitting conditions. Foundations for structures being removed will be removed as soon as weather and permitting conditions allow, most likely during the following dry season in locations with wet season constraints. Site clean up and any necessary restoration efforts will follow the removal of the foundations and should be completed within one or two days.

Installation of cage top extensions by helicopter will generally not require the preparation of work areas or access routes at each location. Work at each location will typically be less than one day.

Installation of the shoo-fly on the Bogue Sub Segment will likely require an additional two days of construction at each structure location.

b. Section 3.3 – Air Quality indicates that construction will be undertaken across four years, with a land-based construction phase and a helicopter based construction phase. Please indicate/map which sections of the project are likely to be under construction in each year and each phase.

PG&E Response: Additional information on the project-specific construction information (including phasing and equipment) utilized in the air quality/green house gas ("AQ/GHG") modeling and calculations in the PEA is provided as Attachment C to this response. Note that the dates provided in the attachment are assumptions only and are subject to change based on a number of factors, including actual project construction dates, ground conditions, clearance requirements and landowner preferences, etc. Also note that helicopter-based construction activity has not been analyzed as a separate phase from land-based construction in the AQ/GHG calculations. As stated in footnote 1 of Tables 3.3-7 through 3.3-11 of Section 3.3, Air Quality, pps. 3.3-14 through 3.3-18: "While land-based equipment from phases 1, 2 and 3 may sometimes overlap, there will be no more than 3 helicopters operating on any given day." A figure of estimated project phases is provided as Attachment D to this response and identifies generally the areas that will be completed within each phase, based on preliminary plans, which are subject to change based on the timing and conditions of permitting approvals, line clearance approvals, weather, and landowner preferences.

c. For laydown yards, pull sites and helicopter landing zones provide the timing and duration of use, i.e., which year and which phase.

PG&E Response: As indicated above, under current plans, which are preliminary and subject to change, the project is anticipated to be built out in overlapping phases in approximately 36 calendar months that will likely fall within four calendar years. The three phases identified above – (1) Rio

Oso Sub Loop Segment and South of Palermo to Pease Junction; (2) Pease Sub Segment, South of Palermo to Palermo Junction, and Palermo Sub Segment; and (3) Bogue Sub Segment – will be sequenced depending on the timing of permitting approvals, line clearance approvals, weather, and landowner preferences. The pull sites and landing zones located along the alignments for each phase will typically be used for the entire phase; however, work at each location would not be continuous over the phase as explained in the response to 2.8.10a above. A figure of the anticipated project phases based on preliminary designs and plans is provided as Attachment D to this response. As indicated, certain types of the work at the end of the first phase (such as site restoration) may overlap slightly with another phase (such as site preparation in a nearby area).

d. Please provide duration and workforce and equipment expected to be used for post-construction cleanup and longer-term restoration work. This should include any anticipated restoration / mitigation projects required as terms and conditions of Clean Water Act or Endangered Species Act permitting and monitoring.

PG&E Response: Cleanup and postconstruction restoration is discussed in Section 2.8.9 of the PEA, p. 2-20, Cleanup and Postconstruction Restoration. The workforce estimates provided in Section 2.8 of the PEA, Construction Workforce and Equipment, pps. 2-14 and 2-15, include cleanup and postconstruction restoration activities. As described in response to the question regarding schedule, above, clean up and restoration at each location likely will take one-two days in duration. The assumptions used in the AQ/GHG calculations regarding the timing of construction is in the tables provided as Attachment C of this response and show project-specific construction information (including phasing and equipment) utilized in the AQ/GHG modeling. Note that the dates provided in the attachment are assumptions only and are subject to change based on a number of factors, including actual project construction dates, ground conditions, clearance requirements and landowner preferences, etc.

3.0 Environmental Impact Assessment Summary

3.1 Aesthetics

a. Please provide individual, high-quality JPEG and/or PDF files for all existing character photographs and visual simulations included in the PEA. Please also provide data points (.kmz, .kml, or .shp file format) for all character photographs and key observation points depicted on Figure 3.1-1, Landscape Units and Photograph Viewpoint Locations.

PG&E Response: Individual, high-quality JPEG files for all existing character photographs and visual simulations that were included in the PEA are referenced as Attachment E to this response and will be provided separately by CD on July 17, 2016, to accommodate the large file size. The GIS shapefile data for all character photographs and key observation points depicted on Figure 3.1-1, Landscape Units and Photograph Viewpoint Locations is included in the GIS map package that will be provided to the CPUC confidentially pursuant to Public Utilities Code Section 583 under separate cover on June 20, 2016.

b. A variety of aluminum-based conductors including all aluminum (AA), aluminum conductor steel-reinforced (ACSR), and aluminum conductor steel supported (ACSS) are proposed yet information regarding the reflectivity of the conductor has not been provided. Please provide a relative comparison of conductor reflectivity for existing and proposed conductors.

PG&E Response: The reflectivity of the new conductor will be similar to that used on the adjacent Palermo-East Nicolaus powerline. Photographs 2 through 8 under Figure 3.1-2 of the PEA show the Palermo-East Nicolaus powerline and provide an example of the ACSR and ACSS that will be used as part of this project.

c. The PEA states that the focus of Landscape Unit 1 is "the unincorporated community of Palermo and the farmland of the northern Sacramento Valley" and presents a single visual simulation of the South Palermo Line to represent the anticipated visual change within the relatively large landscape unit. Please provide a visual simulation of the Pease Sub Line Segment from character photograph location 7 to better illustrate the visual character of the area and anticipated visual change.

PG&E Response: Per Iain Fischer's June 7, 2016 email, no additional KOP simulation from character photo 7 will be required because the CPUC has deemed KOP 4 and character photo 3 adequate to characterize the impacts for the northern portion of the line.

d. The PEA states that the largest potentially affected viewer group in the project area is motorists yet a visual simulation from a high volume roadway such as SR-70 has not been established. To depict the visual change anticipated to be experienced by motorists on regional transportation facilities, please provide a visual simulation of the South Palermo Line at character photograph location 20.

PG&E Response: A visual simulation at character photograph location 20 was provided in Figure 3.1-7B of the PEA. As requested in Iain Fischer's June 7, 2016 email, a visual simulation from photo location 22 is being prepared and will be provided as soon as it has been completed.

e. Section 3.1.4.4 (d) Nighttime Lighting states that if needed, "portable construction lighting will be used to illuminate the immediate work area and will be directed down and away from residences, motorists, and other sensitive viewers." To ensure adequate protection of the dark – sky environment unnecessary light spillover, as-needed lighting should also be shielded. The use of shielded, downward directed lighting (during necessary nighttime construction activities) should also be included as an Applicant Proposed Measure (PEA) to ensure enforceability and a commitment of the Project Applicant.

PG&E Response: During construction, if work needs to be performed at night, portable temporary lighting may be used to illuminate the immediate work area. 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.

PG&E proposes the following additional Applicant Proposed Measure to be included in the Aesthetics analysis, which measure was considered appropriate in PG&E's Missouri Flat-Gold Hill 115 kV Power Line Reconductoring Project ("MF-GH Project") Permit to Construct (A. 13-08-014). The MF-GH Project was a similar reconductoring project in Sacramento Valley approved by the Commission on October 22, 2105.

> APM AESTH-1: 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.

3.3 Air Quality

a. Please confirm that the phases, acres disturbed, equipment, workers, and trucks modeled for the Air Quality and Greenhouse Gas chapters match the Project Description, including Table 2.8-2 (Typical Construction Workers and Equipment). Confirm also that helicopter use assumptions match the data in the Helicopter Use Plan.

PG&E Response: The estimated phases, acres disturbed, equipment, workers and trucks used in the AQ/GHG chapters match the Project Description. Table 2.8-2, p. 2-15 of the PEA provides an

example of typical equipment used during reconductoring, which was used to establish assumptions for the AQ/GHG analysis. We have provided tables included as Attachment C to this response, which identify the project-specific construction estimates (including phasing and equipment) utilized in the AQ/GHG modeling and analysis in the PEA. As indicated above, the dates provided in the attachment are assumptions only and are subject to change based on a number of factors, including actual project construction dates, ground conditions, clearance requirements and landowner preferences, etc.

The helicopter use assumptions used in the AQ/GHG modeling, as identified in Attachment C, match the data contained in the Preliminary Helicopter Use Plan. However, we have revised the Helicopter Use Plan slightly to remove the reference to medium helicopter classifications to more directly match the assumptions used in the AQ/GHG analysis. A slightly revised Helicopter Use Plan has been included as Attachment F to this response.

b. The Air Quality and Greenhouse Gas Calculations document includes many assumptions based on PG&E input ("PG&E has provided preliminary phasing information, including the projected construction schedule, equipment, grading quantities, and number of truck trips" (PEA p. 3.3-5). However, these assumptions are only briefly mentioned in the PEA chapter and embedded throughout the 364-page Air Quality and Greenhouse Gas Calculations document. For clarity and consistency between PEA chapters, these assumptions should be summarized in the Project Description.

PG&E Response: We have provided summary tables as Attachment C to this response, which include the project-specific construction estimates (including phasing, equipment, number of days used, number of hours per day, etc) utilized in the AQ/GHG modeling and analysis in the PEA. The "Start Date" and "End Date" provided in the phase schedule are preliminary only and subject to change based a number of variables, such as, weather, clearances, landowner preferences, ground conditions, etc. These dates were used to identify the particular pieces of equipment that could be in use on any given date within a particular phase to identify the maximum air quality emissions that could result from construction on any given day. PG&E used this approach to provide conservative estimates of the maximum daily emissions for the project.

3.4 Biological Resources

a. Please provide maps of potential wetlands and waters (including acreages) and completed wetland delineation. Confirm wetland delineation has been verified (or is in the process of verification) (PEA p. 3.4-9, 3.4-11).

PG&E Response: PG&E will provide the wetland delineation (including maps) as soon as it is available, anticipated within the next few weeks. The delineation will include maps of potential wetlands and waters. PG&E will submit the wetland delineation for review with the Section 404 Permit application to the US Army Corps of Engineers (Corps). The Corps may not verify the wetland delineation until it is ready to issue the Section 404 Permit, which cannot be completed until the CEQA process has been completed as the 404 Permit requires a Water Quality Certification from the Regional Water Quality Control Board. Accordingly, PG&E likely will not receive a formal 'verification' of the wetland delineation from the Corps until after CEQA is certified by the CPUC. PG&E will provide updates to the CPUC regarding the permitting process with the Corps as requested.

b. Please provide figures and GIS layers depicting potential VP branchiopod habitat, GGS habitat, yellow billed cuckoo habitat, locations of elderberry bushes and special-status plant habitat (PEA p. 3.4-10).

PG&E Response: GIS layers for potential VP branchiopod habitat, GGS habitat, locations of elderberry bushes, and sensitive vegetation communities were provided confidentially to CPUC pursuant to Public Utilities Code Section 583 on May 20, 2016. A GIS layer for potential yellow-billed cuckoo habitat is included in the GIS map package that will be provided to the CPUC confidentially pursuant to Public Utilities Code Section 583 under separate cover on June 20, 2016.

c. Please provide VP branchiopod survey report (PEA p. 3.4-10).

PG&E Response: PG&E is currently completing VP branchiopod surveys and will share the results of these surveys with the CPUC when they have been completed.

d. Please provide vegetation communities/land covers figure (PEA p. 3.4-9), and accompanying GIS layers.

PG&E Response: GIS layers for vegetation communities were provided confidentially to CPUC pursuant to Public Utilities Code Section 583 on May 20, 2016. An additional GIS layer for land cover is part of the GIS Layer package that will be submitted to the CPUC confidentially pursuant to Public Utilities Code Section 583 under separate cover on June 20, 2016.

e. Confirm special-status plant surveys were completed in Spring 2016 and please provide the related report) (PEA p. 3.4-11).

PG&E Response: Special-status plant surveys have not been completed. Per Section 3.4.3.1, of the PEA, p. 3.4-18, special-status plant surveys will be conducted prior to project construction during the blooming season in 2018 to provide a more accurate picture of ground conditions.

3.5 Cultural Resources

a. Provide cultural resources evaluation report.

PG&E Response: The cultural resources evaluation report was provided confidentially to CPUC pursuant to Public Utilities Code Section 583 on May 9, 2016.

b. Provide DPR forms for evaluated built environment resources.

PG&E Response: See response to 3.5a. The DPR forms for evaluated built environmental resources were provided to CPUC as part of the cultural resources evaluation report.

c. Provide map of cultural resources within APE showing avoided significant/ unevaluated resources and not significant resources.

PG&E Response: See response to 3.5a. Cultural resource maps were provided to CPUC as part of the cultural resources evaluation report.

3.7 Greenhouse Gas Emissions

a. Requests for 3.3 (Air Quality) above also apply to the Greenhouse Gas analysis.

PG&E Response: See response 3.3a and 3.3b above.

b. The Greenhouse Gas chapter of the PEA notes that both EMFAC2014 and EMFAC2011 were used for on-road vehicle emissions (PEA pp. 3.7-4 and 3.7-8, respectively). The Air Quality chapter identifies EMFAC2014 as the model used to estimate on-road vehicle emissions (PEA p. 3.3-5). Please confirm which model version and emission factors were used for the analysis.

PG&E Response: Emissions factors from EMFAC2014 were used in the on-road vehicle emissions analysis. EMFAC2011 was incorrectly referenced on PEA p. 3.7-8.

3.8 Hazards and Hazardous Materials

a. Discuss Fire Hazard Severity Zone classifications for local responsibility area (LRA) in addition to those for state responsibility areas (SRA), as classified by CAL FIRE.

PG&E Response: The project route passes through a number of Local Responsibility Areas that are classified by CalFire as unzoned, moderate, or non-very high fire hazard severity zones (CalFire 2007a–2007d, 2008). These areas are:

- In designated Local Responsibility Areas within Butte County, the Palermo Sub Line Segment and the northern portion of the South of Palermo Line pass through a non-very high fire hazard severity zone.

- In designated Local Responsibility Areas within Yuba County, the South of Palermo Line passes through zones of moderate fire hazard severity in the vicinity of Marysville, where the alignment crosses Highway 20, and north and south of the community of Olivehurst. The Bogue Sub Line Segment passes through zones of moderate fire hazard severity in areas south and southwest of the community of Olivehurst.

- In Sutter County, the Bogue Sub Line Segment, Pease Sub Line Segment, South of Palermo Line, and Rio Oso Sub Line Segment Loop pass through unzoned Local Responsibility Areas. In addition, the Bogue Sub Line Segment passes through an area of moderate fire hazard near the eastern boundary of Sutter County, and the South of Palermo Line passes through an area of moderate fire hazard near the northern boundary of Sutter County.

b. The PEA (pages 3.8-2 through 3.8-6) identifies state regulations addressing fire prevention/fire hazards for power line construction and maintenance, specifying those applicable to SRA. Provide a discussion of applicable federal and local wildfire prevention regulations as well as a discussion of applicable state regulations for non-SRA lands.

PG&E Response: PG&E is not aware of any federal regulations related to wildfire prevention that would be applicable to the potential impacts associated with this project.

At the state level, the California Fire Code is contained within Title 24, Chapter 9 of the California Code of Regulations. Based on the International Fire Code, the California Fire Code is produced by the California Buildings Standards Commission and regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. Similar to the International Fire Code, the California Fire Code and the California Building Code (CBC) use a hazards classification system to determine the appropriate measures to incorporate to protect life and property.

In addition, the California Code of Regulations contains additional requirements that would apply to the Project, including:

- High Voltage Electrical Safety Orders (8 Cal. Code Regs. §2700 et seq.), which establish essential requirements and minimum standards for installation, operation, and maintenance of electrical equipment to provide practical safety and freedom from danger.

- Fire Prevention Standards for Electric Utilities (14 Cal. Code Regs. §§1250-1258), which provide specific exemptions from electric pole and tower firebreak and electric conductor clearance standards, and specify when and where standards apply. It establishes minimum clearance requirements for flammable vegetation and materials surrounding structures.

PG&E is researching whether there are fire prevention provisions in the Sutter, Butte and Yuba County general plans; such provisions would not be applicable to the project but could provide information to support the CEQA analysis.

c. *The PEA (page 3.8-19) states that "Fire prevention actions will be taken during construction to reduce the wildland fire risk, especially in the moderate and high fire-hazard severity zones." Provide specific details of the fire prevention actions, how and when they will be implemented, relationship to proposed construction equipment, potential ignition sources (vehicles, equipment, line break), required plans and permits, and a discussion of responsible parties and those with enforcement responsibility. Additionally, clarify whether fire prevention actions are proposed in all project areas, or only in SRA.*

PG&E Response: PG&E has established specific precautions and procedures that PG&E personnel must follow when working, traveling, or operating in hazardous fire areas and State Responsibility Areas (SRAs) during the designated Fire Season in the state of California. While there are many precautions established by PG&E, a few of these measures include:

- All personnel working in hazardous fire areas must be equipped with firefighting equipment such as, but not limited to shovels, axes, back pumps, etc. Firefighting equipment must be maintained in good working condition at all times.

- When the fire risk is 'very high' in a particular area:
    - No open burning is permitted.
    - All fires must be extinguished.
    - Welding is allowed only in either of the following circumstances:
        - In an enclosed building.
        - Within an area cleared of all flammable material for a radius of 35 feet. (Utility Procedure WP3320-06, "Cutting and Welding Permits" and SH&C Procedure 236, "Fire Prevention during Welding, Cutting and other Hot Work")
- No blasting.
- No smoking in grasslands and wildland areas.
- No vehicular travel off cleared roads except in case of emergency.

PG&E personnel will employ these fire precaution measures during both O&M and construction activities. The proposed project will not increase the fire risk from existing baseline conditions.

d. *The PEA (page 3.8-19) states that "O&M fire risks will not change materially with completion of the project, and no new impacts associated with operations will occur." Provide specific details regarding current O&M fire risk mitigation and how it applies to the proposed project.*

PG&E Response: Please see response to 3.8c above regarding existing fire risk measures that would apply whenever PG&E personnel are working, traveling, or operating in hazardous fire areas and State Responsibility Areas (SRAs) during the designated Fire Season in the state of California. These measures apply regardless of whether PG&E personnel are performing O&M or construction activities related to this project.

3.9 Hydrology and Water Quality

a. Section 3.9.3.3 of the PEA identifies the surface waters that cross the project alignment. The PEA should identify where and how many times the physical footprint intersects any of these creeks, sloughs, or rivers (e.g., tower foundations and temporary construction support areas, including staging and laydown areas, access roads, pull pads, and helicopter landing zones).

PG&E Response: Under current plans, which are preliminary and subject to change, the following table identifies the creeks, sloughs, or rivers that will be crossed by the physical footprint of the project that may require some level of improvement. The table does not include existing access road crossings that will not be physically impacted by the project (i.e. existing culvert and bridge crossings).

Project Area	Water Body Intersected	Type of Work Area	Latitude	Longitude
South of Palermo Line	Wyandotte Creek	Existing Access Road	39.3183243°	-121.5718895°
South of Palermo Line	North Honcut Creek	Existing Access Road	39.310720°	-121.568759°
South of Palermo Line	North Honcut Creek	Existing Access Road	39.309825°	-121.569014°
South of Palermo Line	Wilson Creek	Existing Access Road	39.3083266°	-121.5690050°
South of Palermo Line	Tributary to South Honcut Creek	Existing Access Road	39.3077767°	-121.5695035°
South of Palermo Line	Wyandotte Creek	Existing Access Road	39.356196°	-121.564357°
South of Palermo Line	Coon Creek	Temporary Access Road	38.949819°	-121.530982°

b. For existing routes requiring improvement or temporary overland access routes that cross water features, the PEA should provide additional information regarding the construction methods to be used to facilitate the crossing.

PG&E Response: The majority of water features within the project footprint will be crossed using existing access roads with serviceable culvert and bridge crossing. The following approaches will be used to avoid or minimize the impact of the crossings identified in the table above.

- If new crossings must be established or existing crossings must be modified, when possible, this will be accomplished by temporarily bridging the water feature.
- If fords must be crossed, driving mats may be placed to minimize disturbance by vehicle travel across the stream.
- With the exception of matting and driving across the area, PG&E does not anticipate that construction will be required to cross water features. To the extent that construction is required, PG&E will obtain any necessary permits and approvals from the California Department of Fish and Wildlife, Regional Water Quality Control Board, and Army Corps of Engineers (i.e., CWA Section 401/404 and Fish & Game Code Section 1602) for any work within a water feature and will perform the work in accordance with all applicable conditions of these permits.
- As indicated in APM HYDRO-1, PEA Section 3.9.2.2, p. 3.9-12, PG&E will prepare and implement a SWPPP to prevent construction-related erosion and sediments from entering nearby waterways.

3.10 Land Use and Planning

a. The following information, as requested in the PEA check list, should be provided as part of the follow up submission: GIS data of all parcels within 300 feet of the Proposed Project with the following information: APN number, mailing address, and parcel's physical address.

PG&E Response: A list of all affected properties within 300 feet of the project area is provided as Attachment A to the PEA, included as part of the PTC Application. The GIS data associated with these parcels is prepared by a third party vendor to PG&E, and PG&E's contract with this vendor does not allow release of the information as it is proprietary to the vendor's particular business.

3.12 Noise

a. Please provide equations or a spreadsheet to document the construction noise level results presented in Table 3.12-5; please include construction noise levels at 10 feet in such equations or spreadsheet, and update the table to illustrate noise levels at 10 feet.

PG&E Response: As noted in Section 3.12.5.3 of the PEA, p. 3.12-12, "Using the same assumptions used to calculate noise levels at 50 feet from the closest equipment, noise levels at a distance of 10 feet from the closest operating equipment (with one piece of equipment at 10 feet, two pieces of equipment 50 feet farther away, and two additional pieces of equipment 100 feet farther away) would be approximately 85 dBA L_{eq}." Land-based construction activities located as close as approximately 10 feet from noise-sensitive receptors could result in noise levels up to 95 dBA at these locations." Included as Attachment G to this response is a revised Table 3.12-5 identifying the noise levels at ten feet, as well as a more detailed spreadsheet identifying the modeling used for noise calculations.

b. Page 3.12-12 (last full paragraph). The helicopter noise discussion addresses only level flight operations applicable to transport of materials, or hovering during support structure installation or removal. Please provide analysis of noise levels associated with helicopter take-off and landing operations, combined with other construction equipment which may be operating at the landing zone sites. Provide reference distance from landing sites to the closest sensitive receptors (residence or school).

PG&E Response: As described in Chapter 2.0, Project Description, to minimize ground disturbance, helicopters may be used near sensitive receptors to replace towers and reconductor. Landing zones were chosen to avoid schools and residences to the greatest extent possible. No helicopter landing zones are located in close proximity to schools; however, some landing zones are located near existing residences. Although the majority of the landing zones are not located near noise sensitive receptors, some are located in the range of 300 to 400 feet away, and approximately five are located in the range of 100 and 200 feet away from nearby receptors.

The project will include use two helicopter sizes- "light" and "heavy-lift" helicopters. A single-rotor helicopter such as a Bell 407 is considered to be a "light" helicopter. The following take-off and landing noise levels are reported for a Bell 407 helicopter (NPS 2007):

- Light helicopter take-off: 97 dBA Lmax at 100 feet and 80 dBA Lmax at 400 feet
- Light helicopter landing: 98 dBA Lmax at 100 feet and 80 dBA Lmax at 400 feet

"Heavy-lift" helicopters are estimated to be approximately 4 dB louder than "light" helicopters (Nelson 1987). The following take-off and landing noise levels are reported for "heavy-lift" helicopters, which are estimated by adding 4 dB to the noise levels for the "light" helicopters (Nelson 1987):

- Heavy-lift helicopter take-off: 101 dBA Lmax at 100 feet and 84 dBA Lmax at 400 feet
- Heavy-lift helicopter take-off: 102 dBA Lmax at 100 feet and 84 dBA Lmax at 400 feet

Helicopter take-off and landing noise would be of short duration (likely 1 to 5 minutes per event) and occur infrequently on a given day. Other ground-based construction equipment may be operating in the vicinity of the landing zones. Noise from ground-based equipment could potentially combine with noise from helicopter take-offs and landings. However, noise from take-offs and landing are not expected to materially change the hourly Leq noise levels of ground-based equipment reported in Table 3.12-5, p. 3.12-12 of the PEA due to the very short duration and infrequency of these helicopter events. Maximum noise levels during concurrent operation of helicopters and ground-based equipment would be governed by the helicopter noise because the short-term helicopter noise would be substantially higher than the noise from ground-based equipment. Therefore, the additive effect of concurrent operations would be minimal.

c. *Page 3.12-13 (1st paragraph). Please clarify the meaning of 'very short-term' with regard to necessary nighttime construction; is this short-term with respect to the 9-hour overnight period, or short-term with respect to a limited number of consecutive nights over which the construction would occur?*

PG&E Response: Work at a particular site is not expected to last more than one or two days.

3.13 Population and Housing

a. *Please provide duration and workforce and equipment expected to be used for post-construction cleanup and longer-term restoration work. This should include any anticipated restoration/ mitigation projects required as terms and conditions of Clean Water Act or Endangered Species Act permitting and monitoring. This comment also provided for Section 2.8.10.*

PG&E Response: See response to Question 2.8.10d above.

b. *Please describe typical accommodations used to house construction crews and availability of those accommodations in the project area (general quantification of rooms and vacancy rates).*

PG&E Response: As stated in the Section 3.13.4.3 of the PEA, p. 3.13-5, it is anticipated that the work will be performed by local PG&E crews. As further discussed on page 3.13-5, if construction crews are required to temporarily relocate to the project area, typical accommodations include hotels, motels, RV parks, and long-term housing units. As discussed in Section 3.13.3, Environmental Setting, p. 3.13-4 of the PEA, there are eight hotels, motels, RV parks, or long-term housing units located in the immediate project area that provide approximately 400 temporary housing units with an average vacancy rate of 30 percent, and could provide adequate accommodations as needed.

3.14 Public Services

a. *See comment 3.13.a, above.*

PG&E Response: See response to Question 3.13a provided previously**.**

3.16 Transportation and Traffic

a. *Please confirm that the Butte County Setting and Trends Report (Butte County 2010) is the source document for LOS information provided in the PEA on page 3.16-6 for Upper Palermo Road, Lincoln Boulevard, Palermo Road, and Lower Honcut Road. Also, the LOS data referenced in the PEA for local Butte County roads of regional significance is approximately 10 years old. Please detail as to whether any contact was made with Butte County staff regarding more recent LOS data for the roadways crossed by the Project.*

PG&E Response: The Butte County Setting and Trends Report (Butte County 2010) is the source document for LOS information provided in the PEA on page 3.16-6 for Upper Palermo Road, Lincoln Boulevard, Palermo Road, and Lower Honcut Road. PG&E contacted Butte County staff on May 24,

2016, and staff confirmed that the Butte County Setting and Trends Report (Butte County 2010) contains the most updated LOS data available.

b. Please confirm that the Yuba County General Plan Update Background Report (Yuba County 2007a) and the Sutter County General Plan Technical Background Report (Sutter County 2008) are the source documents for LOS information provided in the PEA on page 3.16-7 for Ramirez Road, Hammonton Smartville Road, North Beale Road, Erle Road, McGowan Parkway, Arboga Road, and Feather River Boulevard (Yuba County) and for Rio Oso Road and Pleasant Grove Road (Sutter County). Also, the LOS data referenced in the PEA for Yuba and Sutter County roadways is approximately 10 years old. Please detail as to whether any contact was made with Yuba and Sutter County staff regarding more recent LOS data for the roadways crossed by the Project.

PG&E Response: The Yuba County General Plan Update Background Report (Yuba County 2007a) and the Sutter County General Plan Technical Background Report (Sutter County 2008) are the source documents for LOS information provided in the PEA on page 3.16-7 for Ramirez Road, Hammonton Smartville Road, North Beale Road, Erle Road, McGowan Parkway, Arboga Road, and Feather River Boulevard (Yuba County) and for Rio Oso Road and Pleasant Grove Road (Sutter County). Yuba and Sutter County staff confirmed on May 24, 2016, that the Yuba County General Plan Update Background Report (Yuba County 2007a) and Sutter County General Plan Technical Background Report (Sutter County 2008) contain the most updated LOS data available.

c. Please detail as to whether any contact was made with City of Oroville, City of Marysville, and Yuba City staff regarding LOS data for City roadways crossed by the Project. If contact was made, please provide information gathered regarding current LOS for roadways in these jurisdictions.

PG&E Response: PG&E contacted City of Oroville, City of Marysville, and Yuba City staff on May 24, 2016. City of Oroville staff stated that the most updated LOS data is provided in the 2012 Transportation Capital Improvement Program (TCIP) and Impact Fee Update Report. Railroad Avenue is the only roadway crossed by the project in the City of Oroville, and the TCIP does not provide the LOS for Railroad Avenue. City of Marysville staff confirmed that no LOS information for local roadways is available. Yuba City staff confirmed that the Yuba City General Plan contains the most updated LOS data available.

d. Please provide the locations of poles in the system at which helicopter use is not feasible and the use of cranes is required.

PG&E Response: As discussed in PEA Section 2.8.1, Power Line Construction, p. 2-10 – 2-14, structure installation, with the exception of TSPs, will typically be accomplished using a helicopter. TSPs would likely be installed using cranes. A list of TSP location has been provided above. FAA approvals, encroachment permit conditions, and other conditions may require that other structures be installed with a crane as well.

e. Please provide information (dimensions, materiality, etc.) of crossing structures. How long would crossing structures be installed during construction activities?

PG&E Response: The type and design of crossing or guard structures is dependent on the location and use of the structure. In many cases, boom trucks can be used as guard structures. In other cases, direct buried wood poles with cross structures are used. The type, height, and design of guard structures at each location will be dependent on encroachment permit terms, site conditions, and construction team preference**.** Crossing structures would be installed during the duration of the reconductoring of a particular section, which typically lasts approximately a week**.**

f. Please provide locations where temporary vehicle and bike lane closures may be required. What is the approximate duration of construction lane closures? APM TRA-1 should include language that states any lane closures of delayed service will be coordinated with affected transit agencies so that they may inform transit riders of potential delays.

PG&E Response: Under current plans, which are preliminary and subject to change, the potential for temporary road and bike lane closures in the vicinity of structures near roads and at road crossings during reconductoring, in accordance with the conditions of any required encroachment permits, may be required for up to one week at each location are provided by city/county in the following:

Butte County

- Existing bike route adjacent to Palermo Road
- Pinecrest Road
- Upper Palermo Road
- Lincoln Boulevard
- Firloop
- Railroad Avenue
- Pinecrest Road
- Kusel Road
- South Villa Avenue
- Cox Lane
- Middle Honcut Road
- Lower Honcut Road
- Ramirez Road
- Fiske Road
- SR 70

Yuba County

- Simpson Dantoni Road
- Hammonton Smartville Road
- Linda Avenue
- North Beale Road
- Erle Road
- McGowan Parkway
- Powerline Road
- Plumas Arboga Road
- Future Class I Bike Path south of Plumas Arboga Road
- Harvey Road
- Ella Avenue
- Railroad Avenue
- Feather Ridge Drive
- Shared-use path north of structures near Levee Road
- Woodruff Lane
- Ellis Road
- Kimball Lane
- SR 70
- SR 65

Sutter County

- Pease Road
- Tierra Buena Road
- Stewart Road
- Multi-use gravel trail north of Rio Oso Road
- Cornelius Avenue

- Pacific Avenue
- Pleasant Grove Road
- Hicks Road
- Waltz Road
- SR 70
- SR 99

The list above is preliminary and subject to change. Actual lane closures will depend upon the ground conditions at the time. PG&E suggests that APM TRA-1 be revised as follows:

APM TRA-1: Temporary Traffic Controls. PG&E will obtain any necessary transportation and encroachment permits from Caltrans and the local jurisdictions, as required, including those related to state route crossings and the transport of oversized loads and certain materials, and will comply with permit requirements designed to prevent excessive congestion or traffic hazards during construction. PG&E will coordinate with affected transit agencies on any temporary lane closures or transit delays to inform transit riders of potential delays. PG&E will develop road and lane closure or 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 local jurisdictional encroachment permit requirements, such as traffic controls in the form of signs, cones, and flaggers, to minimize impacts on traffic and transportation in the project area.

g. Please state whether construction activities are anticipated to result in access driveway closures at private residences. If temporary closures are anticipated, describe what measures would be implemented during construction to ensure safety at construction access driveways. A general description of site access safety measures from the traffic management plan should be provided.

PG&E Response: Under current plans, which are preliminary and subject to change, it is possible that construction activities may result in blocked driveways at some private residences. If temporary closures are anticipated, PG&E will contact affected property owners and implement traffic control measures as described in APM-TRA-1 and the BMPs provided in response to Question 3.16h below**.**

h. Identify Caltrans BMPs that would be used to minimize traffic impacts. This can be a general description or summary of measures.

PG&E Response: The BMPs identified by Caltrans in the California Department of Transportation (Caltrans) Construction Manual (Chapter 4, Section 12) typically used to minimize traffic impacts include in the following:

Flaggers: Flaggers will wear appropriate flagging apparel and will be trained in accordance with the California Manual of Uniform Traffic Control Devices and the Construction Safety Orders. PG&E will develop a communication protocol for flaggers communicating with each other, with pilot cars, and with workers inside the controlled area. PG&E will ensure flagging stations are laid out correctly, are visible to approaching traffic, are illuminated when necessary, and have correct advanced warning signs.

Construction Area Signs: Signs will be used to direct vehicles around temporary construction areas and will be maintained during the course of construction. PG&E will be required to notify regional notification centers before digging to install signposts utilizing breakaway features. Signs will be clean, clearly visible, and repaired immediately if damaged. Signs will be covered or removed whenever they no longer serve a purpose. Covers placed on sign panels will completely block out any messages so that the messages cannot be seen day or night. The covers will also present a workmanlike appearance. Sandbags will be employed when it is necessary to weight sign standards to prevent the wind from overturning them. Rocks, broken concrete, or other hard objects will not be

used for this purpose. Signs will not block usable bicycle and pedestrian pathways. If nighttime construction is necessary, retroreflective portable signs will be used.

Traffic Cones: Traffic cones will comply with standard specifications in the Caltrans Construction Manual. All cones will use the same type and brand of retroreflective sheeting. Traffic cones that have been damaged or coated with asphalt or other substances will not be used.