Vierra Reinforcement Project
Data Request Set No. 2 – PG&E Responses
November 20, 2018

Agricultural and Forest Resources

AF-1 Section 3.2.4.3 of the PEA states the parcel located immediately west of Vierra Substation (staff assumes this is actually portions of APNs 198-150-080 and 198-150-040) is designated as Farmland of Statewide Importance and construction on this parcel would temporarily impact approximately 10.7 acres of agricultural lands for construction work areas around TSPs, the substation, staging areas, and pull and tension sites. However, Table 3.2-2 Estimated Temporary and Permanent Impacts of Farmland shows a total of 9.45 acres of Farmland of Statewide Importance associated with the project would be temporarily impacted. Please confirm if these totals are correct, explain how they were calculated, and clarify the discrepancy of why the area of temporary impact on only the parcel(s) located immediately to the west is greater than the total acres of temporary impact on farmland associated with the project identified in Table 3.2-2.

PG&E Response: Tables 1 and 2 below provide farmland impact acreages based on GIS data associated with the Farmland Mapping and Monitoring Program (FMMP) and current land use, respectively. This FMMP data, released in May 2018, postdates the data used to prepare the PEA. Additionally, subsequent to preparing the PEA, the land use on the parcel of land east of D'Arcy Parkway and north of South Howland Road has changed (APN 198-130-560) — percolation basins associated with the water treatment plant now occupy this parcel.

Table 1: Agricultural Lands Based on FMMP Mapping (Only)

(All Numbers are in Acres)	Temporary Impacts			Permanent Impacts
Project Element	**Farmland of Local Importance**	**Farmland of Statewide Importance**	**Prime Farmland**	**Farmland of Statewide Importance**
Substation	n/a	n/a	n/a	2.47
Pole Work Areas, Pull Sites, Staging Areas, Guard Structures	1.77	9.64	0.40	n/a
Access Road	n/a	0.08	n/a	n/a

Table 2: Agricultural Lands Based on Current Land Use

(All Numbers are in Acres)	Temporary Impacts		Permanent Impacts
Project Element	**Farmland of Local Importance**	**Farmland of Statewide Importance**	**Farmland of Statewide Importance**
Substation	n/a	n/a	2.47
Pole Work Areas, Pull Sites, Staging Areas, Guard Structures	0.62	9.33	n/a
Access Road	n/a	0.08	n/a

AF-2 The project alignment crosses property at the northeast corner of Christopher Way and Nestle Way that appears to be undeveloped and designated Prime Farmland (18601 Christopher Way, APN 198-130-620). Activities on this designated Prime Farmland appear to include a new pole, guard structure, pull site, and pole work areas, but no discussion of potential impacts to the designated Prime Farmland is provided in the section or noted in Table 3.2.-2. Please clarify and update the section as appropriate with a discussion of potential impacts to the Prime Farmland.

PG&E Response: There will be no impacts to Prime Farmland at the northeast corner of Christopher Way and Nestle Way (APN 198-130-620). The current land use of the parcel includes a warehouse and parking lot. The TSP will be installed in a landscaped area between the sidewalk and the parking lot.

AF-3 There appears to be a discrepancy in the Farmland of Statewide Importance acreage necessary for TSPs. PEA Section 3.2.4.3 indicates .002 acres of Farmland will be required for the permanent TSP footprint, whereas PEA Table 3.2-2 reflects .008 acres of Farmland of Statewide importance will be permanently impacted by the proposed TSPs. Please confirm which of the numbers is correct.

PG&E Response: Based on FMMP GIS data updated in May 2018 and current land use, there are 6 poles on the new power line and 3 additional poles from the relocated power line that will be situated on Farmland of Statewide Importance. TSPs will have concrete pier foundations measuring approximately 4 to 6 feet in diameter, resulting in a permanent footprint ranging between 0.003 acres (113 sq. ft.) and 0.006 acres (255 square feet).

Air Quality

AQ-10 Please provide air quality emission tier levels for the diesel-fueled construction equipment expected to be used for this project. Please verify whether the emission factors used in CalEEMod would conservatively represent emissions from the construction equipment expected to be used for this project.

PG&E Response: Emissions for diesel-fired construction equipment were estimated using the default emission factors in CalEEMod. Separate emission factors are listed by year in Table 3-4 of Appendix D of the CalEEMod Users Guide. These emission factors are intended to be representative of the statewide fleet mix for that year and the Users Guide does not provide specifics regarding what engine tiers were used to generate the overall emission factors. The emissions presented in the PEA are conservative since the default emission factors were not adjusted to assume the usage of only higher tier engines.

AQ-11 The Project Description of the PEA states that there would be some remote work at other substations and installation of microwave towers and dishes/antennas for telecommunication. Please provide estimates of vehicle trips and construction equipment use for the remote end work at other substations and work at telecommunication towers. Please provide Air Quality and Greenhouse Gas emissions estimates for the remote end work at other substations and work for telecommunication tower improvements.

PG&E Response: Equipment usage and air emissions modeling of remote end work and microwave tower installation is forthcoming.

AQ-12 On October 29, 2018, the San Joaquin Valley Air Pollution Control District (SJVAPCD) provided comments on the Vierra project (CEQA reference # 20181143). Staff will need copies of all correspondence between the applicant and SJVAPCD in a timely manner in order to stay up to date on any permit issues that arise prior to completion of the IS/MND. Please provide copies of all communications with the SJVAPCD within one week of submittal or receipt.

PG&E Response: PG&E has not had any correspondence with the SJVAPCD. Should communications occur, PG&E will provide the CPUC with copies of all communications within one week of submittal or receipt.

AQ-13 The SJVAPCD comment letter requests an immediate application for an Air Impact Assessment (AIA) if District Rule 9510 applies to the project. Please describe whether the rule applies and the status of compliance with the application process. If available, please provide a copy of the AIA application that would be required by SJVAPCD. Once the AIA application is approved by SJVAPCD, please provide a copy of the SJVAPCD approval letter.

PG&E Response: Rule 9510 applies to projects that exceed certain size thresholds as described in Section 2.1 of the rule. This project is not subject to Rule 9510 as it does not meet the threshold of 9,000 square feet for projects in the "other" land use category (Section 2.1.10). The structure to be built at Vierra Substation, will consist of concrete foundations for buildings and electrical equipment and is estimated to be 4,000 square feet. Other portions of this project include installation of TSPs along the power line and microwave towers at the remote end locations. The total square footage for these foundations is estimated to be 2,490 square feet. Thus, the total area for all portions of this project would be 6,490 square feet. Therefore, this project is not subject to Rule 9510.

AQ-14 PG&E's Initial Responses to Data Request **AQ-7** stated that PG&E is amenable to including additional measures in **APM AIR-1** with the exception of 'store and handle material in a three-sided structure.' Please revise **APM AIR-1** so that it includes all the applicable fugitive dust control measures identified in the SJVAPCD 2015 Guidance for Assessing and Mitigating Air Quality Impacts. In addition, please provide a dust control plan example that was approved by the SJVAPCD for a similar project, as requested in Data Request **AQ-7**.

PG&E Response: The SJVAPCD-approved dust control plan for PG&E's Sanger Project is attached as an example of an approved plan for a similar project. The dust control plan includes completing a form. Section 3, page 1 of the form states: "This section describes the minimum requirements for limiting visible dust emissions from activities that cause fugitive dust emissions. **Check at least one box under each category**." Under 3-B (Outdoor Storage of Bulk Materials), use of a three-sided structure is one of 5 dust control methods that may be selected. Consistent with the Sanger Project, on the Vierra project PG&E will select the use of water or dust suppressants and covering piles. The option to use a three-sided structure is not being proposed, nor will this box be selected when submitting the dust control plan to the SJVAPCD.

Hydrology and Water Quality

HYDRO-4 An infiltration basin designed to infiltrate stormwater runoff is an acceptable alternative to bioretention and can be used based on the infeasibility described in the response to **HYDRO-1**. However, there are several criteria that must be addressed before this option can be accepted. An infiltration basin can be proposed as an alternative to bioretention if it meets all of the following measures of equivalent effectiveness:

- Equal or greater amount of stormwater runoff infiltrated or evapotranspired;
- Equal or lower pollutant concentrations in stormwater runoff that is discharged after biotreatment;
- Equal or greater protection against shock loadings and spills; and
- Equal or greater accessibility and ease of inspection and maintenance

Please describe how the proposed infiltration basin would meet the criteria above.

PG&E Response: As indicated in the response to Hydro-1, for substation safety reasons, PG&E's company standard does not allow any vegetation inside an energized substation facility. As bioretention is not feasible, the proposed infiltration basin satisfies the requirements per Appendix-F based on the following:

- The basin is designed to allow for equal stormwater runoff infiltration through an uncompacted natural soil base.
- Use of absorbent compounds (available at the substation) applied for contamination removal and cleanup is considered as equal to bioretention.
- The basin has more than one foot freeboard above the maximum water surface elevation for protection of shock loadings and spills.
- The basin is located within the fenced perimeter of the substation yard and is accessible by PG&E personnel for maintenance access and inspection.

HYDRO-5 The response to data request **HYDRO-1** indicates the capacity of the stormwater infiltration basin was designed based on "twice the volume of a 10-year, 24-hour storm." It is unclear why this volume is used as a design basis. The city of Lathrop design standard that should be referenced for an infiltration basin is contained in the Multi-Agency Post-Construction Stormwater Standards Manual, dated June 2015. The proposed design for stormwater treatment control measures should be based on the stormwater design volume and must mitigate (infiltrate or treat) the volume of stormwater runoff produced by the 85th percentile, 24-hour storm event. Additionally, the design of the infiltration basin should follow the criteria described in Appendix F – Alternative Stormwater Treatment Control Measure Fact Sheets, "LID-1 Infiltration Basin."

The currently proposed design would not meet the design standard identified in the post-construction stormwater manual described above. Please describe how the

proposed site design can be modified to accommodate the required post-construction stormwater standards.

PG&E Response: Per Section 5.2 of the reference document, the stormwater runoff volume (SDV) produced by the 85th percentile of 24-hour storm event is defined as:

SDV = A x Po/12 = 121,380 x 0.517/12 = **5,230 cubic feet (CF)**

Where,
Po = (a x C) x P6 = 1.963 x 0.732 x 0.36 = 0.517 in
a = 1.963 (given per Section 5.2)
A = Drainage Area = 121,380 square feet (SF)
i = (Impervious Area/ Drainage Area) = 109,380/121,380 = 0.90
C = 0.732 (calculated per the formula provided in Section 5.2)
P6 = 0.36 (Table 5-1 lookup – Lathrop)

The pond design volume is (12,000+6,204)SF x 3 feet/2 = **27,300 CF,** which is much larger than SDV. Therefore, it is adequate and satisfies the prescribed design volume requirements.

HYDRO-6 The response to **HYDRO-3** indicates that if the storm water basin cannot infiltrate runoff within 48 hours as required by the stormwater design standards, the basin would be pumped and if necessary, the Spill Prevention and Counter Measure Control Plan (SPCC) would be implemented. The proposed infiltration basin should be designed with the ability to naturally infiltrate the design storm within 48 hours. Relying on pumping to remove standing water is an unreliable alternative to appropriate design and the SPCC plan is not intended to address stormwater drainage issues. The infiltration basin should be designed as described in "Appendix F – Alternative Stormwater Treatment Control Measure Fact Sheets, "LID-1 Infiltration Basin." Please describe how the basin can be designed to both meet the design criteria and infiltrate the design storm within 48 hours.

PG&E Response: Per the response to HYDRO 5, the stormwater design volume (SDV) is 5,230CF, which will be contained at the pond base of 282 feet by 22 feet, at about a 0.84-foot depth. Per the 1997 geotechnical report there were two percolation tests performed to measure time at 1-foot and ½-foot intervals of water drop. The test results were 8.6 minutes and 11.3 minutes for a 3-foot water drop. We believe the in-situ infiltration of 0.5 inch/hour (for Type B soil) is considered conservative and applicable, in lieu of the hydraulic conductivity value of 0.3 feet/day provided. Per the 0.5 inch/hour infiltration rate, the 0.84-foot (or 10.1 inches) depth of stormwater is estimated to be fully infiltrated into the ground within 20 hours, which satisfies the 48-hour design requirements.

Project Description

PD-8 PEA Section 2.3.3.2 states that microwave dishes will be added to the existing telecommunications towers located at Mount Oso and Highland Peak. Please explain how these microwave dishes relate to the Vierra project and why they are needed.

PG&E Response: PG&E IT Requirements are based on PG&E Protection Department and PG&E System Automation requirements. The protection requirements for the substation expansion specifically call for relay protection circuits to be transported over microwave radio communications from Vierra Substation to other PG&E substations. In order to do this, new microwave radio paths up to Mt. Oso and to Highland Peak need to be installed in order to connect to existing microwave radio paths that connect to the other PG&E substation locations.

PD-9 PEA Section 2.7.4 indicates that some reconductoring work may be performed. Clarify the locations of the reconductoring. For all reconductoring being considered in the project, provide the existing and proposed conductor types, sizes, and current carrying capacities.

PG&E Response: The reconductoring work will be performed when the existing TSPs along the north side of Vierra Road supporting the Vierra-Tracy-Kasson 115 kV Power Line and the Manteca-Vierra 115 kV Power Line are rearranged to connect with the expanded substation. As stated on page 2.0-12 of the PEA, the relocated conductor will be 477 KCMIL ACSS "Flicker". There will be no change in conductor capacity. The conductor rating is 1126 amps for summer normal and emergency, and 1229 amps for winter normal and emergency.

Also, on the Howland Road 115 kV Tap on the north side of Vierra Substation, new 4/0AAC will be spliced to extend the existing conductor to reach the new TSP, and new 715 AAC will be installed from the new TSP to the station dead-end. The capacity of the line will remain unchanged as only the span between the TSP and the station dead-end will be reconductored.

PD-10 As the new 115 kV power line and the reconductored line transverse developed industrial land, and as the modified substation is adjacent to residences on industrial-zoned land, please explain what, if any, steps have been taken for this project in compliance with CPUC's decision 06-01-042 on electric and magnetic field emanating from regulated utility facilities.

PG&E Response: To be incompliance with CPUC's decision 06-01-042 on EMF, the poles along Vierra Road are designed to be 10 feet taller than necessary for meeting clearance requirements.