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Docket Number:	23-OPT-02
Project Title:	Darden Clean Energy Project
TN #:	258571
Document Title:	CEC Data Request Response Set 6
Description:	Provides the Applicant's sixth and final response set to data requests received from the CEC. Responses address data requests related to Biological Resources, Hazardous Materials Handling, Project Description, Traffic and Transportation, and Transmission Safety and Design. The document includes the following appendices to support responses: Appendix A REV 1 DR BIO-1 Updated Land Cover Maps, Appendix B REV 1 DR BIO-1 Land Cover Photologs, Appendix C REV 1 DR HAZ-2 Updated Design Drawings, Appendix D REV 1 DR TSD-1 PG&E Downstream Network Upgrades Addendum to the Biological Resources Assessment for the Darden Clean Energy Project, and Appendix E REV 1 DR TSD-1 Non-Confidential Cultural Resources Inventory for the PG&E Downstream Network Upgrades.
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Darden Clean Energy Project (23-OPT-02)

CEC Data Request Response Set #6

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1 Introduction

On June 10, 2024, IP Darden I, LLC and Affiliates (Applicant) received a Determination of Incomplete Application and Request for Information from the California Energy Commission (CEC) for the Darden Clean Energy Project (23-OPT-02) in response to the Applicant's first set of data responses, which were finalized on May 10, 2024. The following document provides the Applicant's sixth and final set of responses to the Data Requests received from the CEC. Table 1 lists all Data Requests for which a response is provided in Response Set #6.

Table 1 Data Responses Included in Response Set #6

Data Request Resources Area	Data Request Number
Biological Resources	REV 1 DR BIO-1 and REV 1 DR BIO-2
Hazardous Materials Handling	REV 1 DR HAZ-2
Project Description	REV 1 DR PD-1
Traffic and Transportation	REV 1 DR TRANS-1 and REV 1 DR TRANS-2
Transmission System Design	REV 1 DR TSD-1
Water Resources	–
Worker Safety	–

The responses are grouped by individual discipline or topic area and are presented in the same order and with the same numbering provided by the CEC. New or revised graphics, tables, or attachments are provided throughout and as appendices to this document. The responses included in this document are considered complete responses to the corresponding Data Requests.

All Data Requests received from the CEC have been addressed in Response Set #1 through Response Set #6.

2 Biological Resources

2.1 Data Request REV 1 DR BIO-1 and REV 1 DR BIO-2

2.1.1 Data Request REV 1 DR BIO-1

REV 1 DR BIO-1: The CEC staff reviewed applicant's response to DR BIO-5 and DR BIO-18, in the applicant's *CEC Data Request Response Set 4* [TN 256296]. So staff can better assess potential impacts to tricolored blackbird (*Agelaius tricolor*), Swainson's hawk (*Buteo swainsoni*), San Joaquin kit fox (*Vulpes macrotis mutica*), and burrowing owl (*Athene cunicularia*), please provide the following:

- Please update Table 2 (*CEC Data Request Response Set 4*, p. 5) to expand on the land cover type description to list the most recent crops grown and whether the crop is currently in production within the project site and linear facilities. Please describe the conditions on the ground within the past year within the project site and linear facilities. As tricolored blackbird nest in low row crops such as alfalfa and wheat, whereas burrowing owl utilize different crops or managed portions of agricultural fields, only certain areas within the project boundary and linears may be suitable habitat for these species. This detail is necessary so CEC and California Department of Fish and Wildlife (CDFW) staff can determine how much compensatory habitat mitigation may be required for the development of the Incidental Take Authorization (Fish and Game Code section 2081). This information would also be used for burrowing owl, currently under consideration for listing under the California Endangered Species Act.
- Please also provide figures at a scale consistent with Appendix B (g)(13)(B)(i) and associated shapefile for the expanded land cover type, as requested above.

Response: Table 2 below provides an update of the previously submitted Table 2 from CEC Data Request Response Set 4 and describes the conditions on the ground for calendar year 2024 within the Project site. The current land use of the Project site, as field verified in March and June 2024, represents the environmental baseline for the Project.

Land cover maps for the Project site and linear facilities at a scale consistent with Appendix B(g)(13)(B)(i) were provided in Appendix E of CEC Data Request Response Set 4. Appendix A of this document provides updated land cover maps also consistent with Appendix B(g)(13)(B)(i) which document the conditions on the ground for calendar year 2024 and serve as the environmental baseline for the Project. Associated shapefiles will be provided via Kiteworks. The land cover maps included in Appendix A have been updated to include parcel boundaries with land use labels for each parcel. Appendix B includes a photograph log documenting the conditions on the ground within representative parcels for each land cover type.

The Project site was visited January through March 2024 and, all Project parcels within the PV Development Footprint, O&M facilities, Green Hydrogen Facility (Option 1 and Option 2), and Battery Storage (Option 1 and Option 2) consisted of non-active agriculture (recently disked bare ground) with an isolated row of eucalyptus within the PV Development Footprint. These areas are tilled/disked several times per year and alternate between bare ground and varying levels of invasive weed growth between tilling/disking for weed control. Additionally, these areas are subject to a non-irrigation covenant that prohibits current and future irrigated agricultural use.

Table 2 Impacts by Project Component and Land Cover

Project Feature	2024 Land Cover Type (Environmental Baseline)	Acreage within Project Site	Permanent Impacts (acre)	Temporary Impacts (acre)
PV Development Footprint	**Total**	**8,825**	**195***	**8,624**
	Non-active agriculture: tilled/barren	8,819	195	8,624
	Eucalyptus grove	6	–	–
O&M Facilities (Option 1 and Option 2)	**Total**	**11**	**11**	**–**
	Non-active agriculture: tilled/barren	11	11	–
Battery Storage (BESS) (Option 1 and Option 2)	**Total**	**32**	**32**	**–**
	Non-active agriculture: tilled/barren	32	32	–
Green Hydrogen Facility and Step-Up Substation (Options 1 and Options 2)	**Total**	**242**	**242**	**–**
	Non-active agriculture: tilled/barren	242	242	–
Alternate Green Hydrogen Facility	**Total**	**184**	**135**	**49**
	Non-active agriculture:			
	– Ruderal	149	113	36
	– Tilled/barren	8	–	8
	Active agriculture: almond orchard	22	22	–
	Developed	5		5
Utility Switchyard	**Total**	**139**	**45**	**94**
	Active agriculture: almond orchard	139	45	81
Gen-tie Corridor (excludes overlapping areas within the PV footprint, alternative green hydrogen parcel, and utility switchyard parcel)	**Total**	**222**	**2****	**18**
	Non-active agriculture:			
	– Ruderal	59	<1	4.8
	– Tilled/barren	5	<1	0.4
	Active agriculture:			
	– Tomato fields	37	<1	3
	– Onion fields	12	<1	1
	– Corn fields	22	<1	1.8
	– Almond orchards	56	<1	4.5
	– Pistachio orchard	13	<1	1.1
	– Planting preparation	12	<1	1
	Developed	5	–	–
	Open Water	1	–	–
Total Impacts	PV, O&M, BESS, Utility Switchyard, Gen-tie, Green Hydrogen (Options 1 or 2)		**527**	**8,736**
	PV, O&M, BESS, Utility Switchyard, Gen-tie, Alternative Green Hydrogen		**420**	**8,785**

*Panel racking piles, inverter-transformer stations, and roads within the PV Development Footprint. Each pile would be approximately 6x9 inches; approximately 452,000 piles would be required for a total of 24,408,000 square inches or 3.89 acres. Each inverter-transformer station would be approximately 40x25 feet; approximately 276 inverter-transformer stations would be required for a total of 276,000 square feet or 6.34 acres. There would be approximately 401,740 linear feet of roads (20-foot width) totaling 184.45 acres. Total permanent impact in the PV Development Footprint would be 194.68 acres.

**Permanent impacts within the gen-tie corridor are based on a 0.05-acre disturbance footprint for up to 40 H-frame poles.

The generation intertie (gen-tie) corridor was visited in June 2024 and consisted of a combination of developed land, non-active agriculture (recently disked areas with ruderal vegetation), orchards (almond and pistachio), and a few cultivated vegetable crops (corn, onion, tomato). The utility switchyard consisted of an almond orchard, and the Alternate Green Hydrogen Facility consisted of non-active agriculture and a small section of almond orchard. Non-active agriculture is defined as "retired agriculture" or areas that were historically used for agriculture but are not currently in production.

Regarding the CEC statement "So staff can better assess potential impacts to tricolored blackbird (*Agelaius tricolor*), Swainson's hawk (*Buteo swainsoni*), San Joaquin kit fox (*Vulpes macrotis mutica*), and burrowing owl (*Athene cunicularia*)…", permanent impacts would be limited to a maximum of 480 acres of tilled/barren/ruderal (PV Development Footprint, O&M, BESS, Green Hydrogen), 45 acres of almond orchard (Utility Switchyard) and a maximum of 2 acres of non-active/active agriculture (including orchards and vegetable crops) at the locations of gen-tie tower locations. Temporary impacts would be limited to 8,668 acres of tilled/barren/ruderal (PV Development Footprint, Alternative Green Hydrogen), 81 acres of almond orchard (Utility Switchyard), 5 acres of developed and a maximum of 18 acres of non-active/active agriculture (maximum of 6 acres of vegetable crops) for gen-tie construction. Areas of temporary impacts within the PV Development Footprint (8,624 acres) would be restored to habitat of higher quality for Swainson's hawk foraging, burrowing owl occupation, and potentially other special-status and non-special-status species, including pollinators, under the procedures outlined in the Swainson's Hawk Conservation Strategy (refer to Mitigation Measure BIO-9 in the response to DR BIO-41 in Response Set 4) and the Vegetation Management Plan (refer to Mitigation Measure BIO-10 in the response to DR BIO-42 in Response Set 4).

Tricolored blackbird: As detailed in Response BR BIO-15 of Response Set 4, tricolored blackbird have low potential to forage and no potential to nest within the PV Development Footprint or the majority of the gen-tie route as tilled/barren areas, ruderal/invasive weed fields, and orchards do not provide suitable habitat for the species. A few parcels along the gen-tie route contain corn, onion and tomato fields; however, vegetable crops are not typically considered suitable nesting habitat for the species and are subject to regular disturbance from agricultural equipment and personnel for maintenance and harvest. Due to the low-quality nature of the existing land cover type and the current regime of regular disturbance, the Project parcels are not expected to support nesting habitat for tricolored blackbird. However, in the unlikely event that a tricolored blackbird would occur within the parcels planted with vegetable crops along the gen-tie, impacts will be avoided and minimized through implementation of Mitigation Measures presented in the Appendix Q Biological Resources Assessment Section 5, *Impact Analysis and Recommended Measures* of the Opt-In Application. Specifically, Mitigation Measures BIO-7 and BIO-8 include pre-construction nesting bird surveys during the nesting season, and establishment of no-disturbance nest buffers around all active nests. These measures specify that active nest buffer distances will be determined by a Qualified Biologist and established based on the species and nest location, and monitored to ensure effectiveness. The PV and Gen-tie Biological Resources Management Plan (Appendix C to Response Set 4) and the Utility Switchyard and Alternate Green Hydrogen Site Biological Resources Management Plan (Appendix D to Response Set 4) also include avoidance and minimization measures for nesting birds. With the implementation of these measures, there is no potential for take to occur and impacts to tricolored blackbird will be less than significant. No compensatory mitigation or Incidental Take Authorization is necessary for tricolored blackbird.

Swainson's hawk: As detailed in Sections 5.1 and 5.4.1 of the Swainson's Hawk Conservation Strategy (Appendix V of the Opt-In Application), there are approximately 30 potentially suitable nesting trees within the Project site and the Project has been designed to conserve all existing trees within the Project site. Therefore, direct impacts to Swainson's hawk nesting habitat will be avoided. As detailed in Section 5.12 Biological Resources of the Opt-In Application, Project construction activity may directly impact nesting Swainson's hawks by disturbing nesting activities as a result of increased vehicle traffic, noise at work sites, and human presence. Direct impacts to nesting Swainson's hawk would be avoided and minimized through implementation of Mitigation Measures BIO-1, BIO-7, BIO-8, and BIO-9 as well as through implementation of the Swainson's Hawk Conservation Strategy (Appendix V of the Opt-In Application). The Applicant submitted an Incidental Take Permit Form (Appendix U of the Opt-In Application) to cover potential impacts to nesting Swainson's hawks. The application includes reference to the Swainson's Hawk Conservation Strategy which includes establishment of up to 30 additional nest trees as well as the installation of temporary nest structures which would provide a net increase (of at least 200%) in suitable Swainson's hawk nesting habitat within the Project site.

As detailed in Section 5.2, 5.3, and 5.4.2 of the Swainson's Hawk Conservation Strategy (Appendix V of the Opt-In Application), the Project conducted a Swainson's hawk foraging study to assess potential Project-related impacts to Swainson's hawk foraging habitat (Appendix Q-8 of the Opt-In Application). The analysis followed methodology developed by Jim Estep, a recognized expert in Central Valley Swainson's hawks, and a methodology previously recognized and accepted by CDFW and a number of Central Valley lead agencies. The Applicant contracted Mr. Stephen Stringer, a former student of Dr. Estep's to conduct the analysis and lead the Swainson's hawk nest surveys. The results of this analysis documented that the loss of foraging habitat from Project development did not reduce supplemental foraging habitat for nesting Swainson's hawks within 10-miles of the Project site below the critical threshold of 70%, and as such, any loss of foraging habitat from Project development would not be considered a significant impact under CEQA. These results are presented in BRA (Appendix Q of the Opt-In Application, the BRA's appended Forging Analysis (Appendix Q-8), in the Biological Resources section of the Opt-in Application (Section 5.12, page 5.12-39), and in the Swainson's Hawk Conservation Strategy (Appendix V). Specifically, the analysis estimated that the Project would impact up to 4,818 acres of foraging habitat, substantially less than the 29,500 acres of surplus habitat that would constitute a significant impact; therefore, Project-level direct impacts to Swainson's hawk foraging habitat would be less than significant. As detailed in *Analysis of Project Impacts to Swainson's Hawk Foraging Habitat*, the Project would not result in a significant impact to the regional population of Swainson's hawk through loss of suitable foraging habitat at the Project level, nor would it contribute to a significant cumulative impact in concert with other planned or reasonably foreseeable solar projects. After Project development, the amount of surplus suitable foraging habitat for Swainson's hawk in the study area would remain greater than 70 percent of the existing surplus at both the Project and cumulative level, and therefore provide sufficient surplus foraging habitat to allow for population growth and resiliency to disturbance, as well as to changes to the foraging landscape through changes in agricultural land uses. Therefore, cumulative impacts to Swainson's hawk and their habitats would be less than significant and the Project's incremental contribution to those impacts would not be significant.

Despite a less than significant impact on foraging habitat, the Swainson's Hawk Conservation Strategy is designed to improve foraging habitat for Swainson's hawk and other species through grassland restoration, and to increase nesting opportunities through tree planting/management, effectively reducing the permanent loss of foraging habitat to only the footprints of Project infrastructure and access roads , while increasing the long-term quality of foraging habitat on site.

The conservation strategy has been proposed to improve foraging habitat for Swainson's hawk known to inhabit the site and adjacent lands, but not to mitigate any loss of Swainson's hawk foraging habitat, as that impact was determined to be less than significant, and compensatory mitigation is thus unwarranted. The Swainson's Hawk Conservation Strategy has the potential to offer substantial cumulative conservation benefits to the species as a result of the research program that will test a range of management strategies. By retaining and improving nesting habitat, and planting and maintaining suitable foraging vegetation within the PV Development Footprint, these areas are expected to offer substantial long-term net benefits to the species.

San Joaquin kit fox: As detailed in response BR BIO-37 of Response Set 4, San Joaquin kit fox is not expected to occur throughout the vast majority of the Project site. There is only a low potential the species would occur incidentally only in the work area west of Interstate 5 (refer to Appendix Q-6, San Joaquin Kit Fox Habitat Assessment of Opt-In Application). In the unlikely event San Joaquin kit fox do occur during construction, potential impacts will be avoided and minimized through implementation of Mitigation Measures BIO-1, BIO-2, and BIO-4 as presented in Section 5.12, *Biological Resources* of the Opt-in Application. The Utility Switchyard and Alternate Green Hydrogen Site Biological Resources Management Plan (Appendix D to Response Set 4) and the PV and Gen-tie Biological Resources Management Plan (Appendix C to Response Set 4) also include measures to avoid and minimize potential impacts to San Joaquin kit fox. As detailed in Response DR BIO-27 of Response Set 4, based on the San Joaquin kit fox habitat assessment completed for the Project (refer to Appendix Q-6, San Joaquin Kit Fox Habitat Assessment) there is no expectation that San Joaquin kit fox will occur on the site during operation. However, in the event that restoration of annual grassland habitat within the Project site and other land management changes in the surrounding agricultural context ultimately result in a return of San Joaquin kit fox to this portion of the Central Valley, an Operations and Maintenance Biological Resources Management Plan (Mitigation Measure BIO-12) will be prepared that contains measures to avoid and minimize potential impacts to San Joaquin kit fox from vehicle use; solar panel, facility, and equipment maintenance and repair; vegetation management activities; and other operations activities. With the implementation of these measures, it is anticipated that any impacts to San Joaquin kit fox will be less than significant. No compensatory mitigation or Incidental Take Authorization is necessary for San Joaquin kit fox.

Burrowing owl: As detailed in Response DR BIO-35 of Response Set 4 and Section 5 of the Burrowing Owl Management Plan, eight individual burrowing owls, seventeen burrows with recent sign (i.e., whitewash, pellets, feathers) and an additional five burrows with older sign were documented within the Biological Study Area. Of these eight individuals and twenty-two burrows, seven individuals and twenty-one burrows were located along the margins of seasonally managed non-active agricultural fields in areas that will likely be avoided during construction. The solar facility parcels are currently managed under an ongoing regimen of regular disking to manage weed infestations that is not conducive to nesting and provides inconsistent quality of foraging habitat.

While the exact number and location of burrowing owl individuals on the Project site may change prior to construction (and will be verified through preconstruction surveys), based on existing conditions, the majority of burrowing owl are expected to be located in areas along the edge of the Project site outside of the Project development footprint (i.e., burrows would not require excavation and collapse). Therefore, avoidance and implementation of minimization measures outlined in the Management Strategy is expected for most individuals and burrows. Project operations would continue to avoid these areas and maintenance activities would result in less disturbance to burrowing owl than current disking practices.

In limited cases where avoidance is not feasible, mitigation for permanent direct impacts to occupied burrowing owl burrows would occur through installation of artificial burrows, if necessary (i.e., when there are insufficient burrows outside the impact area), within a nearby suitable location following guidelines in the Mitigation Methods section of the Staff Report on Burrowing Owl Mitigation (CDFG 2012). Prior to excavation, a Qualified Biologist shall verify that evicted owls have access to multiple, unoccupied, alternative burrows outside of the Projected disturbance zone, and as close to the evicted burrow as feasible given Project work areas. If no suitable alternative natural burrows are available for the owls within ¼ mile, then, for each owl that is evicted, two artificial burrows shall be installed in suitable nearby habitat areas, per the User's Guide to Installation of Artificial Burrows for Burrowing Owls (Johnson et al. 2010) referenced in CDFG 2012. The artificial burrow design and installation shall be consistent with the methods described in the Burrowing Owl Exclusion Plan per Appendix E of the Staff Report on Burrowing Owl Mitigation (CDFG 2012).

In addition, implementation of the Project's Vegetation Management Plan would result in postconstruction restoration of the Project site to a mix of native and naturalized grassland and forb species which would provide a more consistent source of foraging habitat for the species than currently exists under the regular disking regimen. One of the primary goals would be to restore habitat to a vegetation community with low-growth species that require limited long-term habitat management. Implementation of the Vegetation Management Plan is expected to result in restoration of approximately 9,000 acres to permanent annual grassland habitat. Based on an estimated foraging range of approximately 300 acres per burrowing owl, once restored the Project site would include enough foraging habitat to support over 30 burrowing owls which is over three times the number of owls that were observed onsite. Implementation of the research study outlined in the Swainson's Hawk Conservation Strategy would include avian point counts and monitoring intended to document long-term success of burrowing owl nesting and foraging within the solar arrays. Therefore, impacts to burrowing owls and their habitat would be less than significant, and compensatory mitigation is thus unwarranted.

2.1.2 Data Request REV 1 DR BIO-2

REV 1 DR BIO-2: In *CEC Data Request Response Set 4*, in response to staff's DR BIO-9, the applicant states that a formal habitat assessment for blunt-nosed leopard lizard (*Gambelia sila*) is not warranted, based upon several factors including the applicant's determination that the lands in the vicinity of the project are not suitable habitat. While the CDFW and CEC staff agree onsite habitat is not suitable, we believe that suitable habitat is available offsite from which animals might disperse onsite, and also point out that the California Natural Diversity Database (CNDDB) is a positive-occurrence database only. The CEC staff further notes that iNaturalist (2024) contains multiple blunt-nosed leopard lizard occurrences offsite in Ciervo Hills approximately 3 to 5 miles west of the switchyard project boundary, which is within the known range for the species (CDFW 2021).

The CEC and CDFW staff have additional questions about the habitat evaluation conducted off-site of the switchyard. Staff needs this information to evaluate the impacts of the project and determine if Pacific Gas and Electric Company's (PG&E's) construction measures (*CEC Data Request Response Set 4*, p. 47) are sufficient to reduce potential impacts to the blunt-nosed leopard lizard from construction of the switchyard.

The CEC and CDFW staff need to know the following:

- How far out to the west of the switchyard property was visible during surveys conducted to ascertain the habitat type described on page 8 in *CEC Data Request Response Set 4*?

- Did the applicant's review methods of the species' potential to occur in the proposed switchyard boundary include a review of any photographs of offsite habitat that could be viewed from accessible areas, a desktop analysis review of records in CNDDB and iNaturalist, and a review of Google Earth imagery and other GIS-based commonly available spatial data such as topography, soils, climate, and vegetation maps? If some or all of these standard methods were not used, please conduct a review using these methods (out to 1,000 feet for desktop purposes) and provide the results.

Response: Section 2.2, Literature Review of the Biological Resources Assessment (Appendix Q – Volume 1 of Opt-In Application) describes the review methods utilized to determine the species potential to occur within the Project site (including the utility switchyard) and 1,000-foot buffer. As detailed in the BRA, the methods included a desktop review of records in the CNDDB, a review of Google Earth imagery, and spatial data including topography, soils, climate and vegetation maps.

Section 2.3.1, Field Reconnaissance Survey of the Biological Resources Assessment (Appendix Q – Volume 1) describes the reconnaissance surveys completed throughout the Project site to evaluate land cover and habitat and determine the potential for any areas to support special-status species. These surveys included evaluation for blunt-nosed leopard lizard. As detailed in the Response to DR BIO-13 and DR BIO-14 in Response Set 4, the Applicant does not have permission to access private lands outside the Project site. Therefore, the survey of the area to the west of the utility switchyard was conducted using binoculars from the westernmost edge of the Project site boundary. Since the area to the west of the Project site is open and sloping up to the west, the biologist was able to observe a large expanse of the adjacent lands from the Project boundary to accurately classify the habitat to the west of the utility switchyard. Photographs 23 and 24 in Appendix B show a representative photograph of the habitat to the west of the Project site, taken from the Project site boundary. As demonstrated in the photographs, the biologist was able to observe the habitat out to at least 1,000 feet west from the Project boundary.

As detailed in Data Response to DR BIO-9, DR BIO-10, DR BIO-11 in Response Set 4, no suitable habitat for blunt-nosed leopard lizard is present within the Project site and linear facilities. The iNaturalist records of blunt-nosed leopard lizard within 3 to 5 miles of the utility switchyard include photograph-documentation with the observations that show a different type of habitat than is present west of the Project site. Specifically, the photographs for the iNaturalist records show the blunt-nosed leopard lizards observed in areas with little to no vegetation or open vegetation, consistent with where they would be expected to occur. This type of habitat is not present west of the Project site. Although dispersal distance for blunt-nosed leopard lizard is not known, the species is expected to have low dispersal abilities which are generally expected to be under one kilometer (*Species Status Assessment for the Blunt-nosed leopard lizard Version 1.0*, US Fish and Wildlife Service, July 2020). The closest iNaturalist occurrence to the Project site is over four kilometers from the Project site which would significantly exceed the species expected dispersal abilities.

The area west of the utility substation includes grasslands within the Ciervo Hills which would only provide marginally suitable habitat for the species due to high topographic relief, dense vegetation, no areas of bare ground, and no shrubs or other vegetation for shade or cover. Therefore, the species is not expected to occur in the area west of the utility substation. In the unlikely event that a blunt-nosed leopard lizard is present in the marginally suitable area west of the utility substation, individuals would not be expected to travel into the Project site which does not provide suitable habitat for the species. The Project site consists of an active orchard which is subject to regular disturbance from agricultural equipment and personnel for maintenance and harvest. The existing disturbance and agricultural use of the Project site at this location is expected to deter individuals

and does not contain any elements of suitable habitat that would attract the species to the site. Potential impacts to blunt-nosed leopard lizard would be avoided through implementation of the Utility Switchyard and Alternate Green Hydrogen Site Biological Resources Management Plan (Appendix D of Response Set 4) and Mitigation Measures BIO-1, BIO-2, and BIO-3 (refer to Section 5.1.2, Biological Resources of the Opt-in Application).

3 Hazardous Materials Handling

3.1 Data Request REV 1 DR HAZ-2

3.1.1 Data Request REV 1 DR HAZ-2

REV 1 DR HAZ-2: Figure 1 was provided in response to staff's DR HAZ-7 in CEC Data Request Response Set 1 [TN 254670]; however, the figure was not clear enough or at a scale that is useful. Staff needs a larger schematic site plan for the battery energy storage system (BESS). Please ensure that the site plan is also clearer than the one previously provided. The Conceptual BESS Layout should identify the anticipated location of the typical battery station within the overall site in relation to other equipment.

Response: An updated, full size Fire Alarm Site Plan figure was submitted through the CEC's Kiteworks platform on June 17, 2024, and was also submitted as Appendix B in Data Response Set 5.

Design drawings provided in Appendix C show additional details and layout for the BESS and the Project as a whole. These design drawings show advancement in the Project design and layout since the conceptual plans and figures provided in the original submittal materials in November 2023. The drawings show details including fencing, PV blocks, medium voltage cabling, setbacks, access points (access roads are further described in responses to REV 1 DR TRANS-1 and REV 1 DR TRANS-2), O&M facilities, parking, laydown yards, and detention basins.

Appendix C drawing DAR-ES-300.00P provides design details for the BESS and substation including access roads around the BESS areas, emergency water tanks, fire alarm control panels, fencing, and medium voltage cabling to the substation.

The BESS would consist of lithium-ion battery packs housed in electrical enclosures with buried electrical conduit. Approximately 1,220 electrical enclosures would initially be installed on level foundations for the Project. The enclosures would be connected to pad mount transformers that step up the battery voltage to medium voltage levels, and would connect to the Project substation through feeder breakers. The layout of the BESS would entail blocks of battery energy stations surrounded by access roads, with each energy station consisting of 2 to 4 battery enclosures and 1 medium voltage transformer.

Over the life of the Project the storage capacity of the battery cells will naturally degrade, and the Project would implement an augmentation strategy to maintain the contractually required capacity of the system. Augmentation would entail either a capacity maintenance approach of adding individual battery units to the existing energy stations, or overbuilding the BESS by 1 to 4 percent by incorporating additional BESS containers to the system design from the start. These areas are identified in Appendix C drawing DAR-ES-300.00P.

Battery systems would require air conditioners or heat exchangers and inverters. A 15,000-gallon water tank for emergency use is anticipated for each BESS unit/area. Up to 4 water tanks would be installed for the Project with locations based on the BESS layout and design. The size, final number, and location of water tanks for emergency use would also be determined in accordance with California Fire Code (CFC) and be reviewed/approved by the local or State Fire Marshal.

4 Project Description

4.1 Data Request REV 1 DR PD-1through REV 1 DR PD-3

4.1.1 Data Request REV 1 DR PD-1

REV 1 DR PD-1: Based on the applicant's response in CEC Data Request Response Set 2 [TN 255082] to staff's DR PD-8, which stated that "Oxygen will be vented to a safe location that does not create a hazard to the natural environment," staff has additional questions. Staff is aware that under certain meteorological conditions and oxygen flow rates, the release of pure oxygen into the atmosphere is known to concentrate in some areas and has resulted in fires or explosions. Therefore, please provide additional information on the precise location(s) of these vent(s), amount of oxygen (in pounds) vented during any release, time of day of venting, elevation of the release point (in feet), and proximity (in feet) of release vents to structures, the heights of these structures, and diagrams that show the shape of these structures. Furthermore, please explain how the operation would be designed to ensure that oxygen venting occurs at a safe distance from hydrogen venting. The application, at Section 4 Engineering, indicates that the project would be designed with minimal hydrogen venting, but acknowledges hydrogen venting is expected during maintenance, start up, and shutdown (Section 4, page 4-5).

Response: Oxygen venting at the hydrogen facility will occur only when the hydrogen is produced as a by-product of the water electrolysis process. Given hydrogen will only be produced using the renewable energy from the Project, oxygen will only be vented during the day when the renewable energy is available and will generally follow the solar power profile, see Figure 1 below. Produced oxygen will be saturated with water and directed to a dedicated oxygen stack which will be located approximately 365 feet from the location of the hydrogen vent stack to ensure no mixing of vented gases. A site plan of the electrolyzer showing the location of the oxygen stack will be submitted separately with a request for confidential designation.

For the 800 MW hydrogen facility the peak oxygen venting is estimated to be a maximum of 275,552 lb/h (124,989 kg/h) when the electrolyzers are in operation. For a typical high sunshine day, the overall oxygen vented is approximately 2.4 million lbs per day (1,109 metric tonnes per day), and the average daily rate is 219,590 lb/h (99,604 kg/h for a 10-hour sunshine day).

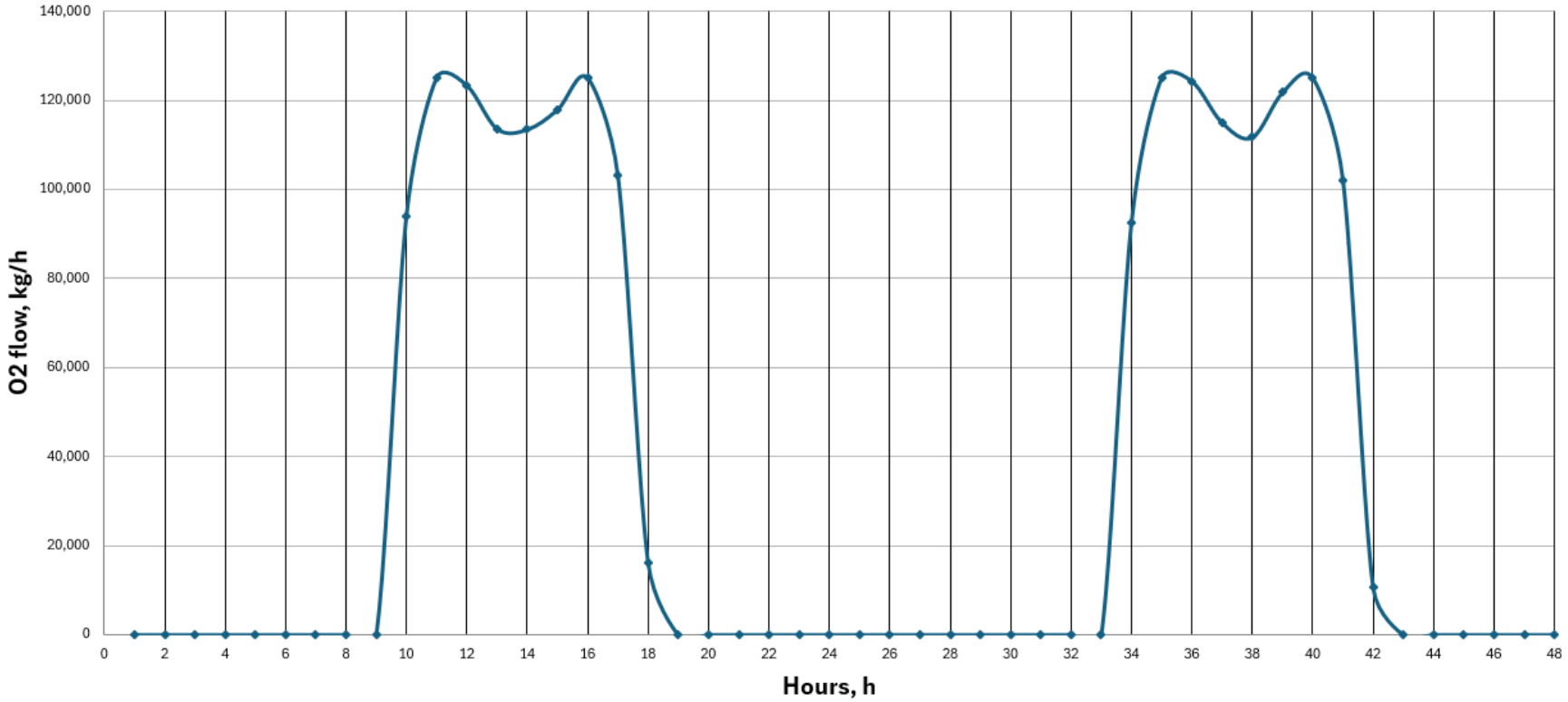
As a part of the final design process for the hydrogen facility, an oxygen dispersion modeling study will be completed for the oxygen handling and venting system, taking into account the site's climatic conditions, the diameter, height, number, and final location of the vent stacks.

The oxygen handling and venting has been designed based on engineering and industry best practices including:

- California Fire Code for
- California Code of Regulations §5502 – Distance Between Bulk Oxygen Systems and Exposures
- OSHA 1910.104 – Bulk oxygen storage
- Compressed Gas Associate G-4.4 – Oxygen Pipeline and Piping Systems
- European Industrial Gases Association (EIGA) Doc 04/18 – Fire Hazards of Oxygen and Oxygen-Enriched Atmospheres
- EIGA Doc 154/16 – Safe Location of Oxygen and Inert Gas Vents

- NASA Oxygen Safety Guidelines
- Industrial gases producers (Air Products and Air Liquide) guidelines and best practices from operating Air Separation Units (ASU)

Figure 1 Oxygen Venting Rates



5 Traffic and Transportation

5.1 Data Request REV 1 DR TRANS-1 through REV 1 DR TRANS-2

5.1.1 Data Request REV 1 DR TRANS-1 and REV 1 DR TRANS-2

REV 1 DR TRANS-1: In the response to DR TRANS-5 in *CEC Data Request Response Set 2*, the applicant noted that road improvements are anticipated for existing access roads and will be based on current geotechnical studies and continued stages of gen-tie design and engineering. Please describe public roadways and intersections that would be temporarily or permanently altered during construction including the duration of activities. So that staff can analyze the potential impacts from improvements to access roads, provide a more detailed description of the access points for the site during construction.

REV 1 DR TRANS-2: The response in *CEC Data Request Response Set 2* to staff's DR TRANS-8 states that "access roads and access points to each project component will be finalized as detailed Project design continues; precise locations of the access roads and access points are not available at this time." That statement does not meet the application requirements of California Code of Regulations, title 20, Chapter 5, Appendix B (g)(5)(E)(ii). At least a conceptual location and configuration of access locations need to be provided at this time. Please provide a description of access points for each project component (e.g., solar facility, battery energy storage system, green hydrogen facility, step-up substation, transmission line corridor, and the PG&E utility switchyard) and clearly marked maps illustrating the location of the new roads.

Response: Project access roads are identified in Figure 2 below and consist of three different categories: existing paved roads, existing dirt roads, and new Project roads.

Exiting nearby public paved roads that will be used include Interstate 5, S Derrick Avenue, W Harlan Avenue, W Clark Avenue, S Sonoma Avenue, W Mount Whitney Avenue, S Napa Avenue, W Kamm Avenue, and Lassen Avenue. No upgrades to these paved roads are anticipated.

Other than these paved roads, there are no public roadways or public road easements surrounding the PV area, though primitive dirt roads are present. Existing dirt roads that may be used to access the generation intertie (gen-tie) corridor and the various PV sections of the Project are shown in yellow in Figure 2. Dirt roads for PV access will be improved as described below. Major improvements to dirt roads for accessing the gen-tie line are not anticipated.

New Project roads that will be constructed to access the PV arrays, utility switchyard, and other Project facilities are shown in blue in Figure 2. New roads and improved existing dirt roads for PV access will receive similar treatments that will be based on soil types and site-specific conditions and could involve compacting the native base, a layer of geotextile fabric, and/or adding 6 to 16 inches of aggregate. Road improvements will be permanent and remain in place throughout the operation of the Project, and use of all of these access roads may occur throughout the duration of construction and operations.

Interior Project roads within the PV area will be approximately 12 to 20 feet wide. Access roads to facilities including the operations and maintenance (O&M) facilities, BESS, and green hydrogen

facility will be 20 feet wide. A typical design for a Project entrance is provided on page C.400 of *Appendix F – Project Design Layout* from the original application materials.

Project access points are identified in the design drawings provided in Appendix C. From the existing public roads, the PV area will have two main Project access points for operations located along S Sonoma Avenue. Two additional temporary access points will be established for construction (four total construction access points), one at the northern edge of the Project with access from the intersection of W Kamm Avenue and S Napa Avenue, and another at the southern edge of the Project along W Mount Whitney Avenue. Other Project facilities (O&M, BESS, substation, hydrogen) at the Option 1 and Option 2 locations would be accessed from non-public improved roadways within the PV area. Access to the utility switchyard and the Option 3 green hydrogen facility would be from S Derrick Avenue. Access to the generation intertie line corridor will occur via West Harlan Avenue and existing dirt access roads.

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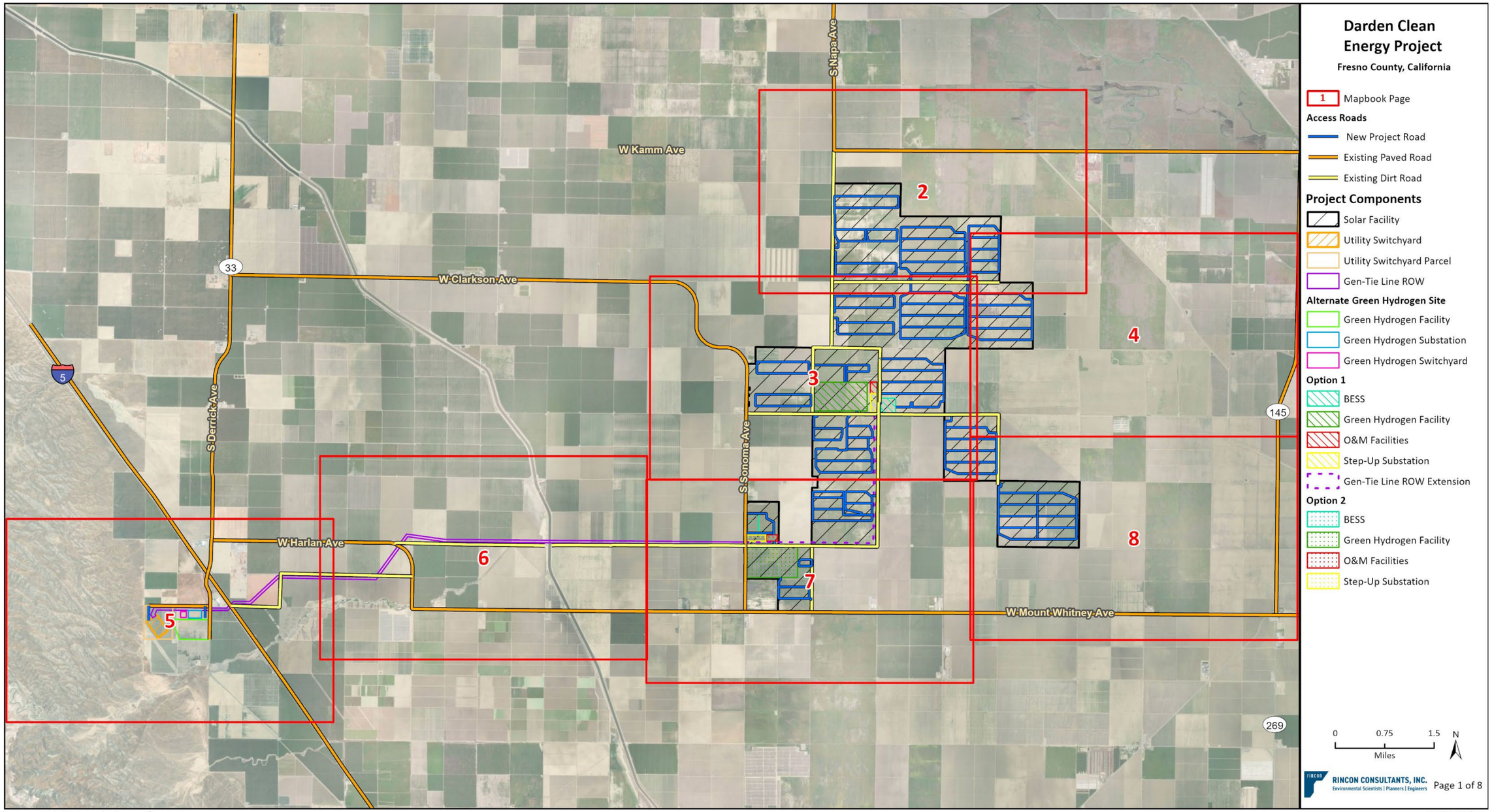
Figure 2 Project Access Road



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22-12530 PGE Figures
Fig X Darden Access Roads - Overview

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22-12530 PGE Figures
Fig X Darden Access Roads

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22-12530 PGE Figures
Fig X Darden Access Roads

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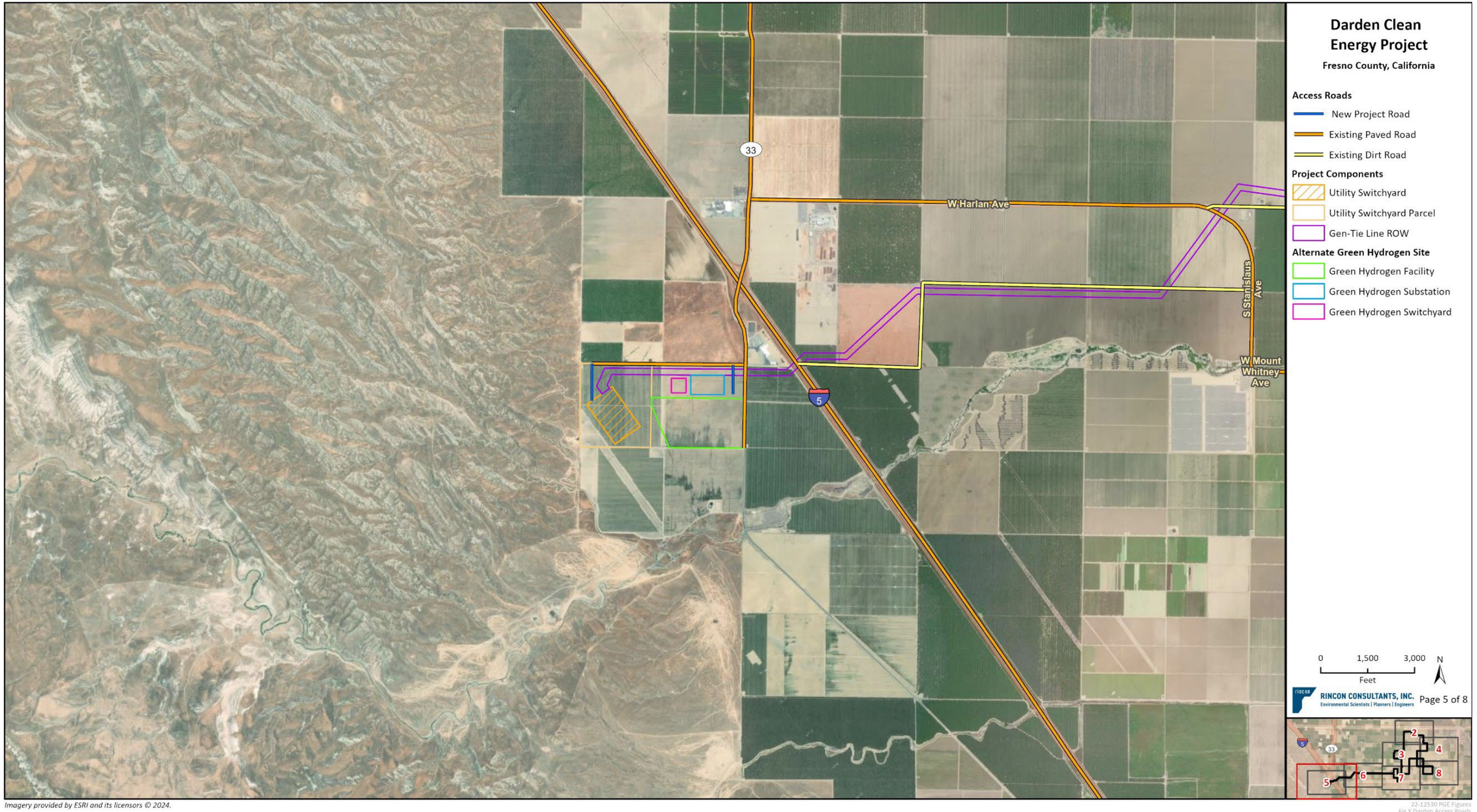
22-12530 PGE Figures
Fig X Darden Access Roads



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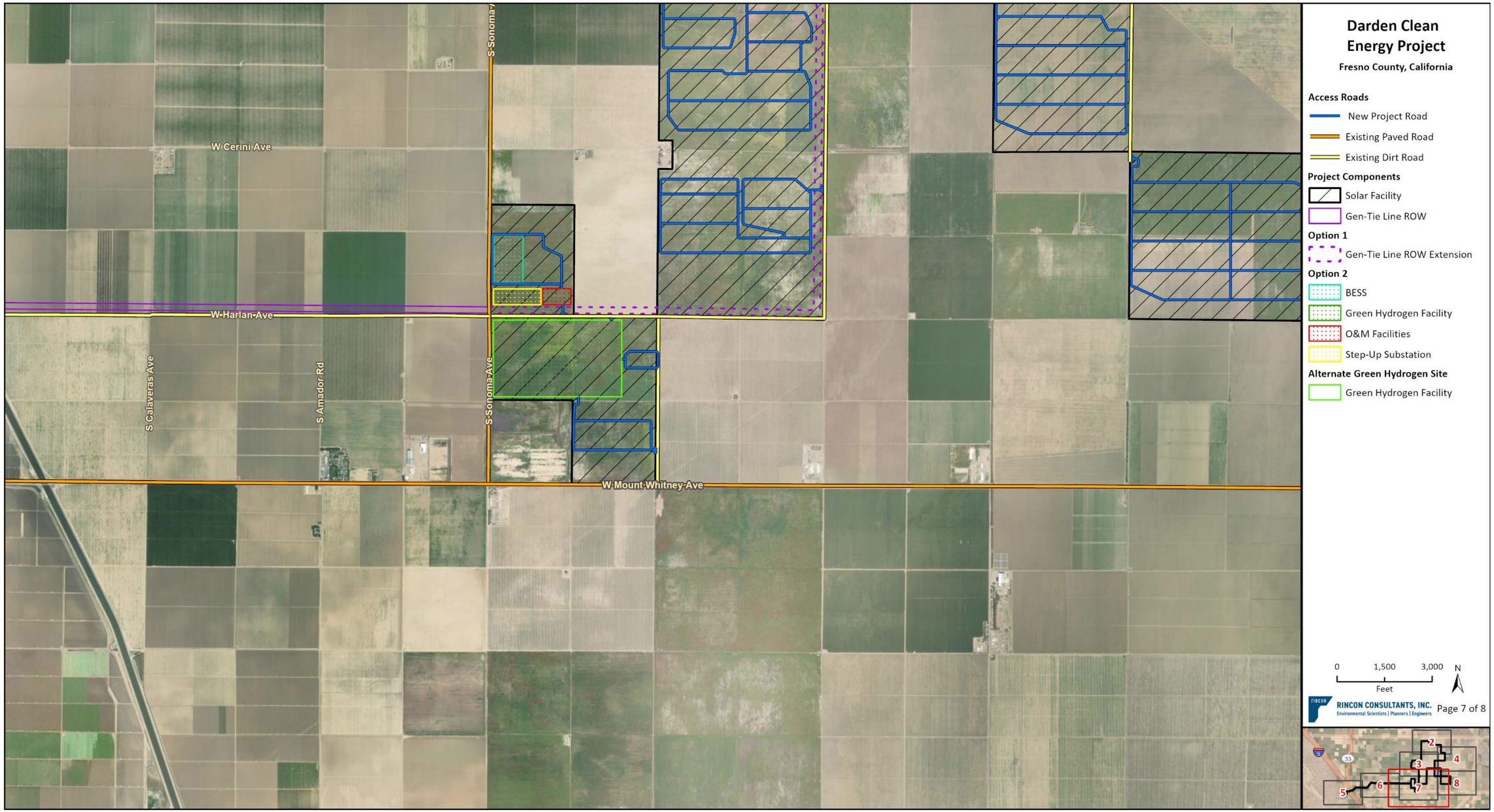
22-12530 PGE Figures
Fig X Darden Access Roads



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22-12530 PGE Figures
Fig X Darden Access Roads

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Fig X Darden Access Roads

6 Transmission System Design

6.1 Data Request REV 1 DR TSD-1

6.1.1 Data Request REV 1 DR TSD-1

REV 1 DR TSD-1: The response to staff's DR TSD-3 in *CEC Data Request Response Set 4* includes Table 3 listing downstream network upgrades at the existing Los Banos, Midway, and Gates (or Manning) substations necessary to accommodate the proposed Darden Clean Energy Project. A brief description of the interconnection of the transmission lines is provided as the "existing setting". However, staff requires information about the existing site conditions (i.e., the physical environmental conditions) for each of the substations where upgrades would be made. Since the location of pull sites along the affected transmission lines have not been determined, staff also requires information about the existing site conditions of the transmission corridors affected by downstream upgrades. Staff has the following requests and clarifications:

a. Please provide figures that show the existing site conditions at the Los Banos, Midway, Gates, and Manning substations and describe the existing site conditions.

b. Please provide representative figures that show the transmission right of way that would be affected by downstream system upgrades and describe the existing site conditions.

c. Please provide biological resources reconnaissance level survey results for special status plants and wildlife, vegetation communities, and jurisdictional water features for the affected transmission line right of way and substations.

d. Please provide results of database searches such as California Natural Diversity Database, California Native Plant Society Rare Plant Inventory, U.S. Fish and Wildlife Service Information for Planning and Consultation, National Wetland Inventory, and U.S. Geological Survey National Hydrography Dataset maps for the affected transmission line right of way and substations.

e. Please describe potential impacts to special status plants and animals, vegetation communities, and jurisdictional water features of the United States or the State of California along the affected transmission line right of way and substations.

f. Please describe the anticipated efficacy of the PG&E construction measures for biological resources particularly for the Transmission Line Transposition Towers as part of the Manning Substation scope (*CEC Data Request Response Set 4*, p. 35).

g. For cultural resources provide the following:

    i. Records search from the California Historical Resources Information System (CHRIS) for the project area downstream network upgrades such as transmission lines, substations, and other ancillary facilities proposed or potentially affected and 0.5-mile buffer.

    ii. ii. Native American Heritage Commission (NAHC) search of the Sacred Lands File system. iii. Evidence of outreach to Native American tribes potentially affiliated with the project area (list obtained thought the NAHC). Include any comments or responses received from Tribes and outcome of any interactions.

    iii. iv. Confidential cultural resources inventory report of the project area that includes evaluations of any identified cultural resources for eligibility to the California Register of Historical Resources and assessment of project impacts upon any eligible resources.

iv. v. Public (non-confidential) version of the cultural resources inventory report.

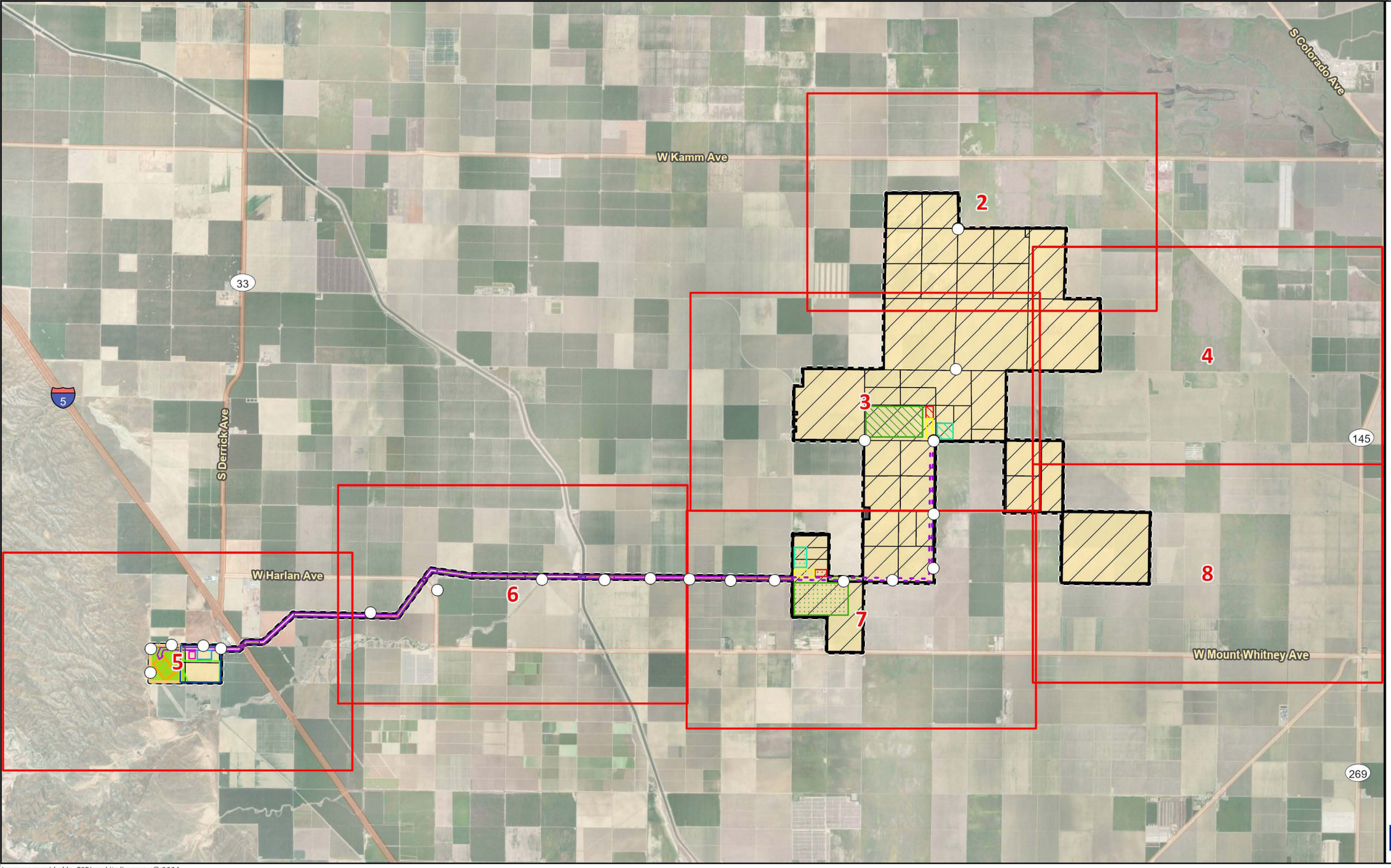
Response: A Biological Resources Assessment (BRA) for the proposed PG&E downstream network upgrades was prepared to address the requested information in items a. through f. above. The BRA incorporates PG&E Construction Measures to avoid and minimize potential impacts to biological resources. The BRA is provided as Appendix D to this document.

In addition, a Cultural Resources Inventory for the proposed PG&E downstream network upgrades was prepared to address the requested information in item g (i) through g (v) above. The Cultural Resources Inventory incorporates PG&E Construction Measures to avoid and minimize potential impacts to cultural resources. The confidential Cultural Resources Inventory will be provided separately and submitted to the docket with an Application for Confidential Designation. The non-confidential Cultural Resources Inventory is provided as Appendix E to this document.

Potential activities at Manning Substation and associated transposition structures were not assessed in the BRA or Cultural Resources Inventory as activities that may occur at these locations are being evaluated and permitted under a separate California Public Utilities Commission (CPUC) formal process with a different project proponent.

Appendix A

REV 1 DR BIO-1 Updated Land Cover Maps



Darden Clean Energy Project

Fresno County, California

- 1 Mapbook Page
- 100-Foot Buffer
- Photo Point

Land Use

- Active Agriculture
- Developed
- Eucalyptus Grove
- Grassland
- Orchard
- Non-Active Agriculture
- Open Water

Project Components

- Solar Facility
- Utility Switchyard
- Utility Switchyard Parcel
- Gen-Tie Line ROW

Option 1

- BESS
- Green Hydrogen Facility
- O&M Facilities
- Step-Up Substation
- Gen-Tie Line ROW Extension

Option 2

- BESS
- Green Hydrogen Facility
- O&M Facilities
- Step-Up Substation

Alternate Green Hydrogen Site

- Green Hydrogen Facility
- Green Hydrogen Substation
- Green Hydrogen Switchyard
- Green Hydrogen Parcels

0 0.75 1.5 Miles

N

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers

22-12530 Land Use and Agriculture
Fig X CEC Land Use_Overview

Darden Clean Energy Project

Fresno County, California

100-Foot Buffer
Parcels
Photo Point

Land Use

Active Agriculture
Non-Active Agriculture

Project Components

Solar Facility

0 1,000 2,000
Feet

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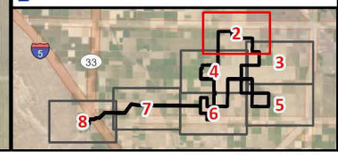

Darden Clean Energy Project

Fresno County, California

100-Foot Buffer

Parcels

Land Use

Active Agriculture

Non-Active Agriculture

Project Components

Solar Facility

0 1,000 2,000

Feet

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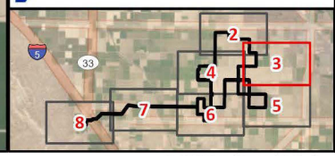

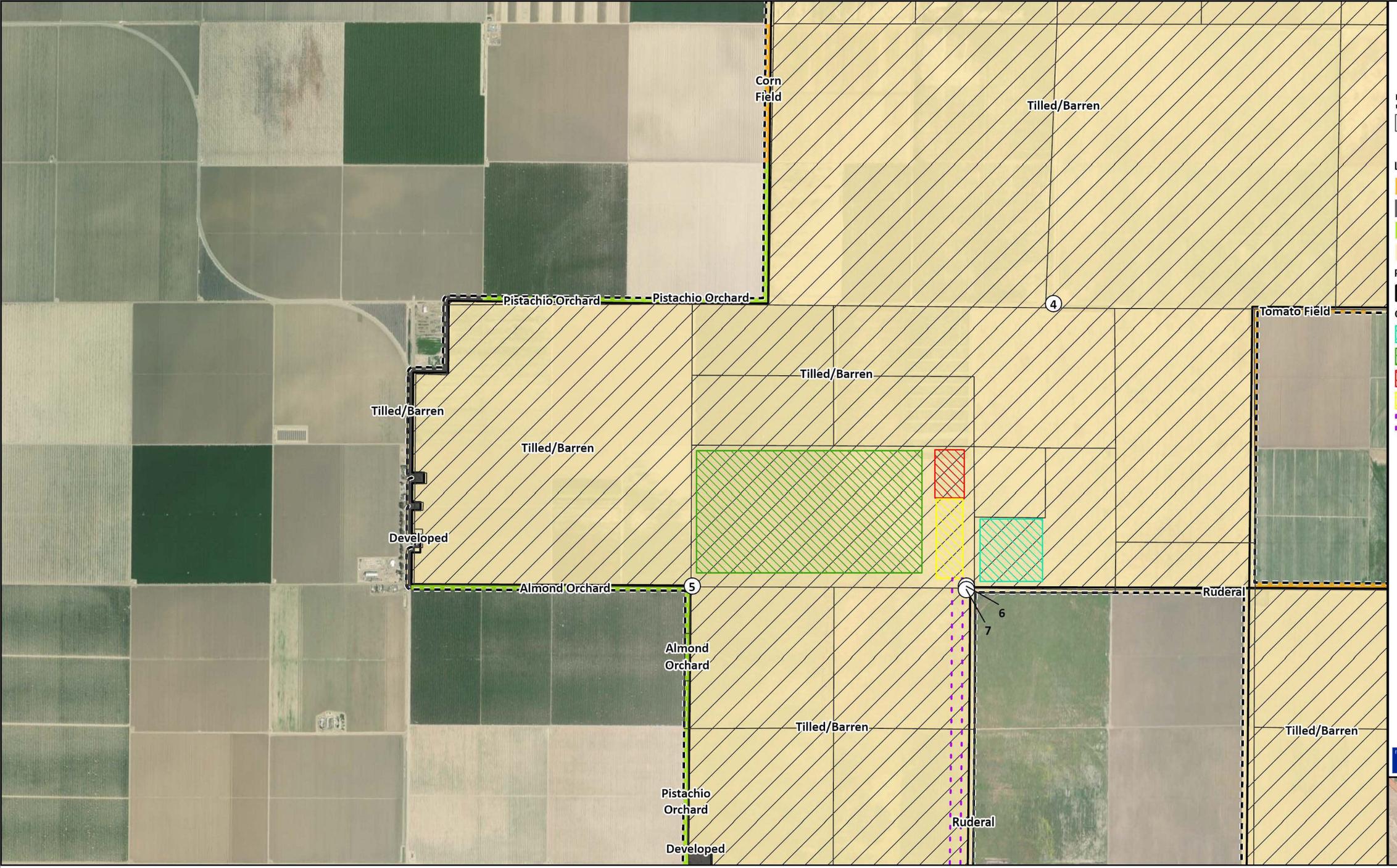

Darden Clean Energy Project

Fresno County, California

- 100-Foot Buffer
- Parcels
- Photo Point

Land Use

- Active Agriculture
- Developed
- Orchard
- Non-Active Agriculture

Project Components

- Solar Facility

Option 1

- BESS
- Green Hydrogen Facility
- O&M Facilities
- Step-Up Substation
- Gen-Tie Line ROW Extension

0 1,000 2,000

Feet

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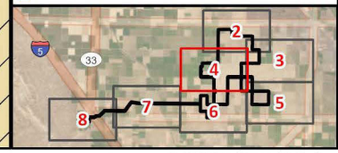

Darden Clean Energy Project

Fresno County, California

100-Foot Buffer

Parcels

Land Use

Active Agriculture

Non-Active Agriculture

Project Components

Solar Facility

0 1,000 2,000

Feet

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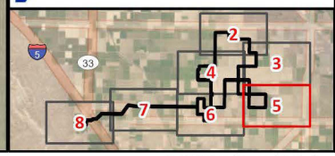

Darden Clean Energy Project

Fresno County, California

- 100-Foot Buffer
- Parcels
- Photo Point

Land Use

- Active Agriculture
- Developed
- Eucalyptus Grove
- Orchard
- Non-Active Agriculture

Project Components

- Solar Facility
- Gen-Tie Line ROW

Option 1

- Gen-Tie Line ROW Extension

Option 2

- BESS
- Green Hydrogen Facility
- O&M Facilities
- Step-Up Substation

0 1,000 2,000

Feet

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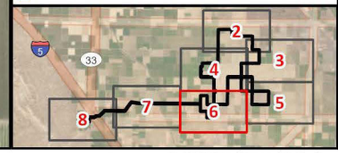

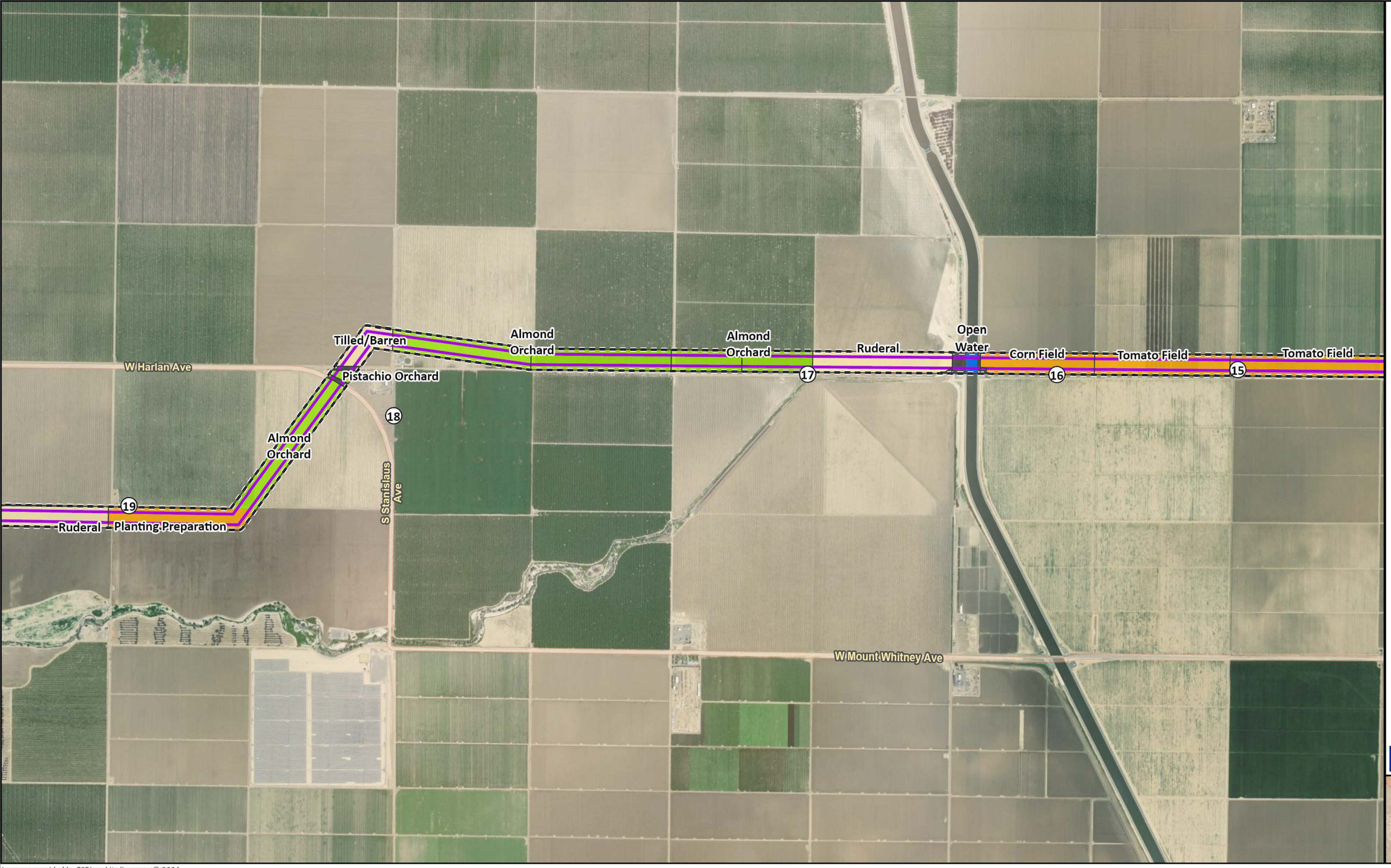

Darden Clean Energy Project

Fresno County, California

- 100-Foot Buffer
- Parcels
- Photo Point

Land Use

- Active Agriculture
- Developed
- Orchard
- Non-Active Agriculture
- Open Water

Project Components

- Gen-Tie Line ROW

0 1,000 2,000

Feet

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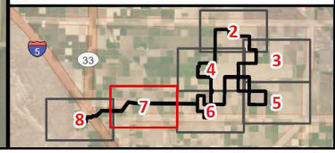

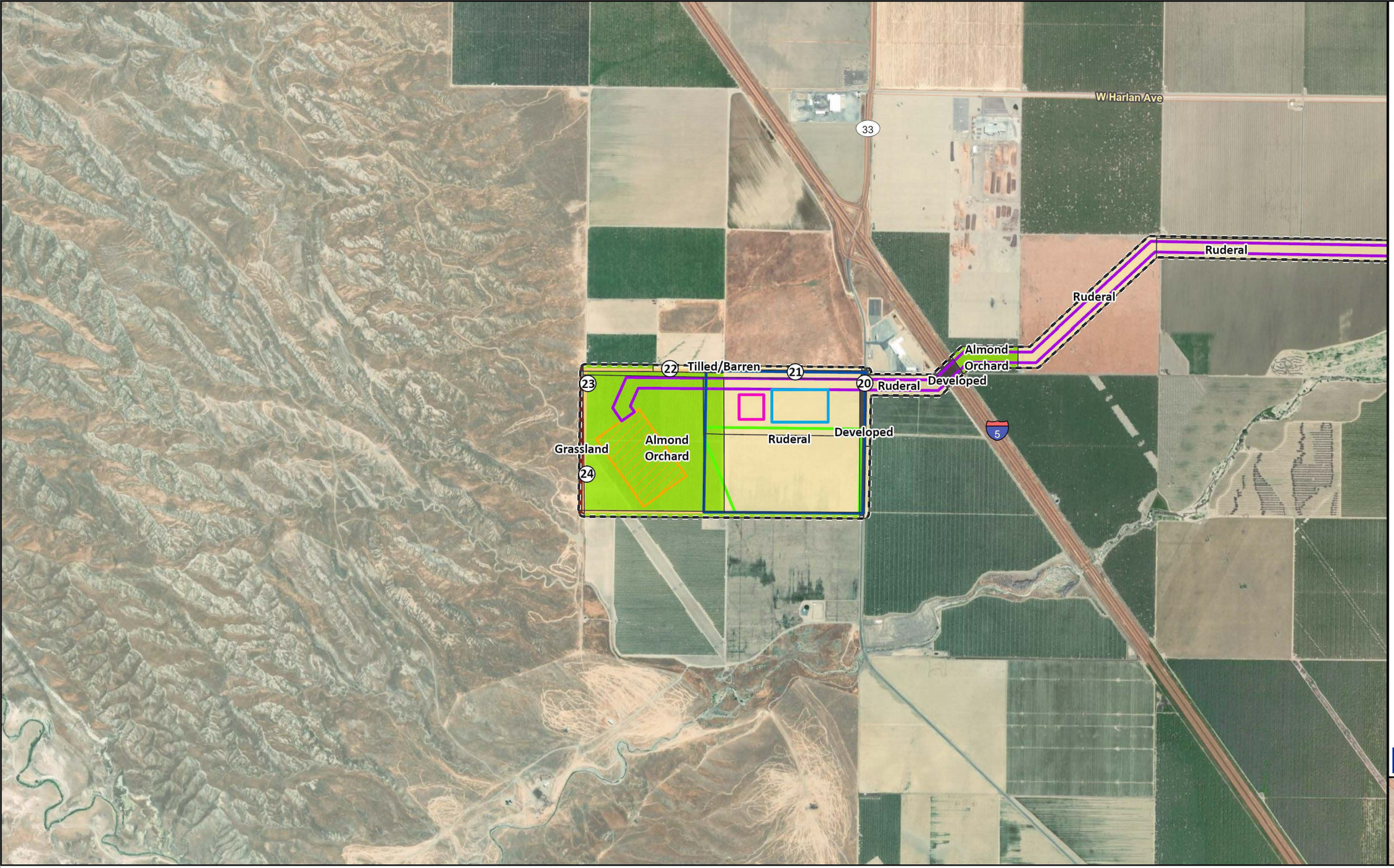

Darden Clean Energy Project

Fresno County, California

100-Foot Buffer
Parcels
Photo Point

Land Use

Developed
Grassland
Orchard
Non-Active Agriculture

Project Components

Utility Switchyard
Utility Switchyard Parcel
Gen-Tie Line ROW

Alternate Green Hydrogen Site

Green Hydrogen Facility
Green Hydrogen Substation
Green Hydrogen Switchyard
Green Hydrogen Parcels

0 1,000 2,000
Feet

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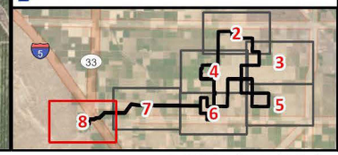

Appendix B

REV 1 DR BIO-1 Land Cover Photo Log

Land Cover Photographs

Photograph 1. Tilled/Barren, facing northwest (1/9/2024)

Photograph 2. Tilled/Barren, facing southwest (1/9/2024)

Photograph 3. Tilled/Barren, facing southeast (1/9/2024)

Photograph 4. Tilled/Barren, facing northwest (1/9/2024)

Photograph 5. Tilled/Barren, facing northwest (1/9/2024)

Photograph 6. Tilled/Barren, facing northwest (1/9/2024)

Photograph 7. Tilled/Barren, facing south (6/24/2024)

Photograph 8. Eucalyptus grove, facing southwest (6/24/2024)

Photograph 9. Tilled/Barren, facing southwest (6/24/2024)

Photograph 10. Tilled/Barren, facing west (6/24/2024)

Photograph 11. Pistachio orchard, facing northwest (6/24/2024)

Photograph 12. Tomato field, facing east (6/24/2024)

Photograph 13. Onion field, facing northeast (6/24/2024)

Photograph 14. Corn field, facing north (6/24/2024)

Photograph 15. Tomato field, facing north (6/24/2024)

Photograph 16. Corn field, facing east (6/24/2024)

Photograph 17. Almond orchard, facing northwest (6/24/2024)

Photograph 18. Pistachio orchard, facing west (6/24/2024)

Photograph 19. Planting preparation, facing southwest (6/24/2024)

Photograph 20. Ruderal, facing northeast (6/24/2024)

Photograph 21. Ruderal, facing southwest (6/24/2024)

Photograph 22. Almond orchard, facing south (6/25/2024)

Photograph 23. Grassland, facing northwest (1/8/2024)

Photograph 24. Grassland, facing west (1/8/2024)

Appendix C

REV 1 DR HAZ-2 Updated Design Drawings
(Provided Separately)

Appendix D

REV 1 DR TSD-1 PG&E Downstream Network Upgrades Addendum to the Biological Resources Assessment for the Darden Clean Energy Project
(Provided Separately)

Appendix E

REV 1 DR TSD-1 Non-Confidential Cultural Resources Inventory for the PG&E Downstream Network Upgrades

Darden Clean Energy Project

Public
Cultural Resources Inventory for the PG&E Downstream Network Upgrades

prepared for

IP Darden I, LLC and Affiliates
c/o Intersect Power, LC
9450 SW Gemini Drive, PMB #68743
Beaverton, Oregon 97008-7105

prepared by

Rincon Consultants, Inc.
7080 North Whitney Avenue, Suite 101
Fresno, California 93720

August 2024

RINCON CONSULTANTS, INC. SINCE 1994

Confidentiality

Archaeological site locations are exempt from the California Public Records Act, as specified in Government Code 6254.10, and from the Freedom of Information Act (Exemption 3), under the legal authority of both the National Historic Preservation Act (PL 102-574, Section 304[a]) and the Archaeological Resources Protection Act (PL 96-95, Section 9[a]). Sections of this report have been redacted or removed to protect the sensitive information.

Please cite this report as follows:

Campbell-King, Breana and Christopher A. Duran

2024 *Darden Clean Energy Project Cultural Resources Technical Report:* Data Request Response Set #5: Cultural Resources Inventory for the PG&E Downstream Network Upgrades*, Fresno County, California*. Rincon Consultants Project No. 22-12530.

Table of Contents

Tables

Appendices

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1 Introduction

IP Darden I, LLC and Affiliates retained Rincon Consultants, Inc. (Rincon) to complete a Cultural Resources Technical Report for the Darden Clean Energy Project located near the intersection of Interstate 5 (I-5), State Route (SR) 33, and SR 145, northwest of the city of Huron in unincorporated Fresno County. As part of their review of the Darden Clean Energy Project, the California Energy Commission (CEC) requested a cultural resources inventory report be prepared to identify previously recorded resources that are known to exist within 1 mile of the Pacific Gas and Electric Company (PG&E) downstream network upgrades that will be necessary to accommodate the photovoltaic (PV) solar facility, battery energy storage system (BESS), green hydrogen facility, step-up substation, generation intertie (gen-tie) line, utility switchyard, and associated infrastructure of the Darden Clean Energy Project.

The CEC request included completion of a cultural resources records search completed through the California Historical Resources Information System (CHRIS) for the downstream network upgrade areas (PG&E Project area) including transmission lines, substation and ancillary facilities and a 0.5-mile buffer. Additionally, the CEC requested search of the Sacred Lands File (SLF) by the Native American Heritage Commission (NAHC) and outreach to Tribes affiliated with the PG&E Project area be completed and documented. The CEC requested the results of these searches be documented in an inventory report that includes evaluations of identified cultural resources for eligibility and assessment of impacts upon any eligible resource.

This inventory report documents the results of a cultural resources records search and Sacred Lands File (SLF) search conducted by the NAHC, outreach to tribal communities, cultural resource impacts analysis known cultural resources that exists near or within the downstream network upgrades.

1.1 Project Overview

The PG&E Project consists of the development of downstream network upgrades including three alternative scenarios for fiber line communications (Scenario 1 Fiber Line, Scenario 2 Fiber Line, and Scenario 3 Fiber Line) as well as proposed upgrades at existing PG&E substations.

The three alternative fiber line scenarios include three long, linear, optical ground wire (OPGW) routes along existing PG&E transmission line corridors, which generally run parallel to the Interstate 5 Freeway (I-5) (Scenario 1: 15 miles, Scenario 2: 28 miles, or Scenario 3: 25 miles), to facilitate connection between the Darden Clean Energy Project utility switchyard (hereinafter “utility switchyard”) and existing PG&E facilities and infrastructure. Only one of these options would ultimately be constructed.

Proposed equipment upgrade activities at existing PG&E substations would occur at the Los Banos Substation, Midway Substation, and Gates Substation, and new equipment may be installed at Cantua Substation. Potential activities at Manning Substation were not assessed in this addendum; activities that may occur at these locations are being evaluated and permitted under a separate California Public Utilities Commission (CPUC) formal process with a different project proponent.

The PG&E Project downstream network upgrade components are depicted in figures in Appendix A. The Darden Clean Energy Project components are assessed separately in the Cultural Resources Assessment submitted as Appendix I with the original application materials in the Opt-In Application (IP Darden I and Rincon 2023) and subsequent data responses to CEC comments. Components and

activities of the three alternative fiber line scenarios and four existing PG&E substations are described in detail below.

Telecommunication Facilities

To meet PG&E's communications reliability standards microwave and fiber line communications paths will be established to support redundant communication paths for the utility switchyard.

Fiber Communication Line

PG&E proposes to install a combination of fiber lines on existing electric transmission 230-kV structures using OPGW and on existing electric distribution structures using All-Dielectric Self-Supporting (ADSS). The fiber line would be installed under one of the following scenarios summarized in Table 1 and illustrated in Appendix A, Figure 1a.

Table 1 Components of Three Alternative Fiber Line Scenarios

Scenario 1 Fiber Line	Scenario 2 Fiber Line	Scenario 3 Fiber Line
Scenario 1 Fiber Line – 15 miles ▪ Mixture of OPGW and ADSS ▪ Communication between utility switchyard and existing telecommunications infrastructure along Panoche-Tranquility 230kV line ▪ Scenario 1 Fiber Line would be co-located within an existing PG&E electric distribution and 230 kV transmission line corridor in Fresno County ▪ A section of Scenario 1 Fiber Line would cross I-5, installation of which would require replacing existing structures, installing new structures, or a directional bore to underground the line. ▪ Ground disturbance expected: (a) within Darden Clean Energy Project boundary from where Scenario 1 Fiber Line originates at the utility switchyard to the dead-end electric distribution structure immediately adjacent to Darden Clean Energy Project, (b) potentially along the portion of the route where Scenario 2 crosses I-5, (c) where the line transitions from the distribution structures to the transmission line structures, and (d) where Scenario 1 Fiber Line transitions between the transmission structures to the splice point.	**Scenario 2 Fiber Line – 28 miles** ▪ Mixture of OPGW and ADSS ▪ Communication between utility switchyard and existing PG&E Gates Substation ▪ Scenario 2 Fiber Line would be co-located within an existing PG&E electric distribution and 230 kV transmission line corridor ▪ A section of Scenario 2 Fiber Line would cross I-5, installation of which would require replacing existing structures, installing new structures, or a directional bore to underground the line. ▪ Ground disturbance expected: (a) within Darden Clean Energy Project boundary from where Scenario 2 Fiber Line originates at the utility switchyard to the dead-end electric distribution structure immediately adjacent to Darden Clean Energy Project, (b) potentially along the portion of the route where Scenario 2 crosses I-5, (c) where Scenario 2 Fiber Line transitions between existing distribution structures to transmission structures, and (d) from the Scenario 2 Fiber Line dead-end electric transmission line or electric distribution line structure to the existing PG&E Gates Substation	**Scenario 3 Fiber Line – 25 miles** ▪ Communication between utility switchyard and existing PG&E Gates Substation ▪ Scenario 3 Fiber Line would be located underground, overhead on a dedicated pole line, or a mixture of both located within an PG&E's existing 500 kV transmission line corridor, transitioning to OPGW within PG&E's existing 230 kV transmission line corridor ▪ Ground disturbance expected: (a) along the 500 kV line to place Scenario 3 Fiber Line underground or on a new dedicated pole line (or mixture of both), but not along the 230kV line where Scenario 3 Fiber Line would be attached to existing structures, (b) where Scenario 3 Fiber Line transitions between the transmission structures, and (c) from the Scenario 3 Fiber Line dead-end electric transmission line or electric distribution line structure to the existing PG&E Gates Substation

The communication line is anticipated to transition from overhead to underground at the locations described below. It is possible that undergrounding at other locations may also be required depending on ground conditions. The underground termination segments would be routed for up to approximately 2,000-feet.

- Approximately 1,000 feet within the Darden Clean Energy Project boundary from where the Scenario 1 Fiber Line or Scenario 2 Fiber Line originates at the utility switchyard to the dead-end electric distribution structure immediately adjacent to the Darden Clean Energy Project (Figure 4d).
- Where the Scenario 1 Fiber Line or Scenario 2 Fiber Line transitions between existing distribution structures to transmission structures (Figure 4d).
- Where Scenario 1 Fiber Line transitions between existing transmission structures to the splice point (Figure 4a).
- From the Scenario 2 Fiber Line or Scenario 3 Fiber Line dead-end electric transmission line or electric distribution line structure to the existing PG&E Gates Substation (Figure 4k).

In addition, as noted above, a directional bore may be used to underground the Scenario 1 Fiber Line or Scenario 2 Fiber Line where it crosses I-5.

Microwave Path Options

The following digital microwave pathway options will utilize the utility switchyard's new approximately 120- foot to 200-foot microwave antenna tower. One of these options will be used and selection of the path will be determined upon completing infield site survey to verify line of sight from the utility switchyard’s new microwave antenna.

- Microwave path to an existing microwave tower located at the Giffen Substation.
- Microwave path to an existing microwave tower located at the Excelsior Switching Station.
- Microwave path to an existing microwave tower located at Joaquin Ridge.
- Microwave path to Cantua Substation, which will require installation of one new microwave tower.

No construction activities would occur for paths to existing towers and those locations are not described further in this document. The option to Cantua Substation is described below in Section 1.1.2 *Substations*.

Substations

The four existing PG&E Substations where proposed activities would occur are described below and depicted in Appendix A, Figure 1b.

Los Banos Substation

The following work will occur within the fence line and existing footprint of the substation:

- Install a megawatt (MW) terminal and Direct Transfer Trip (DTT) scheme between the utility switchyard and Los Banos Substation using existing IT T1 infrastructure for the communication circuits.
- Replace Los Banos 500 kV circuit breakers 822, 832 & 842.

Midway Substation

The following work will occur within the fence line and existing footprint of the substation:

- Install a DTT scheme between the utility switchyard and Midway Substation using existing IT T1 infrastructure for the communication circuits, remove existing shunt reactor and install a new smaller shunt reactor to maintain the level of compensation, and replace or modify line relays installed with the new control building to maintain compatibility with line relays at the utility switchyard.
- Replace Midway 500 kV circuit breakers 742, 822, 912, 942.
- Install 2 x 16 ohm series bus reactors between Midway Substation 230 kV bus sections D and E (16 ohm parallel/8 ohm net).

Gates Substation (or Manning Substation)

A new series capacitor bank would need to be installed at Manning Substation, if that facility is built and comes online before Darden, the work for which is included in the Manning Substation scope being permitted under a separate CPUC formal process with proponent, LS Power. If Darden comes online first, the series capacitor would then need to be installed at the Gates Substation instead. All work would occur within the fence line and existing footprint of the Gates Substation. The Manning Substation component and activities are not analyzed further in this Addendum as they are being analyzed in a separate CPUC process.

Cantua Substation

As described above, to meet PG&E's communication reliability standards, microwave and fiber line communication paths will be established to support redundant communication paths to the utility switchyard. One option, a microwave path option to Cantua substation, would utilize the utility switchyard's new approximately 120-foot to 200-foot microwave antenna tower and would require installation of one new microwave tower at Cantua Substation.

1.2 Construction and Installation

Fiber Communication Line

Information is provided in this section to describe the installation construction process for the OPGW fiber lines. If it is determined that upgrades or replacement of existing structures and equipment is needed to accommodate the fiber cables, those activities would occur concurrently with the fiber installation.

The OPGW line installation would be completed in approximately 12 to 16 weeks; at any one location the construction would take between 2 and 3 weeks. Existing roads and access along the existing PG&E transmission line would be used to install the OPGW line, and PG&E would use the same methods when maintaining the electrical system. The OPGW line comes on reels that hold approximately 23,000 linear feet of cable. It is estimated that up to 20 temporary pull/reel and splice sites would be established along the existing electric transmission line corridor. Each splice and pull/reel site would require an approximate 150-foot by 250-foot work area between the structure sites within the existing PG&E transmission corridor right-of-way. The locations of the pull/reel sites will be finalized during detailed design. The criteria used in selecting the final pull/reel sites will be as follows:

- Accessibility for vehicles
- Presence of flat or nearly flat land next to existing transmission line route for equipment set-up
- Existing land use
- Absence of resources that would restrict work

Preparation of the temporary pull/splice sites would require minor ground disturbance in the form of drive and crush, but not grading. Minor structural modifications would also be made to each of the transmission structures to allow splice boxes to be mounted where the sections of OPGW would be spliced (every three to five miles). The pull/reel sites and transmission structures would be accessed generally along existing unimproved roads or improved unsurfaced or surfaced roads that lead to many of the structures; no new roads would be constructed or improved. Helicopters may be used to place materials at the point of installation for structures inaccessible by existing roads or as otherwise needed.

At each of the existing structures along the 230 kV electric transmission line route, minor upgrades to the steel attachments may be required to accommodate installation of the OPGW. These upgrades would include only overhead work on the existing tower, such as replacing the gode peaks with a pulley to accommodate the OPGW line. The existing static wire would then be used to pull the new OPGW through each structure's pulley. Existing roads or helicopters would be used to provide access to the sites to fashion the attachments needed on each structure.

Construction would be completed using a combination of helicopter and ground crews. Helicopters would be used to transport electrical workers to the towers, to deliver materials, and to assist in pulling the OPGW from structure to structure. Approximately ten 200-foot by 200-foot helicopter landing zones [HLZs] would be situated approximately every three to five miles using minimal surface disturbance, similar to the pull sites. Establishing these HLZs would involve minimal temporary ground disturbance.

Overhead crossings of public roadways or existing transmission or distribution lines would require the use of temporary guard structures at each crossing. The structures would be designed to prevent tools or materials from falling into the roadway or utility. Guard structures typically consist of two to four wooden structures and cross beams attached between the structures. They are generally installed in pairs with a net strung between them, but in some cases a net would not be required. A PG&E line truck would be used to auger and set the wooden structures. For roadway crossings, the temporary structures would be placed in or next to the disturbed road shoulder in an approximately 75-foot by 75-foot area. No grading or vegetation removal is anticipated during installation of the guard structures. Guard structures would be removed following OPGW line installation, and the holes would be backfilled.

If replacement of existing structures and equipment is needed to accommodate the fiber line on existing pole lines, ground disturbance activities associated with such replacement will not occur within potentially jurisdictional aquatic resources. If Scenario 3 Fiber Line is selected, the undergrounding of the fiber line or installation of a dedicated pole line will occur outside of potentially jurisdictional aquatic resources. For undergrounding activities, trenchless technology (i.e., horizontal directional drilling or jack and bore) would be used to install the fiber line under potentially jurisdictional aquatic resources; entry and exit pits would also be located outside the extents of potentially jurisdictional aquatic resources. The OPGW line installation would be completed in approximately 12 to 16 weeks; at any one location, the construction would take between 2 to 3 weeks. PG&E's construction start is dependent on receiving approval from the CPUC.

Substations

Work at the Los Banos, Midway, and Gates substations will occur within the substation fence lines.

If the Cantua Substation microwave path option is selected, a new microwave tower would be installed. If the final design of the tower indicates it cannot be mounted within the existing fence line due to site constraints of existing equipment, the substation footprint may be slightly expanded to the north or west to accommodate space for the new tower. This analysis assumes the Cantua Substation project footprint will be expanded 50 feet to the north of the existing northern fence line and 50 feet to the west of the existing western fence line.

PG&E Construction Measures

PG&E facilities fall under the jurisdiction of the CPUC, and PG&E will separately comply with CPUC permitting requirements for its interconnection facilities. Because PG&E is not an applicant in this CEC proceeding, PG&E is not subject to mitigation measures or other requirements to which the PG&E team has not formally agreed and that are not included as separate PG&E construction measures. Standard PG&E Construction Measures are included in Section 4. These measures would be applied by PG&E and its contractors during construction activities associated with implementation of the alternative fiber line scenarios and proposed activities at the substations described in this document and do not apply to other Darden Clean Energy Project components. The standard PG&E Construction Measures are incorporated into the three alternative fiber line scenarios and proposed activities at the four substations for purposes of CEQA review and are considered when analyzing potential impacts from implementation of the alternative fiber line scenarios and proposed activities at the four substations. PG&E's permitting through the CPUC will rely on the CEC's CEQA review and, as such, the standard PG&E Construction Measures will be mandatory.

1.3 Operations and Maintenance

Activities

Once constructed, operations and maintenance (O&M) activities associated with implementation of the selected alternative fiber line scenario and the upgrades at existing PG&E substations would be conducted as part of the overall O&M Program for the PG&E Transmission and Distribution System, which includes minor construction activities. In all cases, O&M work is performed according to current federal, state, and local regulatory requirements and, where applicable, landowner agreements. O&M activities include: aerial and ground patrols; electrical system facilities and equipment (including poles and substations) inspections, maintenance, replacement, and repair; and vegetation management and access road maintenance. Minor construction activities include: wood pole line construction/relocation (no longer than one mile); electrical tower line construction (no longer than one mile); minor substation expansion; and electric underground line construction (almost exclusively conducted in urban settings).

1.4 Project Location

The PG&E Project is located predominantly in unincorporated Fresno County on the western side of the San Joaquin Valley, with two discrete locations at existing PG&E substations in Merced County (Los Banos Substation) and Kern County (Midway Substation) (Appendix A, Figure 1a and Figure 1b).

Fiber Communication Line

The three alternative fiber line scenarios generally run parallel to I-5 in western Fresno County, as described below (Appendix A, Figure 1a).

- **Scenario 1 Fiber Line** runs for approximately 2 miles along the northern perimeter of the utility switchyard parcel, then north along S Derrik Avenue and across I-5 to a connection point with an existing PG&E electric distribution and 230 kV transmission line corridor; the connection point is approximately 0.4 mile east of I-5 near the corner of S Derrick Avenue and W Harlan Avenue. From there, it runs northwest on existing transmission towers paralleling I-5 for approximately 13 miles to a connection point with the Panoche-Tranquility 230kV line located in an agricultural field approximately 0.3-mile northeast of the S Jerrold Avenue and W Dinuba Avenue intersection.
- **Scenario 2 Fiber Line** runs for approximately 2 miles along the northern perimeter of the utility switchyard parcel, then north along S Derrik Avenue and across I-5 to a connection point with an existing PG&E electric distribution and 230 kV transmission line corridor; the connection point is approximately 0.4 mile east of I-5 near the corner of S Derrick Avenue and W Harlan Avenue (the same as Scenario 1 Fiber Line). From there, it runs southeast on existing transmission towers paralleling I-5 for approximately 26 miles to the Gates Substation located on the northwest corner of the W Jayne Avenue and S Trinity Avenue intersection.
- **Scenario 3 Fiber Line** runs from the southern perimeter of the utility switchyard parcel within an existing PG&E 500 kV transmission line corridor for approximately 17 miles southeast to a connection point with an existing PG&E 230 kV transmission line corridor; the connection point is in an agricultural field approximately 0.3-mile northeast of the S El Dorado Avenue and W Mitchell Avenue intersection. It then continues southeast on existing transmission towers within the 230 kV transmission line corridor paralleling I-5 for approximately 8 miles to the Gates Substation located on the northwest corner of the W Jayne Avenue and S Trinity Avenue intersection.

The existing transmission lines in the vicinity of the Darden Clean Energy Project, with which the three alternative fiber line scenarios would share transmission line corridors, are spaced approximately 1,200 to 1,600 feet apart and have towers that range between approximately 100-feet tall to 160-feet tall.

Substations

- **Cantua Substation** is located in Fresno County approximately 3 miles east of the utility switchyard adjacent to Cantua Creek. It is otherwise surrounded by agricultural fields.
- **Gates Substation** is located in Fresno County at the southeastern terminus of the Scenario 2 Fiber Line and Scenario 3 Fiber Line on the northwest corner of the W Jayne Avenue and S Trinity Avenue intersection. It is predominantly surrounded by agricultural fields.

- **Los Banos Substation** is located in Merced County directly south of Santa Nella and east of San Luis Reservoir along the south side of California State Route 152, approximately 55 miles northwest of the utility switchyard. It is predominantly surrounded by undeveloped land; a gas station travel center, hotel, RV park, and small residential area are located to the east.
- **Midway Substation** is located in Buttonwillow, Kern County, on the north side of California State Route 58. Residential and recreational areas of Buttonwillow bound the substation on the west, with agricultural fields to the north and east. California State Route 58 is to the south, on the other side of which are agricultural fields and a disturbed area with farmer's co-op facilities.

1.5 Personnel

Rincon Cultural Resources Senior Supervising Manager Breana Campbell-King, MA, Registered Professional Archaeologist (RPA), provided management oversight and is the lead author for this report. Cultural Resources Project Manager Cameron Felt, MA, RPA, assisted with the Native American outreach. Rincon Archaeologist and Principal Christopher Duran, MA, RPA, reviewed this report for quality control. Ms. Campbell-King, Ms. Felt, and Mr. Duran meet and exceed the Secretary of Interior Professional Qualification Standards for prehistoric and historic archaeology (36 CFR Part 61) (National Park Service 1983). Geographic Information Systems Analyst Isabelle Radis prepared the figures found in this report. Rincon Director Lindsey Sarquilla and Rincon Project Manager Evelyn Langsdale provided additional oversight and review of this report.

2 Background and Archival Research Methods

Rincon completed background and archival research in support of this report in July 2024. The methodology of Rincon's research, including confidential records search and SLF search are detailed below.

2.1 California Historical Resources Information System Records Search

In response to the data request from the CEC, Rincon completed a records search through the CHRIS for the PG&E Project area. The purpose of the records searches was to identify previously recorded cultural resources, as well as previously conducted cultural resources studies within the PG&E Project area and 1-mile radius surrounding it. Rincon also reviewed the National Register of Historic Places (NRHP), the California Historical Landmarks list, the Built Environment Resources Directory (BERD), as well as its predecessor the California State Historic Property Data File, and the Archaeological Determination of Eligibility list. Ms. Campbell-King coordinated with CHRIS staff for the records search.

On July 16, 2024, Rincon received CHRIS records search results (24-312) from the Southern San Joaquin Valley Information Center (SSJVIC), the official state repository for cultural resources records and reports for the county in which the PG&E Project area is located. Copies of the request and the results of the record search are included in Confidential Appendix B.

2.2 Sacred Lands File Search and Native American Outreach

On behalf of IP Darden I, LLC and Affiliates, Rincon Archaeologist Cameron Felt, MA, RPA contacted the NAHC on July 23, 2024, to request a search of the SLF, as well as to receive a contact list of Native Americans culturally affiliated with the PG&E Project area. The SLF request, the contacts list, outreach letters, and a tracking table for the outreach effort have been attached to this report (Confidential Appendix C).

3 Findings

3.1 Known Cultural Resources Studies

The CHRIS records search and background research identified 54 cultural resources studies within 1 mile of the PG&E Project area (Confidential Appendix B). Of these studies, 21 include a portion of the PG&E Project area. Copies of the reports are included in Confidential Appendix B.

3.2 Known Cultural Resources

The CHRIS records search and background research identified 32 cultural resources within a 1-mile radius of the PG&E Project area. Eight resources are within the PG&E project area, four are within 0.5-miles or the PG&E Project area; these resources are listed in Table 2 below. The remaining twenty resources were recorded between 0.5-mile and 1-mile of the PG&E Project area. Resources that are within or bisect the PG&E Project area are discussed in detail below the table. Copies of the resource records are included in Confidential Appendix B.

Table 2 Known Cultural Resources within 0.5-Mile of the PG&E Project Area

Primary Number	Trinomial	Resource Type	Description	Recorder(s) and Year(s)	Eligibility Status	Relationship to PG&E Project Area Components
P-10-000052	CA-FRE-52	Prehistoric Site	Habitation site	GWH-WCM (1939)	Unevaluated	Locational Data Removed from Public Version
P-10-000257	CA-FRE-000257	Prehistoric Site	Hearth features	Davis, E. (1958)	Unevaluated	Locational Data Removed from Public Version
P-10-003930	CA-FRE-3109H	Historic Structure	Southern Pacific Railroad	Multiple (see DPR form in Appendix A)	Unevaluated within the PG&E project area	Locational Data Removed from Public Version
P-10-005350	CA-FRE-3283	Prehistoric Site	Artifact scatter	Jones and Stokes (2003)	Recommended ineligible for NRHP. Unevaluated for CRHR	Locational Data Removed from Public Version
P-10-005498	–	Prehistoric Isolate	Milling slab	Jones and Stokes (2003)	Assumed ineligible for NRHP and CRHR designation through survey evaluation	Locational Data Removed from Public Version

Primary Number	Trinomial	Resource Type	Description	Recorder(s) and Year(s)	Eligibility Status	Relationship to PG&E Project Area Components
P-10-006610	CA-FRE-3769H	Historic Structure	Gates-Panoche 230kV Transmission Line No. 1 & 2	Applied EarthWorks, Inc. (2015)	Recommended ineligible for NRHP and CRHR designation through survey evaluation	Locational Data Removed from Public Version
P-10-006612	CA-FRE-3770H	Historic Structure	Schindler-Panoche 115 kV Transmission Line	Applied EarthWorks, Inc. (2015)	Recommended ineligible for NRHP and CRHR designation through survey evaluation	Locational Data Removed from Public Version
P-10-006614	CA-FRE-3772H	Historic Structure	Panoche-Kearney 230 kV Transmission Line	Applied EarthWorks, Inc. (2015, 2019)	Recommended ineligible for NRHP and CRHR designation through survey evaluation	Locational Data Removed from Public Version
P-10-006640	CA-FRE-3776H	Historic Structure	Gates-Gregg 230 kV Transmission Line	Applied EarthWorks, Inc. (2015, 2020)	Recommended ineligible for NRHP and CRHR designation through survey evaluation	Locational Data Removed from Public Version
P-10-007185	CA-FRE-3897H	Historic Structure	Henrietta/Huron/ Gates Transmission Line	Applied EarthWorks, Inc. (2019)	Recommended ineligible for NRHP and CRHR designation through survey evaluation	Locational Data Removed from Public Version
P-10-007205	CA-FRE-3769H	Historic Structure	Interstate 5	Urbana Preservation and Planning (2019)	Recommended ineligible for NRHP and CRHR designation through survey evaluation	Locational Data Removed from Public Version
P-10-007351	CA-FRE-3955H	Historic Structure	Coalinga Canal	ASM Affiliate, Inc. (2021)	Recommended ineligible for NRHP and CRHR designation through survey evaluation	Locational Data Removed from Public Version

Source: Southern San Joaquin Valley Information Center 2024; Fresno County BERD 2024

P-10-003930

Resource P-10-003930 was first recorded in 1998 by Jones and Stokes, as a segment of the Southern Pacific Railroad. There have been several subsequent documentations of various rail segments and features. While several features and segments have been evaluated and largely been recommended ineligible for listing in the CRHR or NRHP under all criteria, the segment that intersects the project does not appear to have been formally evaluated.

P-10-006610

Resource P-10-006610 was first recorded in 2015 by Randy Baloian of Applied EarthWorks, Inc., as the PG&E's Gates-Panoche 230 kV transmission line. The resource is described as a transmission line with two sets of 230 kV conductors (Number 1 and Number 2) supported by 100-foot-high double circuit steel lattice towers originating from the Gates Substation near Huron, California and running northwest for 43.5 miles to Panoche Substation near Mendota, California. The resource was built between 1937 and 1956 according to aerial imagery, but most likely in 1940 (Baloian 2015a). Baloian evaluated a 6-mile-long segment of the Gates-Panoche transmission line in 2015 and recommended the resource ineligible for listing in the CRHR or NRHP under all criteria.

P-10-006612

Resource P-10-00612 was first recorded in 2015 by Randy Baloian of Applied EarthWorks, Inc., as the PG&E's Schindler-Panoche 115 kV power line. The resource is described as a power line with two sets 115 kV conductors supported by 100-foot-high double-circuit steel lattice towers originating at the Schindler Substation in Westside, California and running west/northwest for 33.5 miles to the Panoche Substation near Mendota, California (Baloian 2015b). The resource was built between 1937 and 1956 according to aerial imagery, but most likely in 1940 (Baloian 2015a). A 1,175-foot segment of the power line was evaluated in 2015 and was recommended ineligible for listing in the CRHR and NRHP under all criteria.

P-10-006614

Resource P-10-006614 was first recorded in 2015 by Randy Baloian of Applied EarthWorks, Inc., as PG&E's Panoche-Kearney 230 kV transmission line. The resource is described as a transmission line two sets of 230 kV three-phase conductors supported by 100-foot-high double circuit steel lattice towers originating from the Panoche Substation southeast of Mendota, California and proceeds in a generally eastward direction for 49 miles to Kearney Substation located southwest of Fresno, California. The resource was built between 1937 and 1956 according to aerial imagery, but most likely in the late 1940s (Baloian 2015). Baloian evaluated a 1,200-foot-long segment of the line in 2015 and recommended the resource ineligible for listing in the CRHR or NRHP under all criteria.

P-10-006640

Resource P-10-006640 was first recorded in 2016 by Katie Asselin of Applied EarthWorks, Inc., as the PG&E's Gates-Gregg 230 kV transmission line. The resource is described as a transmission line with one set of 230 kV three-phase conductors supported by 100-foot-high double circuit steel lattice towers originating from the Gates Substation near Huron, California and running northeast for 57 miles to Gregg Substation northeast of Fresno, California. The resource was built between 1956 and 1961 according to aerial imagery, but most likely in 1940 (Asselin 2016). Asselin evaluated the 16-

mile-long segment of the transmission line in 2016 and recommended the resource ineligible for listing in the CRHR or NRHP under all criteria.

P-10-007185

Resource P-10-007185 was first recorded in 2019 by Amber Long of Applied EarthWorks, Inc., as the Henrietta/Huron/Gates transmission line. The resource is described as a 60 kV transmission line extends 16.11 miles between Henrietta Substation and Gates Substation. The resource was built in 1913 and was moved and partially rerouted in 1953 (Long 2019). Long evaluated a 0.19-mile-long segment of the Gates-Panoche transmission line in 2019 and recommended the resource ineligible for listing in the CRHR or NRHP under all criteria.

P-10-007205

Resource P-10-007205 was first recorded in 2019 by Urbana Preservation & Planning, LLC., as Interstate 5, a major north to south eight-lane paved freeway spanning a total of 1,380 miles from San Diego to the Canadian border in Washington State (Urbana Preservation & Planning 2019). The resource was built beginning in 1910 and completed in 1972. Urbana recorded a 12-mile segment of Interstate 5 between the California Aqueduct and Gorman, California in Kern County, which does not include the portion within the current PG&E project area. The resource was evaluated in its entirety and recommended ineligible for listing in the CRHR and NRHP under all criteria.

P-10-007351I

Resource P-10-007351 was first recorded in 2021 by R. Azpitarte of ASM Affiliates, Inc., as the Coalinga Canal. The resource is described as a mid-century irrigation ditch. Azpitarte evaluated a 100-foot-long segment of the Canal in 2021 and recommended the resource ineligible for listing in the CRHR or NRHP under all criteria.

3.3 Sacred Land File Search and Native American Outreach

On July 26, 2024, the NAHC responded to Rincon's SLF request, stating that the results of the SLF search were negative. Rincon mailed letters to Tribes that were previously contacted as part of the Darden Clean Energy Project as well as tribes who were listed on the July 26, 2024, SLF response. As of August 12, 2024, no responses have been received. See Confidential Appendix C for the NAHC responses, including Tribal Contacts List, and the results of the Native American outreach efforts.

4 Impacts Analysis and Conclusions

This analysis and conclusions provided below pertain to resources that have been previously documented and are on file with the CHRIS. The impact analysis below does not pertain to any unknown cultural resources that may exist within the PG&E Project area and is based solely on the data reviewed as part of this effort and documented herein.

4.1 Historical Built Environment Resources

The CHRIS search identified eight linear built environment historical resources located within or bisected by the PG&E Project area. As detailed above in Section 3, the resources have received recommendations of ineligibility for listing in the NRHP and CRHR that are based on either the full extent of the resource (P-10-007205) or segment(s) of the resource (P-10-003930, P-10-006610, P10-006612, P-10-006614, P-12-0006640, P-12-007185, P-10-007351). No resources that have been found eligible were identified within the PG&E Project area as part of this analysis. Therefore, no known impacts would occur to eligible built environment resources within the PG&E Project area.

4.2 Historical and Unique Archaeological Resources

This CHRIS search did not identify any known archaeological resources within the PG&E project area, four are located within 0.5-mile of the PG&E Project area. No information regarding archaeological resources within the PG&E Project area was received in response to the Native American outreach. Therefore, there are no known archaeological resources within the PG&E Project area that will be impacted by the project. No historical and unique archaeological resources that have been found eligible were identified within the PG&E Project area as part of this analysis. Therefore, no known impacts would occur to eligible historical and unique archaeological resources within the PG&E Project area.

The following measures are implemented by PG&E as best management practices for projects implemented by PG&E. Rincon assumes these measures would be implemented as part of the PG&E Project.

4.3 PG&E Standard Construction Measures

Worker Awareness Training

PG&E will provide environmental awareness training on archeological and paleontological resources protection. This training may be administered by the PG&E cultural resources specialist (CRS) or a designee as a stand-alone training or included as part of the overall environmental awareness training as required by the project and will at minimum include: types of cultural resources or fossils that could occur at the project site; types of soils or lithologies in which the cultural resources or fossils could be preserved; procedures that should be followed in the event of a cultural resource, human remain, or fossil discovery; and penalties for disturbing cultural or paleontological resources.

Flag and Avoid Known Resources

Sites will be marked with flagging tape, safety fencing, and/or sign designating it as an "environmentally sensitive area" to ensure that PG&E construction crews and heavy equipment will not intrude on these sites during construction. At the discretion of the PG&E CRS, monitoring may be done in lieu of or in addition to flagging. If it is determined that the project cannot avoid impacts on one or more of the sites, then, for those sites that have not been previously evaluated, evaluation for inclusion in the National Register of Historic Places (NRHP)/California Register of Historic Resources (CRHR) will be conducted. Should the site be found eligible, appropriate measures to reduce the impact to a less-than significant level will be implemented, including but not limited to data recovery, photographic and archival documentation, or other measures as deemed appropriate. If it is determined that sites that have been previously determined to be eligible for inclusion in either the NRHP or CRHR cannot be avoided, measures will be implemented to reduce the impact to a less-than-significant level, including but not limited to data recovery, photographic and archival documentation, or other measures as deemed appropriate.

Unanticipated Cultural Resources Discoveries

Unanticipated Cultural Resources

If unanticipated cultural resources are inadvertently discovered during site preparation or construction activities, work will stop in that area and within 100 feet of the find until CRS or their qualified designee can assess the significance of the find and, if necessary, develop appropriate treatment measures in consultation with PG&E and other appropriate agencies. Work may continue on other portions of the site with the CRS's approval. PG&E will implement the CRS's or their designee's recommendations for treatment of discovered cultural resources.

Human Remains

In the unlikely event that human remains or suspected human remains are uncovered during preconstruction testing or during construction, all work within 100 feet of the discovery will be halted and redirected to another location. The find will be secured, and the CRS or designated representative will be contacted immediately to inspect the find and determine whether the remains are human. If the remains are not human, the CRS will determine whether the find is an archaeological deposit and whether paragraph (a) of this APM should apply. If the remains are human, the cultural resources specialist will immediately implement the applicable provisions in PRC Sections 5097.9 through 5097.996, beginning with the immediate notification to the affected county coroner. The coroner has two working days to examine human remains after being notified. If the coroner determines that the remains are Native American, California Health and Safety Code 7050.5 and PRC Section 5097.98 require that the coroner contact the Native American Heritage Commission (NAHC) within 24 hours. The NAHC, as required by PRC Section 5097.98, will determine and notify the Most Likely Descendant.

5 References

Baloian, Randy, Katie Asselin, Aubrie Morlet, Michael J. Mirro, Jennifer Whiteman, Josh Tibbet, and Mary Baloian

2015 *Cultural Resources Inventory and Evaluation for the Central Valley Power Connect Project, Fresno, Kings, and Madera Counties, California*. Prepared by Applied EarthWorks, Inc. on behalf of Pacific Gas and Electric Company. Report Number FR-02769 on file at Southern San Joaquin Valley Information Center, California State University Fullerton.

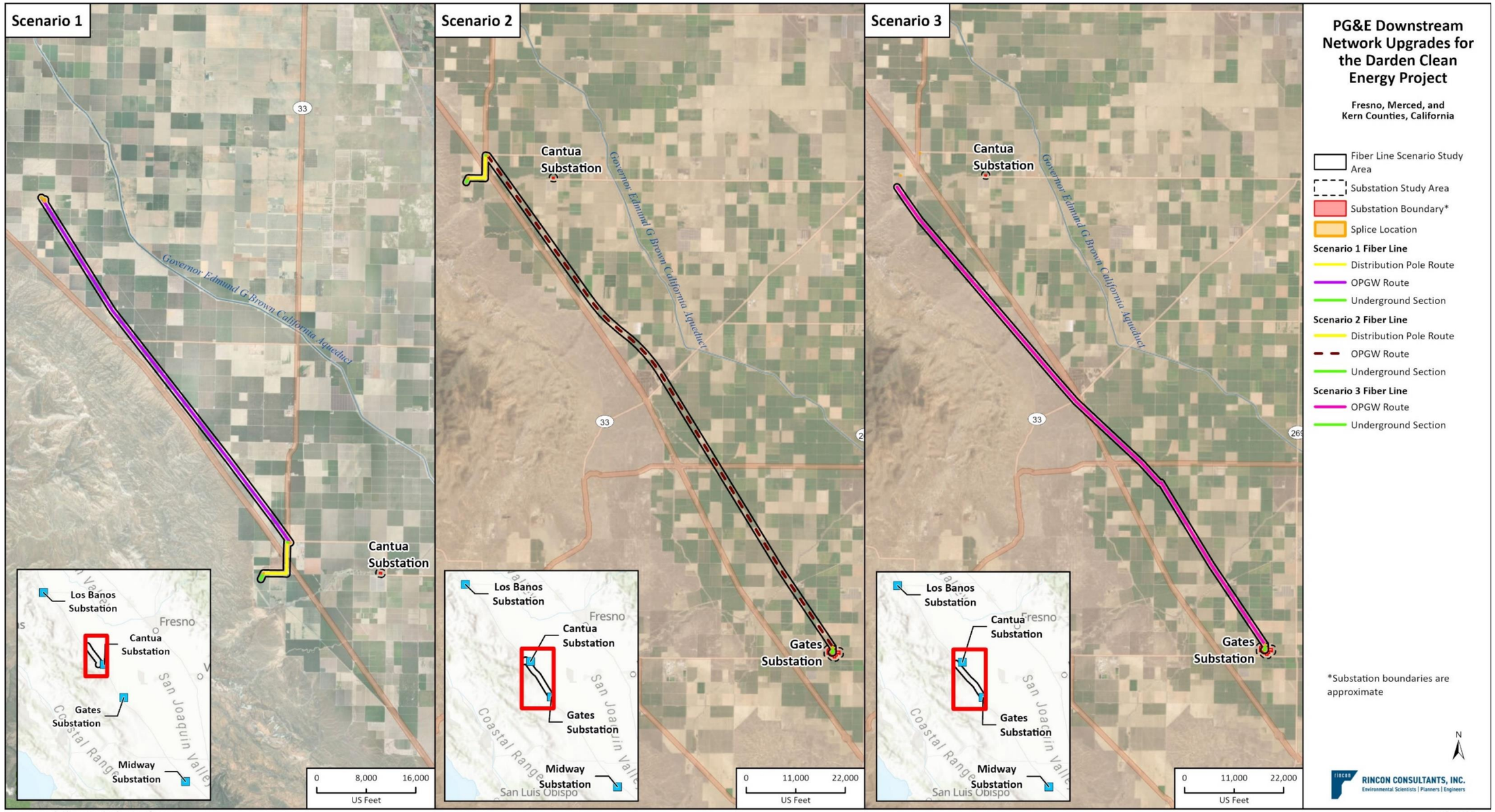
Lanner, David

2016 *Archaeological Survey Report Interstate 5, Derrick Pavement Preservation Project near Tranquility, Western Fresno County, California*. Prepared by the California Department of Transportation. Report Number FR-02797 on file at Southern San Joaquin Valley Information Center, California State University Fullerton.

Appendix A

Figures

Figure 1a Three Alternative Fiber Line Scenario Study Areas



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22-12530 PGE Figures
Fig 1a Study Area_Scenarios

Figure 1b Four Substation Study Areas

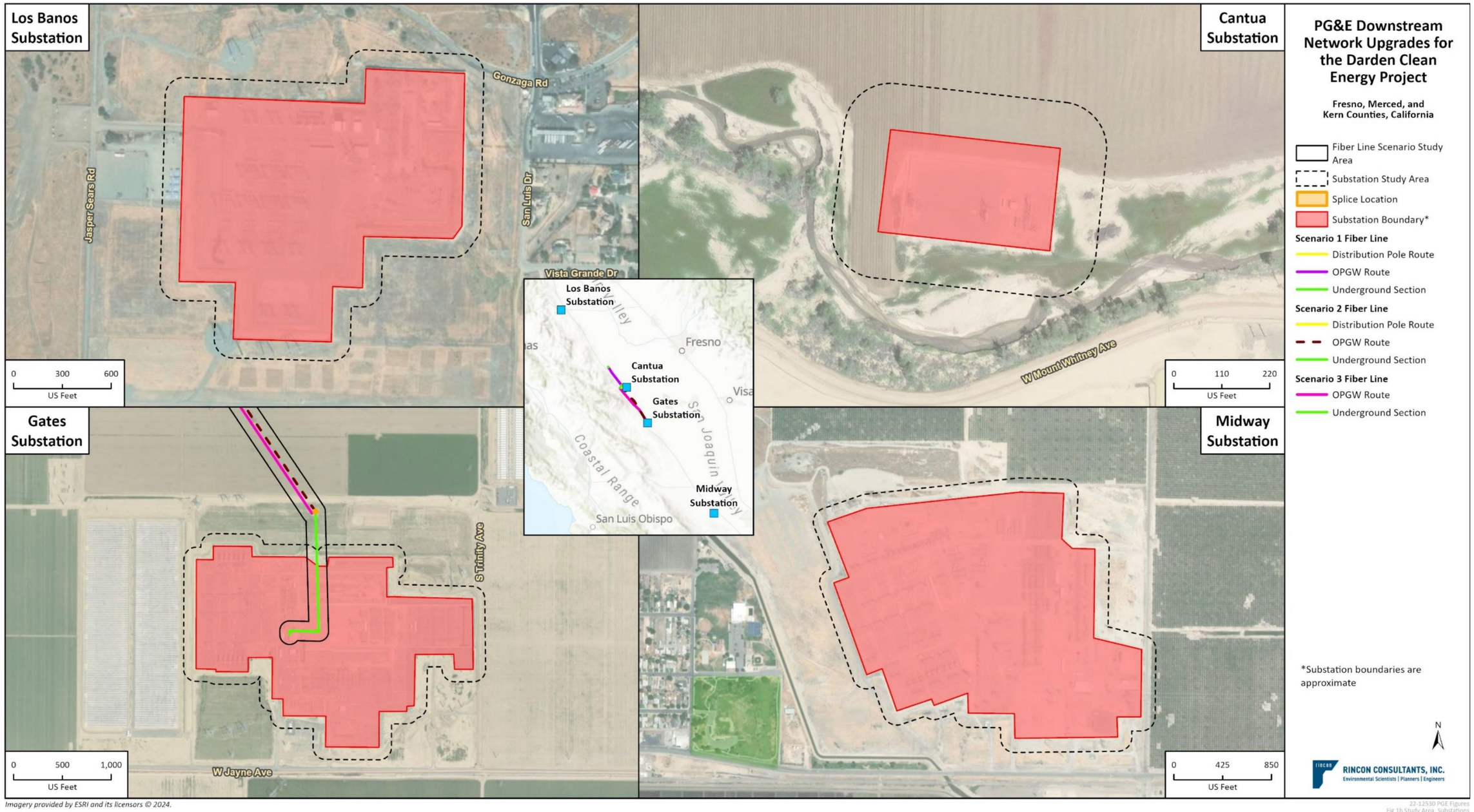
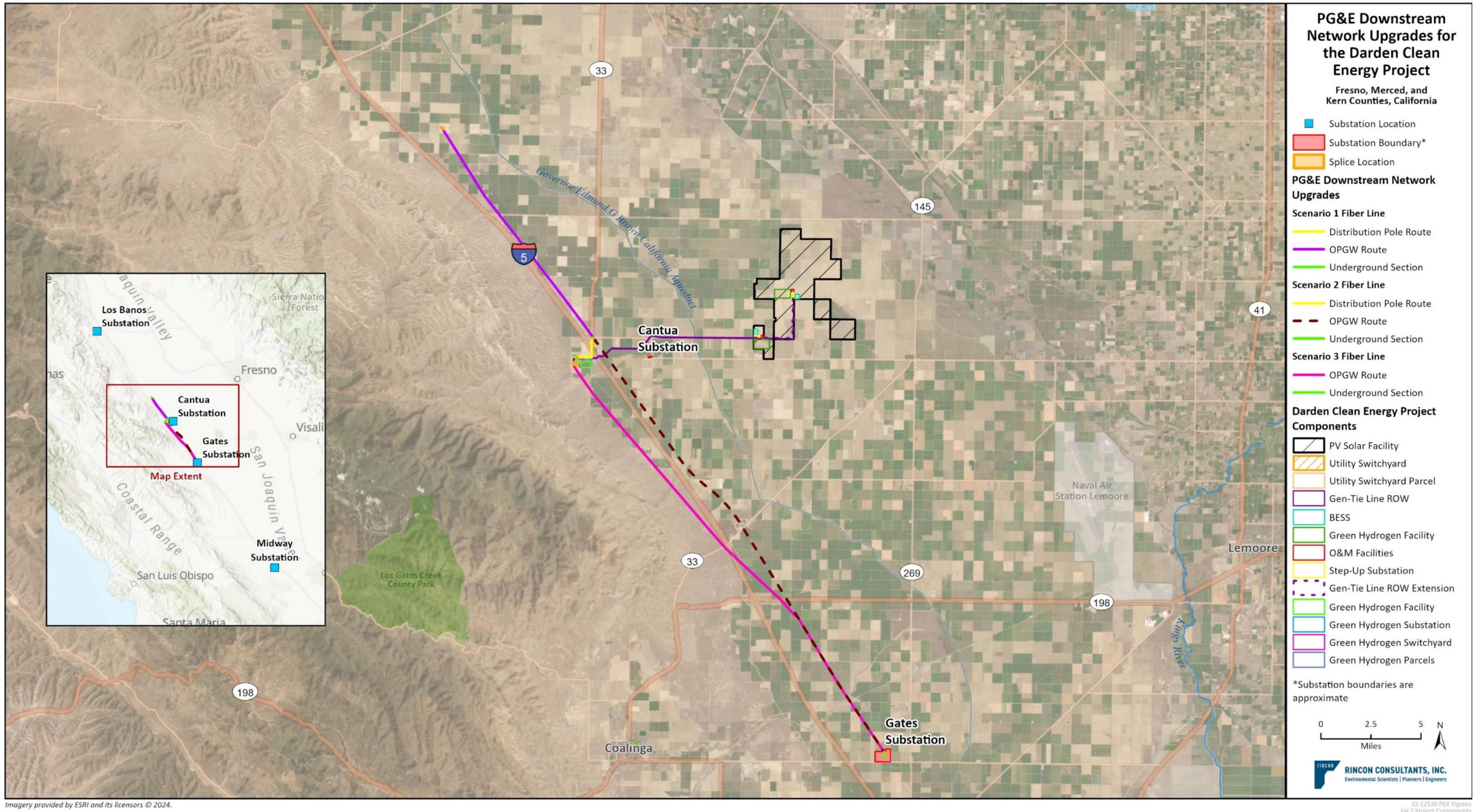


Figure 2 Project Components



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22-12530 PGE Figures
Fig 2 Project Components

Confidential Appendix B

California Historical Resources Information System Records Search Results (Removed from Public Version)

Confidential Appendix C

Native American Heritage Commission Sacred Lands Search Results and Native American Outreach (Removed from Public Version)