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Description:	Includes the updated Utility Switchyard Biological Resources Management Plan, provided in response to SUP DR BIO-3 as Appendix G of Supplemental Response Set 1.
Filer:	Megan Knight
Organization:	Rincon Consultants, Inc.
Submitter Role:	Applicant Consultant
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Docketed Date:	12/13/2024

Appendix G - Redline

SUP DR BIO-3 Updated Utility Switchyard Biological Resources Management Plan

Darden Clean Energy Project

Utility Switchyard ~~and Alternate Green Hydrogen Site~~ Biological Resources Management Plan

prepared for

IP Darden I, LLC and Affiliates
c/o Intersect Power, LLC
9450 Southwest Gemini Drive, PMB #68743
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December~~April~~ 2024

RINCON CONSULTANTS, INC. SINCE 1994

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1 Introduction

Rincon has prepared this Utility Switchyard ~~and Alternate Green Hydrogen Site~~ Biological Resources Management Plan on behalf of IP Darden I, LLC and Affiliates (Project Owner), for the Darden Clean Energy (Project), in unincorporated Fresno County, California. This plan has been prepared at the request of the California Energy Commission (CEC) and incorporates relevant information from Section 5.12 *Biological Resources* of the CEC Application (Rincon 2023a). The purpose of the plan is to outline the biological resources mitigation, monitoring, and reporting procedures that shall be implemented during construction of the utility switchyard ~~and, if it is developed, the alternate green hydrogen site, portion of the Project.~~.

Additional biological resources management plans for the Project include:

- **PV and Gen-tie Biological Resources Management Plan.** This plan outlines the biological resources mitigation, monitoring, and reporting procedures that shall be implemented during construction of the photovoltaic arrays (PV), battery energy storage system (BESS)~~, hydrogen facility~~, and generation intertie line (gen-tie) components ~~(including options 1 and 2)~~ of the Project (Rincon 2024a).
- **Burrowing Owl Management Plan.** This plan outlines the biological resources mitigation, monitoring, and reporting procedures that shall be implemented for all components of the Project as they relate to burrowing owl (*Athene cunicularia*) during the pre-construction, construction, and operations and maintenance phases (Rincon 2024b).
- **Swainson's Hawk Conservation Strategy.** This conservation strategy addresses potential effects to Swainson's hawk (*Buteo swainsoni*) nesting and foraging habitat on the Project during construction, operations, and maintenance (O&M) phases (Rincon 2023b).
- **Operations and Maintenance Biological Resources Management Plan.** This plan will outline the biological resources mitigation, monitoring, and reporting procedures that shall be implemented for all components of the Project during the O&M phase.

1.1 Project Description

The overall Project consists of the construction, operation, and eventual repowering or decommissioning of a 1,150 megawatt (MW) solar PV facility, an up to 4,600 megawatt-hour (MWh) battery energy storage system (BESS), ~~an up to 800 MW green to hydrogen generator,~~ a 34.5-500 kilovolt (kV) grid substation, a ~~10~~15-mile ~~(up to 15-mile)~~ 500 kV gen-tie line, a 500 kV utility switchyard along the Pacific Gas and Electric Company (PG&E) Los Banos-Midway #2 500 kV transmission line, and appurtenances. This plan is specific to construction of the utility switchyard ~~and, if developed, the alternate green hydrogen site (including a facility, substation and switchyard) located adjacent to the utility switchyard~~.

Construction of the Project is anticipated to take between 18 and 36 months to complete and the Project would be operational by 2028.

The Project would operate for approximately 35 years, at which time Project facilities would be either repowered or decommissioned. Following decommissioning, the Project site would be restored and reclaimed to the extent practicable to pre-construction conditions consistent with site lease agreements.

1.2 Project Location

The Project site is located in an agricultural area of unincorporated Fresno County south of the community of Cantua Creek (Figure 1). The proposed PV solar facility, BESS, and substation~~, and hydrogen facility (including options 1 and 2 of these components)~~ would be located on approximately 9,100 acres of land owned by Westlands Water District, between South Sonoma Avenue to the west and South Butte Avenue to the east (Figure 2). The proposed gen-tie line (approximately 10 to 15 miles) would span west from the intersection of South Sonoma Avenue and West Harlan Avenue to immediately west of Interstate 5, where it would connect to the new utility switchyard (Figure 2). ~~The alternate green hydrogen site being considered is located adjacent to the proposed utility switchyard site (Figure 2).~~

Land cover types include fallow lands, tilled and disked fields containing ruderal vegetation, orchards, and other active farming on the Project site. In this plan, non-active agriculture fields prior to vegetation growth are referred to as "fallow", and as "disked" if evidence of disking was present. Surrounding properties include fallow and agricultural lands. The Project's gen-tie line spans privately-owned land on the western portion of the Project site with land-cover types including active agriculture (primarily orchards) and fallow fields. The California Aqueduct bisects the gen-tie parcels, running generally north-south. Compacted dirt and paved roads border and separate each land-cover type.

~~This plan is applicable only to the utility switchyard and, if it is developed, the alternate green hydrogen site located on the far western side of the Project site.~~

1.3 Utility Switchyard

To accommodate interconnection of the Darden Clean Energy Project to the California electrical grid, the Project will include a new 500 ~~kilovolt (~~kV~~)~~ ~~switching station (~~utility switchyard~~)~~. The utility switchyard will be constructed by the Applicant~~IP Darden~~ and transferred to PG&E, after completion and inspection, for operation as a PG&E utility facility. The utility switchyard will connect to the existing transmission system by rerouting and looping in the existing Los Banos-Midway ~~No. #~~2 500 kV ~~T~~transmission ~~L~~line into the facility.

The utility switchyard is anticipated to occupy approximately 50 ~~-~~acres located immediately east of the Los Banos-Gates ~~No. #~~1 and Los Banos-Midway ~~No. #~~2 500 kV ~~T~~transmission ~~L~~lines in an existing almond orchard~~agricultural field~~. The utility switchyard will be constructed approximately 9 miles west of~~from~~ the solar facility and would have separate access and security fencing than that of the other Project facilities.

PG&E will construct the power line interconnection loop-in to the existing transmission line, and the telecommunication facilities (microwave and fiber). PG&E will also conduct construction and maintenance work for any necessary downstream upgrades. PG&E facilities fall under the jurisdiction of the California Public Utilities Commission (CPUC) and PG&E will separately comply with CPUC permitting requirements for its interconnection facilities.

This Utility Switchyard Biological Resources Management Plan applies only to construction activities conducted by the Applicant~~IP Darden~~ for the utility switchyard.

Figure 1 Regional Location Map

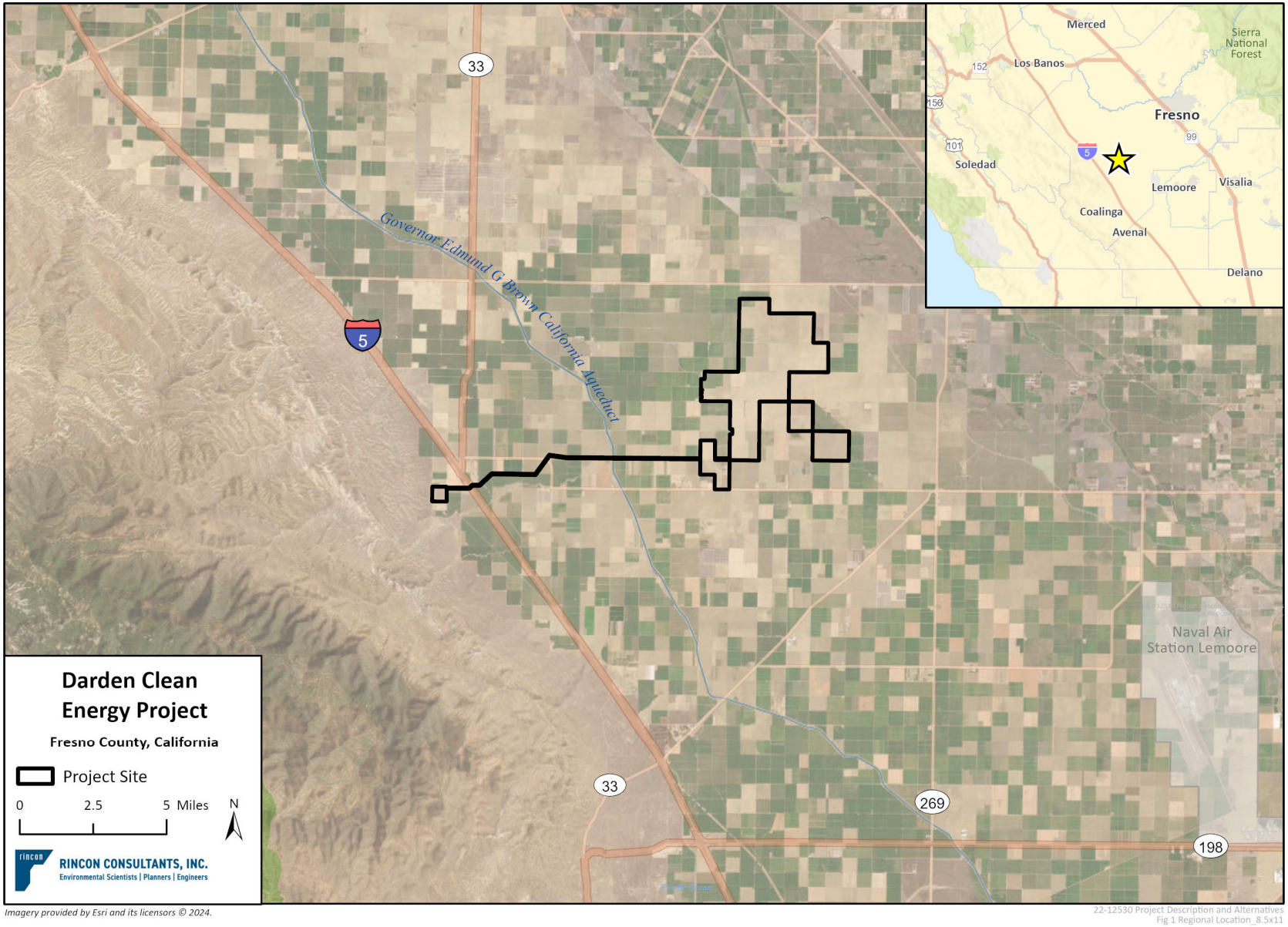
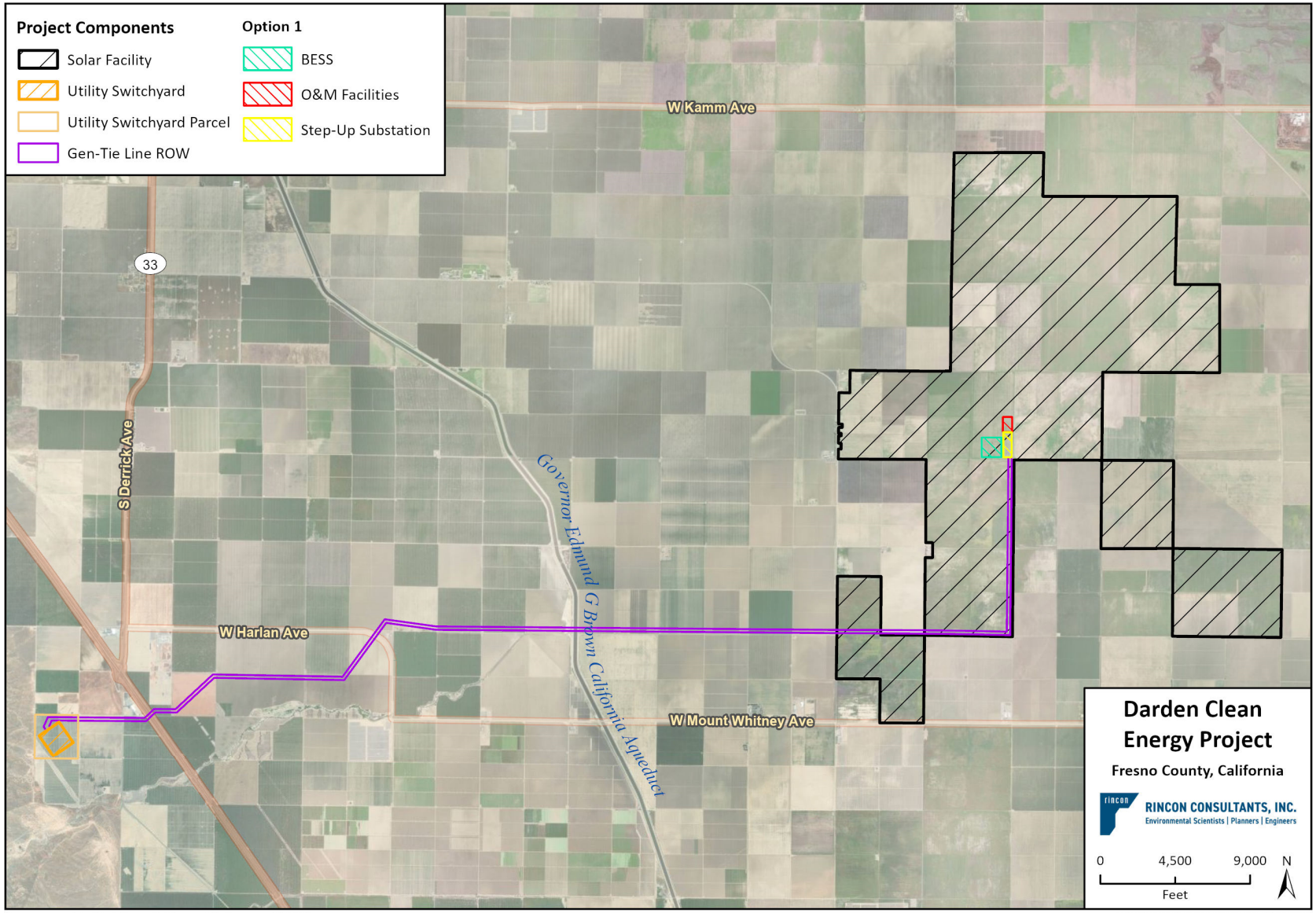


Figure 2 Project Map



2 Existing Conditions

2.1 General Site Conditions

2.1.1 Topography and Geography

The Project site is located in unincorporated Fresno County in the San Joaquin Valley. The San Joaquin Valley is bounded by the Sacramento – San Joaquin River Delta to the north, the Diablo Mountain Range to the west, the Sierra Nevada Mountains to the east, and the Tehachapi Range to the south. The region is primarily composed of agricultural land dating back to as early as the 1940s, and cattle grazing land, with areas of residential and industrial development primarily concentrated near Fresno. Vegetation occurring in the San Joaquin Valley mostly consist of annual/ruderal grassland, pasture, cropland, valley-foothill riparian, vernal pool, alkali scrub, and orchard-vineyard (Fresno County 2000). The Biological Study Area (BSA)–the approximately ~~155~~159-acre utility switchyard parcel ~~, alternate green hydrogen site,~~ and a general 100-ft buffer—is relatively flat, with elevations ranging from approximately 54~~07~~ to 638 feet above mean sea level, increasing in elevation from the east to the west towards the Diablo Range. Geography in the vicinity of the BSA includes agriculture with a few small scattered rural residential areas and small solar facilities, and the base of the Ciervo Hills to the west.

2.1.2 Vegetation and Other Land Cover

During biological surveys in 2022 and 2023, the ~~western portion of the~~ BSA encompassing the proposed utility switchyard ~~and alternate green hydrogen site~~ was dominated by ~~a disked field on the eastern side and~~ an active almond orchard ~~to the west~~ with a transmission line that runs across the southwestern corner of the parcel. The surrounding habitat includes active and seasonally managed non-active agricultural fields to the north, east, and south with grassland to the west.

~~Crops other than orchards that were cultivated in 2023 represent isolated activity that was only feasible as the result of an unusually wet winter season, and the Project site is otherwise comprised completely of lands that have been retired from agricultural cultivation or are orchards. No crop fields such as alfalfa, wheat, or other grain field occur within the BSA or within the surrounding landscape. The Project site occurs within a region that has limited water availability due to the critically overdrafted groundwater subbasin. As a result, the entire region is predominantly retired agricultural lands that are disked or no longer in production.~~

2.2 Sensitive Biological Resources

The sensitive biological resources that have potential to occur specifically within the proposed utility switchyard ~~and alternate green hydrogen site~~ are outlined in Table 1 (Rincon 2023c). No sensitive biological resources were identified in this area during the 2022 or 2023 surveys.

Table 1 Special-Status Wildlife Species with the Potential to Occur in the BSA of the Utility Switchyard ~~and Alternate Green Hydrogen Site~~

Common Name	Scientific Name	Agency Status (Federal/State/Other)	Potential to Occur within the Utility Switchyard[1] ~~or Alternate Green Hydrogen Site[1]~~
Reptiles			
San Joaquin coachwhip	*Masticophis flagellum ruddocki*	–/–/SSC	Low Potential
Birds			
burrowing owl	*Athene cunicularia*	–/SC~~–~~/SSC	~~High~~ Moderate Potential (nesting, foraging)
loggerhead shrike	*Lanius ludovicianus*	–/–/SSC	Moderate~~High~~ Potential (foraging), No Potential (nesting)
yellow warbler	*Setophaga petechia*	–/–/SSC	Moderate~~High~~ Potential (migration) No Potential (nesting)
Mammals			
American badger	*Taxidea taxus*	–/–/SSC	High Potential
San Joaquin kit fox	*Vulpes macrotis mutica*	FE/ST/–	Moderate Potential

[1]Avian species observed foraging on the Project site or passing through during their migration during biological resources surveys, but which have either no or low potential to nest on the Project site: loggerhead shrike and ~~and~~ yellow warbler.

FE = Federally Endangered, ST = State Threatened, SC = State Candidate for Listing under California Endangered Species Act, SSC = CDFW Species of Special Concern

Source: California Natural Diversity Database (CNDDB) (Fresno County), May 2021

3 Management Strategy

3.1 Pre-construction Surveys

3.1.1 Burrowing Species Surveys

Preconstruction surveys for burrowing species shall be conducted by a Qualified Biologist for the presence of San Joaquin kit fox and American badger prior to commencement of construction activities in all areas with potential to support these species. This survey shall be conducted no more than 30 days prior to ground disturbing activities without prior agency approval. The surveys can be staggered to match the different construction phases and locations to reduce the need to re-survey any given area. The surveys shall be conducted in areas of suitable habitat for each species. Surveys shall conform to United States Fish and Wildlife Service (USFWS) guidelines for San Joaquin kit fox and to industry standards for American badger. Specific survey requirements for burrowing owl are discussed in the Burrowing Owl Management Plan (Rincon 2024b).

If work is halted in a given area for 30 days or greater, pre-construction surveys will be repeated in work areas that are not fully cleared of vegetation following the initial pre-construction survey until all vegetation is cleared. Once vegetation is cleared and construction is ongoing, no additional surveys will be needed as monitoring will be conducted during on-going activities.

Where special-status species habitat (e.g., burrows/dens) are known to occur and there is a potential for significant impacts, a Qualified Biologist will monitor construction activities to ensure that impacts to special-status species are avoided and minimized (as described in Section 3.2 ***Error! Reference source not found.***).

3.1.2 Nesting Bird Surveys

If construction is scheduled to commence during the non-breeding season (September 1 to January 31), no pre-construction surveys or additional measures for nesting birds or other raptors shall be required. Prior to ground disturbing and vegetation removal activities that are initiated during the breeding season (February 1 to August 31), a Qualified ~~Wildlife~~ Biologist shall conduct preconstruction surveys of all potential nesting habitats within the Project area. The raptor survey shall focus on potential nest sites (e.g., owl boxes, large trees, windrows, and shrubs) within 500 feet of the site for common raptors. Nesting bird surveys shall be conducted within 14 days of the start of ground-disturbing or vegetation removal activities. Surveys need not be conducted for the entire Project area at one time and may be conducted in phases consistent with construction activity schedules. Specific survey requirements for Swainson's Hawk are discussed in the Swainson's Hawk Conservation Strategy (Rincon 2023b).

The surveying biologist shall be qualified to determine the status and stage of nesting by migratory birds and all locally breeding raptor species without causing intrusive disturbance.

3.2 Construction Monitoring

A ~~q~~Qualified ~~b~~Biologist will be on-site to conduct full-time biological monitoring at the utility switchyard ~~and, if developed, the alternate green hydrogen site~~ during all initial construction activities including mobilization, vegetation grubbing and clearing, site grading, trimming and/or

removal of trees or other vegetation, and fence installation. During construction monitoring, ~~q~~Qualified ~~b~~Biologists will conduct morning sweeps of the work areas, inspect avoidance buffers, confirm that ground disturbance activities and impacts occur within designated limits, watch for special-status species within the work area, and confirm appropriate avoidance and minimization measures are implemented. Once vegetation is cleared and all initial ground disturbance has occurred, weekly spot checks of the utility switchyard ~~and alternate green hydrogen site~~ will be conducted to continue to ensure appropriate avoidance and minimization measures are implemented.

The ~~q~~Qualified ~~b~~Biologist's monitoring responsibilities will also include monitoring active nests and burrows/dens to determine if the recommended buffer is effective during active work in proximity to the nest or burrow/den. The nest and burrows/dens will be visited weekly at a minimum, but frequency will vary depending on Project activity and location. Nests and burrows/dens will be monitored until a final outcome is determined (e.g., the nest or burrow/den becomes inactive, the young have fledged, the young are no longer being fed by the parents, the young have left the area, and the young will no longer be impacted by the Project), or for the duration of Project activities in proximity to the nest or burrow/den (based on the species-specific buffer), whichever occurs first. At a minimum, the following information will be documented for each burrow/den or nest:

- Date nest or burrow/den first observed/detected
- Species
- Status (e.g., nest building, incubating, brooding, young rearing, unoccupied)
- Distance of the nest to Project activities
- Type of Project activity occurring within the vicinity of the nest or burrow/den
- Recommended buffer size including modifications to buffer size

3.3 Avoidance Buffers

3.3.1 San Joaquin Kit Fox

If San Joaquin kit fox occurs in the Project site, work within 500 feet of the animal will be halted until the animal leaves the area, as determined by the Qualified Biologist.

3.3.2 American Badger

If potential American badger dens are observed at any point during pre-construction surveys or construction and avoidance is feasible, buffer distances of 50 feet for occupied dens and 250-foot, no-disturbance buffers for natal dens shall be established by the Qualified Biologist prior to construction activities.

If avoidance of the potential American badger dens is not feasible, the following measures are recommended to minimize potential adverse effects to the American badger:

- If a Qualified Biologist determines that potential dens are inactive, the biologist shall excavate the dens by hand with a shovel and collapse them to prevent American badgers from re-using them during construction.
- If the Qualified Biologist determines that potential dens may be active, the biologist shall conduct remote camera monitoring of the den for a period of three consecutive days to confirm occupancy status. If the Qualified Biologist determines that a den is an active natal den,

avoidance buffers of 250 feet shall be established to demarcate no-work areas that shall be maintained until the den is no longer an active natal den. Dens that are determined to be non-natal or are active outside of the breeding season shall implement passive eviction procedures through the installation of one-way doors, and the use of remote camera monitoring to document no activity for 3 consecutive days. Dens that are determined to be unoccupied or have become inactive following passive eviction or at the end of breeding season shall be hand-excavated with a shovel and collapsed to prevent reuse during construction.

3.3.3 Nesting Birds

Buffers shall be determined by the Qualified Biologist and be established based on the species and nest location, to allow for known species' behavior and environmental factors (e.g., line of sight to nest) when establishing avoidance buffers. Standard buffers are typically 200 to 500 feet for common raptors and 30 to 50 feet for most common passerines but may be larger if necessary to prevent disturbance of nesting activity, based on species sensitivity. No access into buffer areas shall be allowed until a Qualified Biologist has determined that the nestlings have fledged and are no longer reliant on the nest or the nest has become otherwise inactive (e.g., depredation). Encroachment into the buffer for common species may occur at the discretion of a Qualified Biologist and with the appropriate biological monitoring to ensure no disruption of nesting activity; however, for State-listed or FP species, CDFW shall be consulted for approval of buffer encroachment or reduction. Specific buffers for Swainson's hawk and burrowing owl are discussed in the Swainson's Hawk Conservation Strategy (Rincon 2023b) and Burrowing Owl Management Plan (Rincon 2024b), respectively.

3.4 Qualified Biologist

The Qualified Biologist will have relevant experience with the taxa and species in the Central Valley and San Joaquin Valley for which pre-construction surveys, monitoring, or other support is required during Project construction. The Qualified Biologist role may be satisfied by one or more individuals depending on qualifications and experience with one or more species and taxa.

3.5 Worker Environmental Awareness Program

All personnel that enter the Project area shall attend a Worker Environmental Awareness Program (WEAP) developed by the Qualified Biologist or authorized designee. New personnel shall receive WEAP training on the first day of work and prior to commencing work on the site.

- The program shall include information on the life history of the San Joaquin kit fox, Swainson's hawk, burrowing owl, American badger, San Joaquin coachwhip, and nesting birds as well as other wildlife and plant species that may be encountered during construction activities.
- The program shall also discuss the legal protection status of each species, the definition of "take" under the Federal Endangered Species Act and California Endangered Species Act, measures the Project proponent is implementing to protect the species, reporting requirements, specific measures that each worker shall employ to avoid take of wildlife species, and penalties for violation of the Federal Endangered Species Act or California Endangered Species Act.
- The program shall include the contact information for the Project's environmental compliance manager.

- The program shall provide information on how and where to bring injured animals for treatment in the case any animals are injured the Project area.
- An acknowledgement form signed by each worker indicating that WEAP training has been completed shall be kept on record.
- A copy of the training transcript and/or training video, as well as a list of the names of all personnel who attended the WEAP training, and copies of the signed acknowledgement forms will be made available upon agency request.

3.6 General Avoidance and Minimization Measures

The following general avoidance and minimization measures shall be implemented:

- Designation of a 15 mile per hour speed limit in all construction areas.
- All vehicles and equipment shall be parked on pavement, existing roads, and previously disturbed areas, and clearing of vegetation for vehicle access shall be avoided to the greatest extent feasible.
- The number of access routes, number and size of staging areas, and the total area of the activity shall be limited to the minimum necessary to achieve the goal of the Project.
- Designation of equipment washout and fueling areas to be located within the limits of grading at a minimum of 100 feet from any sensitive resources as identified by a Qualified Biologist.
- Washout areas shall be designed to fully contain polluted water and materials for subsequent removal from the site.
- Drip pans shall be placed under all stationary vehicles and mechanical equipment that have leaking or discharging lubricants or other fluid.
- All carrion shall be removed from the Project site prior to and during construction.
- All trash, including carrion, shall be placed in sealed containers and shall be removed from the Project site a minimum of once per week.
- No pets are permitted on the Project site during construction.
- All pipes or other construction materials or supplies shall be covered or capped in storage or laydown areas. No pipes or tubing shall be left open either temporarily or permanently, except during use or installation. Any construction pipe, culvert, or other hollow materials shall be inspected for wildlife before it is moved, buried, or capped.
- Project-related excavations shall be secured to prevent wildlife entry and entrapment. Holes and trenches shall be backfilled, securely covered, or fenced. Excavations that cannot be fully secured shall incorporate wildlife ramp or other means to allow trapped animals to escape. At the end of each workday, a biological monitor shall ensure that excavations have been secured or provided with appropriate means for wildlife escape.

3.7 Reporting

During construction, monthly reports will be prepared to document compliance with all applicable measures and conditions The reports will summarize the results of surveys and biological monitoring and will document non-compliance events and the corrective actions taken to address those events. Reports will document any instances of sensitive resources being impacted as a result of Project activity. The record of compliance and documentation of impacts to biological resources

will be the metrics by which the success of mitigation will be evaluated and documented in the compliance reports.

4 References

Fresno, County of. 2000. General Plan Update. Draft Environmental Impact Report.

Rincon Consultants, Inc. 2023a. Darden Clean Energy Project California Energy Commission Application, Section 5.12 Biological Resources. October 2023.

_____. 2023b. Darden Clean Energy Project Swainson's Hawk Conservation Strategy. October 2023.

_____. 2023c. Darden Clean Energy Project Biological Resources Assessment. October 2023.

_____. 2024a. Darden Clean Energy Project PV and Gen-tie Biological Resources Management Plan. DecemberApril 2024.

_____. 2024b. Darden Clean Energy Project Burrowing Owl Management Plan. DecemberMay 2024.

Appendix G - Clean

SUP DR BIO-3 Updated Utility Switchyard Biological Resources Management Plan

Darden Clean Energy Project

Utility Switchyard Biological Resources Management Plan

prepared for

IP Darden I, LLC and Affiliates
c/o Intersect Power, LLC
9450 Southwest Gemini Drive, PMB #68743
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prepared by

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Tables

Figures

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1 Introduction

Rincon has prepared this Utility Switchyard Biological Resources Management Plan on behalf of IP Darden I, LLC and Affiliates (Project Owner), for the Darden Clean Energy (Project), in unincorporated Fresno County, California. This plan has been prepared at the request of the California Energy Commission (CEC) and incorporates relevant information from Section 5.12 *Biological Resources* of the CEC Application (Rincon 2023a). The purpose of the plan is to outline the biological resources mitigation, monitoring, and reporting procedures that shall be implemented during construction of the utility switchyard.

Additional biological resources management plans for the Project include:

- **PV and Gen-tie Biological Resources Management Plan.** This plan outlines the biological resources mitigation, monitoring, and reporting procedures that shall be implemented during construction of the photovoltaic arrays (PV), battery energy storage system (BESS), and generation intertie line (gen-tie) components of the Project (Rincon 2024a).
- **Burrowing Owl Management Plan.** This plan outlines the biological resources mitigation, monitoring, and reporting procedures that shall be implemented for all components of the Project as they relate to burrowing owl (*Athene cunicularia*) during the pre-construction, construction, and operations and maintenance phases (Rincon 2024b).
- **Swainson's Hawk Conservation Strategy.** This conservation strategy addresses potential effects to Swainson's hawk (*Buteo swainsoni*) nesting and foraging habitat on the Project during construction, operations, and maintenance (O&M) phases (Rincon 2023b).
- **Operations and Maintenance Biological Resources Management Plan.** This plan will outline the biological resources mitigation, monitoring, and reporting procedures that shall be implemented for all components of the Project during the O&M phase.

1.1 Project Description

The overall Project consists of the construction, operation, and eventual repowering or decommissioning of a 1,150 megawatt (MW) solar PV facility, an up to 4,600 megawatt-hour (MWh) battery energy storage system (BESS), a 34.5-500 kilovolt (kV) grid substation, a 15-mile 500 kV gen-tie line, a 500 kV utility switchyard along the Pacific Gas and Electric Company (PG&E) Los Banos-Midway #2 500 kV transmission line, and appurtenances. This plan is specific to construction of the utility switchyard.

Construction of the Project is anticipated to take between 18 and 36 months to complete and the Project would be operational by 2028.

The Project would operate for approximately 35 years, at which time Project facilities would be either repowered or decommissioned. Following decommissioning, the Project site would be restored and reclaimed to the extent practicable to pre-construction conditions consistent with site lease agreements.

1.2 Project Location

The Project site is located in an agricultural area of unincorporated Fresno County south of the community of Cantua Creek (Figure 1). The proposed PV solar facility, BESS, and substation would be located on approximately 9,100 acres of land owned by Westlands Water District, between South Sonoma Avenue to the west and South Butte Avenue to the east (Figure 2). The proposed gen-tie line (approximately 10 to 15 miles) would span west from the intersection of South Sonoma Avenue and West Harlan Avenue to immediately west of Interstate 5, where it would connect to the new utility switchyard (Figure 2).

Land cover types include fallow lands, tilled and disked fields containing ruderal vegetation, orchards, and other active farming on the Project site. In this plan, non-active agriculture fields prior to vegetation growth are referred to as “fallow”, and as “disked” if evidence of disking was present. Surrounding properties include fallow and agricultural lands. The Project’s gen-tie line spans privately-owned land on the western portion of the Project site with land-cover types including active agriculture (primarily orchards) and fallow fields. The California Aqueduct bisects the gen-tie parcels, running generally north-south. Compacted dirt and paved roads border and separate each land-cover type.

1.3 Utility Switchyard

To accommodate interconnection of the Darden Clean Energy Project to the California electrical grid, the Project will include a new 500 kV utility switchyard. The utility switchyard will be constructed by the Applicant and transferred to PG&E, after completion and inspection, for operation as a PG&E utility facility. The utility switchyard will connect to the existing transmission system by rerouting and looping in the existing Los Banos-Midway #2 500 kV transmission line into the facility.

The utility switchyard is anticipated to occupy approximately 50 acres located immediately east of the Los Banos-Gates #1 and Los Banos-Midway #2 500 kV transmission lines in an existing almond orchard. The utility switchyard will be constructed approximately 9 miles west of the solar facility and would have separate access and security fencing than that of the other Project facilities.

PG&E will construct the power line interconnection loop-in to the existing transmission line, and the telecommunication facilities (microwave and fiber). PG&E will also conduct construction and maintenance work for any necessary downstream upgrades. PG&E facilities fall under the jurisdiction of the California Public Utilities Commission (CPUC) and PG&E will separately comply with CPUC permitting requirements for its interconnection facilities.

This Utility Switchyard Biological Resources Management Plan applies only to construction activities conducted by the Applicant for the utility switchyard.

Figure 1 Regional Location Map

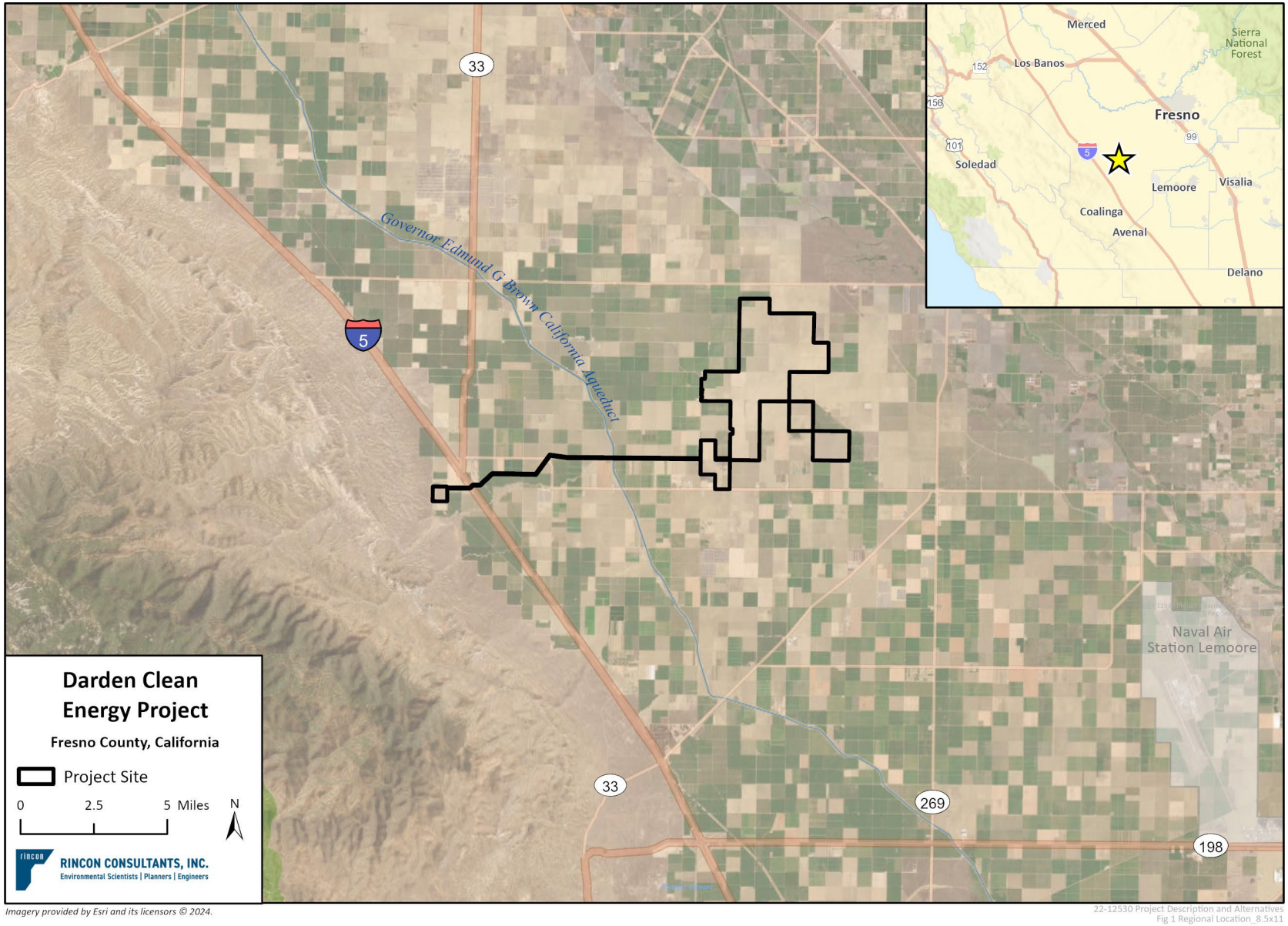
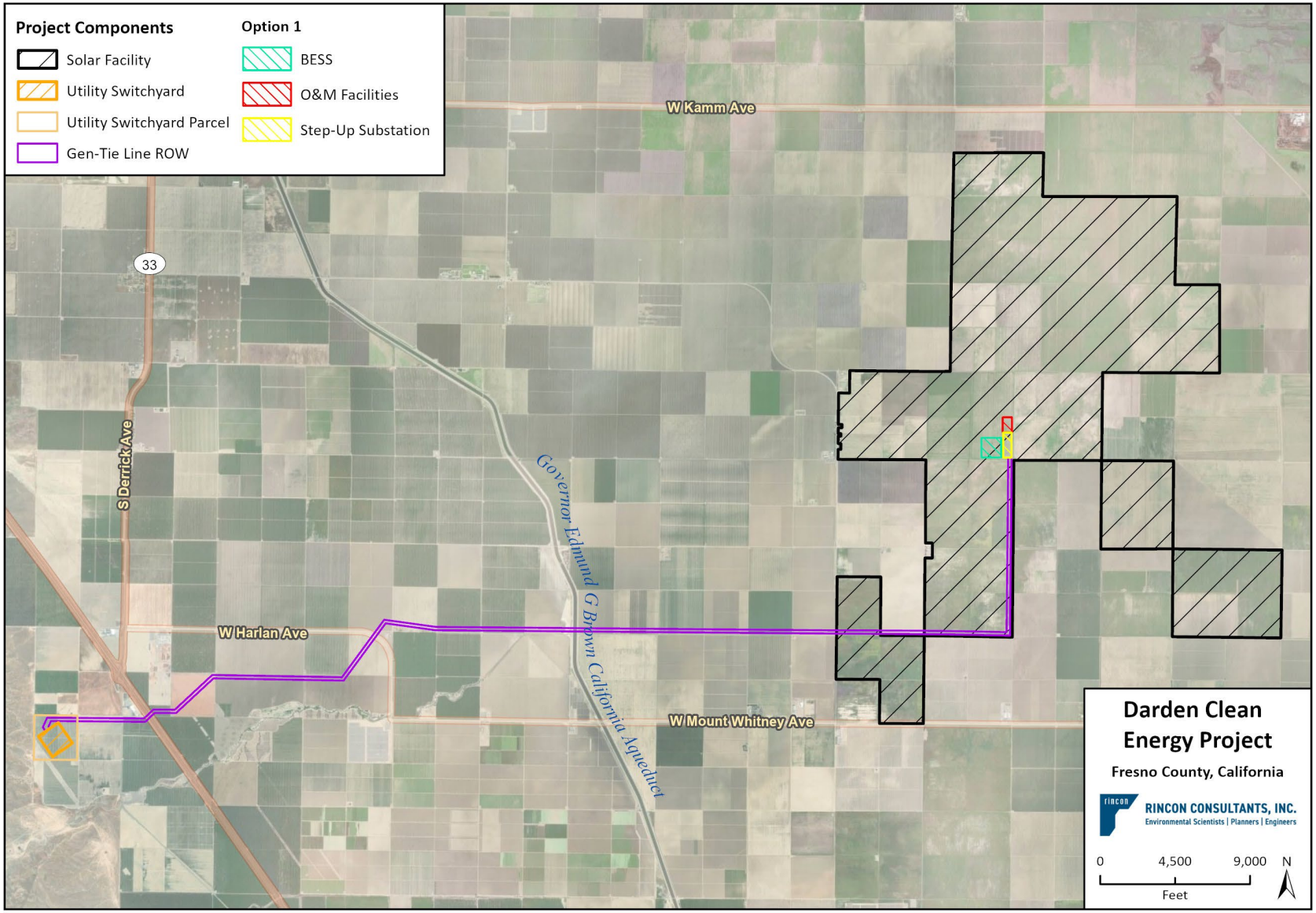


Figure 2 Project Map



2 Existing Conditions

2.1 General Site Conditions

2.1.1 Topography and Geography

The Project site is located in unincorporated Fresno County in the San Joaquin Valley. The San Joaquin Valley is bounded by the Sacramento – San Joaquin River Delta to the north, the Diablo Mountain Range to the west, the Sierra Nevada Mountains to the east, and the Tehachapi Range to the south. The region is primarily composed of agricultural land dating back to as early as the 1940s, and cattle grazing land, with areas of residential and industrial development primarily concentrated near Fresno. Vegetation occurring in the San Joaquin Valley mostly consist of annual/ruderal grassland, pasture, cropland, valley-foothill riparian, vernal pool, alkali scrub, and orchard-vineyard (Fresno County 2000). The Biological Study Area (BSA)–the approximately 159-acre utility switchyard parcel and a general 100-ft buffer—is relatively flat, with elevations ranging from approximately 542 to 638 feet above mean sea level, increasing in elevation from the east to the west towards the Diablo Range. Geography in the vicinity of the BSA includes agriculture with a few small scattered rural residential areas and small solar facilities, and the base of the Ciervo Hills to the west.

2.1.2 Vegetation and Other Land Cover

During biological surveys in 2022 and 2023, the BSA encompassing the proposed utility switchyard was dominated by an active almond orchard with a transmission line that runs across the southwestern corner of the parcel. The surrounding habitat includes active and seasonally managed non-active agricultural fields to the north, east, and south with grassland to the west.

2.2 Sensitive Biological Resources

The sensitive biological resources that have potential to occur specifically within the proposed utility switchyard are outlined in Table 1 (Rincon 2023c). No sensitive biological resources were identified in this area during the 2022 or 2023 surveys.

Table 1 Special-Status Wildlife Species with the Potential to Occur in the BSA of the Utility Switchyard

Common Name	Scientific Name	Agency Status (Federal/State/Other)	Potential to Occur within the Utility Switchyard[1]
Reptiles			
San Joaquin coachwhip	*Masticophis flagellum ruddocki*	–/–/SSC	Low Potential
Birds			
burrowing owl	*Athene cunicularia*	–/SC/SSC	Moderate Potential (nesting, foraging)
loggerhead shrike	*Lanius ludovicianus*	–/–/SSC	Moderate Potential (foraging), No Potential (nesting)
yellow warbler	*Setophaga petechia*	–/–/SSC	Moderate Potential (migration) No Potential (nesting)
Mammals			
American badger	*Taxidea taxus*	–/–/SSC	High Potential
San Joaquin kit fox	*Vulpes macrotis mutica*	FE/ST/–	Moderate Potential

[1]Avian species observed foraging on the Project site or passing through during their migration during biological resources surveys, but which have either no or low potential to nest on the Project site: loggerhead shrike and yellow warbler.

FE = Federally Endangered, ST = State Threatened, SC = State Candidate for Listing under California Endangered Species Act, SSC = CDFW Species of Special Concern

Source: California Natural Diversity Database (CNDDB) (Fresno County), May 2021

3 Management Strategy

3.1 Pre-construction Surveys

3.1.1 Burrowing Species Surveys

Preconstruction surveys for burrowing species shall be conducted by a Qualified Biologist for the presence of San Joaquin kit fox and American badger prior to commencement of construction activities in all areas with potential to support these species. This survey shall be conducted no more than 30 days prior to ground disturbing activities without prior agency approval. The surveys can be staggered to match the different construction phases and locations to reduce the need to re-survey any given area. The surveys shall be conducted in areas of suitable habitat for each species. Surveys shall conform to United States Fish and Wildlife Service (USFWS) guidelines for San Joaquin kit fox and to industry standards for American badger. Specific survey requirements for burrowing owl are discussed in the Burrowing Owl Management Plan (Rincon 2024b).

If work is halted in a given area for 30 days or greater, pre-construction surveys will be repeated in work areas that are not fully cleared of vegetation following the initial pre-construction survey until all vegetation is cleared. Once vegetation is cleared and construction is ongoing, no additional surveys will be needed as monitoring will be conducted during on-going activities.

Where special-status species habitat (e.g., burrows/dens) are known to occur and there is a potential for significant impacts, a Qualified Biologist will monitor construction activities to ensure that impacts to special-status species are avoided and minimized (as described in Section 3.2.

3.1.2 Nesting Bird Surveys

If construction is scheduled to commence during the non-breeding season (September 1 to January 31), no pre-construction surveys or additional measures for nesting birds or other raptors shall be required. Prior to ground disturbing and vegetation removal activities that are initiated during the breeding season (February 1 to August 31), a Qualified Biologist shall conduct preconstruction surveys of all potential nesting habitats within the Project area. The raptor survey shall focus on potential nest sites (e.g., owl boxes, large trees, windrows, and shrubs) within 500 feet of the site for common raptors. Nesting bird surveys shall be conducted within 14 days of the start of ground-disturbing or vegetation removal activities. Surveys need not be conducted for the entire Project area at one time and may be conducted in phases consistent with construction activity schedules. Specific survey requirements for Swainson's Hawk are discussed in the Swainson's Hawk Conservation Strategy (Rincon 2023b).

The surveying biologist shall be qualified to determine the status and stage of nesting by migratory birds and all locally breeding raptor species without causing intrusive disturbance.

3.2 Construction Monitoring

A Qualified Biologist will be on-site to conduct full-time biological monitoring at the utility switchyard during all initial construction activities including mobilization, vegetation grubbing and clearing, site grading, trimming and/or removal of trees or other vegetation, and fence installation. During construction monitoring, Qualified Biologists will conduct morning sweeps of the work areas,

inspect avoidance buffers, confirm that ground disturbance activities and impacts occur within designated limits, watch for special-status species within the work area, and confirm appropriate avoidance and minimization measures are implemented. Once vegetation is cleared and all initial ground disturbance has occurred, weekly spot checks of the utility switchyard will be conducted to continue to ensure appropriate avoidance and minimization measures are implemented.

The Qualified Biologist's monitoring responsibilities will also include monitoring active nests and burrows/dens to determine if the recommended buffer is effective during active work in proximity to the nest or burrow/den. The nest and burrows/dens will be visited weekly at a minimum, but frequency will vary depending on Project activity and location. Nests and burrows/dens will be monitored until a final outcome is determined (e.g., the nest or burrow/den becomes inactive, the young have fledged, the young are no longer being fed by the parents, the young have left the area, and the young will no longer be impacted by the Project), or for the duration of Project activities in proximity to the nest or burrow/den (based on the species-specific buffer), whichever occurs first. At a minimum, the following information will be documented for each burrow/den or nest:

- Date nest or burrow/den first observed/detected
- Species
- Status (e.g., nest building, incubating, brooding, young rearing, unoccupied)
- Distance of the nest to Project activities
- Type of Project activity occurring within the vicinity of the nest or burrow/den
- Recommended buffer size including modifications to buffer size

3.3 Avoidance Buffers

3.3.1 San Joaquin Kit Fox

If San Joaquin kit fox occurs in the Project site, work within 500 feet of the animal will be halted until the animal leaves the area, as determined by the Qualified Biologist.

3.3.2 American Badger

If potential American badger dens are observed at any point during pre-construction surveys or construction and avoidance is feasible, buffer distances of 50 feet for occupied dens and 250-foot, no-disturbance buffers for natal dens shall be established by the Qualified Biologist prior to construction activities.

If avoidance of the potential American badger dens is not feasible, the following measures are recommended to minimize potential adverse effects to the American badger:

- If a Qualified Biologist determines that potential dens are inactive, the biologist shall excavate the dens by hand with a shovel and collapse them to prevent American badgers from re-using them during construction.
- If the Qualified Biologist determines that potential dens may be active, the biologist shall conduct remote camera monitoring of the den for a period of three consecutive days to confirm occupancy status. If the Qualified Biologist determines that a den is an active natal den, avoidance buffers of 250 feet shall be established to demarcate no-work areas that shall be maintained until the den is no longer an active natal den. Dens that are determined to be non-natal or are active outside of the breeding season shall implement passive eviction procedures

through the installation of one-way doors, and the use of remote camera monitoring to document no activity for 3 consecutive days. Dens that are determined to be unoccupied or have become inactive following passive eviction or at the end of breeding season shall be hand-excavated with a shovel and collapsed to prevent reuse during construction.

3.3.3 Nesting Birds

Buffers shall be determined by the Qualified Biologist and be established based on the species and nest location, to allow for known species' behavior and environmental factors (e.g., line of sight to nest) when establishing avoidance buffers. Standard buffers are typically 200 to 500 feet for common raptors and 30 to 50 feet for most common passerines but may be larger if necessary to prevent disturbance of nesting activity, based on species sensitivity. No access into buffer areas shall be allowed until a Qualified Biologist has determined that the nestlings have fledged and are no longer reliant on the nest or the nest has become otherwise inactive (e.g., depredation). Encroachment into the buffer for common species may occur at the discretion of a Qualified Biologist and with the appropriate biological monitoring to ensure no disruption of nesting activity; however, for State-listed or FP species, CDFW shall be consulted for approval of buffer encroachment or reduction. Specific buffers for Swainson's hawk and burrowing owl are discussed in the Swainson's Hawk Conservation Strategy (Rincon 2023b) and Burrowing Owl Management Plan (Rincon 2024b), respectively.

3.4 Qualified Biologist

The Qualified Biologist will have relevant experience with the taxa and species in the Central Valley and San Joaquin Valley for which pre-construction surveys, monitoring, or other support is required during Project construction. The Qualified Biologist role may be satisfied by one or more individuals depending on qualifications and experience with one or more species and taxa.

3.5 Worker Environmental Awareness Program

All personnel that enter the Project area shall attend a Worker Environmental Awareness Program (WEAP) developed by the Qualified Biologist or authorized designee. New personnel shall receive WEAP training on the first day of work and prior to commencing work on the site.

- The program shall include information on the life history of the San Joaquin kit fox, Swainson's hawk, burrowing owl, American badger, San Joaquin coachwhip, and nesting birds as well as other wildlife and plant species that may be encountered during construction activities.
- The program shall also discuss the legal protection status of each species, the definition of "take" under the Federal Endangered Species Act and California Endangered Species Act, measures the Project proponent is implementing to protect the species, reporting requirements, specific measures that each worker shall employ to avoid take of wildlife species, and penalties for violation of the Federal Endangered Species Act or California Endangered Species Act.
- The program shall include the contact information for the Project's environmental compliance manager.
- The program shall provide information on how and where to bring injured animals for treatment in the case any animals are injured the Project area.

- An acknowledgement form signed by each worker indicating that WEAP training has been completed shall be kept on record.
- A copy of the training transcript and/or training video, as well as a list of the names of all personnel who attended the WEAP training, and copies of the signed acknowledgement forms will be made available upon agency request.

3.6 General Avoidance and Minimization Measures

The following general avoidance and minimization measures shall be implemented:

- Designation of a 15 mile per hour speed limit in all construction areas.
- All vehicles and equipment shall be parked on pavement, existing roads, and previously disturbed areas, and clearing of vegetation for vehicle access shall be avoided to the greatest extent feasible.
- The number of access routes, number and size of staging areas, and the total area of the activity shall be limited to the minimum necessary to achieve the goal of the Project.
- Designation of equipment washout and fueling areas to be located within the limits of grading at a minimum of 100 feet from any sensitive resources as identified by a Qualified Biologist.
- Washout areas shall be designed to fully contain polluted water and materials for subsequent removal from the site.
- Drip pans shall be placed under all stationary vehicles and mechanical equipment that have leaking or discharging lubricants or other fluid.
- All carrion shall be removed from the Project site prior to and during construction.
- All trash, including carrion, shall be placed in sealed containers and shall be removed from the Project site a minimum of once per week.
- No pets are permitted on the Project site during construction.
- All pipes or other construction materials or supplies shall be covered or capped in storage or laydown areas. No pipes or tubing shall be left open either temporarily or permanently, except during use or installation. Any construction pipe, culvert, or other hollow materials shall be inspected for wildlife before it is moved, buried, or capped.
- Project-related excavations shall be secured to prevent wildlife entry and entrapment. Holes and trenches shall be backfilled, securely covered, or fenced. Excavations that cannot be fully secured shall incorporate wildlife ramp or other means to allow trapped animals to escape. At the end of each workday, a biological monitor shall ensure that excavations have been secured or provided with appropriate means for wildlife escape.

3.7 Reporting

During construction, monthly reports will be prepared to document compliance with all applicable measures and conditions The reports will summarize the results of surveys and biological monitoring and will document non-compliance events and the corrective actions taken to address those events. Reports will document any instances of sensitive resources being impacted as a result of Project activity. The record of compliance and documentation of impacts to biological resources will be the metrics by which the success of mitigation will be evaluated and documented in the compliance reports.

4 References

Fresno, County of. 2000. General Plan Update. Draft Environmental Impact Report.

Rincon Consultants, Inc. 2023a. Darden Clean Energy Project California Energy Commission Application, Section 5.12 Biological Resources. October 2023.

_____. 2023b. Darden Clean Energy Project Swainson's Hawk Conservation Strategy. October 2023.

_____. 2023c. Darden Clean Energy Project Biological Resources Assessment. October 2023.

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