Horizon West Transmission and Pacific Gas and Electric Company

Estrella Substation and Paso Robles Reinforcement Project Proponent's Environmental Assessment (A.17-01-023)

Updated Response to Data Request No. 2

The California Public Utilities Commission (CPUC) requested additional data from Horizon West Transmission, LLC (Horizon West) and Pacific Gas and Electric Company's (PG&E) Proponent's Environmental Assessment (PEA) for the Estrella Substation and Paso Robles Reinforcement Project. Below are responses to Data Request No. 2 issued by the CPUC on April 15, 2019. Each data request is numbered according to the list, followed by Horizon West's and 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 2-3: Key Observation Point and Inventory Observation Point Photos and Descriptions

Request #2-1:

The forecasted distribution capacity need was identified as 4.3 megawatts (MW) in 2026 in the June 2018 version of Appendix G to the Proponent's Environmental Assessment (PEA). The project team used Appendix G to identify grid needs (capacity) as the following feeders expected to be overloaded or experience large block load growth based on known planned projects: Atascadero 1103, Paso Robles 1102, Paso Robles 1107, Paso Robles 1108, San Miguel 1104, Templeton 2109, and Templeton 2113.

Pacific Gas & Electric Company's (PG&E's) June 2018 Grid Needs Assessment (GNA) report, Appendix B (Planned Investment Table) identifies the grid need for Estrella as 4.87 MW (capacity needs), encompassing Paso Robles 1103, Paso Robles 1107, Paso Robles 1108, San Miguel 1104, and Templeton Banks No. 1 and 2.

PG&E's 2018 Distribution Deferral Opportunities Report (DDOR) identifies the grid need for Estrella as 3.4 MW (capacity needs), encompassing Paso Robles 1103, Paso Robles 1107, Paso Robles 1108, San Miguel 1104, San Miguel Bank No. 1, and Templeton Bank No. 2. This report also identifies Atascadero 1103 as a capacity grid need that will be mitigated by PG&E via load transfer/switching.

Understanding that distribution forecast needs change as the Proposed Project grows closer to the expected in-service date (2024), please confirm whether the following grid needs are the only grid needs that should be studied in the environmental impact report (EIR), the respective MW of need, and the type of grid need:

- *3.4 MW capacity need*

- *Paso Robles 1103, Paso Robles 1107, Paso Robles 1108, San Miguel 1104, San Miguel Bank No. 1, and Templeton Bank No. 2 (expected date of overloading above normal ratings: 2024)*

In addition, please explain the reason for the reduced capacity need from 4.87 MW to 3.4 MW (e.g., due to load switching, revised load growth forecast, revised Distributed Energy Resources forecast, etc.).

It is noted that there is a discrepancy between the 2018 DDOR Grid Need for Paso Robles 1103 (0.42 MW) and the DDOR information on the DDOR Map, Appendix C: Candidate Deferrals Table (1.88 MW). Please provide a reason for this discrepancy.

Response:

In June 2018, the GNA results that were published represented forecasted loads prior to planned load transfers.

In August 2018, the DDOR results that were published represented forecasted loads after the impacts of planned no-cost load transfers. In the case of the Paso Robles Distribution Planning Area, transfers were planned for 2018.

In 2019 the GNA and DDOR results will be published concurrently, in August. The results will show needs after planned no-cost load transfers but before capacity projects and load transfers enabled by those capacity projects. In addition, the GNA and DDOR will display line section needs on the circuits as well as at the distribution substations.

As stated, distribution needs are subject to change as new load applications are received, so it cannot be confirmed that 3.4 MW will be the ultimate capacity need nor that the need will be limited to Paso Robles 1103, Paso Robles 1107, Paso Robles 1108, San Miguel 1104, San Miguel bank No. 1 and Templeton Bank No. 2. All banks and feeders in the Paso Robles Distribution Planning Area will continue to be studied and forecasted to determine relevant grid needs. Results will be published in the annual GNA and DDOR filings.

In the 2018 DDOR Report, the Grid Need for Paso Robles 1103 is expressed as 0.42 MW. This is from Appendix C "Candidate Deferrals" of the DDOR Report. There is no DDOR map in the 2018 DDOR Report. There is no on-line DDOR map, only a Photovoltaic and Renewable Auction Mechanism (PVRAM) map, a Grid Needs Assessment (GNA) map, and an Integration Capacity Analysis (ICA) map. The PVRAM map shows PG&E assets, as well as, generation hosting capacity analysis, the GNA map shows distribution load forecasts prior to load transfers, and the ICA map shows generation hosting capacity information for Distributed Energy Resources developers.

Request #2-2:

Please identify any projected feeder reconfigurations or line upgrades that may impact projected loading on individual feeders in 2024-2026 (e.g., any behavior that would change the estimate of peak loading and feeders that might be overloaded).

Response:

All planned switching (i.e., feeder reconfigurations) in 2024 is associated with the Estrella project and therefore was removed from both the GNA and DDOR results. There are currently no transfers planned for 2025 or 2026. There are no line upgrades planned for the proposed Estrella area (besides what would be needed to create the Estrella feeder routes).

Request #2-3:

For the Templeton Alternatives, including those referred to as Alternatives SE-PLR-1 and SE-PLR-3 in the Draft Alternatives Screening Report, which were screened out from full analysis in the EIR, as well as Alternatives SE-1 and SE-PLR-2, which were retained for full analysis in the EIR, please provide all design and environmental work completed and a schedule of the work still underway or planned. This would include any design drawings or narrative description, construction methods, biological or cultural resources surveys, key observation point (KOP) photographs or visual simulations, or any other information that would be pertinent to an environmental impact analysis.

To the extent that the work completed to date provided under this Data Request Item satisfies the requests for additional information regarding Alternatives SE-1 and SE-PLR-2 in the Data Request Items below, this can be noted and information does not need to be provided twice.

In addition, for the SE-PLR-2 Templeton-Paso South River Road Route, please provide design details for an underground approach from approximately the intersection of Charolais Road and South River Road northward to Paso Robles Substation (about 0.65 miles). The concern is that 70-kV overhead lines could be on both sides of South River Road under the SE-PLR-2 alternative as described in the Draft ASR. It may be preferable to underground the existing single-circuit 70-kV line instead, please discuss.

Please consider use of the frontage road/shopping center driveway that begins just north of the fitness center and leads to Niblick Road (about 0.15 miles). It may be preferable to cross over rather than under Niblick Road.

Response:

Design and environmental work completed for Alternatives SE-PLR-1, SE-PLR-2, and SE-PLR-3, and SE-1 was provided to the CPUC on June 25, 2019. This included an Alternative Description for SE-PLR-2 and SE-1; biological, cultural, and paleontological reports; and Geographic Information System (GIS) data of alternative components. In addition, Attachment 2-3 provides Key Observation Point (KOP) and Inventory Observation Point (IOP) photos and descriptions for Alternatives SS-1, PLR-1A, PLR-1D, SE-1, SE-PLR-2, and SE-PLR-3.

Undergrounding the existing line would be preferred versus installing two underground transmission circuits. The challenge would be to keep the existing line energized during construction since it is the main source of power to Paso Robles Substation. The existing overhead power line already crosses Niblick Road at the location suggested above and our plan would be to keep this in place. A new riser pole would need to be interset into the existing line south of Niblick Road and connected to this existing overhead line section. The same process

would occur at the southerly end of the line near Charolais Road. This work would need to be done by multiple crews during the same outage. The underground cable and vaults could be installed prior to removal of the overhead line. This plan would minimize outage time to the existing line while the existing overhead circuit is cut-over to underground.

Undergrounding the existing power line would require finding an alignment that would allow for the required separation of the underground power line from other utilities (per General Order 128, Section III, Rule 33.4), isolated locations for the transition riser poles, and room for several splice vaults along the route. Once an alignment is selected, construction of the underground facility would require lane closures to county roads to allow for the work to be performed. The sequence would consist of calling Underground Service Alert (USA) to have the existing underground facilities marked and located, both sides of the proposed trench would be saw cut, and asphalt road base and dirt removed and hauled away. Installation of splice vaults along the route and installation of the cable duct bank in the trench would happen next. After installation of the duct bank, the trench is backfilled with fluidized thermal backfill slurry, and the trench is repaved.

Riser poles would need to be sited off the roadway on private property and protection (guard rail, bollards, etc.) would need to be installed to reduce the risk of being damaged by motor vehicles.

Conductor cables would be then pulled through the duct banks and connected to the overhead circuits at the two riser poles at both ends of the underground section. The underground circuit would then be energized and the replaced overhead section of the 70 kilovolt (kV) circuit would be removed.

Once the existing circuit has been successfully changed to underground, the new double-circuit 70 kV line from Templeton Substation to Paso Robles Substation would be constructed in this area as proposed in the Deficiency #4 response along the east side of South River Road. The conductor and hardware supporting the existing overhead 70 kV line would then be removed, and the poles would be topped just above the distribution level to support the remaining distribution circuit along the west side of South River Road.

Request #2-4:

For Alternatives SS-1, PLR-1A, PLR-1C, PLR-1D, PLR-3, SE-1, and SE-PLR-2, please provide a description of staging areas, temporary work areas, access routes, helicopter landing zones, and any other temporary disturbance areas required for construction of the alternatives. Please also provide geographic information system (GIS) shapefiles showing all temporary disturbance areas for each alternative.

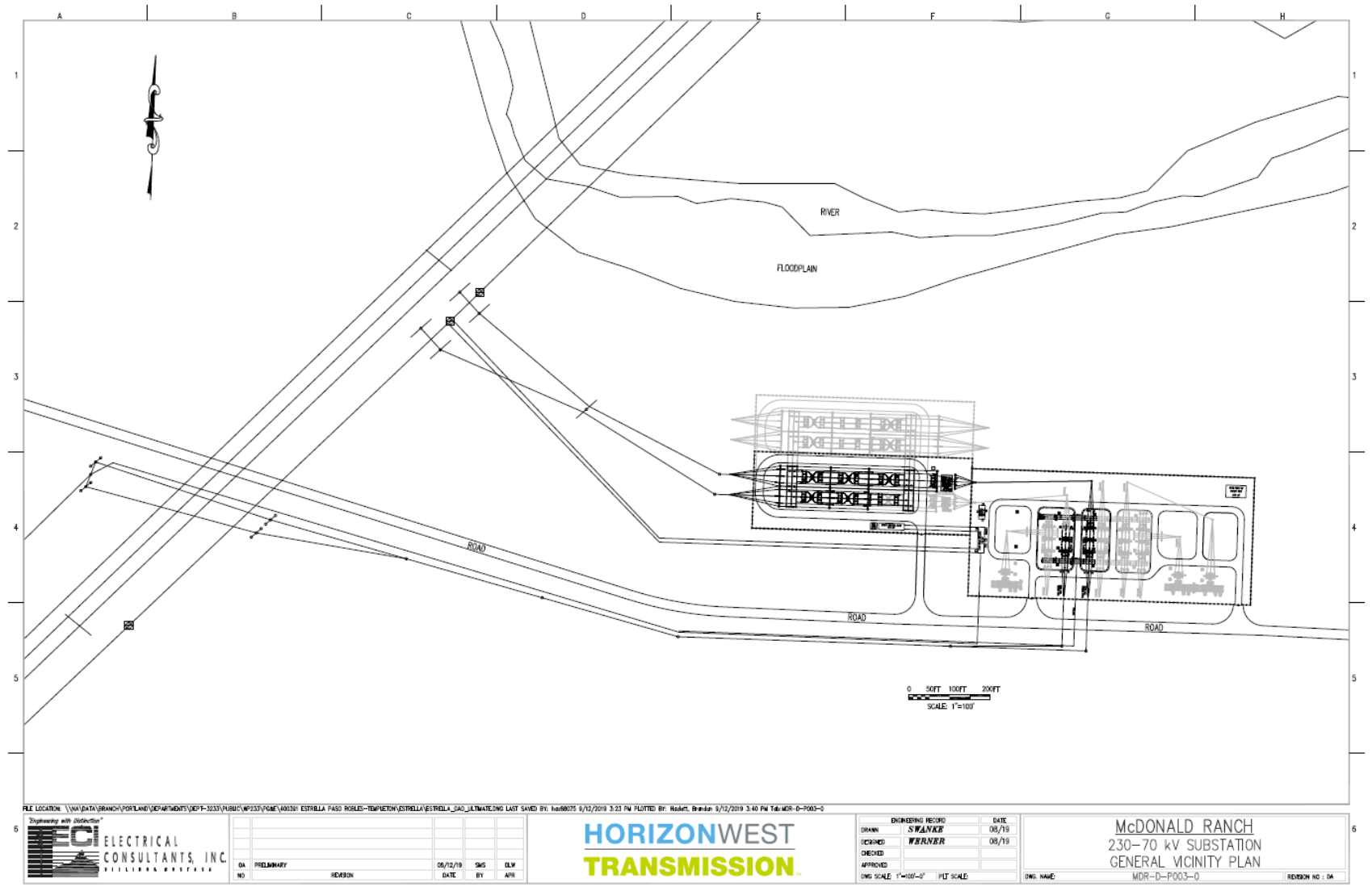
Response:

The Alternative Description for Alternatives SE-PLR-2 and SE-1 provided to the CPUC on June 25, 2019 included a description of the staging areas, temporary work areas, access routes, helicopter landing zones, and other temporary disturbance areas for construction of these alternatives. GIS shapefiles showing all temporary disturbance areas for Alternatives SE-1 and SE-PLR-2 were also provided on June 25, 2019.

GIS shapefiles showing all temporary disturbance areas for Alternatives PLR-1A, PLR-1C was provided to the CPUC on July 31, 2019. GIS shapefiles showing all temporary disturbance areas for Alternative SS-1 and PLR-1C (updated) will be provided separately.[1] The conceptual layout for SS-1 is provided in Exhibit 2-4. GIS shapefiles showing all temporary disturbance areas for Alternative PLR-3 will be provided in the response to Data Request No. 4. GIS shapefiles showing all temporary disturbance areas for Alternative PLR-1D will not be provided because the CPUC indicated on our call on June 12, 2019 that this alternative has been eliminated.

[1] Note that the GIS shapefiles provided for SS-1 and PLR-1C are conceptual and are not based on actual engineering. Therefore, this data is preliminary and subject to change based on CPUC requirements, engineering, and other factors.

Exhibit 2-4. McDonald Ranch Substation Layout



Request #2-5:

For Alternatives SS-1, PLR-1A, PLR-1C, PLR-1D, PLR-3, SE-1, and SE-PLR-2, please provide the following information:

Construction

1. *Construction phasing (e.g., phases that would occur; projected dates, lengths, and overlap of phases; days per week that construction activities would occur) and total estimated duration of construction.*

2. *Types of equipment to be used in each phase of construction (including horsepower if not a typical piece of construction equipment, e.g. helicopter).*

3. *Hours per day each type of equipment would be used.*

4. *Volume of soil/material (e.g. rock, gravel, dirt) to be exported/imported and the number and length of associated hauling trips.*

Operations

1. *Noise levels produced by new equipment/infrastructure (e.g., substation components, power line, etc.) associated with each alternative.*

2. *Maintenance needs and frequency of maintenance activities.*

3. *Estimated amount of energy needed to operate the proposed facilities.*

Response:

Construction

1. The construction phasing and total estimated duration of construction for Alternatives SE-1 and SE-PLR-2 was provided in Table 1-9 of the Alternative Description for the New Templeton Substation and Paso Robles-Templeton South River Route Alternative, which was provided to the CPUC on June 25, 2019. An updated construction phasing and total estimated duration of construction for Alternative SE-PLR-2 is provided in Exhibit 2-5a. The construction phasing and total estimated duration of construction for Alternative SS-1 would be the same as that described for Alternative SE-1. The construction phasing and total estimated duration of construction for Alternatives PLR-1A and PLR-1C are provided in Exhibit 2-5b and 2-5c, respectively. The construction phasing and total estimated duration of construction for Alternative PLR-1D will not be provided because the CPUC indicated on our call on June 12, 2019 that this alternative has been eliminated. The construction phasing and total estimated duration of construction for Alternative PLR-3 (Strategic Undergrounding) will be included in the response to Data Request No. 4.

Exhibit 2-5a. Preliminary Construction Activity and Schedule for SE-PLR-2

Project Phase	Task	Estimated Work Dates
New 70 kV Power Line	Site Work Area Preparation Mobilization	Month 2-3
	Pole Installation / Transfer / Distribution	Month 3-9
	Conductor Installation	Month 4-10
	Cleanup and Restoration	Month 10-12

Note: This table is preliminary and subject to change based on CPUC requirements, engineering, and other factors.

Exhibit 2-5b. Preliminary Construction Activity and Schedule for PLR-1A

Project Phase	Task	Estimated Work Dates
New 70 kV Power Line Segment	Site Work Area Preparation Mobilization	Month 1-3
	Pole Installation / Transfer / Distribution	Month 3-14
	Conductor Installation	Month 4-15
	Cleanup and Restoration	Month 15-17
Reconductoring Segment	Site Work Area Preparation Mobilization	Month 1-2
	Pole Installation / Transfer / Distribution / Removal	Month 3-11
	Conductor Installation	Month 4-12
	Cleanup and Restoration	Month 12-13

Note: This table is preliminary and subject to change based on CPUC requirements, engineering, and other factors.

Exhibit 2-5c. Preliminary Construction Activity and Schedule for PLR-1C

Project Phase	Task	Estimated Work Dates
New 70 kV Power Line Segment	Site Work Area Preparation Mobilization	Month 1-2
	Pole Installation / Transfer / Distribution	Month 2-13
	Conductor Installation	Month 3-14
	Cleanup and Restoration	Month 14-16
Reconductoring Segment	Site Work Area Preparation Mobilization	Month 1-2
	Pole Installation / Transfer / Distribution / Removal	Month 3-11
	Conductor Installation	Month 4-12
	Cleanup and Restoration	Month 12-13

Note: This table is preliminary and subject to change based on CPUC requirements, engineering, and other factors.

2. The types of equipment to be used in each phase of construction for Alternatives SE-1 and SE-PLR-2 were provided to the CPUC on June 25, 2019 in Table 1-7 of the Alternative Description for the New Templeton Substation and Paso Robles-Templeton South River Route Alternative, which is the same as the Proposed Project (refer to Table 2-7 in Chapter 2 Project Description of the PEA). The types of equipment to be used in each phase of construction for Alternatives SS-1, PLR-1A, and PLR-1C would be the same as the Proposed Project (refer to Table 2-7 in Chapter 2 Project Description of the PEA). The types of equipment to be used in each phase of construction for Alternative PLR-3 will be provided in the response to Data Request No. 4. The types of equipment to be used in each phase of construction for Alternative PLR-1D will not be provided because the CPUC indicated on our call on June 12, 2019 that this alternative has been eliminated.

3. The hours per day each type of equipment would be used for Alternatives SS-1, PLR-1A, PLR-1C, PLR-1D, SE-1, and SE-PLR-2 would be the same as the Proposed Project (refer to Appendix J of the PEA). The hours per day each type of equipment would be used for Alternative PLR-3 will be provided in the response to Data Request No. 4. The hours per day each type of equipment would be used for Alternative PLR-1D will not be provided because the CPUC indicated on our call on June 12, 2019 that this alternative has been eliminated.

4. The volume of soil/material to be exported/imported and the number and length of associated hauling trips for each alternative cannot be determined without geotechnical studies, which have not been completed.

Operations

1. Noise levels produced by new equipment/infrastructure associated with each alternative would be the same as the Proposed Project.

2. Maintenance needs and frequency of maintenance activities for each alternative would be the same as the Proposed Project.

3. Estimated amount of energy needed to operate the proposed facilities for each alternative would be the approximately same as the Proposed Project, which is negligible.

Request #2-6:

For Alternatives SS-1, PLR-1A, PLR-1C, PLR-1D, PLR-3, SE-1, and SE-PLR-2, please provide the following information:

1. *Types of hazardous materials (e.g., diesel fuel, hydraulic fluid, etc.) used, stored, and transported during construction.*

2. *Quantity of mineral oil used for transformers and whether secondary containment structures would be included (not applicable to PLR alternatives). Also, please provide the size/dimensions of any containment structures and describe whether oil would be filtered and replaced on-site.*

3. *The amount and frequency of hazardous materials transport and disposal required during project operation.*

Response:

1. The types of hazardous materials used, stored, and transported during construction for each alternative would be the same as the Proposed Project.

2. The quantity of mineral oil used for transformers for Alternatives SS-1 and SE-1 would be the same as the Proposed Project. Secondary containment structures would be included for Alternatives SS-1 and SE-1. The size/dimensions of containment structures would be 42 feet long by 36 feet wide and 2.5 feet deep. Oil would be filtered and replaced on-site.

3. The amount and frequency of hazardous materials transport and disposal required during project operation would be the same as the Proposed Project.

Request #2-7:

For Alternatives SS-1 and SE-1, please provide the following:

1. *Estimated impervious surface area associated with the proposed facilities.*

2. *On-site stormwater infrastructure/features to be included as part of the proposed facilities.*

Response:

1. The impervious surface area associated with the proposed facilities for Alternative SS-1 and SE-1 would be the same as the Proposed Project, which is approximately 2 acres.

2. On-site stormwater infrastructure/features to be included as part of the proposed facilities for Alternatives SS-1 and SE-1 would be the same as the Proposed Project, which included a secondary containment basin in the 230 kV substation and a concrete skimmer and weir device within the 70 kV substation.

Request #2-8:

For Alternatives SS-1, PLR-1A, PLR-1C, PLR-1D, PLR-3, SE-1, and SE-PLR-2, please provide the following:

1. *Location of parking areas for construction workers.*

2. *Whether construction of the alternative would require lane closures and/or road closures, and the duration of any such closures.*

3. *The roads that would be traveled by vehicles accessing the facilities included in the alternative.*

4. *The estimated number of vehicle trips (broken down by the type of vehicle), and frequency of the trips, to the facilities included in the alternative during the construction period.*

5. *The estimated number of vehicle trips (broken down by the type of vehicle), and frequency of the trips, necessary for operation and maintenance of the facilities included in the alternative. Please include the trips necessary for vegetation management activities in these estimates.*

6. *Whether helicopters would be used during construction and/or operations of the facilities included in the alternative. Helicopter landing zones would have been provided in Data Request Item #4 above, but please also identify helicopter flight paths for alternatives requiring helicopter use.*

Response:

1. Parking areas for construction workers would be located at the staging areas and/or temporary work areas. GIS data for staging areas and temporary work areas (for Alternatives SE-1 and SE-PLR-2 was provided to the CPUC on June 25, 2019. GIS data for staging area and temporary work areas for Alternatives PLR-1A and PLR-1C was provided on July 31, 2019. GIS data for staging area and temporary work areas for Alternative SS-1 and PLR-1C (updated) will be provided separately.[1] GIS data for staging area and temporary work areas for Alternative PLR-3 will be provided in the response to Data Request No. 4. GIS data for staging area and temporary work areas for Alternative PLR-1D will not be provided because the CPUC indicated on our call on June 12, 2019 that this alternative has been eliminated.

2. Construction of the overhead line alternatives over county roadways would require lane closures and/or road closures, which would be up to 5 to 10 minutes at a time, similar to the Proposed Project. Similar to the Proposed Project, construction of the substation alternatives would be unlikely to require temporary road or lane closures; however, any necessary lane changes would be in accordance with traffic control plans filed with the encroachment permit application.

   Construction of PLR-3 (Strategic Undergrounding) would involve single lane closures for multiple weeks while potholing is conducted, asphalt is cut, trenches are dug, soil is removed, facilities are installed, trenches filled with slurry, and asphalt is re-installed. This would apply to the construction located in county or city streets only.

3. The public roads that would be traveled by vehicles accessing the facilities included in Alternatives SS-1, PLR-1A, PLR-1C, SE-1, and SE-PLR-2 are provided in Exhibit 2-8a. The public roads that would be traveled by vehicles access the facilities included in Alternative PLR-3 will be provided in the response to Data Request No. 4. The public roads that would be traveled by vehicles access the facilities included in Alternative PLR-1D will not be provided because the CPUC indicated on our call on June 12, 2019 that this alternative has been eliminated.

Exhibit 2-8a. Public Roadways

Route/Site	Roadways
SS-1	Estrella Road
PLR-1A	Wellsona Road
	Dry Creek Road
	Jardine Road
	Tower Road
	Calabaza Way
	Wilderness Lane
	Airport Road
	Estrella Road
	Branch Road
	Union Road
	Mill Road
	Sherry Place
PLR-1C	Wellsona Road
	Dry Creek Road
	Jardine Road
	Tower Road
	Calabaza Way
	Wilderness Lane
	Airport Road
	Estrella Road
SE-1	El Pomar Drive
	Redondo Lane
SE-PLR-2	El Pomar Drive
	Neal Spring Road
	Vaquero Drive
	Hanging Tree Road
	South River Road
	Oak Hill Road
	Niblick Road
	Cary Street

4. The number of construction vehicle trips and frequency of the trips associated with construction of Alternatives SS-1 and SE-1 is estimated to be the same as the Proposed Project (refer to Table 3.16-6 in Section 3.16 Transportation and Traffic of the PEA); however, the volume of soil/material to be exported/imported and the associated number of

vehicle trips cannot be confirmed without geotechnical studies, which have not been completed.

The estimated number of construction vehicle trips and frequency of the trips associated with construction of Alternative PLR-1A is provided in Exhibit 2-8b.

The estimated number of construction vehicle trips and frequency of the trips associated with construction of Alternative PLR-1C is provided in Exhibit 2-8c.

The estimated number of construction vehicle trips and frequency of the trips associated with construction of Alternative SE-PLR-2 is provided in Exhibit 2-8d.

The estimated number of construction vehicle trips and frequency of the trips associated with construction of Alternative PLR-3 will be provided in the response to Data Request No. 4.

The estimated number of construction vehicle trips and frequency of the trips associated with construction of Alternative PLR-1D will not be provided because the CPUC indicated on our call on June 12, 2019 that this alternative has been eliminated.

Exhibit 2-8b. Estimated Daily Worker and Truck Trips for Construction of PLR-1A

Construction Phase	Daily Worker Round-Trips	Daily Truck Round-Trips	Number of Days	Maximum Number of Daily Round-Trips
PLR-1A 70 kV Power Line Segment				
Site Preparation / Mobilization	6	5	78	11
Pole / Tower Installation	9	6-8	312	17
Conductor Installation	9	5	312	14
Clean-up and Site Restoration	6	4	78	10
PLR-1A Reconductoring Segment				
Site Development	6	5	52	11
Conductor Spreading / Pole Installation / Transfer Distribution / Pole Removal	9	7	234	16
Conductor Installation	9	5	234	14
Clean-up and Site Restoration	6	3	52	9

Note: The volume of soil/material to be exported/imported and the associated number of vehicle trips cannot be confirmed without geotechnical studies, which have not been completed.

Exhibit 2-8c. Estimated Daily Worker and Truck Trips for Construction of PLR-1C

Construction Phase	Daily Worker Round-Trips	Daily Truck Round-Trips	Number of Days	Maximum Number of Daily Round-Trips
PLR-1C 70 kV Power Line Segment				
Site Preparation / Mobilization	6	5	48	11
Pole / Tower Installation	9	6-8	72	17
Conductor Installation	9	5	72	14
Clean-up and Site Restoration	6	4	24	10
PLR-1C Reconductoring Segment				
Site Development	6	5	48	11
Conductor Spreading / Pole Installation / Transfer Distribution / Pole Removal	9	7	96	16
Conductor Installation	9	5	72	14
Clean-up and Site Restoration	6	3	24	9

Note: The volume of soil/material to be exported/imported and the associated number of vehicle trips cannot be confirmed without geotechnical studies, which have not been completed.

Exhibit 2-8d. Estimated Daily Worker and Truck Trips for Construction of SE-PLR-2

Construction Phase	Daily Worker Round-Trips	Daily Truck Round-Trips	Number of Days	Maximum Number of Daily Round-Trips
SE-PLR-2 70 kV Power Line Segment				
Site Preparation / Mobilization	6	5	52	11
Pole / Tower Installation	9	6-8	182	17
Conductor Installation	9	5	182	14
Clean-up and Site Restoration	6	4	78	10

Note: The volume of soil/material to be exported/imported and the associated number of vehicle trips cannot be confirmed without geotechnical studies, which have not been completed.

5. The estimated number of vehicle trips (broken down by the type of vehicle), and frequency of the trips, necessary for operation and maintenance of the facilities included in Alternatives SS-1, PLR-1A, PLR-1C, SE-1, and SE-PLR-2 would be the same as the Proposed Project. The number of trips that would be necessary for operation and maintenance of the facilities included in Alternative PLR-3 will be provided in the response to Data Request No. 4.

Approximately 92 trips would be necessary for vegetation management activities for PLR-1A, 99 trips would be necessary for vegetation management activities for PLR-1C, 24 trips would be necessary for vegetation management activities for PLR-3, 5 trips would be necessary for vegetation management activities for SE-1, 81 trips would be necessary for vegetation management activities for SE-PLR-2, and 2 trips would be necessary for vegetation management activities for SS-1. Depending on property owner preferences, wood from tree trimming or removal may be left on site.

The number of trips that would be necessary for operation and maintenance of the facilities included in Alternative PLR-1D, including vegetation management activities, will not be provided because the CPUC indicated on our call on June 12, 2019 that this alternative has been eliminated.

6. Helicopters would be used during construction and operations of the facilities included in Alternatives SS-1. PLR-1A, PLR-1C, SE-1, and SE-PLR-2. Helicopter flight paths would generally be between the airport and the helicopter landing zones, as well as along the rights-of-way.

Request #2-9:

For Alternatives SS-1, PLR-1A, PLR-1C, PLR-1D, PLR-3, SE-1, and SE-PLR-2, please provide the following information:

1. *The amount of water (e.g., gallons, or acre-feet) that will be required to construct the alternative.*

2. *Whether any dewatering would be required to construct any aspect of the alternative.*

3. *Whether short-term irrigation water would be needed for revegetation efforts at any temporary disturbance areas.*

4. *Whether any horizontal directional drilling (HDD) will be need in any areas for construction of facilities.*

5. *The source for water used during construction.*

Response:

1. The amount of water that would be required to construct Alternatives SS-1 and SE-1 is expected to be similar to the Proposed Project; however, geotechnical studies would be needed to determine the amount of water needed for soil compaction, which have not been completed. The amount of water that would be required to construct Alternative PLR-1A is expected to be approximately 1,105,000 gallons. The amount of water that would be required to construct Alternative PLR-1C is expected to be approximately 1,040,000 gallons. The amount of water that would be required to construct Alternative SE-PLR-2 is expected to be approximately 715,000 gallons. The amount of water that would be required to construct Alternative PLR-3 will be provided in the response to Data Request No. 4. The amount of water that would be required to construct Alternative

PLR-1D will not be provided because the CPUC indicated on our call on June 12, 2019 that this alternative has been eliminated.

2. No dewatering is anticipated to be needed to construct any aspect of the alternatives; however, geotechnical studies would be needed to confirm, which have not been completed.

3. Short-term irrigation water would not be needed for revegetation efforts at any temporary disturbance areas.

4. HDD would not be needed in any areas for construction of facilities.

5. It is anticipated that the sources for water used during construction would be the same as the Proposed Project, which include a private well located adjacent to the western edge of the Estrella Substation site, a municipal water source, delivered by water trucks, Lake Nacimiento located northwest of Paso Robles, and/or recycled water from the City's upgraded wastewater treatment plant.

Request #2-10:

For the Proposed Project, please provide visual simulations for KOPs 33, 38 and/or 30 as presented in Appendix I of the PEA.

Response:

KOPs 38, and 30 are along the original route that has been relocated due to construction of a building in the proposed right-of-way; therefore, visual simulations from these KOPs is not warranted. A visual simulation for KOP 33 is under development and will be provided at a later date.

Request #2-11:

For Alternatives SS-1, PLR-1A, PLR-1C, PLR-1D, SE-1, and SE-PLR-2, please provide photos from additional KOPs (see mark-up attached) to capture existing visual conditions.

Response:

Attachment 2-3 provides photos from KOPs and IOPs for Alternatives SS-1, PLR-1A, PLR-1C. PLR-1D, SE-1, and SE-PLR-2 including the requested locations that were publicly accessible.

Request #2-12:

For Alternatives SS-1, PLR-1A, PLR-1C, PLR-1D, SE-1, and SE-PLR-2, please provide the following information:

1. *Number and species of oak trees that would require removal (if any). Map out locations of tree removals.*

2. *If removal of riparian habitat is required, provide the amount of acres.*

Response:

1. GIS data for the location of oak trees that would require removal and/or trimming for Alternatives PLR-1A, PLR-1C, PLR-3, SE-1, and SE-PLR-2 was provided on July 31, 2019. GIS data for the location of oak trees that would require removal and/or trimming for Alternative SS-1 and PLR-1C (updated) will be provided separately. GIS data for the location of oak trees that would require removal and/or trimming for Alternative PLR-1D will not be provided because the CPUC indicated on our call on June 12, 2019 that this alternative has been eliminated. Field surveys to identify oak tree species were only conducted for PLR-3. For the other alternatives, the oak trees were identified based on a desktop review of Google Earth and ESRI aerial imagery from 2019 and Google Street View imagery from 2012. Oak tree sizes were estimated as small (less than 1 foot in diameter at breast height [DBH]), medium (1 to 2.5 feet DBH), or large (more than 2.5 feet DBH) based on Google Street View where available and aerial imagery.

2. Riparian habitat (i.e., habitat under California Department of Fish and Wildlife jurisdiction) removal would be required for Alternatives PLR-1A and SE-PLR-2. Riparian habitat removal would not be required for Alternative SE-1. It is unknown whether riparian habitat removal would be required for Alternatives SS-1 or PLR-1C because field surveys were not conducted due to previous landowner denials for access. Riparian habitat removal requirements for Alternative PLR-1D will not be provided because the CPUC indicated on our call on June 12, 2019 that this alternative has been eliminated. Alternative PLR-1A would require removal of approximately 0.4 acres of riparian habitat. Alternative SE-PLR-2 would require removal of approximately 0.3 acres of riparian habitat.

Request #2-13:

For Alternatives SS-1, PLR-1A, PLR-1C, PLR-1D, SE-1, and SE-PLR-2, please provide the following information (alternatively, Horizon could obtain this information; please provide an explanation as to whether NextEra Energy Transmission West (NEET West)/PG&E would prefer to perform these surveys or if the Applicants would prefer that Horizon complete them, and plan to discuss at our next meeting):

1. *Vegetation mapping for alternative footprints/alignments, including whether oak woodland alliances and/or sensitive natural communities are present.*

2. *Presence of any wetlands, drainages, vernal pools, or other water features within 500 feet of the alignment or substation site. Describe each water feature and its proximity to any disturbance areas. Describe any water features or surrounding habitat that would temporarily or permanently affected and provide acreages of impacts.*

3. *Reconnaissance-level surveys and habitat assessment or areas within alternative footprints/alignments and disturbance areas.*

Note: Where information has already been provided (e.g., for the Templeton Expansion Alternatives as part of the response to Deficiency Letter No. 4), please provide any back-up data and field verification of information, where available.

Response:

1. GIS data of vegetation communities mapped for Alternatives SE-1 and SE-PLR-2 were provided to the CPUC on June 25, 2019. GIS of vegetation communities mapped for Alternatives PLR-1A was provided on July 31, 2019. Vegetation communities have not been mapped for Alternatives SS-1 and PLR-1C due to previous landowner denials for access. Vegetation community mapping will not be provided for Alternative PLR-1D because the CPUC indicated on our call on June 12, 2019 that this alternative has been eliminated.

2. Wetlands, drainages, vernal pools, and other waters were mapped in the Biological Study Area for Alternatives PLR-1A, SE-1, and SE-PLR-2. A description of the water features was provided in the Biological Resources Technical Reports (BRTRs) submitted to the CPUC on April 23 and June 25, 2019. The proximity of each water feature to disturbance areas, as well as any temporary or permanent impacts is provided in Exhibit 2-13a. GIS data for these water features was provided on July 31, 2019.

   Wetlands, drainages, vernal pools, and other waters have not been mapped for Alternatives SS-1 or PLR-1C due to previous landowner denials for access. Wetlands, drainages, vernal pools, and other waters will not be mapped for PLR-1D because the CPUC indicated on our call on June 12, 2019 that this alternative has been eliminated.

Exhibit 2-13a. Water Features

Water Feature ID	Proximity to Disturbance Areas (feet)	Temporary Impacts (acres)	Permanent Impacts (acres)
PLR-1A			
W_1	65	--	--
W_2	1	--	--
W_3	228	--	--
W_4	2	--	--
W_5	23	--	--
W_6	252	--	--
W_7	28	--	--
W_8	77	--	--
W_9	--	0.0920	--
W_10	--	0.0861	--
W_11	6	--	--
W_12	--	0.0084	--
W_13	--	0.0023	--
W_14	255	--	--
W_15	--	0.0064	0.0013
W_16	--	0.0006	--

Exhibit 2-13a. Water Features

Water Feature ID	Proximity to Disturbance Areas (feet)	Temporary Impacts (acres)	Permanent Impacts (acres)
PLR-1A			
H_1	2	--	--
H_2	--	0.0162	--
H_3	179	--	--
H_4	28	--	--
H_5	--	--	--
H_6	--	0.0806	0.0182
H_7	--	0.0378	--
H_8	--	0.0030	--
H_9	25		
SE-1			
W_1	378	--	--
W_2	506	--	--
W_3	460	--	--
SE-PLR-2			
W_1	--	0.111995	0.024282
W_2	25	--	--
W_3	--	0.111995	0.024282
W_4	25	--	--
W_5	--	0.021892	--
W_6	3	--	--
W_7	--	0.001787	--
W_8	49	--	--
W_9	43	--	--
W_10	16	--	--
W_11	--	0.03065	--
H_1	179	--	--

3. Reconnaissance-level surveys and habitat assessments were completed within the Biological Study Areas (including areas within the footprints/alignments and disturbance areas) defined for Alternatives PLR-1A, SE-1, and SE-PLR-2. GIS data associated with the BRTRs provided for these alternatives was provided on July 31, 2019. Reconnaissance-level surveys and habitat assessments were not completed for Alternatives SS-1 or PLR-1C due to previous landowner denials for access. Reconnaissance-level surveys and habitat assessments will not be completed for Alternative PLR-1D because the CPUC indicated on our call on June 12, 2019 that this alternative has been eliminated.

Request #2-14:

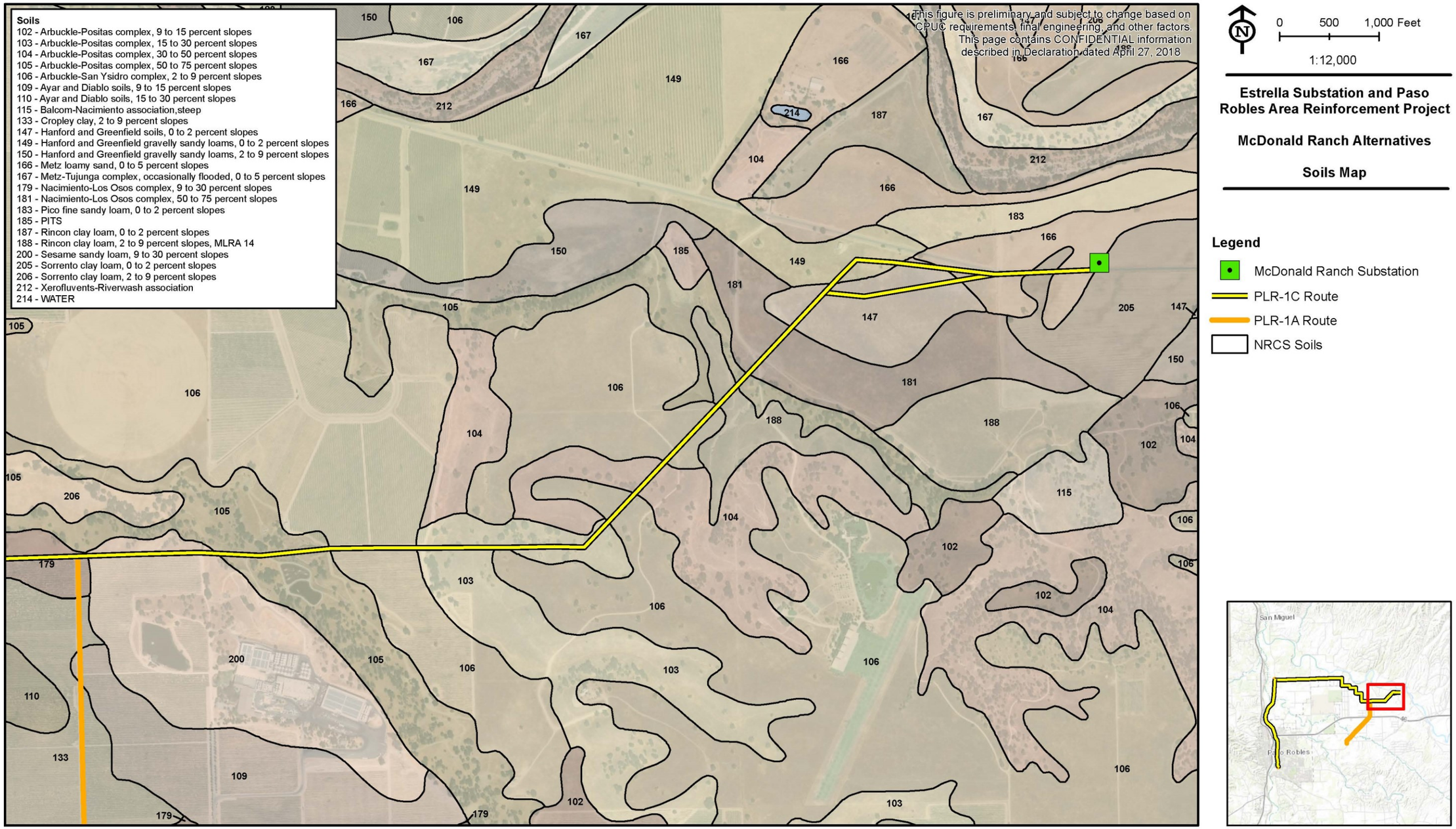
For Alternatives SS-1, PLR-1A, PLR-1C, and PLR-1D, please provide soils maps and a geo-archaeological analysis to indicate the presence of paleontological resources. This information was provided for the Templeton Expansion Alternatives as part of the response to Deficiency Letter No. 4, but similar information is needed for the remaining alternatives. Please also provide a record search for paleontological resources for Alternatives SS-1, PLR-1A, PLR-1C, and PLR-1D.

Response:

Soils, geology, and geology and sensitivity maps for Alternatives PLR-1A were provided in the BRTR and Paleontological Resources Technical Report (PRTR) submitted to the CPUC on April 23, 2019. Soils, geology, and geology and sensitivity maps for Alternative SS-1 and PLR-1C are provided in Exhibits 2-14a, 2-14b, and 2-14c, respectively. Soils, geology, and geology and sensitivity maps for Alternative PLR-1D will not be provided because the CPUC indicated on our call on June 12, 2019 that this alternative has been eliminated. GIS data associated with the BRTR and PRTR for Alternative PLR-1A, and Exhibits 2-14a, 2-14b, and 2-14c for the Alternatives SS-1 and PLR-1C was provided on July 31, 2019.

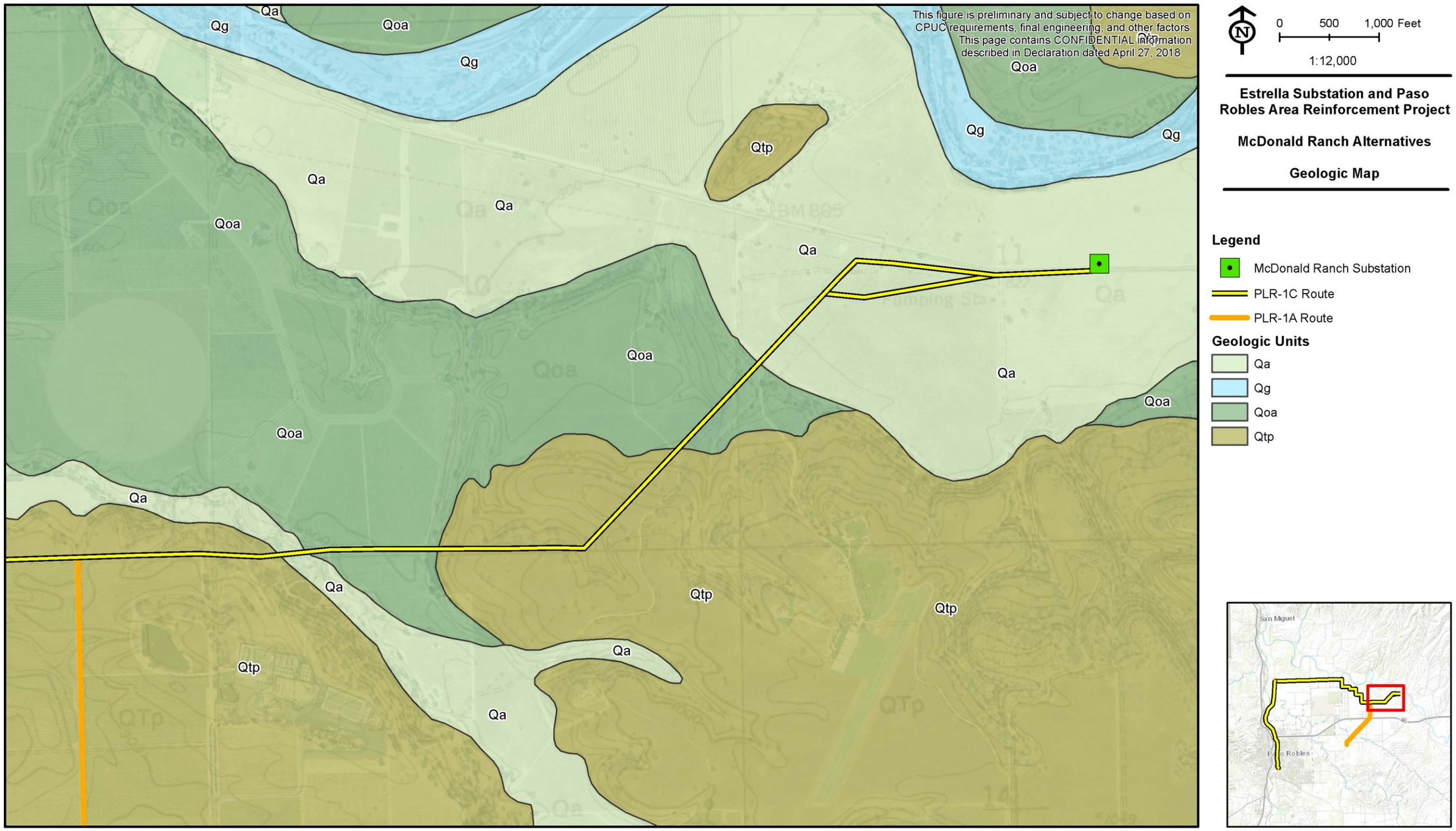
The record search for paleontological resources for Alternatives SS-1, PLR-1A, PLR-1C, and PLR-1D is confidential and was provided on July 31, 2019.

Exhibit 2-13b. Soils Map for SS-1 and PLR-1C



Prepared by SWCA Environmental Consultants (7/31/2019, 6:15:34 PM) - NAD 1983 UTM Zone 10N - File: PLR1A_PLR1C_Soils_11x17 - Basemap source: ESRI Aerial Imagery (2019)

Exhibit 2-13b. Geologic Map for SS-1 and PLR-1C



Prepared by SWCA Environmental Consultants (7/31/2019, 6:15:41 PM) - NAD 1983 UTM Zone 10N - File: PLR1A_PLR1C_Geology_11x17 - Basemap source: Dibblee and Minch (2004)

Exhibit 2-13b. Geology & Sensitivity Map for SS-1 and PLR-1C